UTAH WASTE MANAGEMENT AND RADIATION CONTROL BOARD

Executive Summary

Public Comment on Draft Rules R315-103, 124, 260, 261, 262, 263 264, 265, 266, 268, 270, and 273

January 14, 2016

What is the issue before the Board?	The Board is being asked to approve Rules R315-103, 124, 260, 261, 262, 263 264, 265, 266, 268, 270, and 273 for publication in the Utah Bulletin and commencement of a 30-day public comment period.
What is the historical background or context for this issue?	The Utah Hazardous Waste Rules were first adopted in 1984. These rules have been periodically changed to stay current with federal rules and maintain an EPA-approved hazardous waste program. Adoption by reference was used for some of the changes and others changes were made using EPA or state equivalent language. As a consequence of the use of adoption by reference, the hazardous waste rules, as they currently exist, require the reader to have the Utah rules and 20 different years of the Code of Federal Regulations (CFR) and in some years, two different volumes for a total of 26 different CFRs dating from 1990 through 2011. In addition, the current hazardous waste rules have adopted by reference several different rules using a federal register reference, requiring the reader to have access to Federal Registers from 1986 to 1998. The proposed rules will follow the federal numbering system which will make it easier for readers and will make it easier to make changes when federal rules change. The proposed rules also incorporate all the changes to federal rule that have been made up to the current date. These changes are required to meet both the federal requirement that the Utah rules be at least as stringent as the federal rules and the Utah requirement that the rules be no more stringent than federal rules. The changes also add two wastes to the Universal Waste Rules.
What is the governing statutory or regulatory citation?	19-6-104(3)(d) and 19-6-106 of the Utah Code Annotated provide rulemaking authority for the Board.
Is Board action required?	Yes. Board approval is needed to begin formal rulemaking.
What is the Division Director's recommendation?	The Director recommends that proposed rules R315-103, 124, 260, 261, 262, 263 264, 265, 266, 268, 270, and 273 be approved for publication in the Utah Bulletin for public comment.
Where can more information be obtained?	For more information, contact Ralph Bohn at (801) 536-0212 or by email at rbohn@utah.gov. The rules can be viewed and downloaded at the following location: http://www.deq.utah.gov/boards/waste/rules.htm

DSHW-2015-012995

NOTICE OF PROPOSED NEW RULE

- The agency identified below in box 1 provides notice of proposed rule change pursuant to Utah Code Section 63G-3-301.
- Please address questions regarding information on this notice to the agency.
- The full text of all rule filings is published in the Utah State Bulletin unless excluded because of space constraints.
- The full text of all rule filings may also be inspected at the Division of Administrative Rules.

Rule Information

DAR file no: Date filed:
State Admin Rule Filing Key: 157075
Utah Admin. Code ref. (R no.): R315-103

Agency Information

1. Agency: ENVIRONMENTAL QUALITY - Solid and Hazardous Waste

Room no.: Second Floor
Building:
Street address 1: 195 N 1950 W
Street address 2:
City, state, zip: SALT LAKE CITY UT 84116-3097
Mailing address 1: PO BOX 144880
Mailing address 2:
City, state, zip: SALT LAKE CITY UT 84114-4880

Contact person(s):

Name:	Phone:	Fax:	E-mail:	Remove:
Ralph Bohn	801-536-0212	801-536-0222	rbohn@utah.gov	

(Interested persons may inspect this filing at the above address or at DAR during business hours)

Rule Title

2. Title of rule or section (catchline):
Commercial Hazardous Waste Facility Siting Criteria.

Notice Type

3. Type of notice: New Rule

Rule Purpose

4. Purpose of the rule or reason for the change:
The Division is changing the numbering of the hazardous waste rules and with that change is moving the Commercial Hazardous Waste Facility Siting Criteria rule to its own rule rather than as Section 11 of R315-4 as it currently is. The Commercial Hazardous Waste Facility Siting Criteria should stand as a separate rule.

Response Information

5. This change is a response to comments by the Administrative Rules Review Committee.

   ◉ No ○ Yes

Rule Summary

6. Summary of the rule or change:

   The change is in number only. the Commercial Hazardous Waste Facility Siting Criteria is currently in R315-4(11) and is moved with no changes to the new rule R315-103.

Aggregate Cost Information

7. Aggregate anticipated cost or savings to:

   A) State budget:

   Affected: ◉ No ○ Yes

   No cost as the rule is not changed but just renumbered.

   B) Local government:

   Affected: ◉ No ○ Yes

   No cost as the rule is not changed but just renumbered.

   C) Small businesses:

   Affected: ◉ No ○ Yes

   ("small business" means a business employing fewer than 50 persons)

   No cost as the rule is not changed but just renumbered.

   D) Persons other than small businesses, businesses, or local government entities:

   Affected: ◉ No ○ Yes

   ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an agency)

   No cost as the rule is not changed but just renumbered.

Compliance Cost Information

8. Compliance costs for affected persons:

   No cost as the rule is not changed but just renumbered.

Department Head Comments

9. A) Comments by the department head on the fiscal impact the rule may have on businesses:

   No cost as the rule is not changed but just renumbered.

   B) Name and title of department head commenting on the fiscal impacts:

   Alan Matheson

Citation Information

10. This rule change is authorized or mandated by state law, and implements or interprets the following state and federal laws.

    State code or constitution citations (required) (e.g., Section 63G-3-402; Subsection 63G-3-601 (3); Article IV) :

    Subsection 19-6-105(3)

Incorporated Materials

11. This rule adds, updates, or removes the following title of materials incorporated by references (a copy of materials incorporated by reference must be submitted to DAR; if none, leave blank) :

Official Title of Materials Incorporated (from title page)	
Publisher	
Date Issued (mm/dd/yyyy)	
Issue, or version (including partial dates)	
ISBN Number	
ISSN Number	
Cost of Incorporated Reference	
Adds, updates, removes	-- SELECT ONE --

Comments

12. The public may submit written or oral comments to the agency identified in box 1. (The public may also request a hearing by submitting a written request to the agency. The agency is required to hold a hearing if it receives requests from ten interested persons or from an association having not fewer than ten members. Additionally, the request must be received by the agency not more than 15 days after the publication of this rule in the Utah State Bulletin. See Section 63G-3-302 and Rule R15-1 for more information.)

A) Comments will be accepted until 5:00 p.m. on (mm/dd/yyyy) : 03/02/2016

B) A public hearing (optional) will be held:

On (mm/dd/yyyy): At (hh:mm AM/PM): At (place):

Proposed Effective Date

13. This rule change may become effective on (mm/dd/yyyy): 03/09/2016

NOTE: The date above is the date on which this rule MAY become effective. It is NOT the effective date. After a minimum of seven days following the date designated in Box 12(A) above, the agency must submit a Notice of Effective Date to the Division of Administrative Rules to make this rule effective. Failure to submit a Notice of Effective Date will result in this rule lapsing and will require the agency to start the rulemaking process over.

Indexing Information

14. Indexing information - keywords (maximum of four, one term per field, in lower case, except for acronyms (e.g., "GRAMA") or proper nouns (e.g., "Medicaid")):

Hazardous Waste, Commercial Facility Siting

File Information

15. Attach an RTF document containing the text of this rule change (filename):
There is a document associated with this rule filing.

To the Agency

Information requested on this form is required by Sections 63G-3-301, 302, 303, and 402. Incomplete forms will be returned to the agency for completion, possibly delaying publication in the Utah State Bulletin, and delaying the first possible effective date.

Agency Authorization

Agency head or designee, and title:	Scott Anderson Director	Date (mm/dd/yyyy):	01/05/2016

NOTICE OF
PROPOSED NEW RULE

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Rule Information

DAR file no: Date filed:
State Admin Rule Filing Key: 157076
Utah Admin. Code ref. (R no.): R315-124

Agency Information

1. Agency: ENVIRONMENTAL QUALITY - Solid and Hazardous Waste

Room no.: Second Floor
Building:
Street address 1: 195 N 1950 W
Street address 2:
City, state, zip: SALT LAKE CITY UT 84116-3097
Mailing address 1: PO BOX 144880
Mailing address 2:
City, state, zip: SALT LAKE CITY UT 84114-4880

Contact person(s):

Name:	Phone:	Fax:	E-mail:	Remove:
Ralph Bohn	801-536-0212	801-536-0222	rbohn@utah.gov	

(Interested persons may inspect this filing at the above address or at DAR during business hours)

Rule Title

2. Title of rule or section (catchline):
Procedures for Decisionmaking

Notice Type

3. Type of notice: New Rule

Rule Purpose

4. Purpose of the rule or reason for the change:
The Division is renumbering and changing the format of the hazardous waste rules. The change is to help the reader of the rules by providing all of the rules in one place and not using incorporation by reference or when incorporation is necessary to use only one edition of the material incorporated throughout all the hazardous waste rules. Rule R315-124 takes the place

of Rule R315-4 with the addition of sections that address the changes in the public comment and appeal procedures made by the 2012 legislative section in SB 11.

Response Information

5. This change is a response to comments by the Administrative Rules Review Committee.

(●) No ( ) Yes

Rule Summary

6. Summary of the rule or change:

The change renumbers and rewords the rule. Rule R315-124 replaces Rule R315-4 with the addition of steps that must be taken to qualify to file an appeal of an action taken by the Director. The changes reflect the changes made by SB1 (2012 session).

Aggregate Cost Information

7. Aggregate anticipated cost or savings to:

A) State budget:

Affected: (●) No ( ) Yes

There is no cost as the rule reflects a rewording of the current rule and changes made by statute.

B) Local government:

Affected: (●) No ( ) Yes

There is no cost as the rule reflects a rewording of the current rule and changes made by statute.

C) Small businesses:

Affected: (●) No ( ) Yes

("small business" means a business employing fewer than 50 persons)

There is no cost as the rule reflects a rewording of the current rule and changes made by statute.

D) Persons other than small businesses, businesses, or local government entities:

Affected: (●) No ( ) Yes

("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an agency)

There is no cost as the rule reflects a rewording of the current rule and changes made by statute.

Compliance Cost Information

8. Compliance costs for affected persons:

There is no cost as the rule reflects a rewording of the current rule and changes made by statute.

Department Head Comments

9. A) Comments by the department head on the fiscal impact the rule may have on businesses:

There is no cost as the rule reflects a rewording of the current rule and changes made by statute.

B) Name and title of department head commenting on the fiscal impacts:

Alan Matheson

Citation Information

10. This rule change is authorized or mandated by state law, and implements or interprets the following state and federal laws.

State code or constitution citations (required) (e.g., Section 63G-3-402; Subsection 63G-3-601 (3); Article IV) :
19-6-106, 19-6-105

Incorporated Materials

11. This rule adds, updates, or removes the following title of materials incorporated by references (a copy of materials incorporated by reference must be submitted to DAR; if none, leave blank) :

Official Title of Materials Incorporated (from title page)	
Publisher	
Date Issued (mm/dd/yyyy)	
Issue, or version (including partial dates)	
ISBN Number	
ISSN Number	
Cost of Incorporated Reference	
Adds, updates, removes	-- SELECT ONE --

Comments

12. The public may submit written or oral comments to the agency identified in box 1. (The public may also request a hearing by submitting a written request to the agency. The agency is required to hold a hearing if it receives requests from ten interested persons or from an association having not fewer than ten members. Additionally, the request must be received by the agency not more than 15 days after the publication of this rule in the Utah State Bulletin. See Section 63G-3-302 and Rule R15-1 for more information.)

A) Comments will be accepted until 5:00 p.m. on (mm/dd/yyyy) : 03/02/2016

B) A public hearing (optional) will be held:

On (mm/dd/yyyy): At (hh:mm AM/PM): At (place):

Proposed Effective Date

13. This rule change may become effective on (mm/dd/yyyy): 03/09/2016

NOTE: The date above is the date on which this rule MAY become effective. It is NOT the effective date. After a minimum of seven days following the date designated in Box 12(A) above, the agency must submit a Notice of Effective Date to the Division of Administrative Rules to make this rule effective. Failure to submit a Notice of Effective Date will result in this rule lapsing and will require the agency to start the rulemaking process over.

Indexing Information

14. Indexing information - keywords (maximum of four, one term per field, in lower case, except for acronyms (e.g., "GRAMA") or proper nouns (e.g., "Medicaid")):
Hazardous Waste

File Information

15. Attach an RTF document containing the text of this rule change (filename):
There is a document associated with this rule filing.

To the Agency

Information requested on this form is required by Sections 63G-3-301, 302, 303, and 402. Incomplete forms will be returned to the agency for completion, possibly delaying publication in the Utah State Bulletin, and delaying the first possible effective date.

Agency Authorization

Agency head or designee, and title:	Scott Anderson Director	Date (mm/dd/yyyy):	01/05/2016

NOTICE OF
PROPOSED NEW RULE

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Rule Information

DAR file no: Date filed:
State Admin Rule Filing Key: 157078
Utah Admin. Code ref. (R no.): R315-260

Agency Information

1. Agency: ENVIRONMENTAL QUALITY - Solid and Hazardous Waste

Room no.: Second Floor
Building:
Street address 1: 195 N 1950 W
Street address 2:
City, state, zip: SALT LAKE CITY UT 84116-3097
Mailing address 1: PO BOX 144880
Mailing address 2:
City, state, zip: SALT LAKE CITY UT 84114-4880

Contact person(s):

Name:	Phone:	Fax:	E-mail:	Remove:
Ralph Bohn	801-536-0212	801-536-0222	rbohn@utah.gov	

(Interested persons may inspect this filing at the above address or at DAR during business hours)

Rule Title

2. Title of rule or section (catchline):
Hazardous Waste Management System

Notice Type

3. Type of notice: New Rule

Rule Purpose

4. Purpose of the rule or reason for the change:
The Division is renumbering and changing the format of the hazardous waste rules. The change is to help the reader of the rules by providing all of the rules in one place and not using incorporation by reference or when incorporation is necessary to use only one edition of the material incorporated throughout all the hazardous waste rules. In addition the new rules will

include several federal rules that have been adopted at the federal level and need to be adopted by the state to make the Utah rules consistent with federal rule. Rule R315-260 replaces parts of R315-1 and R315-2.

Response Information

5. This change is a response to comments by the Administrative Rules Review Committee.

   (●) No ( ) Yes

Rule Summary

6. Summary of the rule or change:

   R315-260 replaces parts of R315-1 and R315-2. It also adopts changes in federal rules relating to the definition of solid waste, electronic manifests, cathode ray tubes, coal combustion residuals, carbon dioxide exclusion, corrections and clarifications, and burden reduction changes. All of these changes are required to maintain an approved state program or are required by Utah statue.

Aggregate Cost Information

7. Aggregate anticipated cost or savings to:

   A) State budget:

   Affected: (●) No ( ) Yes

   There will be on cost to the state as the rule is not changed but just renumbered or the changes will be absorbed in the current program.

   B) Local government:

   Affected: ( ) No (●) Yes

   Most of the rule is not changed but just renumbered therefore there will be no cost to local government. The rule changes that reflect changes in federal rules are all less stringent than current Utah rule and therefore will result in cost savings. The actual cost savings will depend on the hazardous waste activities conducted by local government and cannot be quantified.

   C) Small businesses:

   Affected: ( ) No (●) Yes

   ("small business" means a business employing fewer than 50 persons)

   Most of the rule is not changed but just renumbered therefore there will be no cost to small business. The rule changes that reflect changes in federal rules are all less stringent than current Utah rule and therefore will result in cost savings. The actual cost savings will depend on the hazardous waste activities conducted by small business and cannot be quantified.

   D) Persons other than small businesses, businesses, or local government entities:

   Affected: ( ) No (●) Yes

   ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an agency)

   Most of the rule is not changed but just renumbered therefore there will be no cost to persons. The rule changes that reflect changes in federal rules are all less stringent than current Utah rule and therefore will result in cost savings. The actual cost savings will depend on the hazardous waste activities conducted by persons and cannot be quantified.

Compliance Cost Information

8. Compliance costs for affected persons:
   The rules changes will have no cost to affected persons. The changes may result in cost savings depending on the hazardous waste management activities conducted.

Department Head Comments

9. A) Comments by the department head on the fiscal impact the rule may have on businesses:
   The rules changes will have no cost to business. The changes may result in cost savings depending on the hazardous waste management activities conducted at a business.
   B) Name and title of department head commenting on the fiscal impacts:
   Alan Matheson

Citation Information

10. This rule change is authorized or mandated by state law, and implements or interprets the following state and federal laws.
    State code or constitution citations (required) (e.g., Section 63G-3-402; Subsection 63G-3-601 (3); Article IV) :
    19-1-301, 19-6-105, 19-6-106, 63G-4-201 through 205

    63G-4-503

Incorporated Materials

11. This rule adds, updates, or removes the following title of materials incorporated by references (a copy of materials incorporated by reference must be submitted to DAR; if none, leave blank) :

Official Title of Materials Incorporated (from title page)40 CFR Part 260 Section 11
PublisherUs Government Printing Office
Date Issued (mm/dd/yyyy)07/01/2015
Issue, or version (including partial dates)
ISBN Number
ISSN Number
Cost of Incorporated Reference
Adds, updates, removes-- SELECT ONE --

Comments

12. The public may submit written or oral comments to the agency identified in box 1. (The public may also request a hearing by submitting a written request to the agency. The agency is required to hold a hearing if it receives requests from ten interested persons or from an association having not fewer than ten members. Additionally, the request must be received by the agency not more than 15 days after the publication of this rule in the Utah State Bulletin. See Section 63G-3-302 and Rule R15-1 for more information.)
    A) Comments will be accepted until 5:00 p.m. on (mm/dd/yyyy) : 03/02/2016
    B) A public hearing (optional) will be held:

On (mm/dd/yyyy):	At (hh:mm AM/PM):	At (place):

Proposed Effective Date

13. This rule change may become effective on (mm/dd/yyyy): 03/09/2016
NOTE: The date above is the date on which this rule MAY become effective. It is NOT the effective date. After a minimum of seven days following the date designated in Box 12(A) above, the agency must submit a Notice of Effective Date to the Division of Administrative Rules to make this rule effective. Failure to submit a Notice of Effective Date will result in this rule lapsing and will require the agency to start the rulemaking process over.

Indexing Information

14. Indexing information - keywords (maximum of four, one term per field, in lower case, except for acronyms (e.g., "GRAMA") or proper nouns (e.g., "Medicaid")):
Hazardous Waste

File Information

15. Attach an RTF document containing the text of this rule change (filename):
There is a document associated with this rule filing.

To the Agency

Information requested on this form is required by Sections 63G-3-301, 302, 303, and 402. Incomplete forms will be returned to the agency for completion, possibly delaying publication in the Utah State Bulletin, and delaying the first possible effective date.

Agency Authorization

Agency head or designee, and title:	Scott Anderson Director	Date (mm/dd/yyyy): 01/05/2016

NOTICE OF
PROPOSED NEW RULE

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Rule Information

DAR file no: Date filed:
State Admin Rule Filing Key: 157079
Utah Admin. Code ref. (R no.): R315-261

Agency Information

1. Agency: ENVIRONMENTAL QUALITY - Solid and Hazardous Waste

Room no.: Second Floor
Building:
Street address 1: 195 N 1950 W
Street address 2:
City, state, zip: SALT LAKE CITY UT 84116-3097
Mailing address 1: PO BOX 144880
Mailing address 2:
City, state, zip: SALT LAKE CITY UT 84114-4880

Contact person(s):

Name:	Phone:	Fax:	E-mail:	Remove:
Ralph Bohn	801-536-0212	801-536-0222	rbohn@utah.gov	

(Interested persons may inspect this filing at the above address or at DAR during business hours)

Rule Title

2. Title of rule or section (catchline):
General Requirements - Identification and Listing of Hazardous Waste

Notice Type

3. Type of notice: New Rule

Rule Purpose

4. Purpose of the rule or reason for the change:
The Division is renumbering and changing the format of the hazardous waste rules. The change is to help the reader of the rules by providing all of the rules in one place and not using incorporation by reference or when incorporation is necessary to use only one edition of the material incorporated throughout all the hazardous waste rules. In addition the new rules will

include several federal rules that have been adopted at the federal level and need to be adopted by the state to make the Utah rules consistent with federal rule. Rule R315-261 replaces parts of R315-2 and R315-50.

Response Information

5. This change is a response to comments by the Administrative Rules Review Committee.

(●) No ( ) Yes

Rule Summary

6. Summary of the rule or change:

R315-261 replaces parts of R315-2 and R315-50. It also adopts changes in federal rules relating to the definition of solid waste, electronic manifests, cathode ray tubes, coal combustion residuals, carbon dioxide exclusion, corrections and clarifications, and burden reduction changes. All of these changes are required to maintain an approved state program or are required by Utah statue.

Aggregate Cost Information

7. Aggregate anticipated cost or savings to:

A) State budget:

Affected: (●) No ( ) Yes

There will be on cost to the state as the rule is not changed but just renumbered or the changes will be absorbed in the current program.

B) Local government:

Affected: ( ) No (●) Yes

Most of the rule is not changed but just renumbered therefore there will be no cost to local government. The rule changes that reflect changes in federal rules are all less stringent than current Utah rule and therefore will result in cost savings. The actual cost savings will depend on the hazardous waste activities conducted by local government and cannot be quantified.

C) Small businesses:

Affected: ( ) No (●) Yes

("small business" means a business employing fewer than 50 persons)

Most of the rule is not changed but just renumbered therefore there will be no cost to small business. The rule changes that reflect changes in federal rules are all less stringent than current Utah rule and therefore will result in cost savings. The actual cost savings will depend on the hazardous waste activities conducted by small business and cannot be quantified.

D) Persons other than small businesses, businesses, or local government entities:

Affected: ( ) No (●) Yes

("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an agency)

Most of the rule is not changed but just renumbered therefore there will be no cost to other persons. The rule changes that reflect changes in federal rules are all less stringent than current Utah rule and therefore will result in cost savings. The actual cost savings will depend on the hazardous waste activities conducted by other persons and cannot be quantified.

Compliance Cost Information

8. Compliance costs for affected persons:

   The rules changes will have no cost to affected persons. The changes may result in cost savings depending on the hazardous waste management activities conducted but the cost savings cannot be quantified.

Department Head Comments

9. A) Comments by the department head on the fiscal impact the rule may have on businesses:

   The rules changes will have no cost to business. The changes may result in cost savings depending on the hazardous waste management activities conducted at a business but cannot be quantified.

   B) Name and title of department head commenting on the fiscal impacts:

   Alan Matheson

Citation Information

10. This rule change is authorized or mandated by state law, and implements or interprets the following state and federal laws.
    State code or constitution citations (required) (e.g., Section 63G-3-402; Subsection 63G-3-601 (3); Article IV) :
    19-6-106, 19-6-105

Incorporated Materials

11. This rule adds, updates, or removes the following title of materials incorporated by references (a copy of materials incorporated by reference must be submitted to DAR; if none, leave blank) :

Official Title of Materials Incorporated (from title40 CFR Part 261 Subsection 1083(a)(3)(iv) page)(A)
PublisherUS Government Printing Office
Date Issued (mm/dd/yyyy)07/01/2015
Issue, or version (including partial dates)
ISBN Number
ISSN Number
Cost of Incorporated Reference
Adds, updates, removes-- SELECT ONE --

Official Title of Materials Incorporated (from title40 CFR Part 261 Subsection 1034(c)(1)(iv) page)(A)
PublisherUS Government Printing Office
Date Issued (mm/dd/yyyy)07/01/2015
Issue, or version (including partial dates)
ISBN Number
ISSN Number
Cost of Incorporated Reference
Adds, updates, removes-- SELECT ONE --

Official Title of Materials Incorporated (from title40 CFR Part 261 Subsection 1033(e) page)(2)
PublisherUS Government Printing Office
Date Issued (mm/dd/yyyy)07/01/2015
Issue, or version (including partial dates)
ISBN Number
ISSN Number
Cost of Incorporated Reference
Adds, updates, removes-- SELECT ONE --

Official Title of Materials Incorporated (from title page)40 CFR Part 261 Appendix IX
PublisherUS Government Printing Office
Date Issued (mm/dd/yyyy)07/01/2015
Issue, or version (including partial dates)
ISBN Number
ISSN Number
Cost of Incorporated Reference
Adds, updates, removes-- SELECT ONE --

Official Title of Materials Incorporated (from title page)40 CFR Part 261 Appendix VIII
PublisherUS Government Printing Office
Date Issued (mm/dd/yyyy)07/01/2015
Issue, or version (including partial dates)
ISBN Number
ISSN Number
Cost of Incorporated Reference
Adds, updates, removes-- SELECT ONE --

Comments

12. The public may submit written or oral comments to the agency identified in box 1. (The public may also request a hearing by submitting a written request to the agency. The agency is required to hold a hearing if it receives requests from ten interested persons or from an association having not fewer than ten members. Additionally, the request must be received by the agency not more than 15 days after the publication of this rule in the Utah State Bulletin. See Section 63G-3-302 and Rule R15-1 for more information.)

A) Comments will be accepted until 5:00 p.m. on (mm/dd/yyyy) : 03/02/2016

B) A public hearing (optional) will be held:

On (mm/dd/yyyy): At (hh:mm AM/PM): At (place):

Proposed Effective Date

13. This rule change may become effective on (mm/dd/yyyy): 03/09/2016

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Indexing Information

14. Indexing information - keywords (maximum of four, one term per field, in lower case, except for acronyms (e.g., "GRAMA") or proper nouns (e.g., "Medicaid")):
hazardous waste

File Information

15. Attach an RTF document containing the text of this rule change (filename):
There is a document associated with this rule filing.

To the Agency

Information requested on this form is required by Sections 63G-3-301, 302, 303, and 402. Incomplete forms will be returned to the agency for completion, possibly delaying publication in the Utah State Bulletin, and delaying the first possible effective date.

Agency Authorization

Agency head or designee, and title:	Scott Anderson Director	Date (mm/dd/yyyy):	01/05/2016

NOTICE OF
PROPOSED NEW RULE

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- Please address questions regarding information on this notice to the agency.
- The full text of all rule filings is published in the Utah State Bulletin unless excluded because of space constraints.
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Rule Information

DAR file no: Date filed:
State Admin Rule Filing Key: 157080
Utah Admin. Code ref. (R no.): R315-262

Agency Information

1. Agency: ENVIRONMENTAL QUALITY - Solid and Hazardous Waste

Room no.: Second Floor
Building:
Street address 1: 195 N 1950 W
Street address 2:
City, state, zip: SALT LAKE CITY UT 84116-3097
Mailing address 1: PO BOX 144880
Mailing address 2:
City, state, zip: SALT LAKE CITY UT 84114-4880

Contact person(s):

Name:	Phone:	Fax:	E-mail:	Remove:
Ralph Bohn	801-536-0212	801-536-0222	rbohn@utah.gov	

(Interested persons may inspect this filing at the above address or at DAR during business hours)

Rule Title

2. Title of rule or section (catchline):
Hazardous Waste Generator Requirements

Notice Type

3. Type of notice: New Rule

Rule Purpose

4. Purpose of the rule or reason for the change:
The Division is renumbering and changing the format of the hazardous waste rules. The change is to help the reader of the rules by providing all of the rules in one place and not using incorporation by reference or when incorporation is necessary to use only one edition of the material incorporated throughout all the hazardous waste rules. In addition the new rules will

include several federal rules that have been adopted at the federal level and need to be adopted by the state to make the Utah rules consistent with federal rule. Rule R315-262 replaces R315-5.

Response Information

5. This change is a response to comments by the Administrative Rules Review Committee.

   (●) No ( ) Yes

Rule Summary

6. Summary of the rule or change:

   R315-262 replaces R315-5. It also adopts changes in federal rules relating to the definition of solid waste, electronic manifests, cathode ray tubes, coal combustion residuals, carbon dioxide exclusion, corrections and clarifications, and burden reduction changes. All of these changes are required to maintain an approved state program or are required by Utah statue.

Aggregate Cost Information

7. Aggregate anticipated cost or savings to:

   A) State budget:

   Affected: (●) No ( ) Yes

   There will be on cost to the state as the rule is not changed but just renumbered or the changes will be absorbed in the current program.

   B) Local government:

   Affected: ( ) No (●) Yes

   Most of the rule is not changed but just renumbered therefore there will be no cost to local government. The rule changes that reflect changes in federal rules are all less stringent than current Utah rule and therefore will result in cost savings. The actual cost savings will depend on the hazardous waste activities conducted by local government and cannot be quantified.

   C) Small businesses:

   Affected: ( ) No (●) Yes

   ("small business" means a business employing fewer than 50 persons)

   Most of the rule is not changed but just renumbered therefore there will be no cost to small business. The rule changes that reflect changes in federal rules are all less stringent than current Utah rule and therefore will result in cost savings. The actual cost savings will depend on the hazardous waste activities conducted by small business and cannot be quantified.

   D) Persons other than small businesses, businesses, or local government entities:

   Affected: ( ) No (●) Yes

   ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an agency)

   Most of the rule is not changed but just renumbered therefore there will be no cost to other persons. The rule changes that reflect changes in federal rules are all less stringent than current Utah rule and therefore will result in cost savings. The actual cost savings will depend on the hazardous waste activities conducted by other persons and cannot be quantified.

Compliance Cost Information

8. Compliance costs for affected persons:

The rules changes will have no cost to affected persons. The changes may result in cost savings depending on the hazardous waste management activities conducted but the cost savings cannot be quantified.

Department Head Comments

9. A) Comments by the department head on the fiscal impact the rule may have on businesses:
The rules changes will have no cost to business. The changes may result in cost savings depending on the hazardous waste management activities conducted at a business but cannot be quantified.
B) Name and title of department head commenting on the fiscal impacts:
Alan Matheson

Citation Information

10. This rule change is authorized or mandated by state law, and implements or interprets the following state and federal laws.
State code or constitution citations (required) (e.g., Section 63G-3-402; Subsection 63G-3-601 (3); Article IV) :
19-6-105, 19-6-106

Incorporated Materials

11. This rule adds, updates, or removes the following title of materials incorporated by references (a copy of materials incorporated by reference must be submitted to DAR; if none, leave blank) :

Official Title of Materials Incorporated (from title page)40 CFR Part 262 Appendix
PublisherUS Government Printing Office
Date Issued (mm/dd/yyyy)07/01/2015
Issue, or version (including partial dates)
ISBN Number
ISSN Number
Cost of Incorporated Reference
Adds, updates, removes-- SELECT ONE --

Comments

12. The public may submit written or oral comments to the agency identified in box 1. (The public may also request a hearing by submitting a written request to the agency. The agency is required to hold a hearing if it receives requests from ten interested persons or from an association having not fewer than ten members. Additionally, the request must be received by the agency not more than 15 days after the publication of this rule in the Utah State Bulletin. See Section 63G-3-302 and Rule R15-1 for more information.)
A) Comments will be accepted until 5:00 p.m. on (mm/dd/yyyy) : 03/02/2016
B) A public hearing (optional) will be held:
On (mm/dd/yyyy): At (hh:mm AM/PM): At (place):

Proposed Effective Date

13. This rule change may become effective on (mm/dd/yyyy): 03/09/2016
NOTE: The date above is the date on which this rule MAY become effective. It is NOT the effective date. After a minimum of seven days following the date designated in Box 12(A) above, the agency must submit a Notice of Effective Date to the Division of Administrative Rules to make this rule effective. Failure to submit a Notice of Effective Date will result in this rule lapsing and will require the agency to start the rulemaking process over.

Indexing Information

14. Indexing information - keywords (maximum of four, one term per field, in lower case, except for acronyms (e.g., "GRAMA") or proper nouns (e.g., "Medicaid")):
hazardous waste, generator

File Information

15. Attach an RTF document containing the text of this rule change (filename):
There is a document associated with this rule filing.

To the Agency

Information requested on this form is required by Sections 63G-3-301, 302, 303, and 402. Incomplete forms will be returned to the agency for completion, possibly delaying publication in the Utah State Bulletin, and delaying the first possible effective date.

Agency Authorization

Agency head or designee, and title:	Scott Anderson Director	Date (mm/dd/yyyy):	01/05/2016

NOTICE OF
PROPOSED NEW RULE

- The agency identified below in box 1 provides notice of proposed rule change pursuant to Utah Code Section 63G-3-301.
- Please address questions regarding information on this notice to the agency.
- The full text of all rule filings is published in the Utah State Bulletin unless excluded because of space constraints.
- The full text of all rule filings may also be inspected at the Division of Administrative Rules.

Rule Information

DAR file no: Date filed:
State Admin Rule Filing Key: 157081
Utah Admin. Code ref. (R no.): R315-263

Agency Information

1. Agency: ENVIRONMENTAL QUALITY - Solid and Hazardous Waste

Room no.: Second Floor
Building:
Street address 1: 195 N 1950 W
Street address 2:
City, state, zip: SALT LAKE CITY UT 84116-3097
Mailing address 1: PO BOX 144880
Mailing address 2:
City, state, zip: SALT LAKE CITY UT 84114-4880

Contact person(s):

Name:	Phone:	Fax:	E-mail:	Remove:
Ralph Bohn	801-536-0212	801-536-0222	rbohn@utah.gov	

(Interested persons may inspect this filing at the above address or at DAR during business hours)

Rule Title

2. Title of rule or section (catchline):
Standards Applicable to Transporters of Hazardous Waste and Standards Applicable to Emergency Control of Spills for All Hazardous Waste Handlers

Notice Type

3. Type of notice: New Rule

Rule Purpose

4. Purpose of the rule or reason for the change:
The Division is renumbering and changing the format of the hazardous waste rules. The change is to help the reader of the rules by providing all of the rules in one place and not using incorporation by reference or when incorporation is necessary to use only one edition of the

material incorporated throughout all the hazardous waste rules. In addition the new rules will include several federal rules that have been adopted at the federal level and need to be adopted by the state to make the Utah rules consistent with federal rule. Rule R315-263 replaces R315-6 and R315-9.

Response Information

5. This change is a response to comments by the Administrative Rules Review Committee.

   (●) No ( ) Yes

Rule Summary

6. Summary of the rule or change:

   R315-263 replaces R315-6 and R315-9. It also adopts changes in federal rules relating to the definition of solid waste, electronic manifests, cathode ray tubes, coal combustion residuals, carbon dioxide exclusion, corrections and clarifications, and burden reduction changes. All of these changes are required to maintain an approved state program or are required by Utah statue.

Aggregate Cost Information

7. Aggregate anticipated cost or savings to:

   A) State budget:

   Affected: (●) No ( ) Yes

   There will be on cost to the state as the rule is not changed but just renumbered or the changes will be absorbed in the current program.

   B) Local government:

   Affected: ( ) No (●) Yes

   Most of the rule is not changed but just renumbered therefore there will be no cost to local government. The rule changes that reflect changes in federal rules are all less stringent than current Utah rule and therefore will result in cost savings. The actual cost savings will depend on the hazardous waste activities conducted by local government and cannot be quantified.

   C) Small businesses:

   Affected: ( ) No (●) Yes

   ("small business" means a business employing fewer than 50 persons)

   Most of the rule is not changed but just renumbered therefore there will be no cost to small business. The rule changes that reflect changes in federal rules are all less stringent than current Utah rule and therefore will result in cost savings. The actual cost savings will depend on the hazardous waste activities conducted by small business and cannot be quantified.

   D) Persons other than small businesses, businesses, or local government entities:

   Affected: ( ) No (●) Yes

   ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an agency)

   Most of the rule is not changed but just renumbered therefore there will be no cost to other persons. The rule changes that reflect changes in federal rules are all less stringent than current Utah rule and therefore will result in cost savings. The actual cost savings will depend on the hazardous waste activities conducted by other persons and cannot be quantified.

Compliance Cost Information

8. Compliance costs for affected persons:
The rules changes will have no cost to affected persons. The changes may result in cost savings depending on the hazardous waste management activities conducted but the cost savings cannot be quantified.

Department Head Comments

9. A) Comments by the department head on the fiscal impact the rule may have on businesses:
The rules changes will have no cost to business. The changes may result in cost savings depending on the hazardous waste management activities conducted at a business but cannot be quantified.
B) Name and title of department head commenting on the fiscal impacts:
Alan Matheson

Citation Information

10. This rule change is authorized or mandated by state law, and implements or interprets the following state and federal laws.
State code or constitution citations (required) (e.g., Section 63G-3-402; Subsection 63G-3-601 (3); Article IV) :
19-6-105, 19-6-106

Incorporated Materials

11. This rule adds, updates, or removes the following title of materials incorporated by references (a copy of materials incorporated by reference must be submitted to DAR; if none, leave blank) :

Official Title of Materials Incorporated (from title page)	
Publisher	
Date Issued (mm/dd/yyyy)	
Issue, or version (including partial dates)	
ISBN Number	
ISSN Number	
Cost of Incorporated Reference	
Adds, updates, removes	-- SELECT ONE --

Comments

12. The public may submit written or oral comments to the agency identified in box 1. (The public may also request a hearing by submitting a written request to the agency. The agency is required to hold a hearing if it receives requests from ten interested persons or from an association having not fewer than ten members. Additionally, the request must be received by the agency not more than 15 days after the publication of this rule in the Utah State Bulletin. See Section 63G-3-302 and Rule R15-1 for more information.)
A) Comments will be accepted until 5:00 p.m. on (mm/dd/yyyy) : 03/02/2016

B) A public hearing (optional) will be held:

On (mm/dd/yyyy): At (hh:mm AM/PM): At (place):

Proposed Effective Date

13. This rule change may become effective on (mm/dd/yyyy): 03/09/2016

NOTE: The date above is the date on which this rule MAY become effective. It is NOT the effective date. After a minimum of seven days following the date designated in Box 12(A) above, the agency must submit a Notice of Effective Date to the Division of Administrative Rules to make this rule effective. Failure to submit a Notice of Effective Date will result in this rule lapsing and will require the agency to start the rulemaking process over.

Indexing Information

14. Indexing information - keywords (maximum of four, one term per field, in lower case, except for acronyms (e.g., "GRAMA") or proper nouns (e.g., "Medicaid")):

hazardous waste

File Information

15. Attach an RTF document containing the text of this rule change (filename):

There is a document associated with this rule filing.

To the Agency

Information requested on this form is required by Sections 63G-3-301, 302, 303, and 402. Incomplete forms will be returned to the agency for completion, possibly delaying publication in the Utah State Bulletin, and delaying the first possible effective date.

Agency Authorization

Agency head or designee, and title: Scott Anderson Director

Date (mm/dd/yyyy): 01/05/2016

NOTICE OF
PROPOSED NEW RULE

- The agency identified below in box 1 provides notice of proposed rule change pursuant to Utah Code Section 63G-3-301.
- Please address questions regarding information on this notice to the agency.
- The full text of all rule filings is published in the Utah State Bulletin unless excluded because of space constraints.
- The full text of all rule filings may also be inspected at the Division of Administrative Rules.

Rule Information

DAR file no: Date filed:
State Admin Rule Filing Key: 157086
Utah Admin. Code ref. (R no.): R315-264

Agency Information

1. Agency: ENVIRONMENTAL QUALITY - Solid and Hazardous Waste

Room no.: Second Floor
Building:
Street address 1: 195 N 1950 W
Street address 2:
City, state, zip: SALT LAKE CITY UT 84116-3097
Mailing address 1: PO BOX 144880
Mailing address 2:
City, state, zip: SALT LAKE CITY UT 84114-4880

Contact person(s):

Name:	Phone:	Fax:	E-mail:	Remove:
Ralph Bohn	801-536-0212	801-536-0222	rbohn@utah.gov	

(Interested persons may inspect this filing at the above address or at DAR during business hours)

Rule Title

2. Title of rule or section (catchline):
Standards For Owners And Operators Of Hazardous Waste Treatment, Storage, And Disposal Facilities

Notice Type

3. Type of notice: New Rule

Rule Purpose

4. Purpose of the rule or reason for the change:
The Division is renumbering and changing the format of the hazardous waste rules. The change is to help the reader of the rules by providing all of the rules in one place and not using incorporation by reference or when incorporation is necessary to use only one edition of the

material incorporated throughout all the hazardous waste rules. In addition the new rules will include several federal rules that have been adopted at the federal level and need to be adopted by the state to make the Utah rules consistent with federal rule. Rule R315-240 replaces R315-8 and part of R315-50.

Response Information

5. This change is a response to comments by the Administrative Rules Review Committee.

   (●) No ( ) Yes

Rule Summary

6. Summary of the rule or change:

   Rule R315-240 replaces R315-8 and part of R315-50. It also adopts changes in federal rules relating to the definition of solid waste, electronic manifests, cathode ray tubes, coal combustion residuals, carbon dioxide exclusion, corrections and clarifications, and burden reduction changes. All of these changes are required to maintain an approved state program or are required by Utah statue.

Aggregate Cost Information

7. Aggregate anticipated cost or savings to:

   A) State budget:

   Affected: (●) No ( ) Yes

   There will be on cost to the state as the rule is not changed but just renumbered or the changes will be absorbed in the current program.

   B) Local government:

   Affected: ( ) No (●) Yes

   Most of the rule is not changed but just renumbered therefore there will be no cost to local government. The rule changes that reflect changes in federal rules are all less stringent than current Utah rule and therefore will result in cost savings. The actual cost savings will depend on the hazardous waste activities conducted by local government and cannot be quantified.

   C) Small businesses:

   Affected: ( ) No (●) Yes

   ("small business" means a business employing fewer than 50 persons)

   Most of the rule is not changed but just renumbered therefore there will be no cost to small business. The rule changes that reflect changes in federal rules are all less stringent than current Utah rule and therefore will result in cost savings. The actual cost savings will depend on the hazardous waste activities conducted by small business and cannot be quantified.

   D) Persons other than small businesses, businesses, or local government entities:

   Affected: ( ) No (●) Yes

   ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an agency)

   Most of the rule is not changed but just renumbered therefore there will be no cost to other persons. The rule changes that reflect changes in federal rules are all less stringent than current Utah rule and therefore will result in cost savings. The actual cost savings will depend on the hazardous waste activities conducted by other persons and cannot be quantified.

Compliance Cost Information

8. Compliance costs for affected persons:
The rules changes will have no cost to affected persons. The changes may result in cost savings depending on the hazardous waste management activities conducted but the cost savings cannot be quantified.

Department Head Comments

9. A) Comments by the department head on the fiscal impact the rule may have on businesses:
The rules changes will have no cost to business. The changes may result in cost savings depending on the hazardous waste management activities conducted at a business but cannot be quantified.
B) Name and title of department head commenting on the fiscal impacts:
Alan Matheson

Citation Information

10. This rule change is authorized or mandated by state law, and implements or interprets the following state and federal laws.
State code or constitution citations (required) (e.g., Section 63G-3-402; Subsection 63G-3-601 (3); Article IV) :
19-6-106, 19-6-105

Incorporated Materials

11. This rule adds, updates, or removes the following title of materials incorporated by references (a copy of materials incorporated by reference must be submitted to DAR; if none, leave blank) :

Official Title of Materials Incorporated (from title page)40 CFR Part 264 ppendix IV
PublisherUS Government Printing Office
Date Issued (mm/dd/yyyy)07/01/2015
Issue, or version (including partial dates)
ISBN Number
ISSN Number
Cost of Incorporated Reference
Adds, updates, removes-- SELECT ONE --

Official Title of Materials Incorporated (from title page)40 CFR Part 264 ppendix IX
PublisherUS Government Printing Office
Date Issued (mm/dd/yyyy)07/01/2015
Issue, or version (including partial dates)
ISBN Number
ISSN Number
Cost of Incorporated Reference
Adds, updates, removes-- SELECT ONE --

Official Title of Materials Incorporated (from title40 CFR Part 264 subsection 1034(c)(1)(iv) page)(A)
Publisher US Government Printing Office
Date Issued (mm/dd/yyyy) 07/01/2015
Issue, or version (including partial dates)
ISBN Number
ISSN Number
Cost of Incorporated Reference
Adds, updates, removes -- SELECT ONE --

Comments

12. The public may submit written or oral comments to the agency identified in box 1. (The public may also request a hearing by submitting a written request to the agency. The agency is required to hold a hearing if it receives requests from ten interested persons or from an association having not fewer than ten members. Additionally, the request must be received by the agency not more than 15 days after the publication of this rule in the Utah State Bulletin. See Section 63G-3-302 and Rule R15-1 for more information.)

A) Comments will be accepted until 5:00 p.m. on (mm/dd/yyyy) : 03/02/2016

B) A public hearing (optional) will be held:

On (mm/dd/yyyy): At (hh:mm AM/PM): At (place):

Proposed Effective Date

13. This rule change may become effective on (mm/dd/yyyy): 03/09/2016

NOTE: The date above is the date on which this rule MAY become effective. It is NOT the effective date. After a minimum of seven days following the date designated in Box 12(A) above, the agency must submit a Notice of Effective Date to the Division of Administrative Rules to make this rule effective. Failure to submit a Notice of Effective Date will result in this rule lapsing and will require the agency to start the rulemaking process over.

Indexing Information

14. Indexing information - keywords (maximum of four, one term per field, in lower case, except for acronyms (e.g., "GRAMA") or proper nouns (e.g., "Medicaid")):

hazardous waste

File Information

15. Attach an RTF document containing the text of this rule change (filename):

There is a document associated with this rule filing.

To the Agency

Information requested on this form is required by Sections 63G-3-301, 302, 303, and 402. Incomplete forms will be returned to the agency for completion, possibly delaying publication in the Utah State Bulletin, and delaying the first possible effective date.

Agency Authorization

Agency head or designee, and title:	Scott Anderson Director	Date (mm/dd/yyyy):	01/05/2016

NOTICE OF
PROPOSED NEW RULE

- The agency identified below in box 1 provides notice of proposed rule change pursuant to Utah Code Section 63G-3-301.
- Please address questions regarding information on this notice to the agency.
- The full text of all rule filings is published in the Utah State Bulletin unless excluded because of space constraints.
- The full text of all rule filings may also be inspected at the Division of Administrative Rules.

Rule Information

DAR file no: Date filed:
State Admin Rule Filing Key: 157082
Utah Admin. Code ref. (R no.): R315-265

Agency Information

1. Agency: ENVIRONMENTAL QUALITY - Solid and Hazardous Waste

Room no.: Second Floor
Building:
Street address 1: 195 N 1950 W
Street address 2:
City, state, zip: SALT LAKE CITY UT 84116-3097
Mailing address 1: PO BOX 144880
Mailing address 2:
City, state, zip: SALT LAKE CITY UT 84114-4880

Contact person(s):

Name:	Phone:	Fax:	E-mail:	Remove:
Ralph Bohn	801-536-0212	801-536-0222	rbohn@utah.gov	

(Interested persons may inspect this filing at the above address or at DAR during business hours)

Rule Title

2. Title of rule or section (catchline):
Interim Status Standards For Owners And Operators Of Hazardous Waste Treatment, Storage, And Disposal Facilities

Notice Type

3. Type of notice: New Rule

Rule Purpose

4. Purpose of the rule or reason for the change:
The Division is renumbering and changing the format of the hazardous waste rules. The change is to help the reader of the rules by providing all of the rules in one place and not using incorporation by reference or when incorporation is necessary to use only one edition of the

material incorporated throughout all the hazardous waste rules. In addition the new rules will include several federal rules that have been adopted at the federal level and need to be adopted by the state to make the Utah rules consistent with federal rule. Rule R315-265 replaces R315-7.

Response Information

5. This change is a response to comments by the Administrative Rules Review Committee.

   (●) No ( ) Yes

Rule Summary

6. Summary of the rule or change:

   R315-265 replaces R315-7. It also adopts changes in federal rules relating to the definition of solid waste, electronic manifests, cathode ray tubes, coal combustion residuals, carbon dioxide exclusion, corrections and clarifications, and burden reduction changes. All of these changes are required to maintain an approved state program or are required by Utah statue.

Aggregate Cost Information

7. Aggregate anticipated cost or savings to:

   A) State budget:

   Affected: (●) No ( ) Yes

   There will be on cost to the state as the rule is not changed but just renumbered or the changes will be absorbed in the current program.

   B) Local government:

   Affected: ( ) No (●) Yes

   Most of the rule is not changed but just renumbered therefore there will be no cost to local government. The rule changes that reflect changes in federal rules are all less stringent than current Utah rule and therefore will result in cost savings. The actual cost savings will depend on the hazardous waste activities conducted by local government and cannot be quantified.

   C) Small businesses:

   Affected: ( ) No (●) Yes

   ("small business" means a business employing fewer than 50 persons)

   Most of the rule is not changed but just renumbered therefore there will be no cost to small business. The rule changes that reflect changes in federal rules are all less stringent than current Utah rule and therefore will result in cost savings. The actual cost savings will depend on the hazardous waste activities conducted by small business and cannot be quantified.

   D) Persons other than small businesses, businesses, or local government entities:

   Affected: ( ) No (●) Yes

   ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an agency)

   Most of the rule is not changed but just renumbered therefore there will be no cost to other persons. The rule changes that reflect changes in federal rules are all less stringent than current Utah rule and therefore will result in cost savings. The actual cost savings will depend on the hazardous waste activities conducted by other persons and cannot be quantified.

Compliance Cost Information

8. Compliance costs for affected persons:

   The rules changes will have no cost to affected persons. The changes may result in cost savings depending on the hazardous waste management activities conducted but the cost savings cannot be quantified.

Department Head Comments

9. A) Comments by the department head on the fiscal impact the rule may have on businesses:

   The rules changes will have no cost to business. The changes may result in cost savings depending on the hazardous waste management activities conducted at a business but cannot be quantified.

   B) Name and title of department head commenting on the fiscal impacts:

   Alan Matheson

Citation Information

10. This rule change is authorized or mandated by state law, and implements or interprets the following state and federal laws.
    State code or constitution citations (required) (e.g., Section 63G-3-402; Subsection 63G-3-601 (3); Article IV) :
    19-6-105, 19-6-106

Incorporated Materials

11. This rule adds, updates, or removes the following title of materials incorporated by references (a copy of materials incorporated by reference must be submitted to DAR; if none, leave blank) :

Official Title of Materials Incorporated (from title page)	40 CFR Part 265
Publisher	US Government Printing Office
Date Issued (mm/dd/yyyy)	07/01/2015
Issue, or version (including partial dates)	
ISBN Number	
ISSN Number	
Cost of Incorporated Reference	
Adds, updates, removes	-- SELECT ONE --

Comments

12. The public may submit written or oral comments to the agency identified in box 1. (The public may also request a hearing by submitting a written request to the agency. The agency is required to hold a hearing if it receives requests from ten interested persons or from an association having not fewer than ten members. Additionally, the request must be received by the agency not more than 15 days after the publication of this rule in the Utah State Bulletin. See Section 63G-3-302 and Rule R15-1 for more information.)

    A) Comments will be accepted until 5:00 p.m. on (mm/dd/yyyy) : 03/02/2016

    B) A public hearing (optional) will be held:

On (mm/dd/yyyy):	At (hh:mm AM/PM):	At (place):

Proposed Effective Date

13. This rule change may become effective on (mm/dd/yyyy): 03/09/2016
NOTE: The date above is the date on which this rule MAY become effective. It is NOT the effective date. After a minimum of seven days following the date designated in Box 12(A) above, the agency must submit a Notice of Effective Date to the Division of Administrative Rules to make this rule effective. Failure to submit a Notice of Effective Date will result in this rule lapsing and will require the agency to start the rulemaking process over.

Indexing Information

14. Indexing information - keywords (maximum of four, one term per field, in lower case, except for acronyms (e.g., "GRAMA") or proper nouns (e.g., "Medicaid")):
hazardous waste

File Information

15. Attach an RTF document containing the text of this rule change (filename):
There is a document associated with this rule filing.

To the Agency

Information requested on this form is required by Sections 63G-3-301, 302, 303, and 402. Incomplete forms will be returned to the agency for completion, possibly delaying publication in the Utah State Bulletin, and delaying the first possible effective date.

Agency Authorization

Agency head or designee, and title:	Scott Anderson Director	Date (mm/dd/yyyy): 01/05/2016

NOTICE OF
PROPOSED NEW RULE

- The agency identified below in box 1 provides notice of proposed rule change pursuant to Utah Code Section 63G-3-301.
- Please address questions regarding information on this notice to the agency.
- The full text of all rule filings is published in the Utah State Bulletin unless excluded because of space constraints.
- The full text of all rule filings may also be inspected at the Division of Administrative Rules.

Rule Information

DAR file no: Date filed:
State Admin Rule Filing Key: 157083
Utah Admin. Code ref. (R no.): R315-266

Agency Information

1. Agency: ENVIRONMENTAL QUALITY - Solid and Hazardous Waste

Room no.: Second Floor
Building:
Street address 1: 195 N 1950 W
Street address 2:
City, state, zip: SALT LAKE CITY UT 84116-3097
Mailing address 1: PO BOX 144880
Mailing address 2:
City, state, zip: SALT LAKE CITY UT 84114-4880

Contact person(s):

Name:	Phone:	Fax:	E-mail:	Remove:
Ralph Bohn	801-536-0212	801-536-0222	rbohn@utah.gov	

(Interested persons may inspect this filing at the above address or at DAR during business hours)

Rule Title

2. Title of rule or section (catchline):
Standards For The Management Of Specific Hazardous Wastes And Specific Types Of Hazardous Waste Management Facilities

Notice Type

3. Type of notice: New Rule

Rule Purpose

4. Purpose of the rule or reason for the change:
The Division is renumbering and changing the format of the hazardous waste rules. The change is to help the reader of the rules by providing all of the rules in one place and not using incorporation by reference or when incorporation is necessary to use only one edition of the

material incorporated throughout all the hazardous waste rules. In addition the new rules will include several federal rules that have been adopted at the federal level and need to be adopted by the state to make the Utah rules consistent with federal rule. Rule R315-266 replaces R315-14 and part of R315-50.

Response Information

5. This change is a response to comments by the Administrative Rules Review Committee.

   (●) No ( ) Yes

Rule Summary

6. Summary of the rule or change:

   Rule R315-266 replaces R315-14 and part of R315-50. It also adopts changes in federal rules relating to the definition of solid waste, electronic manifests, cathode ray tubes, coal combustion residuals, carbon dioxide exclusion, corrections and clarifications, and burden reduction changes. All of these changes are required to maintain an approved state program or are required by Utah statue.

Aggregate Cost Information

7. Aggregate anticipated cost or savings to:

   A) State budget:

   Affected: (●) No ( ) Yes

   There will be on cost to the state as the rule is not changed but just renumbered or the changes will be absorbed in the current program.

   B) Local government:

   Affected: ( ) No (●) Yes

   Most of the rule is not changed but just renumbered therefore there will be no cost to local government. The rule changes that reflect changes in federal rules are all less stringent than current Utah rule and therefore will result in cost savings. The actual cost savings will depend on the hazardous waste activities conducted by local government and cannot be quantified.

   C) Small businesses:

   Affected: ( ) No (●) Yes

   ("small business" means a business employing fewer than 50 persons)

   Most of the rule is not changed but just renumbered therefore there will be no cost to small business. The rule changes that reflect changes in federal rules are all less stringent than current Utah rule and therefore will result in cost savings. The actual cost savings will depend on the hazardous waste activities conducted by small business and cannot be quantified.

   D) Persons other than small businesses, businesses, or local government entities:

   Affected: ( ) No (●) Yes

   ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an agency)

   Most of the rule is not changed but just renumbered therefore there will be no cost to other persons. The rule changes that reflect changes in federal rules are all less stringent than current Utah rule and therefore will result in cost savings. The actual cost savings will depend on the hazardous waste activities conducted by other persons and cannot be quantified.

Compliance Cost Information

8. Compliance costs for affected persons:
   The rules changes will have no cost to affected persons. The changes may result in cost savings depending on the hazardous waste management activities conducted but the cost savings cannot be quantified.

Department Head Comments

9. A) Comments by the department head on the fiscal impact the rule may have on businesses:
   The rules changes will have no cost to business. The changes may result in cost savings depending on the hazardous waste management activities conducted at a business but cannot be quantified.
   B) Name and title of department head commenting on the fiscal impacts:
   Alen Matheson

Citation Information

10. This rule change is authorized or mandated by state law, and implements or interprets the following state and federal laws.
    State code or constitution citations (required) (e.g., Section 63G-3-402; Subsection 63G-3-601 (3); Article IV) :
    19-6-105, 19-6-106

Incorporated Materials

11. This rule adds, updates, or removes the following title of materials incorporated by references (a copy of materials incorporated by reference must be submitted to DAR; if none, leave blank) :

Official Title of Materials Incorporated (from title page)40 CFR Part 266 Appendix IX
PublisherUS Government Printing Office
Date Issued (mm/dd/yyyy)07/01/2015
Issue, or version (including partial dates)
ISBN Number
ISSN Number
Cost of Incorporated Reference
Adds, updates, removes-- SELECT ONE --

Official Title of Materials Incorporated (from title page)40 CFR Part 266 Appendix IV
PublisherUs Government Printing Office
Date Issued (mm/dd/yyyy)07/01/2015
Issue, or version (including partial dates)
ISBN Number
ISSN Number
Cost of Incorporated Reference
Adds, updates, removes-- SELECT ONE --

Official Title of Materials Incorporated (from title page)40 CFR Part 266 Apendix III
PublisherUS Government Printing Office
Date Issued (mm/dd/yyyy)07/01/2015
Issue, or version (including partial dates)
ISBN Number
ISSN Number
Cost of Incorporated Reference
Adds, updates, removes-- SELECT ONE --

Official Title of Materials Incorporated (from title page)40 CFR Part 266 Appendix I
PublisherUS Government Printing Office
Date Issued (mm/dd/yyyy)07/01/2015
Issue, or version (including partial dates)
ISBN Number
ISSN Number
Cost of Incorporated Reference
Adds, updates, removes-- SELECT ONE --

Comments

12. The public may submit written or oral comments to the agency identified in box 1. (The public may also request a hearing by submitting a written request to the agency. The agency is required to hold a hearing if it receives requests from ten interested persons or from an association having not fewer than ten members. Additionally, the request must be received by the agency not more than 15 days after the publication of this rule in the Utah State Bulletin. See Section 63G-3-302 and Rule R15-1 for more information.)

A) Comments will be accepted until 5:00 p.m. on (mm/dd/yyyy) : 03/02/2016

B) A public hearing (optional) will be held:

On (mm/dd/yyyy): At (hh:mm AM/PM): At (place):

Proposed Effective Date

13. This rule change may become effective on (mm/dd/yyyy): 03/09/2016

NOTE: The date above is the date on which this rule MAY become effective. It is NOT the effective date. After a minimum of seven days following the date designated in Box 12(A) above, the agency must submit a Notice of Effective Date to the Division of Administrative Rules to make this rule effective. Failure to submit a Notice of Effective Date will result in this rule lapsing and will require the agency to start the rulemaking process over.

Indexing Information

14. Indexing information - keywords (maximum of four, one term per field, in lower case, except for acronyms (e.g., "GRAMA") or proper nouns (e.g., "Medicaid")):

hazardous waste

File Information

15. Attach an RTF document containing the text of this rule change (filename):
There is a document associated with this rule filing.

To the Agency

Information requested on this form is required by Sections 63G-3-301, 302, 303, and 402. Incomplete forms will be returned to the agency for completion, possibly delaying publication in the Utah State Bulletin, and delaying the first possible effective date.

Agency Authorization

Agency head or designee, and title:	Scott Anderson Director	Date (mm/dd/yyyy):	01/05/2016

NOTICE OF
PROPOSED NEW RULE

- The agency identified below in box 1 provides notice of proposed rule change pursuant to Utah Code Section 63G-3-301.
- Please address questions regarding information on this notice to the agency.
- The full text of all rule filings is published in the Utah State Bulletin unless excluded because of space constraints.
- The full text of all rule filings may also be inspected at the Division of Administrative Rules.

Rule Information

DAR file no: Date filed:
State Admin Rule Filing Key: 157084
Utah Admin. Code ref. (R no.): R315-268

Agency Information

1. Agency: ENVIRONMENTAL QUALITY - Solid and Hazardous Waste

Room no.: Second Floor
Building:
Street address 1: 195 N 1950 W
Street address 2:
City, state, zip: SALT LAKE CITY UT 84116-3097
Mailing address 1: PO BOX 144880
Mailing address 2:
City, state, zip: SALT LAKE CITY UT 84114-4880

Contact person(s):

Name:	Phone:	Fax:	E-mail:	Remove:
Ralph Bohn	801-536-0212	801-536-0222	rbohn@utah.gov	

(Interested persons may inspect this filing at the above address or at DAR during business hours)

Rule Title

2. Title of rule or section (catchline):
Land Disposal Restrictions

Notice Type

3. Type of notice: New Rule

Rule Purpose

4. Purpose of the rule or reason for the change:
The Division is renumbering and changing the format of the hazardous waste rules. The change is to help the reader of the rules by providing all of the rules in one place and not using incorporation by reference or when incorporation is necessary to use only one edition of the material incorporated throughout all the hazardous waste rules. In addition the new rules will

include several federal rules that have been adopted at the federal level and need to be adopted by the state to make the Utah rules consistent with federal rule. Rule R315-268 replaces R315-13.

Response Information

5. This change is a response to comments by the Administrative Rules Review Committee.

   (●) No ( ) Yes

Rule Summary

6. Summary of the rule or change:

   Rule R315-268 replaces R315-13. It also adopts changes in federal rules relating to the definition of solid waste, electronic manifests, cathode ray tubes, coal combustion residuals, carbon dioxide exclusion, corrections and clarifications, and burden reduction changes. All of these changes are required to maintain an approved state program or are required by Utah statue.

Aggregate Cost Information

7. Aggregate anticipated cost or savings to:

   A) State budget:

   Affected: (●) No ( ) Yes

   There will be on cost to the state as the rule is not changed but just renumbered or the changes will be absorbed in the current program.

   B) Local government:

   Affected: ( ) No (●) Yes

   Most of the rule is not changed but just renumbered therefore there will be no cost to local government. The rule changes that reflect changes in federal rules are all less stringent than current Utah rule and therefore will result in cost savings. The actual cost savings will depend on the hazardous waste activities conducted by local government and cannot be quantified.

   C) Small businesses:

   Affected: ( ) No (●) Yes

   ("small business" means a business employing fewer than 50 persons)

   Most of the rule is not changed but just renumbered therefore there will be no cost to small business. The rule changes that reflect changes in federal rules are all less stringent than current Utah rule and therefore will result in cost savings. The actual cost savings will depend on the hazardous waste activities conducted by small business and cannot be quantified.

   D) Persons other than small businesses, businesses, or local government entities:

   Affected: ( ) No (●) Yes

   ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an agency)

   Most of the rule is not changed but just renumbered therefore there will be no cost to other persons. The rule changes that reflect changes in federal rules are all less stringent than current Utah rule and therefore will result in cost savings. The actual cost savings will depend on the hazardous waste activities conducted by other persons and cannot be quantified.

Compliance Cost Information

8. Compliance costs for affected persons:

   The rules changes will have no cost to affected persons. The changes may result in cost savings depending on the hazardous waste management activities conducted but the cost savings cannot be quantified.

Department Head Comments

9. A) Comments by the department head on the fiscal impact the rule may have on businesses:

   The rules changes will have no cost to business. The changes may result in cost savings depending on the hazardous waste management activities conducted at a business but cannot be quantified.

   B) Name and title of department head commenting on the fiscal impacts:

   Alan Matheson

Citation Information

10. This rule change is authorized or mandated by state law, and implements or interprets the following state and federal laws.
    State code or constitution citations (required) (e.g., Section 63G-3-402; Subsection 63G-3-601 (3); Article IV) :
    19-6-106, 19-6-105

Incorporated Materials

11. This rule adds, updates, or removes the following title of materials incorporated by references (a copy of materials incorporated by reference must be submitted to DAR; if none, leave blank) :

Official Title of Materials Incorporated (from title page)40 CFR Part 268 Section 40 Table
PublisherUS Government Printing Office
Date Issued (mm/dd/yyyy)07/01/2015
Issue, or version (including partial dates)
ISBN Number
ISSN Number
Cost of Incorporated Reference
Adds, updates, removes-- SELECT ONE --

Official Title of Materials Incorporated (from title page)40 CFR Part 268 Section 45 Table
PublisherUS Government Printing Office
Date Issued (mm/dd/yyyy)07/01/2015
Issue, or version (including partial dates)
ISBN Number
ISSN Number
Cost of Incorporated Reference
Adds, updates, removes-- SELECT ONE --

Comments

12. The public may submit written or oral comments to the agency identified in box 1. (The public may also request a hearing by submitting a written request to the agency. The agency is required to hold a hearing if it receives requests from ten interested persons or from an association having not fewer than ten members. Additionally, the request must be received by the agency not more than 15 days after the publication of this rule in the Utah State Bulletin. See Section 63G-3-302 and Rule R15-1 for more information.)

A) Comments will be accepted until 5:00 p.m. on (mm/dd/yyyy) : 03/02/2016

B) A public hearing (optional) will be held:

On (mm/dd/yyyy): At (hh:mm AM/PM): At (place):

Proposed Effective Date

13. This rule change may become effective on (mm/dd/yyyy): 03/09/2016

NOTE: The date above is the date on which this rule MAY become effective. It is NOT the effective date. After a minimum of seven days following the date designated in Box 12(A) above, the agency must submit a Notice of Effective Date to the Division of Administrative Rules to make this rule effective. Failure to submit a Notice of Effective Date will result in this rule lapsing and will require the agency to start the rulemaking process over.

Indexing Information

14. Indexing information - keywords (maximum of four, one term per field, in lower case, except for acronyms (e.g., "GRAMA") or proper nouns (e.g., "Medicaid")):

hazardous waste

File Information

15. Attach an RTF document containing the text of this rule change (filename):

There is a document associated with this rule filing.

To the Agency

Information requested on this form is required by Sections 63G-3-301, 302, 303, and 402. Incomplete forms will be returned to the agency for completion, possibly delaying publication in the Utah State Bulletin, and delaying the first possible effective date.

Agency Authorization

Agency head or designee, and title: Scott Anderson Director

Date (mm/dd/yyyy): 01/05/2016

NOTICE OF
PROPOSED NEW RULE

- The agency identified below in box 1 provides notice of proposed rule change pursuant to Utah Code Section 63G-3-301.
- Please address questions regarding information on this notice to the agency.
- The full text of all rule filings is published in the Utah State Bulletin unless excluded because of space constraints.
- The full text of all rule filings may also be inspected at the Division of Administrative Rules.

Rule Information

DAR file no: Date filed:
State Admin Rule Filing Key: 157085
Utah Admin. Code ref. (R no.): R315-270

Agency Information

1. Agency: ENVIRONMENTAL QUALITY - Solid and Hazardous Waste

Room no.: Second Floor
Building:
Street address 1: 195 N 1950 W
Street address 2:
City, state, zip: SALT LAKE CITY UT 84116-3097
Mailing address 1: PO BOX 144880
Mailing address 2:
City, state, zip: SALT LAKE CITY UT 84114-4880

Contact person(s):

Name:	Phone:	Fax:	E-mail:	Remove:
Ralph Bohn	801-536-0212	801-536-0222	rbohn@utah.gov	

(Interested persons may inspect this filing at the above address or at DAR during business hours)

Rule Title

2. Title of rule or section (catchline):
Hazardous Waste Permit Program

Notice Type

3. Type of notice: New Rule

Rule Purpose

4. Purpose of the rule or reason for the change:
The Division is renumbering and changing the format of the hazardous waste rules. The change is to help the reader of the rules by providing all of the rules in one place and not using incorporation by reference or when incorporation is necessary to use only one edition of the material incorporated throughout all the hazardous waste rules. In addition the new rules will

include several federal rules that have been adopted at the federal level and need to be adopted by the state to make the Utah rules consistent with federal rule. Rule R315-270 replaces R315-3.

Response Information

5. This change is a response to comments by the Administrative Rules Review Committee.

   (●) No ( ) Yes

Rule Summary

6. Summary of the rule or change:

   R315-270 replaces R315-3. It also adopts changes in federal rules relating to the definition of solid waste, electronic manifests, cathode ray tubes, coal combustion residuals, carbon dioxide exclusion, corrections and clarifications, and burden reduction changes. All of these changes are required to maintain an approved state program or are required by Utah statue.

Aggregate Cost Information

7. Aggregate anticipated cost or savings to:

   A) State budget:

   Affected: (●) No ( ) Yes

   There will be on cost to the state as the rule is not changed but just renumbered or the changes will be absorbed in the current program.

   B) Local government:

   Affected: ( ) No (●) Yes

   Most of the rule is not changed but just renumbered therefore there will be no cost to local government. The rule changes that reflect changes in federal rules are all less stringent than current Utah rule and therefore will result in cost savings. The actual cost savings will depend on the hazardous waste activities conducted by local government and cannot be quantified.

   C) Small businesses:

   Affected: ( ) No (●) Yes

   ("small business" means a business employing fewer than 50 persons)

   Most of the rule is not changed but just renumbered therefore there will be no cost to small business. The rule changes that reflect changes in federal rules are all less stringent than current Utah rule and therefore will result in cost savings. The actual cost savings will depend on the hazardous waste activities conducted by small business and cannot be quantified.

   D) Persons other than small businesses, businesses, or local government entities:

   Affected: ( ) No (●) Yes

   ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an agency)

   Most of the rule is not changed but just renumbered therefore there will be no cost to other persons. The rule changes that reflect changes in federal rules are all less stringent than current Utah rule and therefore will result in cost savings. The actual cost savings will depend on the hazardous waste activities conducted by other persons and cannot be quantified.

Compliance Cost Information

8. Compliance costs for affected persons:

The rules changes will have no cost to affected persons. The changes may result in cost savings depending on the hazardous waste management activities conducted but the cost savings cannot be quantified.

Department Head Comments

9. A) Comments by the department head on the fiscal impact the rule may have on businesses:
The rules changes will have no cost to business. The changes may result in cost savings depending on the hazardous waste management activities conducted at a business but cannot be quantified.
B) Name and title of department head commenting on the fiscal impacts:
Alan Matheson

Citation Information

10. This rule change is authorized or mandated by state law, and implements or interprets the following state and federal laws.
State code or constitution citations (required) (e.g., Section 63G-3-402; Subsection 63G-3-601 (3); Article IV) :
19-6-105, 19-6-106

Incorporated Materials

11. This rule adds, updates, or removes the following title of materials incorporated by references (a copy of materials incorporated by reference must be submitted to DAR; if none, leave blank) :

Official Title of Materials Incorporated (from title page)	
Publisher	
Date Issued (mm/dd/yyyy)	
Issue, or version (including partial dates)	
ISBN Number	
ISSN Number	
Cost of Incorporated Reference	
Adds, updates, removes	-- SELECT ONE --

Comments

12. The public may submit written or oral comments to the agency identified in box 1. (The public may also request a hearing by submitting a written request to the agency. The agency is required to hold a hearing if it receives requests from ten interested persons or from an association having not fewer than ten members. Additionally, the request must be received by the agency not more than 15 days after the publication of this rule in the Utah State Bulletin. See Section 63G-3-302 and Rule R15-1 for more information.)
A) Comments will be accepted until 5:00 p.m. on (mm/dd/yyyy) : 03/02/2016
B) A public hearing (optional) will be held:
On (mm/dd/yyyy): At (hh:mm AM/PM): At (place):

Proposed Effective Date

13. This rule change may become effective on (mm/dd/yyyy): 03/09/2016
NOTE: The date above is the date on which this rule MAY become effective. It is NOT the effective date. After a minimum of seven days following the date designated in Box 12(A) above, the agency must submit a Notice of Effective Date to the Division of Administrative Rules to make this rule effective. Failure to submit a Notice of Effective Date will result in this rule lapsing and will require the agency to start the rulemaking process over.

Indexing Information

14. Indexing information - keywords (maximum of four, one term per field, in lower case, except for acronyms (e.g., "GRAMA") or proper nouns (e.g., "Medicaid")):
hazardous waste

File Information

15. Attach an RTF document containing the text of this rule change (filename):
There is a document associated with this rule filing.

To the Agency

Information requested on this form is required by Sections 63G-3-301, 302, 303, and 402. Incomplete forms will be returned to the agency for completion, possibly delaying publication in the Utah State Bulletin, and delaying the first possible effective date.

Agency Authorization

Agency head or designee, and title:	Scott Anderson Director	Date (mm/dd/yyyy):	01/05/2016

NOTICE OF
PROPOSED NEW RULE

- The agency identified below in box 1 provides notice of proposed rule change pursuant to Utah Code Section 63G-3-301.
- Please address questions regarding information on this notice to the agency.
- The full text of all rule filings is published in the Utah State Bulletin unless excluded because of space constraints.
- The full text of all rule filings may also be inspected at the Division of Administrative Rules.

Rule Information

DAR file no: Date filed:
State Admin Rule Filing Key: 157088
Utah Admin. Code ref. (R no.): R315-273

Agency Information

1. Agency: ENVIRONMENTAL QUALITY - Solid and Hazardous Waste

Room no.: Second Floor
Building:
Street address 1: 195 N 1950 W
Street address 2:
City, state, zip: SALT LAKE CITY UT 84116-3097
Mailing address 1: PO BOX 144880
Mailing address 2:
City, state, zip: SALT LAKE CITY UT 84114-4880

Contact person(s):

Name:	Phone:	Fax:	E-mail:	Remove:
Ralph Bohn	801-536-0212	801-536-0222	rbohn@utah.gov	

(Interested persons may inspect this filing at the above address or at DAR during business hours)

Rule Title

2. Title of rule or section (catchline):
Standards For Universal Waste Management

Notice Type

3. Type of notice: New Rule

Rule Purpose

4. Purpose of the rule or reason for the change:
The Division is renumbering and changing the format of the hazardous waste rules. The change is to help the reader of the rules by providing all of the rules in one place and not using incorporation by reference or when incorporation is necessary to use only one edition of the material incorporated throughout all the hazardous waste rules. In addition the new rules will

include several federal rules that have been adopted at the federal level and need to be adopted by the state to make the Utah rules consistent with federal rule and the addition of antifreeze and aerosol cans as universal wastes in Utah. Rule R315-273 replaces R315-16.

Response Information

5. This change is a response to comments by the Administrative Rules Review Committee.

   (●) No ( ) Yes

Rule Summary

6. Summary of the rule or change:

   Rule R315-273 replaces R315-16. It also adopts changes in federal rules relating to the definition of solid waste, electronic manifests, cathode ray tubes, coal combustion residuals, carbon dioxide exclusion, corrections and clarifications, and burden reduction changes. All of these changes are required to maintain an approved state program or are required by Utah statue. In addition two waste, that when recycled are not a hazardous waste, have been added to the list of universal wastes. The wastes are antifreeze and aerosol cans.

Aggregate Cost Information

7. Aggregate anticipated cost or savings to:

   A) State budget:

   Affected: (●) No ( ) Yes

   There will be on cost to the state as the rule is not changed but just renumbered or the changes will be absorbed in the current program.

   B) Local government:

   Affected: ( ) No (●) Yes

   Most of the rule is not changed but just renumbered therefore there will be no cost to local government. The rule changes that reflect changes in federal rules are all less stringent than current Utah rule and therefore will result in cost savings. The actual cost savings will depend on the hazardous waste activities conducted by local government and cannot be quantified. In addition any local government that recycles antifreeze or aerosol cans will see a reduction in waste management costs.

   C) Small businesses:

   Affected: ( ) No (●) Yes

   ("small business" means a business employing fewer than 50 persons)

   Most of the rule is not changed but just renumbered therefore there will be no cost to small business. The rule changes that reflect changes in federal rules are all less stringent than current Utah rule and therefore will result in cost savings. The actual cost savings will depend on the hazardous waste activities conducted by the small business and cannot be quantified. In addition any small business that recycles antifreeze or aerosol cans will see a reduction in waste management costs.

   D) Persons other than small businesses, businesses, or local government entities:

   Affected: ( ) No (●) Yes

   ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an agency)

Most of the rule is not changed but just renumbered therefore there will be no cost to a person. The rule changes that reflect changes in federal rules are all less stringent than current Utah rule and therefore will result in cost savings. The actual cost savings will depend on the hazardous waste activities conducted by the person and cannot be quantified. In addition any person that recycles antifreeze or aerosol cans will see a reduction in waste management costs.

Compliance Cost Information

8. Compliance costs for affected persons:
   The rules changes will have no cost to affected persons. The changes may result in cost savings depending on the hazardous waste management activities conducted, but cannot be quantified. In addition any person that recycles antifreeze or aerosol cans will see a reduction in waste management costs.

Department Head Comments

9. A) Comments by the department head on the fiscal impact the rule may have on businesses:
   The rules changes will have no cost to business. The changes may result in cost savings depending on the hazardous waste management activities conducted at a business but cannot be quantified. In addition any business that recycles antifreeze or aerosol cans will see a reduction in waste management costs.
   B) Name and title of department head commenting on the fiscal impacts:
   Alan Matheson

Citation Information

10. This rule change is authorized or mandated by state law, and implements or interprets the following state and federal laws.
    State code or constitution citations (required) (e.g., Section 63G-3-402; Subsection 63G-3-601 (3); Article IV) :
    19-6-105, 19-6-106

Incorporated Materials

11. This rule adds, updates, or removes the following title of materials incorporated by references (a copy of materials incorporated by reference must be submitted to DAR; if none, leave blank) :

Official Title of Materials Incorporated (from title page)	
Publisher	
Date Issued (mm/dd/yyyy)	
Issue, or version (including partial dates)	
ISBN Number	
ISSN Number	
Cost of Incorporated Reference	
Adds, updates, removes	-- SELECT ONE --

Comments

12. The public may submit written or oral comments to the agency identified in box 1. (The public may also request a hearing by submitting a written request to the agency. The agency is required to hold a hearing if it receives requests from ten interested persons or from an association having not fewer than ten members. Additionally, the request must be received by the agency not more than 15 days after the publication of this rule in the Utah State Bulletin. See Section 63G-3-302 and Rule R15-1 for more information.)

A) Comments will be accepted until 5:00 p.m. on (mm/dd/yyyy) : 03/02/2016

B) A public hearing (optional) will be held:

On (mm/dd/yyyy): At (hh:mm AM/PM): At (place):

Proposed Effective Date

13. This rule change may become effective on (mm/dd/yyyy): 03/09/2016

NOTE: The date above is the date on which this rule MAY become effective. It is NOT the effective date. After a minimum of seven days following the date designated in Box 12(A) above, the agency must submit a Notice of Effective Date to the Division of Administrative Rules to make this rule effective. Failure to submit a Notice of Effective Date will result in this rule lapsing and will require the agency to start the rulemaking process over.

Indexing Information

14. Indexing information - keywords (maximum of four, one term per field, in lower case, except for acronyms (e.g., "GRAMA") or proper nouns (e.g., "Medicaid")):

hazardous waste

File Information

15. Attach an RTF document containing the text of this rule change (filename):

There is a document associated with this rule filing.

To the Agency

Information requested on this form is required by Sections 63G-3-301, 302, 303, and 402. Incomplete forms will be returned to the agency for completion, possibly delaying publication in the Utah State Bulletin, and delaying the first possible effective date.

Agency Authorization

Agency head or designee, and title: Scott Anderson Director

Date (mm/dd/yyyy): 01/05/2016

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R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.

R315-103. Commercial Hazardous Waste Facility Siting Criteria.

R315-103-1. Commercial Hazardous Waste Facility Siting Criteria - Authority.

Subsection 19-6-105(3) requires that criteria for siting commercial hazardous waste treatment, storage, and disposal facilities be established.

R315-103-2. Commercial Hazardous Waste Facility Siting Criteria - Applicability.

Rule R315-103 applies to all permit applications for commercial hazardous waste treatment, storage, and disposal facilities.

R315-103-3. Commercial Hazardous Waste Facility Siting Criteria - Land Use Compatibility and Location.

(a) Siting of commercial hazardous waste treatment, storage, and disposal facilities, including commercial hazardous waste incinerators, is prohibited within:

(1) national, state, and county parks, monuments, and recreation areas; designated wilderness and wilderness study areas; wild and scenic river areas;

(2) ecologically and scientifically significant natural areas, including but not limited to, wildlife management areas and habitat for listed or proposed endangered species as designated pursuant to the Endangered Species Act of 1982;

(3) 100 year floodplains, unless, for non-land based facilities only, the conditions found in subsection R315-264-18 are met to the satisfaction of the Director;

(4) 200 ft. of Holocene faults;

(5) underground mines, salt domes and salt beds;

(6) dam failure flood areas;

(7) areas likely to be impacted by landslide, mudflow, or other earth movement;

(8) farmlands classified or evaluated as "prime," "unique," or of "statewide importance" by the U.S. Department of Agriculture Soil Conservation Service under the Prime Farmland Protection Act;

(9) areas above aquifers containing ground water which has a total dissolved solids (TDS) content of less than 500 mg/l and which does not exceed applicable ground water quality standards for any contaminant. Land disposal

facilities are also prohibited above aquifers containing ground water which has a TDS content of less than 3000 mg/l and which does not exceed applicable ground water quality standards for any contaminant. Non-land-based facilities above aquifers containing ground water which has a TDS content of 500 to 3000 mg/l and all facilities above aquifers containing ground water which has a TDS content between 3000 and 10,000 mg/l are permitted only where the depth to ground water is greater than 100 ft. The applicant for the proposed facility shall make the demonstration of ground water quality necessary to determine the appropriate aquifer classification;

(10) recharge zones of aquifers containing ground water which has a TDS content of less than 3000 mg/l. Land disposal facilities are also prohibited in recharge zones of aquifers containing ground water which has a TDS content of less than 10,000 mg/l;

(11) designated drinking water source protection areas or, if no source protection area is designated, a distance to existing drinking water wells and watersheds for public water supplies of one year ground water travel time plus 1000 feet for non-land-based facilities and five years ground water travel time plus 1000 feet for land disposal facilities. This requirement does not include on-site facility operation wells. The applicant for the proposed facility shall make the demonstration, acceptable to the Director, of hydraulic conductivity and other information necessary to determine the one or five year ground water travel distance as applicable. The facility operator may be required to conduct vadose zone or other near surface monitoring if determined to be necessary and appropriate by the Director;

(12) five miles of existing permanent dwellings, residential areas, and other incompatible structures including, but not limited to, schools, churches, and historic structures;

(13) five miles of surface waters including intermittent streams, perennial streams, rivers, lakes, reservoirs, estuaries, and wetlands; and

(14) 1000 ft. of archeological sites to which adverse impacts cannot reasonably be mitigated.

R315-103-4. Commercial Hazardous Waste Facility Siting Criteria - Emergency Response and Transportation Safety.

(a) An assessment of the availability and adequacy of emergency services, including medical and fire response, shall be included in the permit application. The application shall also contain evidence that emergency response plans have been coordinated with local and regional emergency response personnel. The permit may be delayed or denied if these services are deemed inadequate.

(b) Trained emergency response personnel and equipment are to be retained by the facility and be capable of responding to emergencies both at the site and involving wastes being transported to and from the facility within the state. Details of the proposed emergency response capability shall be given in the permit application and shall be stipulated in the permit.

(c) Proposed routes of transport within the state shall be specified in the permit application. No hazardous waste shall be transported on roads where weight restrictions for the road or any bridge on the road will be exceeded in the selected route of travel. Prime consideration in the selection of routes shall be given to roads which bypass population centers. Route selection should consider residential and non-residential populations along the route; the width, condition, and types of roads used; roadside development along the route; seasonal and climatic factors; alternate emergency access to the facility site; the type, size, and configuration of vehicles expected to be hauling to the site; transportation restrictions along the proposed routes; and the transportation means and routes available to evacuate the population at risk in the event of a major accident, including spills and fires.

R315-103-5. Commercial Hazardous Waste Facility Siting Criteria - Exemptions.

Exemptions from the criteria of this section may be granted upon application on a case by case basis by the Waste Management and Radiation Control Board after an appropriate public comment period and when the Board determines that there will be no adverse impacts to public health or the environment. The Board cannot grant exemptions which would conflict with applicable regulations and restrictions of other regulatory authorities.

R315-103-6. Commercial Hazardous Waste Facility Siting Criteria - Completeness of Application.

The permit application shall not be considered complete until the applicant demonstrates compliance with the criteria given herein.

R315-103-4. Commercial Hazardous Waste Facility Siting Criteria - Siting Authority.

It is recognized that Titles 10 and 17 of the Utah Code give cities and counties authority for local land use planning and zoning. Nothing in these rules precludes cities and counties from establishing additional requirements as provided by applicable state and federal law.

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.

Rule R315-124. Procedures for Decisionmaking.

R315-124-1. Procedures For Decisionmaking - Applicability.

Unless otherwise stated in Rules R315-17, 101, 102, 260 through 266, 268, 270, or 273, Rule R315-124 applies to all actions by the Director taken under the rules listed above.

R315-124-3. Procedures For Decisionmaking - Application For A Permit.

(a)(1) Anyperson who requires a permit, for a hazardous waste treatment, storage or disposal facility under Section 19-6-108 shall complete, sign, and submit to the Director an application for each permit required under Section R315-270-1. Applications are not required for permits by rule, Section R315-270-60.

(2) The Director is not required to begin the processing of a permit until the applicant has fully complied with the application requirements for that permit. See Sections R315-270-10, and 13.

(3) Permit applications shall comply with the signature and certification requirements of Section R315-270-11.

(b) Reserved

(c) The Director shall review for completeness every application for a permit. Upon completing the review, the Director shall notify the applicant in writing whether the application is complete. If the application is incomplete, the Director shall list the information necessary to make the application complete. When the application is for an existing facility, the Director shall specify in the notice of deficiency a date for submitting the necessary information. The Director shall notify the applicant that the application is complete upon receiving this information. After the application is completed, the Director may request additional information from an applicant to clarify, modify, or supplement previously submitted material. Requests for such additional information will not render an application incomplete.

(d) If an applicant fails or refuses to correct deficiencies in the application, the permit may be denied and appropriate enforcement actions may be taken under applicable provisions of the Utah Solid and Hazardous Waste Act.

(e) If the Director decides that a site visit is necessary for any reason in conjunction with the processing of an application, the Director shall notify the applicant and a date shall be scheduled.

(f) The effective date of an application is the date on which the Director notifies the applicant that the application is complete as provided in Subsection R315-124-3(c).

(g) For each permit application, the Director shall, no later than the effective date of the application, prepare and mail to the applicant a schedule that specifies target dates by which the Director intends to:

(1) Prepare a draft permit;

(2) Give public notice;

(3) Complete the public comment period, including any public hearing; and

(4) Issue a final permit.

R315-124-5. Procedures For Decisionmaking - Modification, Revocation And Reissuance, Or Termination Of Permits.

(a) Permits may be modified, revoked and reissued, or terminated either at the request of any interested person, including the permittee, or upon the Director's initiative. However, permits may only be modified, revoked and reissued, or terminated for the reasons specified in Sections R315-270-41 or 43. All requests shall be in writing and shall contain facts or reasons supporting the request.

(b) If the Director decides the request is not justified, the Director shall send the requester a brief written response giving a reason for the decision. Denials of requests for modification, revocation and reissuance, or termination are not subject to public notice, comment, or hearings. Denials by the Director may be appealed by following the requirements of Sections R305-7-201 through 217.

(c)(1) If the Director tentatively decides to modify or revoke and reissue a permit under Section R315-270-41, other than Subsection R315-270-42(c), the Director shall prepare a draft permit under Section R315-124-6 incorporating the proposed changes. The Director may request additional information and, in the case of a modified permit, may require the submission of an updated application. In the case of revoked and reissued permits

the Director shall require the submission of a new application.

(2) In a permit modification under Section R315-124-5, only those conditions to be modified shall be reopened when a draft permit is prepared. All other aspects of the existing permit shall remain in effect. When a permit is revoked and reissued under Section R315-124-5, the entire permit is reopened just as if the permit had expired and were being reissued. During any revocation and reissuance proceeding the permittee shall comply with all conditions of the existing permit until a new final permit is reissued.

(3) Classes 1 and 2 modifications as defined in Subsections R315-270-42(a) and (b) are not subject to the requirements of Section R315-124-5.

(d) If the Director tentatively decides to terminate a permit under Section R315-270-43 the Director shall issue a notice of intent to terminate. A notice of intent to terminate is a type of draft permit which follows the same procedures as any draft permit prepared under Section R315-124-6.

(e) All draft permits, including notices of intent to terminate, prepared under Section R315-124-5 shall be based on the administrative record as defined in Section R315-124-9.

R315-124-6. Procedures For Decisionmaking - Draft Permits.

(a) Once an application is complete, the Director shall tentatively decide whether to prepare a draft permit or to deny the application.

(b) If the Director tentatively decides to deny the permit application, the Director shall issue a notice of intent to deny. A notice of intent to deny the permit application is a type of draft permit which follows the same procedures as any draft permit prepared under Section R315-124-6. If the Director's final decision is that the tentative decision to deny the permit application was incorrect, the Director shall withdraw the notice of intent to deny and prepare a draft permit under Subsection R315-124-6(d).

(c) Reserved

(d) If the Director decides to prepare a draft permit, the Director shall prepare a draft permit that contains the following information:

(1) All conditions under Sections R315-270-30 and 32;

(2) All compliance schedules under Section R315-270-33;

(3) All monitoring requirements under Section R315-270-31;

(4) All information required for permits issued under Rules R315-15, 17, and R315-301 through 320; and

(5) Standards for treatment, storage, and/or disposal and other permit conditions under Section R315-270-30;

(e) All draft permits prepared by the Director under Section R315-124-6 shall be accompanied by a statement of basis or fact sheet, and shall be based on the administrative record, publicly noticed and made available for public comment. The Director shall give notice of opportunity for a public hearing, issue a final decision, and respond to comments.

R315-124-7. Procedures For Decisionmaking - Statement Of Basis.

The Director shall prepare a statement of basis for every draft permit for which a fact sheet under Section R315-124-8 is not prepared. The statement of basis shall briefly describe the conditions of the draft permit and the reasons for them or, in the case of notices of intent to deny or terminate, reasons supporting the tentative decision. The statement of basis shall be sent to the applicant and, on request, to any other person.

R315-124-8. Procedures For Decisionmaking - Fact Sheet.

(a) A fact sheet shall be prepared for every draft permit where a statement of basis is not prepared. The fact sheet shall briefly set forth the principal facts and the significant factual, legal, methodological and policy questions considered in preparing the draft permit. The Director shall send this fact sheet to the applicant and, on request, to any other person.

(b) The fact sheet shall include, when applicable:

(1) A brief description of the type of facility or activity which is the subject of the draft permit;

(2) The type and quantity of wastes, fluids, or pollutants which are proposed to be or are being treated, stored, disposed of, injected, emitted, or discharged.

(3) Reserved

(4) A brief summary of the basis for the draft permit conditions, including references to applicable statutory or regulatory provisions and appropriate supporting references

to the administrative record required by Section R315-124-9;

(5) Reasons why any requested variances or alternatives to required standards were granted or denied;

(6) A description of the procedures for reaching a final decision on the draft permit including:

(i) The beginning and ending dates of the comment period under Section R315-124-10 and the address where comments will be received;

(ii) Procedures for requesting a hearing and the nature of that hearing; and

(iii) Any other procedures by which the public may participate in the final decision.

(7) Name and telephone number of a person to contact for additional information.

R315-124-9. Procedures For Decisionmaking - Administrative Record For Draft Permits.

(a) The provisions of a draft permit prepared by the Director under Section R315-124-6 shall be based on the administrative record defined in Section R305-7-209 and Section R315-124-18.

(b) Section R315-124-9 applies to all draft permits when public notice was given after the effective date of Rule R315-124.

R315-124-10. Procedures For Decisionmaking - Public Notice Of Permit Actions And Public Comment Period.

(a) Scope.

(1) The Director shall give public notice that the following actions have occurred:

(i) A permit application has been tentatively denied under Subsection R315-124-6(b); or

(ii) A draft permit has been prepared under Subsection R315-124-6(d); or

(iii) A hearing has been scheduled under Section R315-124-12;

(2) No public notice is required when a request for permit modification, revocation and reissuance, or termination is denied under Subsection R315-124-5(b). Written notice of that denial shall be given to the requester and to the permittee.

(3) Public notices may describe more than one permit or permit actions.

(b) Timing.

(1) Public notice of the preparation of a draft permit, including a notice of intent to deny a permit application, required under Subsection R315-124-10(a) shall allow at least 45 days for public comment.

(2) Public notice of a public hearing shall be given at least 30 days before the hearing. Public notice of the hearing may be given at the same time as public notice of the draft permit and the two notices may be combined.

(c) Methods. Public notice of activities described in Subsection R315-124-10(a)(1) shall be given by the following methods:

(1) By mailing or electronic mailing a copy of a notice to the following persons:

(i) The applicant;

(ii) Any other agency which the Director knows has issued or is required to issue a permit for the same facility or activity including EPA;

(iii) Federal and State agencies with jurisdiction over fish, shellfish, and wildlife resources, State Historic Preservation Officers, including any affected States, and Indian Tribes.

(iv) through (viii) Reserved

(ix) Persons on a mailing list developed by:

(A) Including those who request in writing to be on the list;

(B) Soliciting persons for “area lists” from participants in past permit proceedings in that area; and

(C) Notifying the public of the opportunity to be put on the mailing list through periodic publication in the public press and in such publications as Regional and State funded newsletters, environmental bulletins, State law journals, or through the Department web page. The Director may update the mailing list from time to time by requesting written indication of continued interest from those listed. The Director may delete from the list the name of any person who fails to respond to such a request.

(x)(A) To any unit of local government having jurisdiction over the area where the facility is proposed to be located; and

(B) to each State agency having any authority under State law with respect to the construction or operation of such facility.

(2)(i) Reserved

(ii) Publication of a notice in a daily or weekly major local newspaper of general circulation and broadcast over local radio stations.

(3) In a manner constituting legal notice to the public under State law; and

(4) Any other method reasonably calculated to give actual notice of the action in question to the persons potentially affected by it, including press releases or any other forum or medium to elicit public participation.

(5) Any person otherwise entitled to receive notice under Subsection R315-124-10(c) may waive his or her rights to receive notice for any classes and categories of permits.

(d) Contents.

(1) All public notices issued under Rule R315-124 shall contain the following minimum information:

(i) Division of Waste Management and Radiation Control, P.O. Box 144880, Salt Lake City, Utah 84114-4880;

(ii) Name and address of the permittee or permit applicant and, if different, of the facility or activity regulated by the permit;

(iii) A brief description of the business conducted at the facility or activity described in the permit application or the draft permit;

(iv) Name, address and telephone number of a person from whom interested persons may obtain further information, including copies of the draft permit, statement of basis or fact sheet, and the application; and

(v) A brief description of the comment procedures required by Sections R315-124-11 and 12 and the time and place of any hearing that will be held, including a statement of procedures to request a hearing, unless a hearing has already been scheduled, and other procedures by which the public may participate in the final permit decision.

(vi) through (ix) Reserved

(x) Any additional information considered necessary or proper.

(2) Public notices for hearings. In addition to the general public notice described in Subsection R315-124-10(d)(1), the public notice of a hearing under Section R315-124-12 shall contain the following information:

(i) Reference to the date of previous public notices relating to the permit;

(ii) Date, time, and place of the hearing; and

(iii) A brief description of the nature and purpose of the hearing, including the applicable rules and procedures.

(e) In addition to the general public notice described in Subsection R315-124-10(d)(1), all persons identified in Subsections R315-124-10(c)(1) (i), (ii), and (iii) shall be mailed or provided electronically a copy of the fact sheet or statement of basis.

R315-124-11. Procedures For Decisionmaking - Public Comments And Requests For Public Hearings.

During the public comment period provided under Section R315-124-10, any interested person may submit written comments on the draft permit and may request a public hearing, if no hearing has already been scheduled. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. All comments shall be considered in making the final decision and shall be answered as provided in Section R315-124-17.

R315-124-12. Procedures For Decisionmaking - Public Hearings.

(a)(1) The Director shall hold a public hearing whenever the Director finds, on the basis of requests, a significant degree of public interest in a draft permit(s);

(2) The Director may also hold a public hearing at the Director's discretion, whenever, for instance, such a hearing might clarify one or more issues involved in the permit decision;

(3)(i) the Director shall hold a public hearing whenever the Director receives written notice of opposition to a draft permit and a request for a hearing within 45 days of public notice under Subsection R315-124-10(b)(1);

(ii) whenever possible the Director shall schedule a hearing under Section R315-124-12 at a location convenient to the nearest population center to the proposed facility;

(4) Public notice of the hearing shall be given as specified in Section R315-124-10.

(b) Whenever a public hearing will be held, the Director shall designate a Presiding Officer for the hearing who shall be responsible for its scheduling and orderly conduct.

(c) Any person may submit oral or written statements and data concerning the draft permit. Reasonable limits may

be set upon the time allowed for oral statements, and the submission of statements in writing may be required. The public comment period under Section R315-124-10 shall automatically be extended to the close of any public hearing under Section R315-124-12. The hearing officer may also extend the comment period by so stating at the hearing.

(d) An electronic recording or written transcript of the hearing shall be made available to the public.

R315-124-13. Procedures For Decisionmaking - Obligation To Raise Issues And Provide Information During The Public Comment Period.

All persons, including applicants, who believe any condition of a draft permit is inappropriate or that the Director's tentative decision to deny an application, terminate a permit, or prepare a draft permit is inappropriate, shall raise all reasonably ascertainable issues and submit all reasonably available arguments supporting their position by the close of the public comment period, including any public hearing, under Section R315-124-10. Any supporting materials which are submitted shall be included in full and may not be incorporated by reference, unless they are already part of the administrative record in the same proceeding, or consist of State or Federal statutes and regulations, EPA or Division documents of general applicability, or other generally available reference materials. Commenters shall make supporting materials not already included in the administrative record available to the Director as directed by the Director and consistent with Section R305-7-209. A comment period longer than 45 days may be necessary to give commenters a reasonable opportunity to comply with the requirements of Section R315-124-13. Additional time shall be granted under Section R315-124-10 to the extent that a commenter who requests additional time demonstrates the need for such time.

R315-124-15. Procedures For Decisionmaking - Issuance And Effective Date Of Permit.

(a) After the close of the public comment period under Section R315-124-10 on a draft permit, the Director shall issue a final permit decision, or a decision to deny a permit for the active life of a hazardous waste management facility or unit under Section R315-270-29. The

Director shall notify the applicant and each person who has submitted written comments or requested notice of the final permit decision. This notice shall include reference to the procedures for appealing a decision on a hazardous waste permit or a decision to terminate a hazardous waste permit. For the purposes of Section R315-124-15, a final permit decision means a final decision to issue, deny, modify, revoke and reissue, or terminate a permit.

(b) A final permit decision, or a decision to deny a permit for the active life of a hazardous waste management facility or unit under Section R315-270-29, shall become effective upon issuance, unless:

(1) A later effective date is specified in the decision; or

(2) Review is requested on the permit under Rule R305-7 and a stay is granted under Subsection 19-1-301.5(16).

R315-124-16. Procedures For Decisionmaking - Stays Of Contested Permit Conditions.

The provisions covering appeals and stays are found in Rule R305-7 and Subsection 19-1-301.5(16).

R315-124-17. Procedures For Decisionmaking - Response To Comments.

(a) At the time that any final permit decision is issued under Section R315-124-15, the Director shall issue a response to comments. This response shall:

(1) Specify which provisions, if any, of the draft permit have been changed in the final permit decision, and the reasons for the change; and

(2) Briefly describe and respond to all significant comments on the draft permit or the permit application raised during the public comment period, or during any hearing.

(b) Any documents cited in the response to comments shall be included in the administrative record for the final permit decision as defined in Section R315-124-18. If new points are raised or new material supplied during the public comment period, the Director may document the response to those matters by adding new materials to the administrative record.

R315-124-18. Procedures For Decisionmaking - Administrative Record For Final Permit.

(a) The Director shall base final permit decisions under Section R315-124-15 on the administrative record defined in Section R315-124-18.

(b) The administrative record for any final permit shall consist of the administrative record for the draft permit and:

(1) All comments received during the public comment period provided under Section R315-124-10;

(2) The recording or transcript of any hearing(s) held under Section R315-124-12;

(3) Any written materials submitted at such a hearing;

(4) The response to comments required by Section R315-124-17 and any new material placed in the record under that section;

(5) Reserved;

(6) Other documents contained in the supporting file for the permit; and

(7) The final permit.

(c) The additional documents required under Subsection R315-124-18(b) should be added to the record as soon as possible after their receipt or publication by the Division. The record shall be complete on the date the final permit is issued.

(d) Section R315-124-18 applies to all final permits when the draft permit was subject to the administrative record requirements of Section R315-124-9.

(e) Material readily available at the Division Office, or published materials which are generally available and which are included in the administrative record under the standards of Section R315-124-18 or 17, need not be physically included in the same file as the rest of the record as long as it is specifically referred to in the statement of basis or fact sheet or in the response to comments.

R315-124-19. Procedures For Decisionmaking - Appeal of Permits.

(a) Petitioning for review of a permit decision.

(1) Initiating an appeal. Appeal from a final permit decision issued under Section R315-124-15, or a decision to deny a permit for the active life of a hazardous waste management facility or unit under Section R315-270-29 is commenced by filing a Request for Agency Action as described in Rule R305-7.

R315-124-20. Procedures For Decisionmaking - Computation Of Time.

(a) Any time period scheduled to begin on the occurrence of an act or event shall begin on the day after the act or event.

(b) Any time period scheduled to begin before the occurrence of an act or event shall be computed so that the period ends on the day before the act or event.

(c) If the final day of any time period falls on a weekend or legal holiday, the time period shall be extended to the next working day.

(d) Whenever a party or interested person has the right or is required to act within a prescribed period after the service of notice or other paper upon him or her by mail, 3 days shall be added to the prescribed time.

R315-124-31. Procedures For Decisionmaking - Pre-Application Public Meeting And Notice.

(a) Applicability. The requirements of Section R315-124-31 shall apply to all part B applications seeking initial permits for hazardous waste management units. The requirements of Section R315-124-31 shall also apply to part B applications seeking renewal of permits for such units, where the renewal application is proposing a significant change in facility operations. For the purposes of Section R315-124-31, a “significant change” is any change that would qualify as a class 3 permit modification under Section R315-270-42. The requirements of Section R315-124-31 do not apply to permit modifications under Section R315-270-42 or to applications that are submitted for the sole purpose of conducting post-closure activities or post-closure activities and corrective action at a facility.

(b) Prior to the submission of a part B permit application for a facility, the applicant shall hold at least one meeting with the public in order to solicit questions from the community and inform the community of proposed hazardous waste management activities. The applicant shall post a sign-in sheet or otherwise provide a voluntary opportunity for attendees to provide their names and addresses.

(c) The applicant shall submit a summary of the meeting, along with the list of attendees and their addresses developed under Subsection R315-124-31(b), and

copies of any written comments or materials submitted at the meeting, to the Director as a part of the part B application, in accordance with Subsection R315-270-14(b).

(d) The applicant shall provide public notice of the pre-application meeting at least 30 days prior to the meeting. The applicant shall maintain, and provide to the Director upon request, documentation of the notice.

(1) The applicant shall provide public notice in all of the following forms:

(i) A newspaper notice. The applicant shall publish a notice, fulfilling the requirements in Subsection R315-124-31(d)(2), in a newspaper of general circulation in the county or equivalent jurisdiction that hosts the proposed location of the facility. In addition, the Director shall instruct the applicant to publish the notice in newspapers of general circulation in adjacent counties or equivalent jurisdictions, where the Director determines that such publication is necessary to inform the affected public.

(ii) A visible and accessible sign. The applicant shall post a notice on a clearly marked sign at or near the facility, fulfilling the requirements in Subsection R315-124-31(d)(2). If the applicant places the sign on the facility property, then the sign shall be large enough to be readable from the nearest point where the public would pass by the site.

(iii) A broadcast media announcement. The applicant shall broadcast a notice, fulfilling the requirements in Subsection R315-124-31(d)(2), at least once on at least one local radio station or television station. The applicant may employ another medium with prior approval of the Director.

(iv) A notice to the permitting agency. The applicant shall send a copy of the newspaper notice to the Director and to the appropriate local government, in accordance with Subsection R315-124-10(c)(1)(x).

(2) The notices required under Subsection R315-124-31(d)(1) shall include:

(i) The date, time, and location of the meeting;

(ii) A brief description of the purpose of the meeting;

(iii) A brief description of the facility and proposed operations, including the address or a map, e.g., a sketched or copied street map, of the facility location;

(iv) A statement encouraging people to contact the facility at least 72 hours before the meeting if they need special access to participate in the meeting; and

(v) The name, address, and telephone number of a contact person for the applicant.

R315-124-32. Procedures For Decisionmaking - Public Notice Requirements at the Application Stage.

(a) Applicability. The requirements of Section R315-124-32 shall apply to all part B applications seeking initial permits for hazardous waste management units. The requirements of Section R315-124-32 shall also apply to part B applications seeking renewal of permits for such units under Section R315-270-51. The requirements of Section R315-124-32 do not apply to permit modifications under Section R315-270-42 or permit applications submitted for the sole purpose of conducting post-closure activities or post-closure activities and corrective action at a facility.

(b) Notification at application submittal.

(1) The Director shall provide public notice as set forth in Subsection R315-124-10(c)(1)(ix), and notice to appropriate units of State and local government as set forth in Subsection R315-124-10(c)(1)(x), that a part B permit application has been submitted to the Director and is available for review.

(2) The notice shall be published within a reasonable period of time after the application is received by the Director. The notice shall include:

(i) The name and telephone number of the applicant's contact person;

(ii) The name and telephone number of the Division, and a mailing address to which information, opinions, and inquiries may be directed throughout the permit review process;

(iii) An address or email address to which people can write in order to be put on the facility mailing list;

(iv) The location where copies of the permit application and any supporting documents can be viewed and copied;

(v) A brief description of the facility and proposed operations, including the address or a map, e.g., a sketched or copied street map, of the facility location on the front page of the notice; and

(vi) The date that the application was submitted.

(c) Concurrent with the notice required under Subsection R315-124-32(b), the Director shall place the permit application and any supporting documents in a location accessible to the public in the vicinity of the facility or at the Division's office.

R315-124-33. Procedures For Decisionmaking - Information Repository.

(a) Applicability. The requirements of Section R315-124-33 apply to all applications seeking permits for hazardous waste management units.

(b) The Director may assess the need, on a case-by-case basis, for an information repository. When assessing the need for an information repository, the Director shall consider a variety of factors, including: the level of public interest; the type of facility; the presence of an existing repository; and the proximity to the nearest copy of the administrative record. If the Director determines, at any time after submittal of a permit application, that there is a need for a repository, then the Director shall notify the facility that it shall establish and maintain an information repository. See Subsection R315-270-30(m) for similar provisions relating to the information repository during the life of a permit.

(c) The information repository shall contain all documents, reports, data, and information deemed necessary by the Director to fulfill the purposes for which the repository is established. The Director shall have the discretion to limit the contents of the repository.

(d) The information repository shall be located and maintained at a site chosen by the facility. If the Director finds the site unsuitable for the purposes and persons for which it was established, due to problems with the location, hours of availability, access, or other relevant considerations, then the Director shall specify a more appropriate site.

(e) The Director shall specify requirements for informing the public about the information repository. At a minimum, the Director shall require the facility to provide a written notice about the information repository to all individuals on the facility mailing list.

(f) The facility owner/operator shall be responsible for maintaining and updating the repository with appropriate information throughout a time period specified by the Director. The Director may close the repository at

the Director's discretion, based on the factors in Subsection R315-124-33(b).

R315-124-34. Public Participation.
In addition to hearings required under the State Administrative Procedures Act and proceedings otherwise outlined or referenced in these rules, the Director shall not oppose intervention in any civil or administrative proceeding by any citizen where permissive intervention may be authorized by statute, rule or regulation. The Director shall publish notice of and provide at least 30 days for public comment on any proposed settlement of any enforcement action.

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.

R315-260. Hazardous Waste Management System.

R315-260-1. Purpose, scope, and applicability.

(a) Rule R315-260 provides definitions of terms, general standards, and overview information applicable to Rules R315-260 through 265 and 268.

R315-260-2. Availability of Information and Confidentiality of Information.

(a) Any information provided to The Director under Rules R315-15 and 101; Rules R315-260 through 266, 268, 270 and 273 will be made available to the public to the extent and in the manner authorized by Sections 63G-2-101 through 901.

(b) Except as provided under Subsection R315-260-2(c), any person who submits information to the Director in accordance with Rules R315-15 and 101; Rules R315-260 through 266, 268, 270 and 273 may assert a claim of business confidentiality covering part or all of that information by following the procedures set forth in Section 63G-2-309. Information covered by such a claim shall be disclosed by the Director only to the extent, and by means of the procedures, set forth Sections 63G-2-101 through 901 except that information required by Subsection R315-262-53(a) and Subsection R315-262-83 that is submitted to EPA in a notification of intent to export a hazardous waste shall be provided to the U.S. Department of State and the appropriate authorities in the transit and receiving or importing countries regardless of any claims of confidentiality. However, if no claim under Sections 63G-2-101 through 804 accompanies the information when it is received by the Director, it may be made available to the public without further notice to the person submitting it.

(c)(1) After August 6, 2014, no claim of business confidentiality may be asserted by any person with respect to information entered on a Hazardous Waste Manifest, EPA Form 8700-22, a Hazardous Waste Manifest Continuation Sheet, EPA Form 8700-22A, or an electronic manifest format that may be prepared and used in accordance with Subsection R315-262-20(a)(3).

(2) EPA shall make any electronic manifest that is prepared and used in accordance with Subsection R315-262-20(a)(3), or any paper manifest that is submitted to the system under Subsection R315-264-71(a)(6) or Subsection 40

CFR 265.71(a)(6), which is adopted by reference, available to the public under Section R315-260-2 when the electronic or paper manifest is a complete and final document. Electronic manifests and paper manifests submitted to the system are considered by EPA to be complete and final documents and publicly available information after 90 days have passed since the delivery to the designated facility of the hazardous waste shipment identified in the manifest.

R315-260-4. References to Other Statutes and Regulations.

(a) Federal statutes and regulations that are cited in Rules R315-260 through 266, 268, 270, 273 and 124 that are not specifically adopted by reference shall be used as guidance in interpreting the Rules R315-260 through 266, 268, 270, 273 and 124.

(b) Any reference to the "Department of Transportation" or "DOT" in Rules R315-260 through 266, 268, 270, 273 and 124 shall mean the "U.S. Department of Transportation".

R315-260-5. Inspections.

Any duly authorized officer, employee or representative of the Department or the Director may, in accordance with Section 19-6-109, enter upon and inspect any property, premise, or place on or at which solid or hazardous wastes are generated, transported, stored, treated or disposed of for the purpose of ascertaining the compliance with Rules R315-15, R315-101, R315-124, R315-260 through 266, R315-268, R315-270, and R315-273. Inspectors may also inspect any waste and obtain samples thereof, including samples from any vehicle in which wastes are being transported or samples of any containers or labels. Inspectors may also have access to and the right to make copies of any records, either in hard copy or electronic format, relating to compliance with Rules R315-15, R315-101, R315-124, R315-260 through 266, R315-268, R315-270, and R315-273. Inspectors may also take photographs and make video and audio recordings while conducting authorized activities.

R315-260-10. Definitions.

(a) Terms used in Rules R315-15, R315-260 through 266, R315-268, R315-270, R315-273, and Rule R315-101 are defined in Sections 19-1-103 and 19-6-102.

(b) Terms used in Rule R315-15 are also defined in Sections 19-6-703 and 19-6-706(b).

(c) Additional terms used in Rules R315-260 through 266, R315-268, R315-270, R315-273, and Rule R315-101 are defined as follows:

(1) "Above ground tank" means a device meeting the definition of “tank” in Section R315-260-10 and that is situated in such a way that the entire surface area of the tank is completely above the plane of the adjacent surrounding surface and the entire surface area of the tank, including the tank bottom, is able to be visually inspected.

(2) "Active life" of a facility means the period from the initial receipt of hazardous waste at the facility until the Director receives certification of final closure.

(3) "Active portion" means that portion of a facility where treatment, storage, or disposal operations are being or have been conducted after November 19, 1980 and which is not a closed portion. See also "closed portion" and "inactive portion."

(4) "Approved hazardous waste management facility" or "approved facility" means a hazardous waste treatment, storage, or disposal facility which has received an EPA permit in accordance with federal requirements, has been approved under Section 19-6-108 and Rule R315-270, or has been permitted or approved under any other EPA authorized hazardous waste state program.

(5) "Ancillary equipment" means any device including, but not limited to, such devices as piping, fittings, flanges, valves, and pumps, that is used to distribute, meter, or control the flow of hazardous waste from its point of generation to a storage or treatment tank(s), between hazardous waste storage and treatment tanks to a point of disposal onsite, or to a point of shipment for disposal off-site.

(6) "Aquifer" means a geologic formation, group of formations, or part of a formation capable of yielding a significant amount of ground water to wells or springs.

(7) "Authorized representative" means the person responsible for the overall operation of a facility or an operational unit, i.e., part of a facility, e.g., the plant manager, superintendent or person of equivalent responsibility.

(8) "Battery" means a device consisting of one or more electrically connected electrochemical cells which is designed to receive, store, and deliver electric energy. An electrochemical cell is a system consisting of an anode,

cathode, and an electrolyte, plus such connections, electrical and mechanical, as may be needed to allow the cell to deliver or receive electrical energy. The term battery also includes an intact, unbroken battery from which the electrolyte has been removed.

(9) "Boiler" means an enclosed device using controlled flame combustion and having the following characteristics:

(i)(A) The unit shall have physical provisions for recovering and exporting thermal energy in the form of steam, heated fluids, or heated gases; and

(B) The unit's combustion chamber and primary energy recovery sections(s) shall be of integral design. To be of integral design, the combustion chamber and the primary energy recovery section(s), such as waterwalls and superheaters, shall be physically formed into one manufactured or assembled unit. A unit in which the combustion chamber and the primary energy recovery section(s) are joined only by ducts or connections carrying flue gas is not integrally designed; however, secondary energy recovery equipment, such as economizers or air preheaters, need not be physically formed into the same unit as the combustion chamber and the primary energy recovery section. The following units are not precluded from being boilers solely because they are not of integral design: process heaters, units that transfer energy directly to a process stream, and fluidized bed combustion units; and

(C) While in operation, the unit shall maintain a thermal energy recovery efficiency of at least 60 percent, calculated in terms of the recovered energy compared with the thermal value of the fuel; and

(D) The unit shall export and utilize at least 75 percent of the recovered energy, calculated on an annual basis. In this calculation, no credit shall be given for recovered heat used internally in the same unit. Examples of internal use are the preheating of fuel or combustion air, and the driving of induced or forced draft fans or feedwater pumps; or

(ii) The unit is one which the Board has determined, on a case-by-case basis, to be a boiler, after considering the standards in Section R315-260-32

(10) "Carbon dioxide stream" means carbon dioxide that has been captured from an emission source, e.g., power plant, plus incidental associated substances derived from

the source materials and the capture process, and any substances added to the stream to enable or improve the injection process.

(11) "Carbon regeneration unit" means any enclosed thermal treatment device used to regenerate spent activated carbon.

(12) "Cathode ray tube" or "CRT" means a vacuum tube, composed primarily of glass, which is the visual or video display component of an electronic device. A used, intact CRT means a CRT whose vacuum has not been released. A used, broken CRT means glass removed from its housing or casing whose vacuum has been released.

(13) "Certification" means a statement of professional opinion based upon knowledge and belief.

(14) "Closed portion" means that portion of a facility which an owner or operator has closed in accordance with the approved facility closure plan and all applicable closure requirements. See also “active portion” and “inactive portion”.

(15) "Component" means either the tank or ancillary equipment of a tank system.

(16) "Confined aquifer" means an aquifer bounded above and below by impermeable beds or by beds of distinctly lower permeability than that of the aquifer itself; an aquifer containing confined ground water.

(17) "Contained" means held in a unit, including a land-based unit as defined in R315-260-10, that meets the following criteria:

(i) The unit is in good condition, with no leaks or other continuing or intermittent unpermitted releases of the hazardous secondary materials to the environment, and is designed, as appropriate for the hazardous secondary materials, to prevent releases of hazardous secondary materials to the environment. Unpermitted releases are releases that are not covered by a permit, such as a permit to discharge to water or air, and may include, but are not limited to, releases through surface transport by precipitation runoff, releases to soil and groundwater, wind-blown dust, fugitive air emissions, and catastrophic unit failures;

(ii) The unit is properly labeled or otherwise has a system, such as a log, to immediately identify the hazardous secondary materials in the unit; and

(iii) The unit holds hazardous secondary materials that are compatible with other hazardous secondary

materials placed in the unit and is compatible with the materials used to construct the unit and addresses any potential risks of fires or explosions.

(iv) Hazardous secondary materials in units that meet the applicable requirements of Rules R315-264 or 265 are presumptively contained.

(18) "Container" means any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled.

(19) "Containment building" means a hazardous waste management unit that is used to store or treat hazardous waste under the provisions of Subsections R315-264-1100 through 1102 or 40 CFR 265.1100 through 1102, which are adopted and incorporated by reference.

(20) "Contingency plan" means a document setting out an organized, planned, and coordinated course of action to be followed in case of a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

(21) "Corrosion expert" means a person who, by reason of his knowledge of the physical sciences and the principles of engineering and mathematics, acquired by a professional education and related practical experience, is qualified to engage in the practice of corrosion control on buried or submerged metal piping systems and metal tanks. Such a person shall be certified as being qualified by the National Association of Corrosion Engineers (NACE) or be a registered professional engineer who has certification or licensing that includes education and experience in corrosion control on buried or submerged metal piping systems and metal tanks.

(22) "CRT collector" means a person who receives used, intact CRTs for recycling, repair, resale, or donation.

(23) "CRT glass manufacturer" means an operation or part of an operation that uses a furnace to manufacture CRT glass.

(24) "CRT processing" means conducting all of the following activities:

(i) Receiving broken or intact CRTs; and

(ii) Intentionally breaking intact CRTs or further breaking or separating broken CRTs; and

(iii) Sorting or otherwise managing glass removed from CRT monitors.

(25) "Designated facility" means:

(i) A hazardous waste treatment, storage, or disposal facility which:

(A) Has received a permit, or interim status, in accordance with the requirements of Rule R315-270 and 124;

(B) Has received a permit, or interim status, from a State authorized in accordance with 40 CFR 27; or

(C) Is regulated under Subsection R315-261-6(c)(2) or Section R315-266-70; and

(D) That has been designated on the manifest by the generator pursuant to Section R315-262-20.

(ii) "Designated facility" also means a generator site designated on the manifest to receive its waste as a return shipment from a facility that has rejected the waste in accordance with Subsections R315-264-72(f) or 40 CFR 265.72(f), which is adopted and incorporated by reference.

(iii) If a waste is destined to a facility in an authorized State which has not yet obtained authorization to regulate that particular waste as hazardous, then the designated facility shall be a facility allowed by the receiving State to accept such waste.

(26) "Destination facility" means a facility that treats, disposes of, or recycles a particular category of universal waste, except those management activities described in Subsection R315-273-13(a) and (c) and Section R315-273-33. A facility at which a particular category of universal waste is only accumulated, is not a destination facility for purposes of managing that category of universal waste.

(27) "Dike" means an embankment or ridge of either natural or man-made materials used to prevent the movement of liquids, sludges, solids, or other materials.

(28) "Dioxins and furans (D/F)" means tetra, penta, hexa, hepta, and octa-chlorinated dibenzo dioxins and furans.

(29) "Discharge" or "hazardous waste discharge" means the accidental or intentional spilling, leaking, pumping, pouring, emitting, emptying, or dumping of hazardous waste into or on any land or water.

(30) "Disposal facility" means a facility or part of a facility at which hazardous waste is intentionally placed into or on any land or water, and at which waste will remain after closure. The term disposal facility does not include a corrective action management unit into which remediation wastes are placed.

(31) "Division" means the Division of Waste Management and Radiation Control.

(32) "Drip pad" is an engineered structure consisting of a curbed, free-draining base, constructed of non-earthen materials and designed to convey preservative kick-back or drippage from treated wood, precipitation, and surface water run-on to an associated collection system at wood preserving plants.

(33) "Elementary neutralization unit" means a device which:

(i) Is used for neutralizing wastes that are hazardous only because they exhibit the corrosivity characteristic defined in Section R315-261-22, or they are listed in Sections R315-261-30 through 35 only for this reason; and

(ii) Meets the definition of tank, tank system, container, transport vehicle, or vessel in Sections R315-260-10.

(34) "Electronic manifest, or e-Manifest" means the electronic format of the hazardous waste manifest that is obtained from EPA's national e-Manifest system and transmitted electronically to the system, and that is the legal equivalent of EPA Forms 8700-22, Manifest, and 8700-22A, Continuation Sheet.

(35) "Electronic Manifest System, or e-Manifest System" means EPA's national information technology system through which the electronic manifest may be obtained, completed, transmitted, and distributed to users of the electronic manifest and to regulatory agencies.

(36) "EPA hazardous waste number" means the number assigned by EPA to each hazardous waste listed in Sections R315-261-30 through 35 and to each characteristic identified in Sections R315-261-20 through 24.

(37) "EPA identification number" means the number assigned by EPA to each generator, transporter, and treatment, storage, or disposal facility.

(38) "EPA region" means the states and territories found in any one of the following ten regions:

(i) Region I-Maine, Vermont, New Hampshire, Massachusetts, Connecticut, and Rhode Island.

(ii) Region II-New York, New Jersey, Commonwealth of Puerto Rico, and the U.S. Virgin Islands.

(iii) Region III-Pennsylvania, Delaware, Maryland, West Virginia, Virginia, and the District of Columbia.

(iv) Region IV-Kentucky, Tennessee, North Carolina, Mississippi, Alabama, Georgia, South Carolina, and Florida.

(v) Region V-Minnesota, Wisconsin, Illinois, Michigan, Indiana and Ohio.

(vi) Region VI-New Mexico, Oklahoma, Arkansas, Louisiana, and Texas.

(vii) Region VII-Nebraska, Kansas, Missouri, and Iowa.

(viii) Region VIII-Montana, Wyoming, North Dakota, South Dakota, Utah, and Colorado.

(ix) Region IX-California, Nevada, Arizona, Hawaii, Guam, American Samoa, Commonwealth of the Northern Mariana Islands.

(x) Region X-Washington, Oregon, Idaho, and Alaska.

(39) "Equivalent method" means any testing or analytical method approved by the Director under Sections R315-260-21 and 22.

(40) "Existing hazardous waste management (HWM) facility" or "existing facility" means a facility which was in operation or for which construction commenced on or before November 19, 1980. A facility has commenced construction if:

(i) The owner or operator has obtained the Federal, State and local approvals or permits necessary to begin physical construction; and either

(ii)(A) A continuous on-site, physical construction program has begun; or

(B) The owner or operator has entered into contractual obligations—which cannot be cancelled or modified without substantial loss—for physical construction of the facility to be completed within a reasonable time.

(41) "Existing portion" means that land surface area of an existing waste management unit, included in the original Part A permit application, on which wastes have been placed prior to the issuance of a permit.

(42) "Existing tank system" or "existing component" means a tank system or component that is used for the storage or treatment of hazardous waste and that is in operation, or for which installation has commenced on or prior to July 14, 1986, or December 16, 1988 for purposes of implementing the non-HSWA requirements of the tank regulations as promulgated by EPA on July 14, 1986, 51 FR 25470, as they have been incorporated into the corresponding rules of R315. A non-HSWA existing tank system or non-HSWA tank component is one which does not implement any of the requirements of the federal Hazardous and Solid Waste Amendments of 1984 (HSWA) as identified in

Table 1 of 40 CFR 271.1. Installation shall be considered to have commenced if the owner or operator has obtained all Federal, State, and local approvals or permits necessary to begin physical construction of the site or installation of the tank system and if either:

(i) a continuous on-site physical construction or installation program has begun; or

(ii) the owner or operator has entered into contractual obligations—which cannot be canceled or modified without substantial loss—for physical construction of the site or installation of the tank system to be completed within a reasonable time.

(43) "Facility" means:

(i) All contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste, or for managing hazardous secondary materials prior to reclamation. A facility may consist of several treatment, storage, or disposal operational units, e.g., one or more landfills, surface impoundments, or combinations of them.

(ii) For the purpose of implementing corrective action under Section R315-264-101, all contiguous property under the control of the owner or operator seeking a permit under Section 19-6-108. This definition also applies to facilities implementing corrective action under Utah reference.

(iii) Notwithstanding Subsection R315-1-10(43)(ii), a remediation waste management site is not a facility that is subject to Section R315-264-101, but is subject to corrective action requirements if the site is located within such a facility.

(44) "Federal agency" means any department, agency, or other instrumentality of the Federal Government, any independent agency or establishment of the Federal Government including any Government corporation, and the Government Printing Office.

(45) "Federal, State and local approvals or permits necessary to begin physical construction" means permits and approvals required under Federal, State or local hazardous waste control statutes, regulations or ordinances.

(46) "Final closure" means the closure of all hazardous waste management units at the facility in accordance with all applicable closure requirements so that hazardous waste management activities under Rules R315-264

and 265 are no longer conducted at the facility unless subject to the provisions in Section R315-262-34.

(47) "Food-chain crops" means tobacco, crops grown for human consumption, and crops grown for feed for animals whose products are consumed by humans.

(48) "Free liquids" means liquids which readily separate from the solid portion of a waste under ambient temperature and pressure.

(49) "Freeboard" means the vertical distance between the top of a tank or surface impoundment dike, and the surface of the waste contained therein.

(50) "Generator" means any person, by site, whose act or process produces hazardous waste identified or listed in Rule R315-261 or whose act first causes a hazardous waste to become subject to regulation.

(51) "Ground water" means water below the land surface in a zone of saturation.

(52) "Hazard class" means:

(i) The DOT hazard class identified in 49 CFR 172; and

(ii) If the DOT hazard class is "OTHER REGULATED MATERIAL," ORM, the EPA hazardous waste characteristic exhibited by the waste and identified in Sections R315-261-20 through 24.

(53) "Hazardous secondary material" means a secondary material, e.g., spent material, by-product, or sludge, that, when discarded, would be identified as hazardous waste under Rule R315-261.

(54) "Hazardous secondary material generator" means any person whose act or process produces hazardous secondary materials at the generating facility. For purposes of Subsection R315-260-10(c)(59), “generating facility” means all contiguous property owned, leased, or otherwise controlled by the hazardous secondary material generator. For the purposes of Subsections R315-261-2(a)(2)(ii) and R315-261-4(a)(23), a facility that collects hazardous secondary materials from other persons is not the hazardous secondary material generator.

(55) "Hazardous waste constituent" means a constituent that caused the Board to list the hazardous waste in Sections R315-261-30 through 35, or a constituent listed in table 1 of Section R315-261-24.

(56) "Hazardous waste management unit" is a contiguous area of land on or in which hazardous waste is placed, or the largest area in which there is significant likelihood of mixing hazardous waste constituents in the

same area. Examples of hazardous waste management units include a surface impoundment, a waste pile, a land treatment area, a landfill cell, an incinerator, a tank and its associated piping and underlying containment system and a container storage area. A container alone does not constitute a unit; the unit includes containers and the land or pad upon which they are placed.

(57) "In operation" refers to a facility which is treating, storing, or disposing of hazardous waste.

(58) "Inactive portion" means that portion of a facility which is not operated after November 19, 1980. See also “active portion” and “closed portion”.

(59) "Incinerator" means any enclosed device that:

(i) Uses controlled flame combustion and neither meets the criteria for classification as a boiler, sludge dryer, or carbon regeneration unit, nor is listed as an industrial furnace; or

(ii) Meets the definition of infrared incinerator or plasma arc incinerator.

(60) "Incompatible waste" means a hazardous waste which is unsuitable for:

(i) Placement in a particular device or facility because it may cause corrosion or decay of containment materials, e.g., container inner liners or tank walls; or

(ii) Commingling with another waste or material under uncontrolled conditions because the commingling might produce heat or pressure, fire or explosion, violent reaction, toxic dusts, mists, fumes, or gases, or flammable fumes or gases.

(61) "Individual generation site" means the contiguous site at or on which one or more hazardous wastes are generated. An individual generation site, such as a large manufacturing plant, may have one or more sources of hazardous waste but is considered a single or individual generation site if the site or property is contiguous.

(62) "Industrial furnace" means any of the following enclosed devices that are integral components of manufacturing processes and that use thermal treatment to accomplish recovery of materials or energy:

(i) Cement kilns;

(ii) Lime kilns;

(iii) Aggregate kilns;

(iv) Phosphate kilns;

(v) Coke ovens;

(vi) Blast furnaces;

(vii) Smelting, melting and refining furnaces, including pyrometallurgical devices such as cupolas, reverberator furnaces, sintering machine, roasters, and foundry furnaces;

(viii) Titanium dioxide chloride process oxidation reactors;

(ix) Methane reforming furnaces;

(x) Pulping liquor recovery furnaces;

(xi) Combustion devices used in the recovery of sulfur values from spent sulfuric acid;

(xii) Halogen acid furnaces (HAFs) for the production of acid from halogenated hazardous waste generated by chemical production facilities where the furnace is located on the site of a chemical production facility, the acid product has a halogen acid content of at least 3%, the acid product is used in a manufacturing process, and, except for hazardous waste burned as fuel, hazardous waste fed to the furnace has a minimum halogen content of 20% as-generated.

(xiii) Such other devices as the Board may, after notice and comment, add to this list on the basis of one or more of the following factors:

(A) The design and use of the device primarily to accomplish recovery of material products;

(B) The use of the device to burn or reduce raw materials to make a material product;

(C) The use of the device to burn or reduce secondary materials as effective substitutes for raw materials, in processes using raw materials as principal feedstocks;

(D) The use of the device to burn or reduce secondary materials as ingredients in an industrial process to make a material product;

(E) The use of the device in common industrial practice to produce a material product; and

(F) Other factors, as appropriate.

(63) "Infrared incinerator" means any enclosed device that uses electric powered resistance heaters as a source of radiant heat followed by an afterburner using controlled flame combustion and which is not listed as an industrial furnace.

(64) "Inground tank" means a device meeting the definition of “tank” in Section R315-260-10 whereby a portion of the tank wall is situated to any degree within the ground, thereby preventing visual inspection of that external surface area of the tank that is in the ground.

(65) "Injection well" means a well into which fluids are injected. See also “underground injection”.

(66) "Inner liner" means a continuous layer of material placed inside a tank or container which protects the construction materials of the tank or container from the contained waste or reagents used to treat the waste.

(67) "Installation inspector" means a person who, by reason of his knowledge of the physical sciences and the principles of engineering, acquired by a professional education and related practical experience, is qualified to supervise the installation of tank systems.

(68) "Intermediate facility" means any facility that stores hazardous secondary materials for more than 10 days, other than a hazardous secondary material generator or reclaimer of such material.

(69) "International shipment" means the transportation of hazardous waste into or out of the jurisdiction of the United States.

(70) "Lamp," also referred to as “universal waste lamp”, is defined as the bulb or tube portion of an electric lighting device. A lamp is specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infra-red regions of the electromagnetic spectrum. Examples of common universal waste electric lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps.

(71) "Land-based unit" means an area where hazardous secondary materials are placed in or on the land before recycling. This definition does not include land-based production units.

(72) "Landfill" means a disposal facility or part of a facility where hazardous waste is placed in or on land and which is not a pile, a land treatment facility, a surface impoundment, an underground injection well, a salt dome formation, a salt bed formation, an underground mine, a cave, or a corrective action management unit.

(73) "Landfill cell" means a discrete volume of a hazardous waste landfill which uses a liner to provide isolation of wastes from adjacent cells or wastes. Examples of landfill cells are trenches and pits.

(74) "Land treatment facility" means a facility or part of a facility at which hazardous waste is applied onto or incorporated into the soil surface; such facilities are disposal facilities if the waste will remain after closure.

(75) "Leachate" means any liquid, including any suspended components in the liquid, that has percolated through or drained from hazardous waste.

(76) "Leak-detection system" means a system capable of detecting the failure of either the primary or secondary containment structure or the presence of a release of hazardous waste or accumulated liquid in the secondary containment structure. Such a system shall employ operational controls, e.g., daily visual inspections for releases into the secondary containment system of aboveground tanks, or consist of an interstitial monitoring device designed to detect continuously and automatically the failure of the primary or secondary containment structure or the presence of a release of hazardous waste into the secondary containment structure.

(77) "Liner" means a continuous layer of natural or man-made materials, beneath or on the sides of a surface impoundment, landfill, or landfill cell, which restricts the downward or lateral escape of hazardous waste, hazardous waste constituents, or leachate.

(78) "Management" or "hazardous waste management" means the systematic control of the collection, source separation, storage, transportation, processing, treatment, recovery, and disposal of hazardous waste.

(79) "Manifest" is defined in Subsection 19-6-102(14) and is further defined as: the shipping document EPA Form 8700-22, including, if necessary, EPA Form 8700-22A, or the electronic manifest, originated and signed in accordance with the applicable requirements of Rules R315-262 through 265.

(80) "Manifest tracking number" means: The alphanumeric identification number, i.e., a unique three letter suffix preceded by nine numerical digits, which is pre-printed in Item 4 of the Manifest by a registered source.

(81) "Mercury-containing equipment" means a device or part of a device, including thermostats, but excluding batteries and lamps, that contains elemental mercury integral to its function.

(82) "Mining overburden returned to the mine site" means any material overlying an economic mineral deposit which is removed to gain access to that deposit and is then used for reclamation of a surface mine.

(83) "Miscellaneous unit" means a hazardous waste management unit where hazardous waste is treated, stored, or

disposed of and that is not a container, tank, surface impoundment, pile, land treatment unit, landfill, incinerator, boiler, industrial furnace, underground injection well with appropriate technical standards under 40 CFR 146, containment building, corrective action management unit, unit eligible for a research, development, and demonstration permit under Section R315-270-65, or staging pile.

(84) "Monitoring" means all procedures used to systematically inspect and collect data on operational parameters of the facility or on the quality of the air, ground water, surface water, or soils.

(85) "Movement" means that hazardous waste transported to a facility in an individual vehicle.

(86) "New hazardous waste management facility" or "new facility" means a facility which began operation, or for which construction commenced after November 19, 1980. See also "Existing hazardous waste management facility".

(87) "New tank system" or "new tank component" means a tank system or component that will be used for the storage or treatment of hazardous waste and for which installation has commenced after July 14, 1986; except, however, for purposes of Subsections R315-264-193(g)(2) and 40 CFR 265.193(g)(2), which is adopted and incorporated by reference, a new tank system is one for which construction commences after July 14, 1986, or December 16, 1988 for purposes of implementing the non-HSWA requirements of the tank regulations as promulgated by EPA on July 14, 1986, 51 FR 25470, as they have been incorporated into the corresponding rules of R315; except, however, for purposes of 40 CFR 265-193(g)(2), which is adopted and incorporated by reference, and Subsection R315-264-193(g)(2), a new tank system is one which construction commences after July 14, 1986. A non-HSWA new tank system or non-HSWA new tank component is one which does not implement any of the requirements of the federal Hazardous and Solid Waste Amendments of 1984 (HSWA) as identified in Table 1 of 40 CFR 271.1. See also “existing tank system.”

(88) "No free liquids, as used in Subsections R315-261-4(a)(26) and R315-261-4(b)(18)", means that solvent-contaminated wipes may not contain free liquids as determined by Method 9095B, Paint Filter Liquids Test, included in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW-846, and that there is no free liquid in the container holding the wipes.

No free liquids may also be determined using another standard or test method as defined by the Director.

(89) "On ground tank" means a device meeting the definition of “tank” in Section R315-260-10 and that is situated in such a way that the bottom of the tank is on the same level as the adjacent surrounding surface so that the external tank bottom cannot be visually inspected.

(90) "On-site" means the same or geographically contiguous property which may be divided by public or private right-of-way, provided the entrance and exit between the properties is at a cross-roads intersection, and access is by crossing as opposed to going along, the right-of-way. Non-contiguous properties owned by the same person but connected by a right-of-way which he controls and to which the public does not have access, is also considered on-site property.

(91) "Open burning" means the combustion of any material without the following characteristics:

(i) Control of combustion air to maintain adequate temperature for efficient combustion,

(ii) Containment of the combustion-reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion, and

(iii) Control of emission of the gaseous combustion products. See also “incineration” and “thermal treatment”.

(92) "Operator" means the person responsible for the overall operation of a facility.

(93) "Owner" means the person who owns a facility or part of a facility.

(94) "Partial closure" means the closure of a hazardous waste management unit in accordance with the applicable closure requirements of Rules R315-264 and 265 at a facility that contains other active hazardous waste management units. For example, partial closure may include the closure of a tank, including its associated piping and underlying containment systems, landfill cell, surface impoundment, waste pile, or other hazardous waste management unit, while other units of the same facility continue to operate.

(95) "Polychlorinated biphenyl, PCB" and "PCBs" means any chemical substance that is limited to the biphenyl molecule that has been chlorinated to varying degrees or any combination of substances which contains such substance. PCB and PCBs as contained in PCB items are defined in Section R315-260-10. For any purposes under Rules R315-260

through 266, 268, 270, 273, R315-15, and R315-5-101, inadvertently generated non-Aroclor PCBs are defined as the total PCBs calculated following division of the quantity of monochlorinated biphenyls by 50 and dichlorinated biphenyls by 5.

(96) "PCB Item" means any PCB Article, PCB Article Container, PCB Container, PCB Equipment, or anything that deliberately or unintentionally contains or has as a part of it any PCB or PCBs.

(97) "Permit" means the plan approval as required by subsection 19-6-108(3)(a), or equivalent control document issued by the Director to implement the requirements of the Utah Solid and Hazardous Waste Act;

(98) "Permittee" is defined in Subsection 19-6-102(18) and includes any person who has received an approval of a hazardous waste operation plan under Section 19-6-108 and Rule R315-262 or a Federal RCRA permit for a treatment, storage, or disposal facility.

(99) "Person" means an individual, trust, firm, joint stock company, Federal Agency, corporation, including a government corporation, partnership, association, State, municipality, commission, political subdivision of a State, or any interstate body.

(100) "Personnel" or "facility personnel" means all persons who work at, or oversee the operations of, a hazardous waste facility, and whose actions or failure to act may result in noncompliance with the requirements of Rules R315-264 or 265.

(101) "Pesticide" means any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or desiccant, other than any article that:

(i) Is a new animal drug under FFDCA section 201(w), or

(ii) Is an animal drug that has been determined by regulation of the Secretary of Health and Human Services not to be a new animal drug, or

(iii) Is an animal feed under FFDCA section 201(x) that bears or contains any substances described by Subsection R315-260-10(107)(i) or (ii).

(102) "Pile" means any non-containerized accumulation of solid, nonflowing hazardous waste that is used for treatment or storage and that is not a containment building.

(103) "Plasma arc incinerator" means any enclosed device using a high intensity electrical discharge or arc as a source of heat followed by an afterburner using controlled flame combustion and which is not listed as an industrial furnace.

(104) "POHC's" means principle organic hazardous constituents.

(105) "Point source" means any discernible, confined, and discrete conveyance, including, but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture.

(106) "Precipitation run-off" means water generated from naturally occurring storm events. If the precipitation run-off has been in contact with a waste defined in Sections R315-261-20 through 24, it qualifies as "precipitation run-off" if the water does not exhibit any of the characteristics identified in Section R315-261-20 through 24. If the precipitation run-off has been in contact with a waste listed in Sections R315-261-30 through 35, then it qualifies as "precipitation run-off" when the water has been excluded under Section R315-260-22. Water containing any leachate does not qualify as "precipitation run-off".

(107) "Publicly owned treatment works" or "POTW" means any device or system used in the treatment, including recycling and reclamation, of municipal sewage or industrial wastes of a liquid nature which is owned by the State or a political subdivision within the State. This definition includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment.

(108) "Qualified Ground-Water Scientist" means a scientist or engineer who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and has sufficient training and experience in ground-water hydrology and related fields as may be demonstrated by state registration, professional certifications, or completion of accredited university courses that enable that individual to make sound professional judgements regarding ground-water monitoring and contaminant fate and transport.

(109) "RCRA" means the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended, 42 U.S.C. section 6901 et seq.

(110) "Remanufacturing" means processing a higher-value hazardous secondary material in order to manufacture a product that serves a similar functional purpose as the original commercial-grade material. For the purpose of this definition, a hazardous secondary material is considered higher-value if it was generated from the use of a commercial-grade material in a manufacturing process and can be remanufactured into a similar commercial-grade material.

(111) "Remediation waste" means all solid and hazardous wastes, and all media, including ground water, surface water, soils, and sediments, and debris, that are managed for implementing cleanup.

(112) "Remediation waste management site" means a facility where an owner or operator is or will be treating, storing or disposing of hazardous remediation wastes. A remediation waste management site is not a facility that is subject to corrective action under Section R315-264-101, but is subject to corrective action requirements if the site is located in such a facility.

(113)(i) "Replacement unit" means a landfill, surface impoundment, or waste pile unit:

(A) from which all or substantially all of the waste is removed; and

(B) that is subsequently reused to treat, store, or dispose of hazardous waste.

(ii) "Replacement unit" does not apply to a unit from which waste is removed during closure, if the subsequent reuse solely involves the disposal of waste from that unit and other closing units or corrective action areas at the facility, in accordance with a closure plan approved by the Director or a corrective action approved by the Director.

(114) "Representative sample" means a sample of a universe or whole, e.g., waste pile, lagoon, ground water, which can be expected to exhibit the average properties of the universe or whole.

(115) "Run-off" means any rainwater, leachate, or other liquid that drains over land from any part of a facility.

(116) "Run-on" means any rainwater, leachate, or other liquid that drains over land onto any part of a facility.

(117) "Saturated zone" or "zone of saturation" means that part of the earth's crust in which all voids are filled with water.

(118) "Sludge" means any solid, semi-solid, or liquid waste generated from a municipal, commercial, or industrial

wastewater treatment plant, water supply treatment plant, or air pollution control facility exclusive of the treated effluent from a wastewater treatment plant.

(119) "Sludge dryer" means any enclosed thermal treatment device that is used to dehydrate sludge and that has a maximum total thermal input, excluding the heating value of the sludge itself, of 2,500 Btu/lb of sludge treated on a wet-weight basis.

(120) "Small Quantity Generator" means a generator who generates less than 1000 kg of hazardous waste in a calendar month.

(121) "Solid Waste Management Unit" means any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units Include any area at a facility at which solid wastes have been routinely and systematically released.

(122) "Solvent-contaminated wipe" means:

(i) A wipe that, after use or after cleaning up a spill, either:

(A) Contains one or more of the F001 through F005 solvents listed in Section R315-261-31 or the corresponding P- or U- listed solvents found in Section R315-261-33;

(B) Exhibits a hazardous characteristic found in Sections R315-261-20 through 24 when that characteristic results from a solvent listed in Rule R315-261; and/or

(C) Exhibits only the hazardous waste characteristic of ignitability found in Section R315-261-21 due to the presence of one or more solvents that are not listed in Rule R315-261.

(ii) Solvent-contaminated wipes that contain listed hazardous waste other than solvents, or exhibit the characteristic of toxicity, corrosivity, or reactivity due to contaminants other than solvents, are not eligible for the exclusions at Subsections R315-261-4(a)(26) and R315-261-4(b)(18).

(123) "Sorbent" means a material that is used to soak up free liquids by either adsorption or absorption, or both.

(124) "Sorb" means to either adsorb or absorb, or both.

(125) A "spent material" is any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing.

(126) "Spill" means the accidental discharging, spilling, leaking, pumping, pouring, emitting, emptying,

releasing, or dumping of hazardous wastes or materials which, when spilled, become hazardous wastes, into or on any land or water.

(127) "Staging pile" means an accumulation of solid, non-flowing remediation waste, as defined in Section R315-260-10, that is not a containment building and that is used only during remedial operations for temporary storage at a facility. Staging piles shall be designated by the Director according to the requirements of Section R315-264-554.

(128) "State" means the state of Utah.

(129) "Storage" is defined in Subsection 19-6-102(20) and includes the holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed of, or stored elsewhere.

(130) "Sump" means any pit or reservoir that meets the definition of tank and those troughs/trenches connected to it that serve to collect hazardous waste for transport to hazardous waste storage, treatment, or disposal facilities; except that as used in the landfill, surface impoundment, and waste pile rules, "sump" means any lined pit or reservoir that serves to collect liquids drained from a leachate collection and removal system or leak detection system for subsequent removal from the system.

(131) "Surface impoundment" or "impoundment" means a facility or part of a facility which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials, although it may be lined with man-made materials, which is designed to hold an accumulation of liquid wastes or wastes containing free liquids, and which is not an injection well. Examples of surface impoundments are holding, storage, settling, and aeration pits, ponds, and lagoons.

(132) "Tank" means a stationary device, designed to contain an accumulation of hazardous waste which is constructed primarily of non-earthen materials, e.g., wood, concrete, steel, plastic, which provide structural support.

(133) "Tank system" means a hazardous waste storage or treatment tank and its associated ancillary equipment and containment system.

(134) "TEQ" means toxicity equivalence, the international method of relating the toxicity of various dioxin/furan congeners to the toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin.

(135) "Thermal treatment" means the treatment of hazardous waste in a device which uses elevated temperatures

as the primary means to change the chemical, physical, or biological character or composition of the hazardous waste. Examples of thermal treatment processes are incineration, molten salt, pyrolysis, calcination, wet air oxidation, and microwave discharge. See also "incinerator" and "open burning".

(136) "Thermostat" means a temperature control device that contains metallic mercury in an ampule attached to a bimetal sensing element, and mercury-containing ampules that have been removed from these temperature control devices in compliance with the requirements of Subsections R315-273-13(c)(2) or R315-273-33(c)(2).

(137) "Totally enclosed treatment facility" means a facility for the treatment of hazardous waste which is directly connected to an industrial production process and which is constructed and operated in a manner which prevents the release of any hazardous waste or any constituent thereof into the environment during treatment. An example is a pipe in which waste acid is neutralized.

(138) "Transfer facility" means any transportation-related facility, including loading docks, parking areas, storage areas and other similar areas where shipments of hazardous waste or hazardous secondary materials are held during the normal course of transportation.

(139) "Transport vehicle" means a motor vehicle or rail car used for the transportation of cargo by any mode. Each cargo-carrying body; trailer, railroad freight car, etc.; is a separate transport vehicle.

(140) Transportation" is defined in Subsection 19-6-102(21) and includes the movement of hazardous waste by air, rail, highway, or water.

(141) "Transporter" means a person engaged in the offsite transportation of hazardous waste by air, rail, highway, or water.

(142)(i) "Treatability Study" means a study in which a hazardous waste is subjected to a treatment process to determine:

(A) Whether the waste is amenable to the treatment process,

(B) what pretreatment, if any, is required,

(C) the optimal process conditions needed to achieve the desired treatment,

(D) the efficiency of a treatment process for a specific waste or wastes, or

(E) the characteristics and volumes of residuals from a particular treatment process.

(ii) Also included in this definition for the purpose of the Subsection R315-261-4 (e) and (f) exemptions are liner compatibility, corrosion, and other material compatibility studies and toxicological and health effects studies.

(iii) A "treatability study" is not a means to commercially treat or dispose of hazardous waste.

(143) "Treatment" is defined in Subsection 19-6-102(22) and includes any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste, or so as to recover energy or material resources from the waste, or so as to render such waste non-hazardous, or less hazardous; safer to transport, store, or dispose of; or amenable for recovery, amenable for storage, or reduced in volume.

(144) "Treatment zone" means a soil area of the unsaturated zone of a land treatment unit within which hazardous constituents are degraded, transformed, or immobilized.

(145) "Underground injection" means the subsurface emplacement of fluids through a bored, drilled or driven well; or through a dug well, where the depth of the dug well is greater than the largest surface dimension. See also "injection well".

(146) "Underground tank" means a device meeting the definition of "tank" in Section R315-260-10 whose entire surface area is totally below the surface of and covered by the ground.

(147) "Unfit-for use tank system" means a tank system that has been determined through an integrity assessment or other inspection to be no longer capable of storing or treating hazardous waste without posing a threat of release of hazardous waste to the environment.

(148) "United States" means the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands.

(149) "Universal waste" means any of the following hazardous wastes that are managed under the universal waste requirements of Rule R315-273:

(i) Batteries as described in Section R315-273-2;

(ii) Pesticides as described in Section R315-273-3;

(iii) Mercury-containing equipment as described in Section R315-273-4;

(iv) Lamps as described in Section R315-273-5;

(v) Antifreeze as described in Subsection R315-273-6(a); and

(vi) Aerosol cans as described in Subsection R315-273-6(b).

(150) Universal Waste Handler

(i) Means:

(A) A generator of universal waste; or

(B) The owner or operator of a facility, including all contiguous property, that receives universal waste from other universal waste handlers, accumulates universal waste, and sends universal waste to another universal waste handler, to a destination facility, or to a foreign destination.

(ii) Does not mean:

(A) A person who treats, except under the provisions of Subsection R315-273-13(a) or (c), or R315-273-33(a) or (c), disposes of, or recycles universal waste; or

(B) A person engaged in the off-site transportation of universal waste by air, rail, highway, or water, including a universal waste transfer facility.

(151) "Universal Waste Transporter" means a person engaged in the off-site transportation of universal waste by air, rail, highway, or water.

(152) “Unsaturated zone” or “zone of aeration” means the zone between the land surface and the water table.

(153) "Uppermost aquifer" means the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within the facility's property boundary.

(154) Used oil is defined in Subsection 19-6-703(19).

(155) "User of the electronic manifest system" means a hazardous waste generator, a hazardous waste transporter, an owner or operator of a hazardous waste treatment, storage, recycling, or disposal facility, or any other person that:

(i) Is required to use a manifest to comply with:

(A) Any federal or state requirement to track the shipment, transportation, and receipt of hazardous waste or other waste material that is shipped from the site of generation to an off-site designated facility for treatment, storage, recycling, or disposal; or

(B) Any federal or state requirement to track the shipment, transportation, and receipt of rejected wastes or

regulated container residues that are shipped from a designated facility to an alternative facility, or returned to the generator; and

(ii) Elects to use the system to obtain, complete and transmit an electronic manifest format supplied by the EPA electronic manifest system, or

(iii) Elects to use the paper manifest form and submits to the system for data processing purposes a paper copy of the manifest, or data from such a paper copy, in accordance with Subsections R315-264-71(a)(2)(v) or 40 CFR 265.71(a)(2)(v) which is adopted and incorporated by reference. These paper copies are submitted for data exchange purposes only and are not the official copies of record for legal purposes.

(156) "Vessel" includes every description of watercraft, used or capable of being used as a means of transportation on the water.

(157) "Waste management area" means the limit projected in the horizontal plane of the area on which waste will be placed during the active life of a regulated unit. The waste management area includes horizontal space taken up by any liner, dike, or other barrier designed to contain waste in a regulated unit. If the facility contains more than one regulated unit, the waste management area is described by an imaginary line circumscribing the several regulated units.

(158) "Wastewater treatment unit" means a device which:

(i) Is part of a wastewater treatment facility that is subject to regulation under either section 402 or 307(b) of the Clean Water Act; and

(ii) Receives and treats or stores an influent wastewater that is a hazardous waste as defined in Section R315-261-3, or that generates and accumulates a wastewater treatment sludge that is a hazardous waste as defined in Section R315-261-3, or treats or stores a wastewater treatment sludge which is a hazardous waste as defined in Section R315-261-3; and

(iii) Meets the definition of tank or tank system in Section R315-260-10.

(159) "Water, bulk shipment" means the bulk transportation of hazardous waste which is loaded or carried on board a vessel without containers or labels.

(160) "Well" means any shaft or pit dug or bored into the earth, generally of a cylindrical form, and often walled with bricks or tubing to prevent the earth from caving in.

(161) "Well injection": See "underground injection"

(162) "Wipe" means a woven or non-woven shop towel, rag, pad, or swab made of wood pulp, fabric, cotton, polyester blends, or other material.

(163) "Zone of engineering control" means an area under the control of the owner/operator that, upon detection of a hazardous waste release, can be readily cleaned up prior to the release of hazardous waste or hazardous constituents to ground water or surface water.

R315-260-11. References.

(a) For purposes of Rules R315-260 through 266, 268, 270, and 273, Rule R315-15 and Rule R315-101, 40 CFR 260.11, 2015 ed, is adopted and incorporated by reference.

R315-260-12. Definitions for Rule R315-101.

(a) For purposes of Rule R315-101 regarding cleanup action and Risk-Based Closure Standards, the following terms are defined:

(1) "Acceptable Risk" means Cancer Risk greater than 1 x 10-6 but less than or equal 1 x 10-4 or a Hazard Index less than or equal to one with justifiable, reasonable and practicable measures in place to reduce and control risk within the range.

(2) "Appropriate Site Management Activities" means measures that are reasonable and practical that will be taken to control and reduce risks greater than 1 x 10-6 and less than 1 x 10-4 for carcinogen and Hazard Index equal to or less than one for non-carcinogens under both current and reasonably anticipated future land use conditions, e.g. institutional controls, engineering controls, groundwater monitoring, post-closure care, or corrective action and ensuring that all assumptions made in the estimation of Cancer Risk and non-cancer hazard in the risk assessment report are not violated.

(3) "Area of Contamination" means a Hazardous Waste Management Unit or a Solid Waste Management Unit or an area where a release has occurred.

(4) "The boundary" is defined as the furthest extent where contamination from a defined source has migrated in any medium at the time the release is first identified.

(5) "Cleanup" Means the range of corrective action activities that occur in the context of addressing environmental contamination at RCRA sites to lower contaminant concentration or decrease chemical toxicity. Activities may include waste removal, contaminated media removal or source reduction (e.g. excavation, pumping), in-place treatment of waste or contaminated media (e.g. bioremediation), containment of waste or contaminated media, (e.g. barrier walls, low permeability covers, liners), or various combination of these approaches. Waste cover up or capping is not considered waste cleanup.

(6) "Concentration Term - 95% Upper Confidence Limit" or "C"
means the intake variable and it is an estimate of the arithmetic average concentration for a contaminant based on a set of site sampling results. Because of the uncertainty associated with estimating the true average concentration at a site, the 95% Upper Confidence Limit of the arithmetic mean is used to represent this variable and provides reasonable confidence that the true site average will not be underestimated.

(7) "Contaminate" means to render a medium polluted through the introduction of hazardous waste or hazardous constituents as identified in Rule R315-261, Appendix VIII.

(8) “Corrective Action" means the cleanup process or program under RCRA and all activities related to the investigation, characterization, and cleanup of release of hazardous waste or hazardous constituents from Solid Waste Management Units or Hazardous Waste Management Units at a permitted or interim status Treatment Storage Disposal Facilities or any environmental medium.

(9) "Corrective Action Complete With Controls" is a condition of a Solid Waste Management Unit, a Hazardous Waste Management Unit, an Area of Contamination or a contaminated site at closure meeting the requirements of R315-101-6(k)(4).

(10) "Corrective Action Complete Without Controls" is a condition of a Solid Waste Management Unit, a Hazardous Waste Management Unit, or a contaminated site at closure equivalent to a no further action meeting the requirements of R315-101-6(k)(5) or R315-101-6(f) or R315-101-6(j).

(11) Environment means the surroundings or conditions in which a person, animal, or plant lives or operates.

(12) "Hazard Index" means the sum of Hazard Quotients.

(13) "Hazard Quotient" means the ratio of exposed dose to some Reference Dose or Reference Concentration.

(14) "Natural Resources" means land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources.

(15) "No Further Action" means the state of a Solid Waste Management Unit, a Hazardous Waste Management Unit, or a contaminated site at closure meeting the requirements in R315-101-6(f) or R315-101-6(j) and it is equivalent to Corrective Action Complete Without Controls if the site was under corrective action activities. No further action is equivalent to unrestricted land use.

(16) "Potentially Complete Exposure Pathway" is a pathway which, due to current site conditions is incomplete, but could become complete at a future time because of changing site practices. An example would be the ingestion pathway of groundwater from a residential well in a high total dissolved solids aquifer. This pathway could be complete if treatment technologies like reverse osmosis become economically feasible and are observed to be employed successfully in that aquifer.

(17) "Reasonable Maximum Exposure" means the highest exposure that is reasonably expected to occur at a site. Reasonable Maximum Exposure combines upper-bound and mid-range exposure factors so that the result represents an exposure scenario that is both protective and reasonable; not the worst possible case.

(18) "Release" means spill or discharge of hazardous waste, hazardous constituents, or material that becomes hazardous waste when released to the environment.

(19) "Responsible Party" means the owner or operator of a facility, or any other person responsible for the release of hazardous waste or hazardous constituents.

(20) "Risk-Based Clean Closure" means closure of a site where hazardous waste was managed or any medium that has been contaminated by a release of hazardous waste or hazardous constituents, and where hazardous waste or hazardous constituents remain at the site in any medium at concentrations determined, in this rule, to cause minimal levels of risk to human health and the environment so as to require no further action or monitoring on the part of the Responsible Party nor any notice of hazardous waste management on the deed to the property.

(21) "Risk Based Concentration" means the concentration of a contaminant the values of which are

derived from equations combining toxicity factors with standard exposure scenarios to calculate chemical concentrations corresponding to some fixed levels of risks in any media (water, air, fish tissue, sediment, and soil).

(22) "Robust Statistic" means a statistic that is resistant to errors in the results, produced by deviations from assumptions, e.g., of normality. This means that the limits are not susceptible to outliers, or distributional assumptions. For example, if the limits are centered on the median, instead of on the mean, or on a modified, "robust mean", and constructed with suitable weighting, or influence, function, they could be considered "robust."

(23) "Site" means the Area of Contamination and any other area that could be impacted by the released contaminants, or could influence the migration of those contaminants, regardless of whether the site is owned by the Responsible Party.

(24) "Target Risk" means any specified risk level.

R315-260-19. Variances Authorized.

(a) Variances shall be granted by the Board only to the extent allowed under State and Federal law.

(b) The Board may consider a variance request in accordance with the standard established in section 19-6-111.(c) The Board may, at its own instance, review any variance granted during the term for which a variance was granted.

(d) A person applying for a variance shall submit the application, in writing, to the Director. The application shall provide the following:

(1) Citation of the statutory, regulatory, or permit requirement from which the variance is sought;

(2) For variances for which the Board promulgates or has promulgated specific rules, information meeting the requirements of those rules;

(3) Information demonstrating that application of or compliance with the requirement would cause undue or unreasonable hardship on the person applying for the variance;

(4) Proposed alternative requirements, if any;

(5) Information demonstrating that the variance will achieve the purpose and intent of the statutory, regulatory, or permit provision from which the variance is sought;

(6) Information demonstrating that any alternative requirement or requirements will adequately protect human health and the environment; and

(7) If no alternative requirement is proposed, information demonstrating that if the variance is granted, human health and the environment will be adequately protected.

(e) A person applying for a variance shall provide such additional information as the Board or the Director requires.

(f) Nothing in Subsection R315-260-19(d) or (e) limits the authority of the Board to grant variances in accordance with the standard established in Section 19-6-111. A person applying for a variance under Section R315-260-19 shall provide such information described in Subsection R315-260-19(d) as the Director determines.

R315-260-20. Petition to Amend Rules.

(a) It is the intent of the Board to insure the compatibility and equivalency of Rules R315-260 through 266, 268, 270, 273 and 124 with the regulations promulgated by EPA under the Resource Conservation and Recovery Act of 1976.

(b) Any person may petition the Board to modify or revoke any provision in Rules R315-260 through 266, 268, 270, 273, Rule R315-15 Rule R315-101, R315-102, and R315-124. A petition shall be considered under the procedures outlined in Section 63G-3-601 and Rule R15-2.

R315-260-21. Petitions for Equivalent Testing or Analytical Methods.

(a) Any person seeking to add a testing or analytical method to Rules R315-261, R315-264, or R315-265 may petition for a regulatory amendment under Section R315-260-21 and Section R315-260-20. To be successful, the person shall demonstrate to the satisfaction of the Board that the proposed method is equal to or superior to the corresponding method prescribed in Rules R315-261, R315-264, or R315-265, in terms of its sensitivity, accuracy, and precision, i.e., reproducibility.

(b) Each petition shall include, in addition to the information required by Section R315-260-20:

(1) A full description of the proposed method, including all procedural steps and equipment used in the method;

(2) A description of the types of wastes or waste matrices for which the proposed method may be used;

(3) Comparative results obtained from using the proposed method with those obtained from using the relevant or corresponding methods prescribed in Rules R315-261, R315-264, or R315-265;

(4) An assessment of any factors which may interfere with, or limit the use of, the proposed method; and

(5) A description of the quality control procedures necessary to ensure the sensitivity, accuracy and precision of the proposed method.

(c) After receiving a petition for an equivalent method, the Board may request any additional information on the proposed method which he may reasonably require to evaluate the method.

(d) If the Board amends the rules to permit use of a new testing method, the method shall be incorporated by reference in Section R315-260-11.

(e) Petitioner may, alternatively, proceed under the provisions of 40 CFR 260.21 to have an alternative analytical method approved by EPA. In the event approval is granted, the petitioner shall so notify the Board and the Director and the decision of EPA shall be binding upon the Board and the Director.

R315-260-22. Petitions to Amend Rule to Exclude a Waste Produced at a Particular Facility.

(a) Any person seeking to exclude a waste at a particular generating facility from the lists in Sections R315-261-30 through 35 may petition for a regulatory amendment under Section R315-260-22 and Section R315-260-20. To be successful:

(1) The petitioner shall demonstrate to the satisfaction of the Board that the waste produced by a particular generating facility does not meet any of the criteria under which the waste was listed as a hazardous or an acutely hazardous waste; and

(2) Based on a complete application, the Board shall determine, where it has a reasonable basis to believe that factors, including additional constituents, other than those for which the waste was listed could cause the waste to be a hazardous waste, that such factors do not warrant retaining the waste as a hazardous waste. A waste which is so excluded, however, still may be a hazardous waste by operation of Sections 261-20 through 24.

(b) The procedures in Sections R315-260-22 and R315-260-20 may also be used to petition the Board for a regulatory amendment to exclude from Subsections R315-261-3(a)(2)(ii) or (c), a waste which is described in Subsections R315-261-3(a)(2)(ii) or (c) and is either a waste listed Sections R315-261-30 through 35 or is derived from a waste listed in Sections R315-261-30 through 35. This exclusion may only be issued for a particular generating, storage, treatment, or disposal facility. The petitioner shall make the same demonstration as required by Subsection R315-260-22(a). Where the waste is a mixture of solid waste and one or more listed hazardous wastes or is derived from one or more hazardous wastes, his demonstration shall be made with respect to the waste mixture as a whole; analyses shall be conducted for not only those constituents for which the listed waste contained in the mixture was listed as hazardous, but also for factors, including additional constituents, that could cause the waste mixture to be a hazardous waste. A waste which is so excluded may still be a hazardous waste by operation of Sections R315-261-20 through 24.

(c) If the waste is listed with codes “I”, “C”, “R”, or “E”, in Sections R315-261-30 through 35,

(1) The petitioner shall show that the waste does not exhibit the relevant characteristic for which the waste was listed as defined in Sections R315-261-21 through 24 using any applicable methods prescribed therein. The petitioner also shall show that the waste does not exhibit any of the other characteristics defined in Sections R315-261-21 through 24 using any applicable methods prescribed therein;

(2) Based on a complete application, the Board shall determine, where it has a reasonable basis to believe that factors, including additional constituents, other than those for which the waste was listed could cause the waste to be hazardous waste, that such factors do not warrant retaining the waste as a hazardous waste. A waste which is so excluded, however, still may be a hazardous waste by operation of Sections R315-261-20 through 24.

(d) If the waste is listed with code “T” in Sections R315-2611-30 through 35,

(1) The petitioner shall demonstrate that the waste:

(i) Does not contain the constituent or constituents, as defined in appendix VII of Rule R315-261, that caused the waste to be listed; or

(ii) Although containing one or more of the hazardous constituents, as defined in appendix VII of Rule R315-261, that caused the waste to be listed, does not meet the criterion of Subsection R315-261-11(a)(3) when considering the factors in Subsections R315-261-11(a)(3)(i) through (xi) under which the waste was listed as hazardous; and

(2) Based on a complete application, the Board shall determine, where it has a reasonable basis to believe that factors, including additional constituents, other than those for which the waste was listed could cause the waste to be a hazardous waste, that such factors do not warrant retaining the waste as a hazardous waste; and

(3) The petitioner shall demonstrate that the waste does not exhibit any of the characteristics defined in Sections R315-261.21 Through 24 using any applicable methods prescribed therein;

(4) A waste which is so excluded, however, still may be a hazardous waste by operation of Sections R315-261-20 through 24.

(e) If the waste is listed with the code “H” in Sections R315-261-30 through 35,

(1) The petitioner shall demonstrate that the waste does not meet the criterion of Subsection R315-261-11(a)(2); and

(2) Based on a complete application, the Board shall determine, where it has a reasonable basis to believe that additional factors, including additional constituents, other than those for which the waste was listed could cause the waste to be a hazardous waste, that such factors do not warrant retaining the waste as a hazardous waste; and

(3) The petitioner shall demonstrate that the waste does not exhibit any of the characteristics defined in Sections R315-261-21 through 24 using any applicable methods prescribed therein;

(4) A waste which is so excluded, however, still may be a hazardous waste by operation of Sections R315-261-20 through 24.

(f) Reserved.

(g) Reserved.

(h) Demonstration samples shall consist of enough representative samples, but in no case less than four samples, taken over a period of time sufficient to represent the variability or the uniformity of the waste.

(i) Each petition shall include, in addition to the information required by subsection R315-260-20(b):

(1) The name and address of the laboratory facility performing the sampling or tests of the waste;

(2) The names and qualifications of the persons sampling and testing the waste;

(3) The dates of sampling and testing;

(4) The location of the generating facility;

(5) A description of the manufacturing processes or other operations and feed materials producing the waste and an assessment of whether such processes, operations, or feed materials can or might produce a waste that is not covered by the demonstration;

(6) A description of the waste and an estimate of the average and maximum monthly and annual quantities of waste covered by the demonstration;

(7) Pertinent data on and discussion of the factors delineated in the respective criterion for listing a hazardous waste, where the demonstration is based on the factors in Subsection R315-261-11(a)(3);

(8) A description of the methodologies and equipment used to obtain the representative samples;

(9) A description of the sample handling and preparation techniques, including techniques used for extraction, containerization and preservation of the samples;

(10) A description of the tests performed, including results;

(11) The names and model numbers of the instruments used in performing the tests; and

(12) The following statement signed by the generator of the waste or his authorized representative:

(i) I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(j) After receiving a petition for an exclusion, the Board may request any additional information which the Board may reasonably require to evaluate the petition.

(k) An exclusion will only apply to the waste generated at the individual facility covered by the

demonstration and will not apply to waste from any other facility.

(l) The Board may exclude only part of the waste for which the demonstration is submitted where it has reason to believe that variability of the waste justifies a partial exclusion.

(m) Petitioner may, alternatively, proceed under the provisions of 40 CFR 260.22 to have a particular waste delisted by EPA. In the event delisting is granted, the petitioner shall so notify the Board and the Director and the decision of EPA will be binding upon the Board and the Director unless, within 30 days after such notification, the Board specifically overrules the decision of EPA. In such event, the petitioner may petition the Board directly under Section R315-260-22 for the relief sought.

R315-260-23. Petitions To Amend Rule R315-273 To Include Additional Hazardous Wastes.

(a) Any person seeking to add a hazardous waste or a category of hazardous waste to the universal waste regulations of Rule R315-273 may petition for a regulatory amendment under Section R315-260-23 Section R315-260-20, and Sections R315-273-80 and 81.

(b) To be successful, the petitioner shall demonstrate to the satisfaction of the Board that regulation under the universal waste regulations of Rule R315-273: Is appropriate for the waste or category of waste; will improve management practices for the waste or category of waste; and will improve implementation of the hazardous waste program. The petition shall include the information required by Subsection R315-260-20(b). The petition should also address as many of the factors listed in Section R315-273-81 as are appropriate for the waste or category of waste addressed in the petition.

(c) The Board shall grant or deny a petition using the factors listed in Section R315-273-81. The decision shall be based on the weight of evidence showing that regulation under Rule R315-273 is appropriate for the waste or category of waste, will improve management practices for the waste or category of waste, and will improve implementation of the hazardous waste program.

(d) The Board may request additional information needed to evaluate the merits of the petition.

R315-260-30. Non-waste Determinations and Removal from Classification as a Solid Waste.

In accordance with the standards and criteria in Sections R315-260-31 and 34 and the procedures in Section R315-260-33, the Director may determine on a case-by-case basis that the following recycled materials are not solid wastes:

(a) Materials that are accumulated speculatively without sufficient amounts being recycled, as defined in Subsection R315-261-1(c)(8);

(b) Materials that are reclaimed and then reused within the original production process in which they were generated;

(c) Materials that have been reclaimed but must be reclaimed further before the materials are completely recovered;

(d) Hazardous secondary materials that are reclaimed in a continuous industrial process;

(e) Hazardous secondary materials that are indistinguishable in all relevant aspects from a product or intermediate; and

(f) Hazardous secondary materials that are transferred for reclamation under Subsection R315-261-4(a)(24) and are managed at a verified reclamation facility or intermediate facility where the management of the hazardous secondary materials is not addressed under a Part B permit or interim status standards.

R315-260-31. Standards and Criteria for Removal from Classification as a Solid Waste.

(a) The Director may grant requests for removal from classifying as a solid waste those materials that are accumulated speculatively without sufficient amounts being recycled if the applicant demonstrates that sufficient amounts of the material will be recycled or transferred for recycling in the following year. If removal is granted, it is valid only for the following year, but can be renewed, on an annual basis, by filing a new application. The Director's decision will be based on the following criteria:

(1) The manner in which the material is expected to be recycled, when the material is expected to be recycled, and whether this expected disposition is likely to occur, for example, because of past practice, market factors, the nature of the material, or contractual arrangements for recycling;

(2) The reason that the applicant has accumulated the material for one or more years without recycling 75 percent of the volume accumulated at the beginning of the year;

(3) The quantity of material already accumulated and the quantity expected to be generated and accumulated before the material is recycled;

(4) The extent to which the material is handled to minimize loss; and

(5) Other relevant factors.

(b) The Director may grant requests for removal from classifying as a solid waste those materials that are reclaimed and then reused as feedstock within the original production process in which the materials were generated if the reclamation operation is an essential part of the production process. This determination will be based on the following criteria:

(1) How economically viable the production process would be if it were to use virgin materials, rather than reclaimed materials;

(2) The extent to which the material is handled before reclamation to minimize loss;

(3) The time periods between generating the material and its reclamation, and between reclamation and return to the original primary production process;

(4) The location of the reclamation operation in relation to the production process;

(5) Whether the reclaimed material is used for the purpose for which it was originally produced when it is returned to the original process, and whether it is returned to the process in substantially its original form;

(6) Whether the person who generates the material also reclaims it; and

(7) Other relevant factors.

(c) The Director may grant requests for removal from classifying as a solid waste those hazardous secondary materials that have been partially reclaimed, but must be reclaimed further before recovery is completed, if the partial reclamation has produced a commodity-like material. A determination that a partially-reclaimed material for which the change in classification is sought is commodity-like will be based on whether the hazardous secondary material is legitimately recycled as specified in Section R315-260-43 and on whether all of the following decision criteria are satisfied:

(1) Whether the degree of partial reclamation the material has undergone is substantial as demonstrated by using a partial reclamation process other than the process that generated the hazardous waste;

(2) Whether the partially-reclaimed material has sufficient economic value that it will be purchased for further reclamation;

(3) Whether the partially-reclaimed material is a viable substitute for a product or intermediate produced from virgin or raw materials which is used in subsequent production steps;

(4) Whether there is a market for the partially-reclaimed material as demonstrated by known customer(s) who are further reclaiming the material, e.g., records of sales and/or contracts and evidence of subsequent use, such as bills of lading; and

(5) Whether the partially-reclaimed material is handled to minimize loss.

(d) The Director may grant requests for an removal from classification as a solid waste those hazardous secondary materials that are transferred for reclamation under Subsection R315-261-4(a)(24) and are managed at a verified reclamation facility or intermediate facility where the management of the hazardous secondary materials is not addressed under a Part B permit or interim status standards. The Director's decision will be based on the following criteria:

(1) The reclamation facility or intermediate facility shall demonstrate that the reclamation process for the hazardous secondary materials is legitimate pursuant to Section R315-260-43;

(2) The reclamation facility or intermediate facility shall satisfy the financial assurance condition in Subsection R315-261-4(a)(24)(vi)(F);

(3) The reclamation facility or intermediate facility shall not be subject to a formal enforcement action in the previous three years and not be classified as a significant non-complier, or shall provide credible evidence that the facility will manage the hazardous secondary materials properly. Credible evidence may include a demonstration that the facility has taken remedial steps to address the violations and prevent future violations, or that the violations are not relevant to the proper management of the hazardous secondary materials;

(4) The intermediate or reclamation facility shall have the equipment and trained personnel needed to safely manage the hazardous secondary material and shall meet emergency preparedness and response requirements under Sections R315-261-400 through 420;

(5) If residuals are generated from the reclamation of the excluded hazardous secondary materials, the reclamation facility shall have the permits required, if any, to manage the residuals, have a contract with an appropriately permitted facility to dispose of the residuals or present credible evidence that the residuals will be managed in a manner that is protective of human health and the environment, and

(6) The intermediate or reclamation facility shall address the potential for risk to proximate populations from unpermitted releases of the hazardous secondary material to the environment; i.e., releases that are not covered by a permit, such as a permit to discharge to water or air; which may include, but are not limited to, potential releases through surface transport by precipitation runoff, releases to soil and groundwater, wind-blown dust, fugitive air emissions, and catastrophic unit failures, and shall include consideration of potential cumulative risks from other nearby potential stressors.

R315-260-32. Reclassification as a Boiler.

In accordance with the standards and criteria in the definition of a boiler found in Section R315-260-10, and the procedures in Section R315-260-33, the Board may determine on a case-by-case basis that certain enclosed devices using controlled flame combustion are boilers, even though they do not otherwise meet the definition of boiler contained in Subsection R315-260-10, after considering the following criteria:

(a) The extent to which the unit has provisions for recovering and exporting thermal energy in the form of steam, heated fluids, or heated gases; and

(b) The extent to which the combustion chamber and energy recovery equipment are of integral design; and

(c) The efficiency of energy recovery, calculated in terms of the recovered energy compared with the thermal value of the fuel; and

(d) The extent to which exported energy is utilized; and

(e) The extent to which the device is in common and customary use as a “boiler” functioning primarily to produce steam, heated fluids, or heated gases; and

(f) Other factors, as appropriate.

R315-260-33. Procedures for Removal from Classification as a Solid Waste, for Reclassification as a Boiler, or for Non-waste Determinations.

The Director shall use the following procedures in evaluating applications for removal from classification as a solid waste, applications to classify particular enclosed controlled flame combustion devices as boilers, or applications for non-waste determinations.

(a) The applicant shall apply to the Director for the removal, reclassification, or non-waste determination. The application shall address the relevant criteria contained in Sections R315-260-31, 32, or 34, as applicable.

(b) The Director shall evaluate the application and issue a draft notice tentatively granting or denying the application. Notification of this tentative decision shall be provided by newspaper advertisement or radio broadcast in the locality where the facility requesting the removal, reclassification, or non-waste determination is located. The Director shall accept comment on the tentative decision for 30 days, and may also hold a public hearing upon request or at the Director's discretion. The Director shall issue a final decision after receipt of comments and after the hearing, if any.

(c) In the event of a change in circumstances that affect how a hazardous secondary material meets the relevant criteria contained in Sections R315-260-31 or 34 upon which a removal determination or non-waste determination has been based, the applicant shall send a description of the change in circumstances to the Director. The Director may issue a determination that the hazardous secondary material continues to meet the relevant criteria of the removal determination or non-waste determination or may require the facility to re-apply for the removal determination or non-waste determination.

(d) Removal determinations and non-waste determinations shall be effective for a fixed term not to exceed ten years. No later than six months prior to the end of this term, facilities shall re-apply for a removal determination or non-waste determination. If a facility re-applies for a removal determination or non-waste

determination within six months, the facility may continue to operate under an expired removal determination or non-waste determination until receiving a decision on their re-application from the Director.

(e) Facilities receiving a removal determination or non-waste determination shall provide notification as required by Section R315-260-42.

R315-260-34. Standards and Criteria for Non-waste Determinations.

(a) An applicant may apply to the Director for a formal determination that a hazardous secondary material is not discarded and therefore not a solid waste. The determinations will be based on the criteria contained in Subsections R315-260-34(b) or (c), as applicable. If an application is denied, the hazardous secondary material might still be eligible for a solid waste variance or exclusion.

(b) The Director may grant a non-waste determination for hazardous secondary material which is reclaimed in a continuous industrial process if the applicant demonstrates that the hazardous secondary material is a part of the production process and is not discarded. The determination will be based on whether the hazardous secondary material is legitimately recycled as specified in Section R315-260-43 and on the following criteria:

(1) The extent that the management of the hazardous secondary material is part of the continuous primary production process and is not waste treatment;

(2) Whether the capacity of the production process would use the hazardous secondary material in a reasonable time frame and ensure that the hazardous secondary material will not be abandoned, for example, based on past practices, market factors, the nature of the hazardous secondary material, or any contractual arrangements;

(3) Whether the hazardous constituents in the hazardous secondary material are reclaimed rather than released to the air, water or land at significantly higher levels from either a statistical or from a health and environmental risk perspective than would otherwise be released by the production process; and

(4) Other relevant factors that demonstrate the hazardous secondary material is not discarded, including why the hazardous secondary material cannot meet, or should not

have to meet, the conditions of an exclusion under Sections R315-261-2 or 4.

(c) The Director may grant a non-waste determination for hazardous secondary material which is indistinguishable in all relevant aspects from a product or intermediate if the applicant demonstrates that the hazardous secondary material is comparable to a product or intermediate and is not discarded. The determination will be based on whether the hazardous secondary material is legitimately recycled as specified in Section R315-260-43 and on the following criteria:

(1) Whether market participants treat the hazardous secondary material as a product or intermediate rather than a waste, for example, based on the current positive value of the hazardous secondary material, stability of demand, or any contractual arrangements;

(2) Whether the chemical and physical identity of the hazardous secondary material is comparable to commercial products or intermediates;

(3) Whether the capacity of the market would use the hazardous secondary material in a reasonable time frame and ensure that the hazardous secondary material will not be abandoned, for example, based on past practices, market factors, the nature of the hazardous secondary material, or any contractual arrangements;

(4) Whether the hazardous constituents in the hazardous secondary material are reclaimed rather than released to the air, water or land at significantly higher levels from either a statistical or from a health and environmental risk perspective than would otherwise be released by the production process; and

(5) Other relevant factors that demonstrate the hazardous secondary material is not discarded, including why the hazardous secondary material cannot meet, or should not have to meet, the conditions of an exclusion under Sections R315-261-2 or 4.

R315-260-40. Additional Regulation of Certain Hazardous Waste Recycling Activities on a Case-by-Case Basis.

(a) The Director may decide on a case-by-case basis that persons accumulating or storing the recyclable materials described in Subsection R315-261-6(a)(2)(iii) should be regulated under Subsection R315-261-6(b) and (c). The basis for this decision is that the materials are being accumulated or stored in a manner that does not protect

human health and the environment because the materials or their toxic constituents have not been adequately contained, or because the materials being accumulated or stored together are incompatible. In making this decision, the Director shall consider the following factors:

(1) The types of materials accumulated or stored and the amounts accumulated or stored;

(2) The method of accumulation or storage;

(3) The length of time the materials have been accumulated or stored before being reclaimed;

(4) Whether any contaminants are being released into the environment, or are likely to be so released; and

(5) Other relevant factors.

(2) The procedures for this decision are set forth in R315-260-41.

R315-260-41. Procedures for Case-by-Case Regulation of Hazardous Waste Recycling Activities.

The Director shall use the following procedures when determining whether to regulate hazardous waste recycling activities described in Subsection R315-261-6(a)(2)(iii) under the provisions of Subsection R315-261-6(b) and (c), rather than under the provisions of Section R315-266-70.

(a) If a generator is accumulating the waste, the Director shall issue a notice setting forth the factual basis for the decision and stating that the person shall comply with the applicable requirements of Sections R315-262-10 through 12, R315-262-30 through 34, R315-262-40 through 44, and R315-262-50 through 58. The notice shall become final within 30 days, unless a request for agency action is made under the requirements of the Administrative Procedures Act.

(b) If the person is accumulating the recyclable material as a storage facility, the notice will state that the person shall obtain a permit in accordance with all applicable provisions of Rule R315-270 and 124. The owner or operator of the facility shall apply for a permit within no less than 60 days and no more than six months of notice, as specified in the notice. If the owner or operator of the facility wishes to challenge the Director's decision, he may do so in in accordance with the Administrative Procedures Act.

R315-260-42. Notification Requirement for Hazardous Secondary Materials.

(a) Facilities managing hazardous secondary materials under Subsections R315-260-30, or Subsections R315-261-4(a)(23), (24), or (27) shall send a notification prior to operating under the exclusion(s) and by March 1 of each even numbered year thereafter to the Director using EPA Form 8700-12 that includes the following information:

(1) The name, address, and EPA ID number, if applicable, of the facility;

(2) The name and telephone number of a contact person;

(3) The NAICS code of the facility;

(4) The regulation under which the hazardous secondary materials shall be managed;

(5) When the facility began or expects to begin managing the hazardous secondary materials in accordance with the regulation;

(6) A list of hazardous secondary materials that shall be managed according to the regulation, reported as the EPA hazardous waste numbers that would apply if the hazardous secondary materials were managed as hazardous wastes;

(7) For each hazardous secondary material, whether the hazardous secondary material, or any portion thereof, will be managed in a land-based unit;

(8) The quantity of each hazardous secondary material to be managed annually; and

(9) The certification, included in EPA Form 8700-12, signed and dated by an authorized representative of the facility.

(b) If a facility managing hazardous secondary materials has submitted a notification, but then subsequently stops managing hazardous secondary materials in accordance with the regulation(s) listed above, the facility shall notify the Director within thirty days using EPA Form 8700-12. For purposes of Section R315-260-40, a facility has stopped managing hazardous secondary materials if the facility no longer generates, manages and/or reclaims hazardous secondary materials under the regulation(s) above and does not expect to manage any amount of hazardous secondary materials for at least 1 year.

R315-260-43. Legitimate Recycling of Hazardous Secondary Materials.

(a) Recycling of hazardous secondary materials for the purpose of the exclusions or exemptions from the hazardous waste regulations shall be legitimate. Hazardous secondary material that is not legitimately recycled is discarded

material and is a solid waste. In determining if their recycling is legitimate, persons shall address all the requirements of Subsections R315-260-43(a)(1) through (4).

(1) Legitimate recycling shall involve a hazardous secondary material that provides a useful contribution to the recycling process or to a product or intermediate of the recycling process. The hazardous secondary material provides a useful contribution if it:

(i) Contributes valuable ingredients to a product or intermediate; or

(ii) Replaces a catalyst or carrier in the recycling process; or

(iii) Is the source of a valuable constituent recovered in the recycling process; or

(iv) Is recovered or regenerated by the recycling process; or

(v) Is used as an effective substitute for a commercial product.

(2) The recycling process shall produce a valuable product or intermediate. The product or intermediate is valuable if it is:

(i) Sold to a third party; or

(ii) Used by the recycler or the generator as an effective substitute for a commercial product or as an ingredient or intermediate in an industrial process.

(3) The generator and the recycler shall manage the hazardous secondary material as a valuable commodity when it is under their control. Where there is an analogous raw material, the hazardous secondary material shall be managed, at a minimum, in a manner consistent with the management of the raw material or in an equally protective manner. Where there is no analogous raw material, the hazardous secondary material shall be contained. Hazardous secondary materials that are released to the environment and are not recovered immediately are discarded.

(4) The product of the recycling process shall be comparable to a legitimate product or intermediate:

(i) Where there is an analogous product or intermediate, the product of the recycling process is comparable to a legitimate product or intermediate if:

(A) The product of the recycling process does not exhibit a hazardous characteristic, as defined in Sections R315-26120 through 24, that analogous products do not exhibit, and

(B) The concentrations of any hazardous constituents found in appendix VIII of Rule R315-261 that are in the product or intermediate are at levels that are comparable to or lower than those found in analogous products or at levels that meet widely-recognized commodity standards and specifications, in the case where the commodity standards and specifications include levels that specifically address those hazardous constituents.

(ii) Where there is no analogous product, the product of the recycling process is comparable to a legitimate product or intermediate if:

(A) The product of the recycling process is a commodity that meets widely recognized commodity standards and specifications, e.g., commodity specification grades for common metals, or

(B) The hazardous secondary materials being recycled are returned to the original process or processes from which they were generated to be reused, e.g., closed loop recycling.

(iii) If the product of the recycling process has levels of hazardous constituents that are not comparable to or unable to be compared to a legitimate product or intermediate per Subsection R315-260-43(a)(4)(i) or (ii), the recycling still may be shown to be legitimate, if it meets the following specified requirements. The person performing the recycling shall conduct the necessary assessment and prepare documentation showing why the recycling is, in fact, still legitimate. The recycling can be shown to be legitimate based on lack of exposure from toxics in the product, lack of the bioavailability of the toxics in the product, or other relevant considerations which show that the recycled product does not contain levels of hazardous constituents that pose a significant human health or environmental risk. The documentation shall include a certification statement that the recycling is legitimate and shall be maintained on-site for three years after the recycling operation has ceased. The person performing the recycling shall notify the Director of this activity using EPA Form 8700-12.

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.

R315-261. General Requirements - Identification and Listing of Hazardous Waste.

R315-261-1. Purpose and Scope.

(a) This rule identifies those solid wastes which are subject to regulation as hazardous wastes under Rules R315-262 through 265, 268, 270, and 124 and which are subject to the notification requirements of these rules.

(1) Sections R315-261-1 through 9 define the terms "solid waste" and "hazardous waste", identify those wastes which are excluded from regulation under Rules R315-262 through R315-266, R315-268 and R315-270 and establishes special management requirements for hazardous waste produced by conditionally exempt small quantity generators and hazardous waste which is recycled.

(2) Sections R315-261-10 and 11 set forth the criteria used to identify characteristics of hazardous waste and to list particular hazardous wastes.

(3) Sections R315-261-20 through 24 identify characteristics of hazardous waste.

(4) Sections R315-261-30 through 35 list particular hazardous wastes.

(b)(1) The definition of solid waste contained in this rule applies only to wastes that also are hazardous for purposes of the rules implementing Title 19 Chapter 6. For example, it does not apply to materials such as non-hazardous scrap, paper, textiles, or rubber that are not otherwise hazardous wastes and that are recycled.

(2) Rule R315-261 identifies only some of the materials which are solid wastes and hazardous wastes under the Utah Solid and Hazardous Waste Act. A material which is not defined as a solid waste in Rule R315-261, or is not a hazardous waste identified or listed in Rule R315-261, is still a solid waste and a hazardous waste for purposes of these sections if:

(i) In the case of section 19-6-109, the Director has reason to believe that the material may be a solid waste within the meaning of Subsection 19-6-102(13) and a hazardous waste within the meaning of Subsection 19-6-102(7) or

(ii) In the case of section 19-6-115, the material is presenting an imminent and substantial danger to human health or the environment.

(c) For the purposes of Sections R315-261-2 and 261-6:

(1) A “spent material” is any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing;

(2) “Sludge” has the same meaning used in Section R315-260-10;

(3) A “by-product” is a material that is not one of the primary products of a production process and is not solely or separately produced by the production process. Examples are process residues such as slags or distillation column bottoms. The term does not include a co-product that is produced for the general public's use and is ordinarily used in the form it is produced by the process.

(4) A material is “reclaimed” if it is processed to recover a usable product, or if it is regenerated. Examples are recovery of lead values from spent batteries and regeneration of spent solvents. In addition, for purposes of Subsections R315-261-4(a)(23), and (24) smelting, melting and refining furnaces are considered to be solely engaged in metals reclamation if the metal recovery from the hazardous secondary materials meets the same requirements as those specified for metals recovery from hazardous waste found in Subsection R315-266-100(d)(1) through (3), and if the residuals meet the requirements specified in Section R315-266-112.

(5) A material is “used or reused” if it is either:

(i) Employed as an ingredient, including use as an intermediate, in an industrial process to make a product, for example, distillation bottoms from one process used as feedstock in another process. However, a material will not satisfy this condition if distinct components of the material are recovered as separate end products, as when metals are recovered from metal-containing secondary materials; or

(ii) Employed in a particular function or application as an effective substitute for a commercial product, for example, spent pickle liquor used as phosphorous precipitant and sludge conditioner in wastewater treatment.

(6) “Scrap metal” is bits and pieces of metal, parts for example bars, turnings, rods, sheets, wire, or metal pieces that may be combined together with bolts or soldering, for example radiators, scrap automobiles, railroad box cars, which when worn or superfluous can be recycled.

(7) A material is “recycled” if it is used, reused, or reclaimed.

(8) A material is “accumulated speculatively” if it is accumulated before being recycled. A material is not accumulated speculatively, however, if the person accumulating it can show that the material is potentially recyclable and has a feasible means of being recycled; and that during the calendar year, commencing on January 1, the amount of material that is recycled, or transferred to a different site for recycling, equals at least 75 percent by weight or volume of the amount of that material accumulated at the beginning of the period. Materials shall be placed in a storage unit with a label indicating the first date that the material began to be accumulated. If placing a label on the storage unit is not practicable, the accumulation period shall be documented through an inventory log or other appropriate method. In calculating the percentage of turnover, the 75 percent requirement is to be applied to each material of the same type, e.g., slags from a single smelting process, that is recycled in the same way, i.e., from which the same material is recovered or that is used in the same way. Materials accumulating in units that would be exempt from regulation under Subsection R315-261-4(c) are not to be included in making the calculation. Materials that are already defined as solid wastes also are not to be included in making the calculation. Materials are no longer in this category once they are removed from accumulation for recycling, however.

(9) “Excluded scrap metal” is processed scrap metal, unprocessed home scrap metal, and unprocessed prompt scrap metal.

(10) “Processed scrap metal” is scrap metal which has been manually or physically altered to either separate it into distinct materials to enhance economic value or to improve the handling of materials. Processed scrap metal includes, but is not limited to scrap metal which has been baled, shredded, sheared, chopped, crushed, flattened, cut, melted, or separated by metal type, i.e., sorted, and, fines, drosses and related materials which have been agglomerated. Note: shredded circuit boards being sent for recycling are not considered processed scrap metal. They are covered under the exclusion from the definition of solid waste for shredded circuit boards being recycled Subsection R315-261-4(a)(14).

(11) “Home scrap metal” is scrap metal as generated by steel mills, foundries, and refineries such as turnings, cuttings, punchings, and borings.

(12) “Prompt scrap metal” is scrap metal as generated by the metal working/fabrication industries and includes such scrap metal as turnings, cuttings, punchings, and borings. Prompt scrap is also known as industrial or new scrap metal.

R315-261-2. Definition of Solid Waste.

(a)(1) A solid waste is any discarded material that is not excluded by Subsection R315-261-4(a) or that is not excluded by variance granted under Sections R315-260-30 and R315-260-31 or that is not excluded by a non-waste determination under Sections R315-260-30 and R315-260-34.

(2)(i) A discarded material is any material which is:

(A) Abandoned, as explained in Subsection R315-261-2(b); or

(B) Recycled, as explained in Subsection R315-261-2(c); or

(C) Considered inherently waste-like, as explained in Subsection R315-261-2(d).

(b) Materials are solid waste if they are abandoned by being:

(1) Disposed of; or

(2) Burned or incinerated; or

(3) Accumulated, stored, or treated, but not recycled, before or in lieu of being abandoned by being disposed of, burned, or incinerated; or

(4) Sham recycled, as explained in Subsection R315-261-2(g)

(c) Materials are solid wastes if they are recycled-or accumulated, stored, or treated before recycling-as specified in Subsections R315-261-2(c)(1) through (4).

(1) Used in a manner constituting disposal.

(i) Materials noted with a “*” in Column 1 of Table 1 are solid wastes when they are:

(A) Applied to or placed on the land in a manner that constitutes disposal; or

(B) Used to produce products that are applied to or placed on the land or are otherwise contained in products that are applied to or placed on the land (in which cases the product itself remains a solid waste).

(ii) However, commercial chemical products listed in Section R315-261-33 are not solid wastes if they are

applied to the land and that is their ordinary manner of use.

(2) Burning for energy recovery.

(i) Materials noted with a "*" in column 2 of Table 1 are solid wastes when they are:

(A) Burned to recover energy;

(B) Used to produce a fuel or are otherwise contained in fuels, in which cases the fuel itself remains a solid waste.

(ii) However, commercial chemical products listed in Section R315-261-33 are not solid wastes if they are themselves fuels.

(3) Reclaimed. Materials noted with a "-" in column 3 of Table 1 are not solid wastes when reclaimed. Materials noted with an "*" in column 3 of Table 1 are solid wastes when reclaimed unless they meet the requirements of Subsections R315-261-4(a)(17), or R315-261-4(a)(23), R315-261-4(a)(24) or R35-261-4(a)(27).

(4) Accumulated speculatively. Materials noted with a "*" in column 4 of Table 1 are solid wastes when accumulated speculatively.

Table 1

	Use Constituting Disposal 261-2(c)(1)	Energy recovery/ fuel 261-2(c)(2)	Reclamation 261-2(c)(3) except as provided in 261-4-(a)(17) 261-4(a)(23) 261-4(a)(24) or 261-4(a)(27)	Speculative accumulation 261-2(c)(4)
	1	2	3	4
Spent Materials	(*)	(*)	(*)	(*)
Sludges (listed in 261-31 or 261-32)	(*)	(*)	(*)	(*)
Sludges exhibiting a characteristic of hazardous waste	(*)	(*)	-	(*)
By-products	(*)	(*)	(*)	(*)

(listed in 261-31 or 261-32				
By-products exhibiting a characteristic of hazardous waste	(*)	(*)	-	(*)
Commercial chemical products listed in 261-33	(*)	(*)	-	-
Scrap metal that is not excluded under 261-4(a)(13)	(*)	(*)	(*)	(*)

Note 1: All rule references in Table 1 are to R315.
Note 2: The terms “spent materials,” “sludges,” “by-products,” and “scrap metal” and “processed scrap metal” are defined in Section R315-261-1.

(d) Inherently waste-like materials. The following materials are solid wastes when they are recycled in any manner:

(1) Hazardous Waste Nos. F020; F021, unless used as an ingredient to make a product at the site of generation; F022; F023; F026; and F028.

(2) Secondary materials fed to a halogen acid furnace that exhibit a characteristic of a hazardous waste or are listed as a hazardous waste as defined in Sections R315-261-20 through 24 and 30 through 35, except for brominated material that meets the following criteria:

(i) The material shall contain a bromine concentration of at least 45%; and

(ii) The material shall contain less than a total of 1% of toxic organic compounds listed in Rule R315-261 appendix VIII; and

(iii) The material is processed continually on-site in the halogen acid furnace via direct conveyance, hard piping.

(3) The Board shall use the following criteria to add wastes to the list found in Table 1 of Section R315-261-2:

(i)(A) The materials are ordinarily disposed of, burned, or incinerated; or

(B) The materials contain toxic constituents listed in appendix VIII of Rule R315-261 and these constituents are not ordinarily found in raw materials or products for which the materials substitute (or are found in raw materials or products in smaller concentrations) and are not used or reused during the recycling process; and

(ii) The material may pose a substantial hazard to human health and the environment when recycled.

(e) Materials that are not solid waste when recycled.

(1) Materials are not solid wastes when they can be shown to be recycled by being:

(i) Used or reused as ingredients in an industrial process to make a product, provided the materials are not being reclaimed; or

(ii) Used or reused as effective substitutes for commercial products; or

(iii) Returned to the original process from which they are generated, without first being reclaimed or land disposed. The material shall be returned as a substitute for feedstock materials. In cases where the original process to which the material is returned is a secondary process, the materials shall be managed such that there is no placement on the land. In cases where the materials are generated and reclaimed within the primary mineral processing industry, the conditions of the exclusion found at Subsection R315-261-4(a)(17) apply rather than Subsection R315-261-2(e)(1)(iii).

(2) The following materials are solid wastes, even if the recycling involves use, reuse, or return to the original process described in Subsections R315-261-2(e)(1)(i) through (iii):

(i) Materials used in a manner constituting disposal, or used to produce products that are applied to the land; or

(ii) Materials burned for energy recovery, used to produce a fuel, or contained in fuels; or

(iii) Materials accumulated speculatively; or

(iv) Materials listed in Subsections R315-261-2(d)(1) and (d)(2).

(f) Documentation of claims that materials are not solid wastes or are conditionally exempt from regulation. Respondents in actions to enforce rules implementing Sections 19-6-101 through 125 who raise a claim that a

certain material is not a solid waste, or is conditionally exempt from regulation, shall demonstrate that there is a known market or disposition for the material, and that they meet the terms of the exclusion or exemption. In doing so, they shall provide appropriate documentation, such as contracts showing that a second person uses the material as an ingredient in a production process, to demonstrate that the material is not a waste, or is exempt from regulation. In addition, owners or operators of facilities claiming that they actually are recycling materials shall show that they have the necessary equipment to do so.

(g) Sham recycling. A hazardous secondary material found to be sham recycled is considered discarded and a solid waste. Sham recycling is recycling that is not legitimate recycling as defined in Section R315-260-43.

R315-261-3. Definition of Hazardous Waste

(a) A solid waste, as defined in Section R315-261-2, is a hazardous waste if:

(1) It is not excluded from regulation as a hazardous waste under Subsection R315-261-4(b); and

(2) It meets any of the following criteria:

(i) It exhibits any of the characteristics of hazardous waste identified in Sections R315-261-20 through 24. However, any mixture of a waste from the extraction, beneficiation, and processing of ores and minerals excluded under Subsection R315-261-4(b)(7) and any other solid waste exhibiting a characteristic of hazardous waste under Sections R315-261-20 through 24 is a hazardous waste only if it exhibits a characteristic that would not have been exhibited by the excluded waste alone if such mixture had not occurred, or if it continues to exhibit any of the characteristics exhibited by the non-excluded wastes prior to mixture. Further, for the purposes of applying the Toxicity Characteristic to such mixtures, the mixture is also a hazardous waste if it exceeds the maximum concentration for any contaminant listed in table 1 to Section R315-261-24 that would not have been exceeded by the excluded waste alone if the mixture had not occurred or if it continues to exceed the maximum concentration for any contaminant exceeded by the nonexempt waste prior to mixture.

(ii) It is listed in Sections R315-261-30 through 35 and has not been excluded from the lists in Sections R315-

261-30 through 35 under Sections R315-260-.20 and R315-260-22.

(iii) (Reserved)

(iv) It is a mixture of solid waste and one or more hazardous wastes listed in Sections R315-261-30 through 35 and has not been excluded from Subsection R315-261-3(a)(2) under Sections R315-260-20 and R315-260-22, Subsection R315-261-3(g), or Subsection R315-261-3(h); however, the following mixtures of solid wastes and hazardous wastes listed in Sections R315-261-30 through 35 are not hazardous wastes, except by application of Subsections R315-261-3(a)(2)(i) or (ii), if the generator can demonstrate that the mixture consists of wastewater the discharge of which is subject to regulation under either section 402 or section 307(b) of the Clean Water Act,including wastewater at facilities which have eliminated the discharge of wastewater, and;

(A) One or more of the following spent solvents listed in Section R315-261-31: benzene, carbon tetrachloride, tetrachloroethylene, trichloroethylene or the scrubber waters derived-from the combustion of these spent solvents-Provided, That the maximum total weekly usage of these solvents, other than the amounts that can be demonstrated not to be discharged to wastewater, divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system does not exceed 1 part per million, or the total measured concentration of these solvents entering the headworks of the facility's wastewater treatment system, at facilities subject to regulation under the Utah Air Conservation Act, or at facilities subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions, does not exceed 1 part per million on an average weekly basis. Any facility that uses benzene as a solvent and claims this exemption shall use an aerated biological wastewater treatment system and shall use only lined surface impoundments or tanks prior to secondary clarification in the wastewater treatment system. Facilities that choose to measure concentration levels shall file a copy of their sampling and analysis plan with the Director. A facility shall file a copy of a revised sampling and analysis plan only if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan shall include the monitoring point location (headworks), the sampling

frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once they receive confirmation that the sampling and analysis plan has been received by the Director. The Director may reject the sampling and analysis plan if the Director finds that, the sampling and analysis plan fails to include the above information; or the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the Director rejects the sampling and analysis plan or if the Director finds that the facility is not following the sampling and analysis plan, the Director shall notify the facility to cease the use of the direct monitoring option until such time as the bases for rejection are corrected; or

(B) One or more of the following spent solvents listed in Section R315-261-31: methylene chloride, 1,1,1-trichloroethane, chlorobenzene, o-dichlorobenzene, cresols, cresylic acid, nitrobenzene, toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, spent chlorofluorocarbon solvents, 2-ethoxyethanol, or the scrubber waters derived-from the combustion of these spent solvents-Provided That the maximum total weekly usage of these solvents, other than the amounts that can be demonstrated not to be discharged to wastewater, divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system does not exceed 25 parts per million, or the total measured concentration of these solvents entering the headworks of the facility's wastewater treatment system; at facilities subject to regulation under the Utah Air Conservation Act, or at facilities subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions; does not exceed 25 parts per million on an average weekly basis. Facilities that choose to measure concentration levels shall file a copy of their sampling and analysis plan with the Director. A facility shall file a copy of a revised sampling and analysis plan only if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan shall include the monitoring point location (headworks), the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once they receive confirmation that the sampling and analysis plan has been received by the Director. The

Director may reject the sampling and analysis plan if the Director finds that, the sampling and analysis plan fails to include the above information; or the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the Director rejects the sampling and analysis plan or if the Director finds that the facility is not following the sampling and analysis plan, the Director shall notify the facility to cease the use of the direct monitoring option until such time as the bases for rejection are corrected; or

(C) One of the following wastes listed in Section R315-261-32, provided that the wastes are discharged to the refinery oil recovery sewer before primary oil/water/solids separation-heat exchanger bundle cleaning sludge from the petroleum refining industry, EPA Hazardous Waste No. K050; crude oil storage tank sediment from petroleum refining operations, EPA Hazardous Waste No. K169; clarified slurry oil tank sediment and/or in-line filter/separation solids from petroleum refining operations, EPA Hazardous Waste No. K170; spent hydrotreating catalyst, EPA Hazardous Waste No. K171; and spent hydrorefining catalyst, EPA Hazardous Waste No. K172; or

(D) A discarded hazardous waste, commercial chemical product, or chemical intermediate listed in Sections R315-261-31 through R315-261-33, arising from de minimis losses of these materials. For purposes of this Subsection R315-261-3(a)(2)(iv)(D), de minimis losses are inadvertent releases to a wastewater treatment system, including those from normal material handling operations, e.g., spills from the unloading or transfer of materials from bins or other containers, leaks from pipes, valves or other devices used to transfer materials; minor leaks of process equipment, storage tanks or containers; leaks from well maintained pump packings and seals; sample purgings; relief device discharges; discharges from safety showers and rinsing and cleaning of personal safety equipment; and rinsate from empty containers or from containers that are rendered empty by that rinsing. Any manufacturing facility that claims an exemption for de minimis quantities of wastes listed in Sections R315-261-31 through R315-261-32, or any nonmanufacturing facility that claims an exemption for de minimis quantities of wastes listed in Sections R315-261-30 through 35 shall either have eliminated the discharge of wastewaters or have included in its Clean Water Act permit

application or submission to its pretreatment control authority the constituents for which each waste was listed in Rule R315-261 appendix VII; and the constituents in the table “Treatment Standards for Hazardous Wastes” in Section R315-268-40 for which each waste has a treatment standard (i.e., Land Disposal Restriction constituents). A facility is eligible to claim the exemption once the permit writer or control authority has been notified of possible de minimis releases via the Clean Water Act permit application or the pretreatment control authority submission. A copy of the Clean Water permit application or the submission to the pretreatment control authority shall be placed in the facility's on-site files; or

(E) Wastewater resulting from laboratory operations containing toxic (T) wastes listed in Sections R315-261-30 through 35, Provided, That the annualized average flow of laboratory wastewater does not exceed one percent of total wastewater flow into the headworks of the facility's wastewater treatment or pre-treatment system or provided the wastes, combined annualized average concentration does not exceed one part per million in the headworks of the facility's wastewater treatment or pre-treatment facility. Toxic wastes used in laboratories that are demonstrated not to be discharged to wastewater are not to be included in this calculation; or

(F) One or more of the following wastes listed in Section R315-261.32: wastewaters from the production of carbamates and carbamoyl oximes, EPA Hazardous Waste No. K157 - Provided that the maximum weekly usage of formaldehyde, methyl chloride, methylene chloride, and triethylamine, including all amounts that cannot be demonstrated to be reacted in the process, destroyed through treatment, or is recovered, i.e., what is discharged or volatilized, divided by the average weekly flow of process wastewater prior to any dilution into the headworks of the facility's wastewater treatment system does not exceed a total of 5 parts per million by weight or the total measured concentration of these chemicals entering the headworks of the facility's wastewater treatment system (at facilities subject to regulation under the Utah Air Conservation Act, or at facilities subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions), does not exceed 5 parts per million on an average weekly basis. Facilities that choose to measure concentration levels shall file copy of their

sampling and analysis plan with the Director. A facility shall file a copy of a revised sampling and analysis plan only if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan shall include the monitoring point location (headworks), the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once they receive confirmation that the sampling and analysis plan has been received by the Director. The Director may reject the sampling and analysis plan if the Director finds that, the sampling and analysis plan fails to include the above information; or the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the Director rejects the sampling and analysis plan or if the Director finds that the facility is not following the sampling and analysis plan, the Director shall notify the facility to cease the use of the direct monitoring option until such time as the bases for rejection are corrected; or

(G) Wastewaters derived-from the treatment of one or more of the following wastes listed in Section R315-261-32:organic waste, including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates, from the production of carbamates and carbamoyl oximes, EPA Hazardous Waste No. K156. Provided, that the maximum concentration of formaldehyde, methyl chloride, methylene chloride, and triethylamine prior to any dilutions into the headworks of the facility's wastewater treatment system does not exceed a total of 5 milligrams per liter or the total measured concentration of these chemicals entering the headworks of the facility's wastewater treatment system (at facilities subject to regulation under the Utah Air Conservation Act, or at facilities subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions), does not exceed 5 milligrams per liter on an average weekly basis. Facilities that choose to measure concentration levels shall file copy of their sampling and analysis plan with the Director. A facility shall file a copy of a revised sampling and analysis plan only if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan shall include the monitoring point location (headworks), the sampling frequency and methodology, and a list of constituents to be monitored. A

facility is eligible for the direct monitoring option once they receive confirmation that the sampling and analysis plan has been received by the Director. The Director may reject the sampling and analysis plan if the Director finds that, the sampling and analysis plan fails to include the above information; or the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the Director rejects the sampling and analysis plan or if the Director finds that the facility is not following the sampling and analysis plan, the Director shall notify the facility to cease the use of the direct monitoring option until such time as the bases for rejection are corrected.

(v) Rebuttable presumption for used oil. Used oil containing more than 1000 ppm total halogens is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in Sections R315-261-30 through 35. Persons may rebut this presumption by demonstrating that the used oil does not contain hazardous waste; for example, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in appendix VIII of Rule R315-261.

(A) The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins, if they are processed, through a tolling agreement, to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if such oils/fluids are recycled in any other manner, or disposed.

(B) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

(b) A solid waste which is not excluded from regulation under Subsection R315-261-3(a)(1) becomes a hazardous waste when any of the following events occur:

(1) In the case of a waste listed in Sections R315-261-30 through 35, when the waste first meets the listing description set forth in R315-261-30 through 35.

(2) In the case of a mixture of solid waste and one or more listed hazardous wastes, when a hazardous waste listed in R315-261-30 through 35 is first added to the solid waste.

(3) In the case of any other waste, including a waste mixture, when the waste exhibits any of the characteristics identified in Sections R315-261-20 through 24.

(c) Unless and until it meets the criteria of Subsection R315-261-3(d):

(1) A hazardous waste shall remain a hazardous waste.

(2)(i) Except as otherwise provided in Subsections R315-261-3(c)(2)(ii), or (g), any solid waste generated from the treatment, storage, or disposal of a hazardous waste, including any sludge, spill residue, ash emission control dust, or leachate,but not including precipitation run-off, is a hazardous waste. However, materials that are reclaimed from solid wastes and that are used beneficially are not solid wastes and hence are not hazardous wastes under this provision unless the reclaimed material is burned for energy recovery or used in a manner constituting disposal.

(ii) The following solid wastes are not hazardous even though they are generated from the treatment, storage, or disposal of a hazardous waste, unless they exhibit one or more of the characteristics of hazardous waste:

(A) Waste pickle liquor sludge generated by lime stabilization of spent pickle liquor from the iron and steel industry, SIC Codes 331 and 332.

(B) Waste from burning any of the materials exempted from regulation by Subsection R315-261-6(a)(3)(iii) and (iv).

(C)(I) Nonwastewater residues, such as slag, resulting from high temperature metals recovery processing of K061, K062 or F006 waste, in units identified as rotary kilns, flame reactors, electric furnaces, plasma arc furnaces, slag reactors, rotary hearth furnace/electric furnace combinations or industrial furnaces, as defined in Section R315-260-10, that are disposed in solid waste landfills regulated under Rules R315-301 through R315-320, provided that these residues meet the generic exclusion levels identified in the tables below for all constituents, and exhibit no characteristics of hazardous waste. Testing requirements shall be incorporated in a facility's waste analysis plan or a generator's self-implementing waste analysis plan; at a minimum, composite samples of residues shall be collected and analyzed quarterly and/or when the process or operation generating the waste changes. Persons claiming this exclusion in an enforcement action shall have

the burden of proving by clear and convincing evidence that the material meets all of the exclusion requirements.

TABLE

Constituent	Maximum for any single composite sample - TCLP (mg/l)
Generic exclusion levels for K061 and K062 nonwastewater high temperature metals recovery residues	
Antimony	0.10
Arsenic	0.50
Barium	7.6
Beryllium	0.010
Cadmium	0.050
Chromium (total)	0.33
Lead	0.15
Mercury	0.009
Nickel	1.0
Selenium	0.16
Silver	0.30
Thallium	0.020
Zinc	70
Generic exclusion levels for F006 nonwastewater high temperature metals recovery residues	
Antimony	0.10
Arsenic	0.50
Barium	7.6
Beryllium	0.010
Cadmium	0.050
Chromium (total)	0.33
Cyanide (total)(mg/kg)	1.8
Lead	0.15
Mercury	0.009
Nickel	1.0
Selenium	0.16
Silver	0.30
Thallium	0.020
Zinc	70

(2) A one-time notification and certification shall be placed in the facility's files and sent to the Director for K061, K062 or F006 high temperature metals recovery residues that meet the generic exclusion levels for all constituents and do not exhibit any characteristics that are sent to solid waste landfills regulated under Rules R315-301 through R315-320. The notification and certification that is placed in the generators or treaters files shall be updated if the process or operation generating the waste changes and/or if the landfill receiving the waste changes. However, the generator or treater need only notify the Director on an annual basis if such changes occur. Such notification and certification should be sent to the Director by the end of the calendar year, but no later than December 31. The notification shall include the following information: The name and address of the solid waste landfill regulated under Rules R315-301 through R315-320 receiving the waste shipments; the EPA Hazardous Waste Number(s) and treatability group(s) at the initial point of generation; and, the treatment standards applicable to the waste at the initial point of generation. The certification shall be signed by an authorized representative and shall state as follows: “I certify under penalty of law that the generic exclusion levels for all constituents have been met without impermissible dilution and that no characteristic of hazardous waste is exhibited. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.”

(D) Biological treatment sludge from the treatment of one of the following wastes listed in Section R315-261-32: organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes, EPA Hazardous Waste No. K156, and wastewaters from the production of carbamates and carbamoyl oximes, EPA Hazardous Waste No. K157.

(E) Catalyst inert support media separated from one of the following wastes listed in Section R315-261-32: - Spent hydrotreating catalyst, EPA Hazardous Waste No. K171), and Spent hydrorefining catalyst (EPA Hazardous Waste No. K172.

(d) Any solid waste described in Subsection R315-261-3(c) is not a hazardous waste if it meets the following criteria:

(1) In the case of any solid waste, it does not exhibit any of the characteristics of hazardous waste identified in Sections R315-261-20 through 24. However, wastes that exhibit a characteristic at the point of generation may still be subject to the requirements of Rule R315-268, even if they no longer exhibit a characteristic at the point of land disposal.

(2) In the case of a waste which is a listed waste under Sections R315-261-30 through 35, contains a waste listed under Sections R315-261-30 through 35 or is derived from a waste listed in Sections R315-261-30 through 35, it also has been excluded from Subsection R315-261-3(c) under Sections R315-260-20 and R315-260-22.

(e) (Reserved)

(f) Notwithstanding Subsections R315-261-3(a) through (d) and provided the debris as defined in Rule R315-268 does not exhibit a characteristic identified in Sections R315-261-20 through 24, the following materials are not subject to regulation under Rules R315-260 through 266, R315-268, or R315-270:

(1) Hazardous debris as defined in Rule R315-268 that has been treated using one of the required extraction or destruction technologies specified in Table 1 of Section R315-268-45; persons claiming this exclusion in an enforcement action shall have the burden of proving by clear and convincing evidence that the material meets all of the exclusion requirements; or

(2) Debris as defined in Rule R315-268 that the Director, considering the extent of contamination, has determined is no longer contaminated with hazardous waste.

(g)(1) A hazardous waste that is listed in Sections R315-261-30 through 35 solely because it exhibits one or more characteristics of ignitability as defined under Section R315-261-21, corrosivity as defined under Section R315-261-22, or reactivity as defined under Section R315-261-23 is not a hazardous waste, if the waste no longer exhibits any characteristic of hazardous waste identified in Sections R315-261-20 through 24.

(2) The exclusion described in Subsection R315-261-3(g)(1) also pertains to:

(i) Any mixture of a solid waste and a hazardous waste listed in Sections R315-261-30 through 35 solely

because it exhibits the characteristics of ignitability, corrosivity, or reactivity as regulated under Subsection R315-261-3(a)(2)(iv); and

(ii) Any solid waste generated from treating, storing, or disposing of a hazardous waste listed in Sections R315-261-30 through 35 solely because it exhibits the characteristics of ignitability, corrosivity, or reactivity as regulated under Subsection R315-261-3(c)(2)(i).

(3) Wastes excluded under Subsection R315-261-3(g) are subject to Rule R315-268, as applicable, even if they no longer exhibit a characteristic at the point of land disposal.

(4) Any mixture of a solid waste excluded from regulation under Subsection R315-261-4(b)(7) and a hazardous waste listed in Sections R315-261-30 through 35 solely because it exhibits one or more of the characteristics of ignitability, corrosivity, or reactivity as regulated under Subsection R315-261-3(a)(2)(iv) is not a hazardous waste, if the mixture no longer exhibits any characteristic of hazardous waste identified in Sections R315-261-20 through 24 for which the hazardous waste listed in Sections R315-261-30 through 35 was listed.

(h)(1) Hazardous waste containing radioactive waste is no longer a hazardous waste when it meets the eligibility criteria and conditions of Sections R315-266-210 through 360.

(2) The exemption described in Subsection R315-261-3(h)(1) also pertains to:

(i) Any mixture of a solid waste and an eligible radioactive mixed waste; and

(ii) Any solid waste generated from treating, storing, or disposing of an eligible radioactive mixed waste.

(3) Waste exempted under Section R315-261-3 shall meet the eligibility criteria and specified conditions in Sections R315-266-225 and R315-266-230,for storage and treatment, and in Sections R315-266-310 and R315-266-315, for transportation and disposal. Waste that fails to satisfy these eligibility criteria and conditions is regulated as hazardous waste.

R315-261-4. Exclusions.

(a) Materials which are not solid wastes. The following materials are not solid wastes for the purpose of Rule R315-261:

(1)(i) Domestic sewage; and

(ii) Any mixture of domestic sewage and other wastes that passes through a sewer system to a publicly-owned treatment works for treatment. “Domestic sewage” means untreated sanitary wastes that pass through a sewer system.

(2) Industrial wastewater discharges that are point source discharges subject to regulation under section 402 of the Clean Water Act, as amended. This exclusion applies only to the actual point source discharge. It does not exclude industrial wastewaters while they are being collected, stored or treated before discharge, nor does it exclude sludges that are generated by industrial wastewater treatment.

(3) Irrigation return flows.

(4) Source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 et seq.

(5) Materials subjected to in-situ mining techniques which are not removed from the ground as part of the extraction process.

(6) Pulping liquors, i.e., black liquor, that are reclaimed in a pulping liquor recovery furnace and then reused in the pulping process, unless it is accumulated speculatively as defined in Subsection R315-261-1(c).

(7) Spent sulfuric acid used to produce virgin sulfuric acid, unless it is accumulated speculatively as defined in Subsection R315-261-1(c).

(8) Secondary materials that are reclaimed and returned to the original process or processes in which they were generated where they are reused in the production process provided:

(i) Only tank storage is involved, and the entire process through completion of reclamation is closed by being entirely connected with pipes or other comparable enclosed means of conveyance;

(ii) Reclamation does not involve controlled flame combustion, such as occurs in boilers, industrial furnaces, or incinerators;

(iii) The secondary materials are never accumulated in such tanks for over twelve months without being reclaimed; and

(iv) The reclaimed material is not used to produce a fuel, or used to produce products that are used in a manner constituting disposal.

(9)(i) Spent wood preserving solutions that have been reclaimed and are reused for their original intended purpose; and

(ii) Wastewaters from the wood preserving process that have been reclaimed and are reused to treat wood.

(iii) Prior to reuse, the wood preserving wastewaters and spent wood preserving solutions described in Subsections R315-261-4(a)(9)(i) and (ii), so long as they meet all of the following conditions:

(A) The wood preserving wastewaters and spent wood preserving solutions are reused on-site at water borne plants in the production process for their original intended purpose;

(B) Prior to reuse, the wastewaters and spent wood preserving solutions are managed to prevent release to either land or groundwater or both;

(C) Any unit used to manage wastewaters and/or spent wood preserving solutions prior to reuse can be visually or otherwise determined to prevent such releases;

(D) Any drip pad used to manage the wastewaters and/or spent wood preserving solutions prior to reuse complies with the standards in 40 CFR 265.440 through R315-265-445, which are adopted and incorporated by reference, regardless of whether the plant generates a total of less than 100 kg/month of hazardous waste; and

(E) Prior to operating pursuant to this exclusion, the plant owner or operator prepares a one-time notification stating that the plant intends to claim the exclusion, giving the date on which the plant intends to begin operating under the exclusion, and containing the following language: “I have read the applicable regulation establishing an exclusion for wood preserving wastewaters and spent wood preserving solutions and understand it requires me to comply at all times with the conditions set out in the regulation.” The plant shall maintain a copy of that document in its on-site records until closure of the facility. The exclusion applies so long as the plant meets all of the conditions. If the plant goes out of compliance with any condition, it may apply to the Director for reinstatement. The Director may reinstate the exclusion upon finding that the plant has returned to compliance with

all conditions and that the violations are not likely to recur.

(10) EPA Hazardous Waste Nos. K060, K087, K141, K142, K143, K144, K145, K147, and K148, and any wastes from the coke by-products processes that are hazardous only because they exhibit the Toxicity Characteristic specified in Section R315-261-24, subsequent to generation, these materials are recycled to coke ovens, to the tar recovery process as a feedstock to produce coal tar, or mixed with coal tar prior to the tar's sale or refining. This exclusion is conditioned on there being no land disposal of the wastes from the point they are generated to the point they are recycled to coke ovens or tar recovery or refining processes, or mixed with coal tar.

(11) Nonwastewater splash condenser dross residue from the treatment of K061 in high temperature metals recovery units, provided it is shipped in drums, if shipped and not land disposed before recovery.

(12)(i) Oil-bearing hazardous secondary materials, i.e., sludges, byproducts, or spent materials, that are generated at a petroleum refinery, SIC code 2911, and are inserted into the petroleum refining process, SIC code 2911-including, but not limited to, distillation, catalytic cracking, fractionation, or thermal cracking units, i.e., cokers, unless the material is placed on the land, or speculatively accumulated before being so recycled. Materials inserted into thermal cracking units are excluded under Subsection R315-261-4(12)(i), provided that the coke product also does not exhibit a characteristic of hazardous waste. Oil-bearing hazardous secondary materials may be inserted into the same petroleum refinery where they are generated, or sent directly to another petroleum refinery and still be excluded under this provision. Except as provided in Subsection R315-261-4(a)(12)(ii), oil-bearing hazardous secondary materials generated elsewhere in the petroleum industry, i.e., from sources other than petroleum refineries, are not excluded under Section R315-261-4. Residuals generated from processing or recycling materials excluded under Subsection R315-261-4(a)(12)(i), where such materials as generated would have otherwise met a listing under Sections R315-261-30 through R315-261-35, are designated as F037 listed wastes when disposed of or intended for disposal.

(ii) Recovered oil that is recycled in the same manner and with the same conditions as described in

Subsection R315-261-4(a)(12)(i). Recovered oil is oil that has been reclaimed from secondary materials, including wastewater, generated from normal petroleum industry practices, including refining, exploration and production, bulk storage, and transportation incident thereto, SIC codes 1311, 1321, 1381, 1382, 1389, 2911, 4612, 4613, 4922, 4923, 4789, 5171, and 5172. Recovered oil does not include oil-bearing hazardous wastes listed in Sections R315-261-30 through 35; however, oil recovered from such wastes may be considered recovered oil. Recovered oil does not include used oil as defined in Subsection 19-6-703(19).

(13) Excluded scrap metal (processed scrap metal, unprocessed home scrap metal, and unprocessed prompt scrap metal) being recycled.

(14) Shredded circuit boards being recycled provided that they are:

(i) Stored in containers sufficient to prevent a release to the environment prior to recovery; and

(ii) Free of mercury switches, mercury relays and nickel-cadmium batteries and lithium batteries.

(15) Condensates derived from the overhead gases from kraft mill steam strippers that are used to comply with 40 CFR 63.446(e). The exemption applies only to combustion at the mill generating the condensates.

(16) Reserved.

(17) Spent materials, as defined in Section R315-261-1, other than hazardous wastes listed in Sections R315-261-30 through 35, generated within the primary mineral processing industry from which minerals, acids, cyanide, water, or other values are recovered by mineral processing or by beneficiation, provided that:

(i) The spent material is legitimately recycled to recover minerals, acids, cyanide, water or other values;

(ii) The spent material is not accumulated speculatively;

(iii) Except as provided in Subsection R315-261-4(a)(17)(iv), the spent material is stored in tanks, containers, or buildings meeting the following minimum integrity standards: a building shall be an engineered structure with a floor, walls, and a roof all of which are made of non-earthen materials providing structural support, except smelter buildings may have partially earthen floors provided the secondary material is stored on the non-earthen portion, and have a roof suitable for diverting rainwater away from the foundation; a tank shall be free

standing, not be a surface impoundment, as defined in Section R315-260-10, and be manufactured of a material suitable for containment of its contents; a container shall be free standing and be manufactured of a material suitable for containment of its contents. If tanks or containers contain any particulate which may be subject to wind dispersal, the owner/operator shall operate these units in a manner which controls fugitive dust. Tanks, containers, and buildings shall be designed, constructed and operated to prevent significant releases to the environment of these materials.

(iv) The Director may make a site-specific determination, after public review and comment, that only solid mineral processing spent material may be placed on pads rather than tanks containers, or buildings. Solid mineral processing spent materials do not contain any free liquid. The Director shall affirm that pads are designed, constructed and operated to prevent significant releases of the secondary material into the environment. Pads shall provide the same degree of containment afforded by the non-RCRA tanks, containers and buildings eligible for exclusion.

(A) The Director shall also consider if storage on pads poses the potential for significant releases via groundwater, surface water, and air exposure pathways. Factors to be considered for assessing the groundwater, surface water, air exposure pathways are: The volume and physical and chemical properties of the secondary material, including its potential for migration off the pad; the potential for human or environmental exposure to hazardous constituents migrating from the pad via each exposure pathway, and the possibility and extent of harm to human and environmental receptors via each exposure pathway.

(B) Pads shall meet the following minimum standards: Be designed of non-earthen material that is compatible with the chemical nature of the mineral processing spent material, capable of withstanding physical stresses associated with placement and removal, have run on/runoff controls, be operated in a manner which controls fugitive dust, and have integrity assurance through inspections and maintenance programs.

(C) Before making a determination under Subsection R315-261-4(a)(17)(iv), the Director shall provide notice and the opportunity for comment to all persons potentially interested in the determination. This can be accomplished

by placing notice of this action in major local newspapers, or broadcasting notice over local radio stations.

(v) The owner or operator provides notice to the Director providing the following information: The types of materials to be recycled; the type and location of the storage units and recycling processes; and the annual quantities expected to be placed in land-based units. This notification shall be updated when there is a change in the type of materials recycled or the location of the recycling process.

(vi) For purposes of Subsection R315-261-4(b)(7), mineral processing spent materials shall be the result of mineral processing and may not include any listed hazardous wastes. Listed hazardous wastes and characteristic hazardous wastes generated by non-mineral processing industries are not eligible for the conditional exclusion from the definition of solid waste.

(18) Petrochemical recovered oil from an associated organic chemical manufacturing facility, where the oil is to be inserted into the petroleum refining process, SIC code 2911, along with normal petroleum refinery process streams, provided:

(i) The oil is hazardous only because it exhibits the characteristic of ignitability, as defined in Section R315-261-21, and/or toxicity for benzene, Section R315-261-24, waste code D018; and

(ii) The oil generated by the organic chemical manufacturing facility is not placed on the land, or speculatively accumulated before being recycled into the petroleum refining process. An “associated organic chemical manufacturing facility” is a facility where the primary SIC code is 2869, but where operations may also include SIC codes 2821, 2822, and 2865; and is physically co-located with a petroleum refinery; and where the petroleum refinery to which the oil being recycled is returned also provides hydrocarbon feedstocks to the organic chemical manufacturing facility. “Petrochemical recovered oil” is oil that has been reclaimed from secondary materials, i.e., sludges, byproducts, or spent materials, including wastewater, from normal organic chemical manufacturing operations, as well as oil recovered from organic chemical manufacturing processes.

(19) Spent caustic solutions from petroleum refining liquid treating processes used as a feedstock to produce cresylic or naphthenic acid unless the material is placed

on the land, or accumulated speculatively as defined in Subsection R315-261-1(c).

(20) Hazardous secondary materials used to make zinc fertilizers, provided that the following conditions specified are satisfied:

(i) Hazardous secondary materials used to make zinc micronutrient fertilizers shall not be accumulated speculatively, as defined in Subsection R315-261-1(c)(8).

(ii) Generators and intermediate handlers of zinc-bearing hazardous secondary materials that are to be incorporated into zinc fertilizers shall:

(A) Submit a one-time notice to the Director, which contains the name, address and EPA ID number of the generator or intermediate handler facility, provides a brief description of the secondary material that will be subject to the exclusion, and identifies when the manufacturer intends to begin managing excluded, zinc-bearing hazardous secondary materials under the conditions specified in Subsection R315-261-4(a)(20).

(B) Store the excluded secondary material in tanks, containers, or buildings that are constructed and maintained in a way that prevents releases of the secondary materials into the environment. At a minimum, any building used for this purpose shall be an engineered structure made of non-earthen materials that provide structural support, and shall have a floor, walls and a roof that prevent wind dispersal and contact with rainwater. Tanks used for this purpose shall be structurally sound and, if outdoors, shall have roofs or covers that prevent contact with wind and rain. Containers used for this purpose shall be kept closed except when it is necessary to add or remove material, and shall be in sound condition. Containers that are stored outdoors shall be managed within storage areas that:

(I) Have containment structures or systems sufficiently impervious to contain leaks, spills and accumulated precipitation; and

(II) Provide for effective drainage and removal of leaks, spills and accumulated precipitation; and

(III) Prevent run-on into the containment system.

(C) With each off-site shipment of excluded hazardous secondary materials, provide written notice to the receiving facility that the material is subject to the conditions of Subsection R315-261-4(a)(20).

(D) Maintain at the generator's or intermediate handlers's facility for no less than three years records of

all shipments of excluded hazardous secondary materials. For each shipment these records shall at a minimum contain the following information:

(I) Name of the transporter and date of the shipment;

(II) Name and address of the facility that received the excluded material, and documentation confirming receipt of the shipment; and

(III) Type and quantity of excluded secondary material in each shipment.

(iii) Manufacturers of zinc fertilizers or zinc fertilizer ingredients made from excluded hazardous secondary materials shall:

(A) Store excluded hazardous secondary materials in accordance with the storage requirements for generators and intermediate handlers, as specified in Subsection R315-261-4(a)(20)(ii)(B).

(B) Submit a one-time notification to the Director that, at a minimum, specifies the name, address and EPA ID number of the manufacturing facility, and identifies when the manufacturer intends to begin managing excluded, zinc-bearing hazardous secondary materials under the conditions specified in Subsection R315-261-4(a)(20).

(C) Maintain for a minimum of three years records of all shipments of excluded hazardous secondary materials received by the manufacturer, which shall at a minimum identify for each shipment the name and address of the generating facility, name of transporter and date the materials were received, the quantity received, and a brief description of the industrial process that generated the material.

(D) Submit to the Director an annual report that identifies the total quantities of all excluded hazardous secondary materials that were used to manufacture zinc fertilizers or zinc fertilizer ingredients in the previous year, the name and address of each generating facility, and the industrial process(s) from which they were generated.

(iv) Nothing in Section R315-261-4 preempts, overrides or otherwise negates the provision in Section R315-262-11, which requires any person who generates a solid waste to determine if that waste is a hazardous waste.

(v) Interim status and permitted storage units that have been used to store only zinc-bearing hazardous wastes prior to the submission of the one-time notice described in Subsection R315-261-4(a)(20)(ii)(A), and that afterward

will be used only to store hazardous secondary materials excluded under Subsection R315-261-4(a)(20), are not subject to the closure requirements of Rules R315-264 and R315-265.

(21) Zinc fertilizers made from hazardous wastes, or hazardous secondary materials that are excluded under Subsection R315-261-4(a)(20), provided that:

(i) The fertilizers meet the following contaminant limits:

(A) For metal contaminants:

TABLE

Constituent	Maximum Allowable Total Concentration in Fertilizer, per Unit (1%) of Zinc ppm)
Arsenic	0.3
Cadmium	1.4
Chromium	0.6
Lead	2.8
Mercury	0.3

(B) For dioxin contaminants the fertilizer shall contain no more than eight (8) parts per trillion of dioxin, measured as toxic equivalent.

(ii) The manufacturer performs sampling and analysis of the fertilizer product to determine compliance with the contaminant limits for metals no less than every six months, and for dioxins no less than every twelve months. Testing shall also be performed whenever changes occur to manufacturing processes or ingredients that could significantly affect the amounts of contaminants in the fertilizer product. The manufacturer may use any reliable analytical method to demonstrate that no constituent of concern is present in the product at concentrations above the applicable limits. It is the responsibility of the manufacturer to ensure that the sampling and analysis are unbiased, precise, and representative of the product(s) introduced into commerce.

(iii) The manufacturer maintains for no less than three years records of all sampling and analyses performed for purposes of determining compliance with the requirements of Subsection R315-261-4(a)(21)(ii). Such records shall at a minimum include:

(A) The dates and times product samples were taken, and the dates the samples were analyzed;

(B) The names and qualifications of the person(s) taking the samples;

(C) A description of the methods and equipment used to take the samples;

(D) The name and address of the laboratory facility at which analyses of the samples were performed;

(E) A description of the analytical methods used, including any cleanup and sample preparation methods; and

(F) All laboratory analytical results used to determine compliance with the contaminant limits specified in this Subsection R315-261-4(a)(21).

(22) Used cathode ray tubes (CRTs)

(i) Used, intact CRTs as defined in Section R315-260-10 are not solid wastes within the United States unless they are disposed, or unless they are speculatively accumulated as defined in Subsection R315-261-1(c)(8) by CRT collectors or glass processors.

(ii) Used, intact CRTs as defined in Section R315-260-10 are not solid wastes when exported for recycling provided that they meet the requirements of Section R315-261-40.

(iii) Used, broken CRTs as defined in Section R315-260-10 are not solid wastes provided that they meet the requirements of Section R315-261-39.

(iv) Glass removed from CRTs is not a solid waste provided that it meets the requirements of Section R315-261-39(c).

(23) Hazardous secondary material generated and legitimately reclaimed within the United States or its territories and under the control of the generator, provided that the material complies with Subsections R315-261-4(a)(23)(i) and (ii):

(i)(A) The hazardous secondary material is generated and reclaimed at the generating facility, for purposes of this definition, generating facility means all contiguous property owned, leased, or otherwise controlled by the hazardous secondary material generator; or

(B) The hazardous secondary material is generated and reclaimed at different facilities, if the reclaiming facility is controlled by the generator or if both the generating facility and the reclaiming facility are controlled by a person as defined in Section R315-260-10, and if the generator provides one of the following certifications: “on behalf of (insert generator facility name), I certify that this facility will send the indicated

hazardous secondary material to (insert reclaimer facility name), which is controlled by (insert generator facility name) and that (insert name of either facility) has acknowledged full responsibility for the safe management of the hazardous secondary material," or "on behalf of (insert generator facility name), I certify that this facility will send the indicated hazardous secondary material to (insert reclaimer facility name), that both facilities are under common control, and that (insert name of either facility) has acknowledged full responsibility for the safe management of the hazardous secondary material." For purposes of this paragraph, "control" means the power to direct the policies of the facility, whether by the ownership of stock, voting rights, or otherwise, except that contractors who operate facilities on behalf of a different person as defined in Section R315-260-10 shall not be deemed to "control" such facilities. The generating and receiving facilities shall both maintain at their facilities for no less than three years records of hazardous secondary materials sent or received under this exclusion. In both cases, the records shall contain the name of the transporter, the date of the shipment, and the type and quantity of the hazardous secondary material shipped or received under the exclusion. These requirements may be satisfied by routine business records, e.g., financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations; or

(C) The hazardous secondary material is generated pursuant to a written contract between a tolling contractor and a toll manufacturer and is reclaimed by the tolling contractor, if the tolling contractor certifies the following: "On behalf of (insert tolling contractor name), I certify that (insert tolling contractor name) has a written contract with (insert toll manufacturer name) to manufacture (insert name of product or intermediate) which is made from specified unused materials, and that (insert tolling contractor name) will reclaim the hazardous secondary materials generated during this manufacture. On behalf of (insert tolling contractor name), I also certify that (insert tolling contractor name) retains ownership of, and responsibility for, the hazardous secondary materials that are generated during the course of the manufacture, including any releases of hazardous secondary materials that occur during the manufacturing process". The tolling contractor shall maintain at its facility for no less than

three years records of hazardous secondary materials received pursuant to its written contract with the tolling manufacturer, and the tolling manufacturer shall maintain at its facility for no less than three years records of hazardous secondary materials shipped pursuant to its written contract with the tolling contractor. In both cases, the records shall contain the name of the transporter, the date of the shipment, and the type and quantity of the hazardous secondary material shipped or received pursuant to the written contract. These requirements may be satisfied by routine business records, e.g., financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations. For purposes of Subsection R315-261-4(a)(i)(C), tolling contractor means a person who arranges for the production of a product or intermediate made from specified unused materials through a written contract with a toll manufacturer. Toll manufacturer means a person who produces a product or intermediate made from specified unused materials pursuant to a written contract with a tolling contractor.

(ii)(A) The hazardous secondary material is contained as defined in Section R315-260-10. A hazardous secondary material released to the environment is discarded and a solid waste unless it is immediately recovered for the purpose of reclamation. Hazardous secondary material managed in a unit with leaks or other continuing or intermittent unpermitted releases is discarded and a solid waste.

(B) The hazardous secondary material is not speculatively accumulated, as defined in Subsection R315-261-1(c)(8).

(C) Notice is provided as required by Section R315-260-42.

(D) The material is not otherwise subject to material-specific management conditions under Subsection R315-261-4(a) when reclaimed, and it is not a spent lead-acid battery, see Sections R315-266-80 and R315-273-2.

(E) Persons performing the recycling of hazardous secondary materials under this exclusion shall maintain documentation of their legitimacy determination on-site. Documentation shall be a written description of how the recycling meets all four factors in Subsection R315-260-43(a). Documentation shall be maintained for three years after the recycling operation has ceased.

(F) The emergency preparedness and response requirements found in Sections R315-261-400, 410, 411 and 420 are met.

(24) Hazardous secondary material that is generated and then transferred to a verified reclamation facility for the purpose of reclamation is not a solid waste, provided that:

(i) The material is not speculatively accumulated, as defined in Subsection R315-261-1(c)(8);

(ii) The material is not handled by any person or facility other than the hazardous secondary material generator, the transporter, an intermediate facility or a reclaimer, and, while in transport, is not stored for more than 10 days at a transfer facility, as defined in Section R315-260-10, and is packaged according to applicable Department of Transportation regulations at 49 CFR parts 173, 178, and 179 while in transport;

(iii) The material is not otherwise subject to material-specific management conditions under Subsection R315-261-4(23)(a) when reclaimed, and it is not a spent lead-acid battery, see Sections R315-266-80 and R315-273-2;

(iv) The reclamation of the material is legitimate, as specified under Section R315-260-43;

(v) The hazardous secondary material generator satisfies all of the following conditions:

(A) The material shall be contained as defined in Section R315-260-10. A hazardous secondary material released to the environment is discarded and a solid waste unless it is immediately recovered for the purpose of recycling. Hazardous secondary material managed in a unit with leaks or other continuing releases is discarded and a solid waste.

(B) The hazardous secondary material generator shall arrange for transport of hazardous secondary materials to a verified reclamation facility, or facilities, in the United States. A verified reclamation facility is a facility that has been granted a variance under Subsection R315-260-31(d), or a reclamation facility where the management of the hazardous secondary materials is addressed under a hazardous waste Part B permit or interim status standards. If the hazardous secondary material will be passing through an intermediate facility, the intermediate facility shall have been granted a variance under Subsection R315-260-31(d) or the management of the hazardous secondary materials at that facility shall be addressed under a

hazardous waste Part B permit or interim status standards, and the hazardous secondary material generator shall make contractual arrangements with the intermediate facility to ensure that the hazardous secondary material is sent to the reclamation facility identified by the hazardous secondary material generator.

(C) The hazardous secondary material generator shall maintain at the generating facility for no less than three years records of all off-site shipments of hazardous secondary materials. For each shipment, these records shall, at a minimum, contain the following information:

(1) Name of the transporter and date of the shipment;

(2) Name and address of each reclaimer and, if applicable, the name and address of each intermediate facility to which the hazardous secondary material was sent;

(3) The type and quantity of hazardous secondary material in the shipment.

(D) The hazardous secondary material generator shall maintain at the generating facility for no less than three years confirmations of receipt from each reclaimer and, if applicable, each intermediate facility for all off-site shipments of hazardous secondary materials. Confirmations of receipt shall include the name and address of the reclaimer, or intermediate facility, the type and quantity of the hazardous secondary materials received and the date which the hazardous secondary materials were received. This requirement may be satisfied by routine business records, e.g., financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations of receipt;

(E) The hazardous secondary material generator shall comply with the emergency preparedness and response conditions in Sections R315-261-400, 410, 411, and 420.

(vi) Reclaimers of hazardous secondary material excluded from regulation under this exclusion and intermediate facilities as defined in Section R315-260-10 satisfy all of the following conditions:

(A) The reclaimer and intermediate facility shall maintain at its facility for no less than three years records of all shipments of hazardous secondary material that were received at the facility and, if applicable, for all shipments of hazardous secondary materials that were received and subsequently sent off-site from the facility for further reclamation. For each shipment, these records shall at a minimum contain the following information:

(1) Name of the transporter and date of the shipment;

(2) Name and address of the hazardous secondary material generator and, if applicable, the name and address of the reclaimer or intermediate facility which the hazardous secondary materials were received from;

(3) The type and quantity of hazardous secondary material in the shipment; and

(4) For hazardous secondary materials that, after being received by the reclaimer or intermediate facility, were subsequently transferred off-site for further reclamation, the name and address of the, subsequent, reclaimer and, if applicable, the name and address of each intermediate facility to which the hazardous secondary material was sent.

(B) The intermediate facility shall send the hazardous secondary material to the reclaimer(s) designated by the hazardous secondary materials generator.

(C) The reclaimer and intermediate facility shall send to the hazardous secondary material generator confirmations of receipt for all off-site shipments of hazardous secondary materials. Confirmations of receipt shall include the name and address of the reclaimer, or intermediate facility, the type and quantity of the hazardous secondary materials received and the date which the hazardous secondary materials were received. This requirement may be satisfied by routine business records, e.g., financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations of receipt.

(D) The reclaimer and intermediate facility shall manage the hazardous secondary material in a manner that is at least as protective as that employed for analogous raw material and shall be contained. An “analogous raw material” is a raw material for which a hazardous secondary material is a substitute and serves the same function and has similar physical and chemical properties as the hazardous secondary material.

(E) Any residuals that are generated from reclamation processes shall be managed in a manner that is protective of human health and the environment. If any residuals exhibit a hazardous characteristic according to Sections R315-261-20 through 24, or if they themselves are specifically listed in Sections R315-261-30 through 35, such residuals are hazardous wastes and shall be managed in accordance with the applicable requirements of Rules R315-260 through 266, 268, and 270.

(F) The reclaimer and intermediate facility have financial assurance as required under Sections R315-261-140 through 151,

(G) The reclaimer and intermediate facility have been granted a variance under Subsection R315-260-31(d) or have a hazardous waste Part B permit or interim status standards that address the management of the hazardous secondary materials; and

(vii) All persons claiming the exclusion under Subsection R315-261-4(a)(24) provide notification as required under Section R315-260-42.

(25) Reserved

(26) Solvent-contaminated wipes that are sent for cleaning and reuse are not solid wastes from the point of generation, provided that

(i) The solvent-contaminated wipes, when accumulated, stored, and transported, are contained in non-leaking, closed containers that are labeled “Excluded Solvent-Contaminated Wipes.” The containers shall be able to contain free liquids, should free liquids occur. During accumulation, a container is considered closed when there is complete contact between the fitted lid and the rim, except when it is necessary to add or remove solvent-contaminated wipes. When the container is full, or when the solvent-contaminated wipes are no longer being accumulated, or when the container is being transported, the container shall be sealed with all lids properly and securely affixed to the container and all openings tightly bound or closed sufficiently to prevent leaks and emissions;

(ii) The solvent-contaminated wipes may be accumulated by the generator for up to 180 days from the start date of accumulation for each container prior to being sent for cleaning;

(iii) At the point of being sent for cleaning on-site or at the point of being transported off-site for cleaning, the solvent-contaminated wipes shall contain no free liquids as defined in Section R315-260-10.

(iv) Free liquids removed from the solvent-contaminated wipes or from the container holding the wipes shall be managed according to the applicable regulations found in Rules R315-260 through 266, 268, 270 and 273;

(v) Generators shall maintain at their site the following documentation:

(A) Name and address of the laundry or dry cleaner that is receiving the solvent-contaminated wipes;

(B) Documentation that the 180-day accumulation time limit in Subsection R315-261-4(a)(26)(ii) is being met;

(C) Description of the process the generator is using to ensure the solvent-contaminated wipes contain no free liquids at the point of being laundered or dry cleaned on-site or at the point of being transported off-site for laundering or dry cleaning;

(vi) The solvent-contaminated wipes are sent to a laundry or dry cleaner whose discharge, if any, is regulated under sections 301 and 402 or section 307 of the Clean Water Act.

(27) Hazardous secondary material that is generated and then transferred to another person for the purpose of remanufacturing is not a solid waste, provided that:

(i) The hazardous secondary material consists of one or more of the following spent solvents: Toluene, xylenes, ethylbenzene, 1,2,4-trimethylbenzene, chlorobenzene, n-hexane, cyclohexane, methyl tert-butyl ether, acetonitrile, chloroform, chloromethane, dichloromethane, methyl isobutyl ketone, NN-dimethylformamide, tetrahydrofuran, n-butyl alcohol, ethanol, and/or methanol;

(ii) The hazardous secondary material originated from using one or more of the solvents listed in Subsection R315-261-4(a)(27)(i) in a commercial grade for reacting, extracting, purifying, or blending chemicals, or for rinsing out the process lines associated with these functions; in the pharmaceutical manufacturing, NAICS 325412; basic organic chemical manufacturing, NAICS 325199; plastics and resins manufacturing, NAICS 325211; and/or the paints and coatings manufacturing sectors, NAICS 325510.

(iii) The hazardous secondary material generator sends the hazardous secondary material spent solvents listed in Subsection R315-261-4(a)(27)(i) to a remanufacturer in the pharmaceutical manufacturing, NAICS 325412; basic organic chemical manufacturing, NAICS 325199; plastics and resins manufacturing, NAICS 325211; and/or the paints and coatings manufacturing sectors, NAICS 325510.

(iv) After remanufacturing one or more of the solvents listed in Subsection R315-261-4(a)(27)(i), the use of the remanufactured solvent shall be limited to reacting, extracting, purifying, or blending chemicals, or for rinsing out the process lines associated with these functions, in the pharmaceutical manufacturing, NAICS 325412; basic organic chemical manufacturing, NAICS 325199; plastics and resins manufacturing, NAICS 325211; and the

paints and coatings manufacturing sectors, NAICS 325510; or to using them as ingredients in a product. These allowed uses correspond to chemical functional uses enumerated under the Chemical Data Reporting Rule of the Toxic Substances Control Act, 40 CFR parts 704, 710-711, including Industrial Function Codes U015, solvents consumed in a reaction to produce other chemicals, and U030, solvents become part of the mixture;

(v) After remanufacturing one or more of the solvents listed in Subsection R315-261-4(a)(27)(i), the use of the remanufactured solvent does not involve cleaning or degreasing oil, grease, or similar material from textiles, glassware, metal surfaces, or other articles. (These disallowed continuing uses correspond to chemical functional uses in Industrial Function Code U029 under the Chemical Data Reporting Rule of the Toxics Substances Control Act.); and

(vi) Both the hazardous secondary material generator and the remanufacturer shall:

(A) The Director and update the notification every two years per Section R315-260-42;

(B) Develop and maintain an up-to-date remanufacturing plan which identifies:

(I) The name, address and EPA ID number of the generator(s) and the remanufacturer(s),

(II) The types and estimated annual volumes of spent solvents to be remanufactured,

(III) The processes and industry sectors that generate the spent solvents,

(IV) The specific uses and industry sectors for the remanufactured solvents, and

(V) A certification from the remanufacturer stating “on behalf of (insert remanufacturer facility name), I certify that this facility is a remanufacturer under pharmaceutical manufacturing, NAICS 325412; basic organic chemical manufacturing, NAICS 325199; plastics and resins manufacturing, NAICS 325211; and/or the paints and coatings manufacturing sectors, NAICS 325510; and will accept the spent solvent(s) for the sole purpose of remanufacturing into commercial-grade solvent(s) that will be used for reacting, extracting, purifying, or blending chemicals, or for rinsing out the process lines associated with these functions, or for use as product ingredient(s). I also certify that the remanufacturing equipment, vents, and tanks are equipped with and are operating air emission

controls in compliance with the appropriate Clean Air Act regulations under 40 CFR part 60, part 61 or part 63, or, absent such Clean Air Act standards for the particular operation or piece of equipment covered by the remanufacturing exclusion, are in compliance with the appropriate standards in Sections R315-261-1030 through 1035, 1050 through 1064 and 1080 through 1089”;

(C) Maintain records of shipments and confirmations of receipts for a period of three years from the dates of the shipments;

(D) Prior to remanufacturing, store the hazardous spent solvents in tanks or containers that meet technical standards found in Sections R315-261-17- through 179 and 190 through 200, with the tanks and containers being labeled or otherwise having an immediately available record of the material being stored;

(E) During remanufacturing, and during storage of the hazardous secondary materials prior to remanufacturing, the remanufacturer certifies that the remanufacturing equipment, vents, and tanks are equipped with and are operating air emission controls in compliance with the appropriate Clean Air Act regulations under 40 CFR part 60, part 61 or part 63; or, absent such Clean Air Act standards for the particular operation or piece of equipment covered by the remanufacturing exclusion, are in compliance with the appropriate standards in Sections R315-261-1030 through 1035, 1050 through 1064 and 1080 through 1089; and

(F) Meet the requirements prohibiting speculative accumulation per Subsection R315-261-1(c)(8).

(b) Solid wastes which are not hazardous wastes. The following solid wastes are not hazardous wastes:

(1) Household waste, including household waste that has been collected, transported, stored, treated, disposed, recovered, e.g., refuse-derived fuel, or reused. “Household waste” means any material, including garbage, trash and sanitary wastes in septic tanks, derived from households, including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds and day-use recreation areas. A resource recovery facility managing municipal solid waste shall not be deemed to be treating, storing, disposing of, or otherwise managing hazardous wastes for the purposes of regulation under this subtitle, if such facility:

(i) Receives and burns only

(A) Household waste, from single and multiple dwellings, hotels, motels, and other residential sources, and

(B) Solid waste from commercial or industrial sources that does not contain hazardous waste; and

(ii) Such facility does not accept hazardous wastes and the owner or operator of such facility has established contractual requirements or other appropriate notification or inspection procedures to assure that hazardous wastes are not received at or burned in such facility.

(2) Solid wastes generated by any of the following and which are returned to the soils as fertilizers:

(i) The growing and harvesting of agricultural crops.

(ii) The raising of animals, including animal manures.

(3) Mining overburden returned to the mine site.

(4)(i) Fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels, except as provided by Section R315-266-112 for facilities that burn or process hazardous waste.

(ii) The following wastes generated primarily from processes that support the combustion of coal or other fossil fuels that are co-disposed with the wastes in Subsection R315-261-4(b)(4)(i), except as provided by Section R315-266-112 for facilities that burn or process hazardous waste:

(A) Coal pile run-off. For purposes of Subsection R315-261-4(b)(4), coal pile run-off means any precipitation that drains off coal piles.

(B) Boiler cleaning solutions. For purposes of Subsection R315-261-4(b)(4), boiler cleaning solutions means water solutions and chemical solutions used to clean the fire-side and water-side of the boiler.

(C) Boiler blowdown. For purposes of Subsection R315-261-4(b)(4), boiler blowdown means water purged from boilers used to generate steam.

(D) Process water treatment and demineralizer regeneration wastes. For purposes of Subsection R315-261-4(b)(4), process water treatment and demineralizer regeneration wastes means sludges, rinses, and spent resins generated from processes to remove dissolved gases, suspended solids, and dissolved chemical salts from combustion system process water.

(E) Cooling tower blowdown. For purposes of Subsection R315-261-4(b)(4), cooling tower blowdown means water purged from a closed cycle cooling system. Closed cycle cooling systems include cooling towers, cooling ponds, or spray canals.

(F) Air heater and precipitator washes. For purposes of Subsection R315-261-4(b)(4), air heater and precipitator washes means wastes from cleaning air preheaters and electrostatic precipitators.

(G) Effluents from floor and yard drains and sumps. For purposes of Subsection R315-261-4(b)(4), effluents from floor and yard drains and sumps means wastewaters, such as wash water, collected by or from floor drains, equipment drains, and sumps located inside the power plant building; and wastewaters, such as rain runoff, collected by yard drains and sumps located outside the power plant building.

(H) Wastewater treatment sludges. For purposes of Subsection R315-261-4(b)(4), wastewater treatment sludges refers to sludges generated from the treatment of wastewaters specified in Subsections R315-261-4(b)(4)(ii)(A) through (F).

(5) Drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil, natural gas or geothermal energy.

(6)(i) Wastes which fail the test for the Toxicity Characteristic because chromium is present or are listed in Sections R315-261-30 through R316-261-35 due to the presence of chromium, which do not fail the test for the Toxicity Characteristic for any other constituent or are not listed due to the presence of any other constituent, and which do not fail the test for any other characteristic, if it is shown by a waste generator or by waste generators that:

(A) The chromium in the waste is exclusively, or nearly exclusively, trivalent chromium; and

(B) The waste is generated from an industrial process which uses trivalent chromium exclusively (or nearly exclusively) and the process does not generate hexavalent chromium; and

(C) The waste is typically and frequently managed in non-oxidizing environments.

(ii) Specific wastes which meet the standard in Subsections R315-261-4(b)(6)(i)(A), (B), and (C), so long as they do not fail the test for the toxicity

characteristic for any other constituent, and do not exhibit any other characteristic, are:

(A) Chrome (blue) trimmings generated by the following subcategories of the leather tanning and finishing industry; hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(B) Chrome (blue) shavings generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(C) Buffing dust generated by the following subcategories of the leather tanning and finishing industry; hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue.

(D) Sewer screenings generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(E) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(F) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; and through-the-blue.

(G) Waste scrap leather from the leather tanning industry, the shoe manufacturing industry, and other leather product manufacturing industries.

(H) Wastewater treatment sludges from the production of TiO2 pigment using chromium-bearing ores by the chloride process.

(7) Solid waste from the extraction, beneficiation, and processing of ores and minerals, including coal, phosphate rock, and overburden from the mining of uranium ore, except as provided by Section R315-266-112 for facilities that burn or process hazardous waste.

(i) For purposes of Subsection R315-261-4(b)(7) beneficiation of ores and minerals is restricted to the

following activities; crushing; grinding; washing; dissolution; crystallization; filtration; sorting; sizing; drying; sintering; pelletizing; briquetting; calcining to remove water and/or carbon dioxide; roasting, autoclaving, and/or chlorination in preparation for leaching (except where the roasting (and/or autoclaving and/or chlorination)/leaching sequence produces a final or intermediate product that does not undergo further beneficiation or processing); gravity concentration; magnetic separation; electrostatic separation; flotation; ion exchange; solvent extraction; electrowinning; precipitation; amalgamation; and heap, dump, vat, tank, and in situ leaching.

(ii) For the purposes of Subsection R315-261-4(b)(7), solid waste from the processing of ores and minerals includes only the following wastes as generated:

(A) Slag from primary copper processing;

(B) Slag from primary lead processing;

(C) Red and brown muds from bauxite refining;

(D) Phosphogypsum from phosphoric acid production;

(E) Slag from elemental phosphorus production;

(F) Gasifier ash from coal gasification;

(G) Process wastewater from coal gasification;

(H) Calcium sulfate wastewater treatment plant sludge from primary copper processing;

(I) Slag tailings from primary copper processing;

(J) Fluorogypsum from hydrofluoric acid production;

(K) Process wastewater from hydrofluoric acid production;

(L) Air pollution control dust/sludge from iron blast furnaces;

(M) Iron blast furnace slag;

(N) Treated residue from roasting/leaching of chrome ore;

(O) Process wastewater from primary magnesium processing by the anhydrous process;

(P) Process wastewater from phosphoric acid production;

(Q) Basic oxygen furnace and open hearth furnace air pollution control dust/sludge from carbon steel production;

(R) Basic oxygen furnace and open hearth furnace slag from carbon steel production;

(S) Chloride process waste solids from titanium tetrachloride production;

(T) Slag from primary zinc processing.

(iii) A residue derived from co-processing mineral processing secondary materials with normal beneficiation raw materials or with normal mineral processing raw materials remains excluded under Subsection R315-261-4(b) if the owner or operator:

(A) Processes at least 50 percent by weight normal beneficiation raw materials or normal mineral processing raw materials; and,

(B) Legitimately reclaims the secondary mineral processing materials.

(8) Cement kiln dust waste, except as provided by Section R315-266-112 for facilities that burn or process hazardous waste.

(9) Solid waste which consists of discarded arsenical-treated wood or wood products which fails the test for the Toxicity Characteristic for Hazardous Waste Codes D004 through D017 and which is not a hazardous waste for any other reason if the waste is generated by persons who utilize the arsenical-treated wood and wood products for these materials' intended end use.

(10) Petroleum-contaminated media and debris that fail the test for the Toxicity Characteristic of Section R315-261-24, Hazardous Waste Codes D018 through D043 only, and are subject to the corrective action regulations under Section R315-311-202-1 which adopts 40 CFR 280 by reference.

(11) Injected groundwater that is hazardous only because it exhibits the Toxicity Characteristic, Hazardous Waste Codes D018 through D043 only, in Section R315-261-24 that is reinjected through an underground injection well pursuant to free phase hydrocarbon recovery operations undertaken at petroleum refineries, petroleum marketing terminals, petroleum bulk plants, petroleum pipelines, and petroleum transportation spill sites until January 25, 1993. This extension applies to recovery operations in existence, or for which contracts have been issued, on or before March 25, 1991. For groundwater returned through infiltration galleries from such operations at petroleum refineries, marketing terminals, and bulk plants, until October 2, 1991. New operations involving injection wells, beginning after March 25, 1991, will qualify for this compliance date extension, until January 25, 1993, only if:

(i) Operations are performed pursuant to a written state agreement that includes a provision to assess the

groundwater and the need for further remediation once the free phase recovery is completed; and

(ii) A copy of the written agreement has been submitted to: Waste Identification Branch (5304), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460 and the Division of Waste Management and Radiation Control, PO Box 144880, Salt Lake City, UT 84114-4880.

(12) Used chlorofluorocarbon refrigerants from totally enclosed heat transfer equipment, including mobile air conditioning systems, mobile refrigeration, and commercial and industrial air conditioning and refrigeration systems that use chlorofluorocarbons as the heat transfer fluid in a refrigeration cycle, provided the refrigerant is reclaimed for further use.

(13) Non-terne plated used oil filters that are not mixed with wastes listed in Sections R315-261-30 through R315-261-35 if these oil filters have been gravity hot-drained using one of the following methods:

(i) Puncturing the filter anti-drain back valve or the filter dome end and hot-draining;

(ii) Hot-draining and crushing;

(iii) Dismantling and hot-draining; or

(iv) Any other equivalent hot-draining method that will remove used oil.

(14) Used oil re-refining distillation bottoms that are used as feedstock to manufacture asphalt products.

(15) Leachate or gas condensate collected from landfills where certain solid wastes have been disposed, provided that:

(i) The solid wastes disposed would meet one or more of the listing descriptions for Hazardous Waste Codes K169, K170, K171, K172, K174, K175, K176, K177, K178 and K181 if these wastes had been generated after the effective date of the listing;

(ii) The solid wastes described in Subsection R315-261-4(b)(15)(i) were disposed prior to the effective date of the listing;

(iii) The leachate or gas condensate do not exhibit any characteristic of hazardous waste nor are derived from any other listed hazardous waste;

(iv) Discharge of the leachate or gas condensate, including leachate or gas condensate transferred from the landfill to a POTW by truck, rail, or dedicated pipe, is

subject to regulation under sections 307(b) or 402 of the Clean Water Act.

(v) As of February 13, 2001, leachate or gas condensate derived from K169-K172 is no longer exempt if it is stored or managed in a surface impoundment prior to discharge. As of November 21, 2003, leachate or gas condensate derived from K176, K177, and K178 is no longer exempt if it is stored or managed in a surface impoundment prior to discharge. After February 26, 2007, leachate or gas condensate derived from K181 will no longer be exempt if it is stored or managed in a surface impoundment prior to discharge. There is one exception: if the surface impoundment is used to temporarily store leachate or gas condensate in response to an emergency situation, e.g., shutdown of wastewater treatment system, provided the impoundment has a double liner, and provided the leachate or gas condensate is removed from the impoundment and continues to be managed in compliance with the conditions of Subsection R315-261-4(b)(15)(v) after the emergency ends.

(16) Reserved

(17) Reserved

(18) Solvent-contaminated wipes, except for wipes that are hazardous waste due to the presence of trichloroethylene, that are sent for disposal are not hazardous wastes from the point of generation provided that

(i) The solvent-contaminated wipes, when accumulated, stored, and transported, are contained in non-leaking, closed containers that are labeled “Excluded Solvent-Contaminated Wipes.” The containers shall be able to contain free liquids, should free liquids occur. During accumulation, a container is considered closed when there is complete contact between the fitted lid and the rim, except when it is necessary to add or remove solvent-contaminated wipes. When the container is full, or when the solvent-contaminated wipes are no longer being accumulated, or when the container is being transported, the container shall be sealed with all lids properly and securely affixed to the container and all openings tightly bound or closed sufficiently to prevent leaks and emissions;

(ii) The solvent-contaminated wipes may be accumulated by the generator for up to 180 days from the start date of accumulation for each container prior to being sent for disposal;

(iii) At the point of being transported for disposal, the solvent-contaminated wipes shall contain no free liquids as defined in Section R315-260-10.

(iv) Free liquids removed from the solvent-contaminated wipes or from the container holding the wipes shall be managed according to the applicable regulations found in Rules R315-260 through 266, 268, 270 and 273;

(v) Generators shall maintain at their site the following documentation:

(A) Name and address of the landfill or combustor that is receiving the solvent-contaminated wipes;

(B) Documentation that the 180 day accumulation time limit in Subsection R315-261-4(b)(18)(ii) is being met;

(C) Description of the process the generator is using to ensure solvent-contaminated wipes contain no free liquids at the point of being transported for disposal;

(vi) The solvent-contaminated wipes are sent for disposal

(A) To a solid waste landfill that:

(1) is regulated under R315-301 through R315-320

(2) is a Class I or V Landfill; and

(3) has a composite liner; or

(B) To a hazardous waste landfill regulated under Rules R315-260 through 266, 268, and 270; or

(C) To a municipal waste combustor or other combustion facility regulated under section 129 of the Clean Air Act or to a hazardous waste combustor, boiler, or industrial furnace regulated under Rule R315-264, Rule R315-265, or Sections R315-266-100 through R315-266-112.

(c) Hazardous wastes which are exempted from certain regulations. A hazardous waste which is generated in a product or raw material storage tank, a product or raw material transport vehicle or vessel, a product or raw material pipeline, or in a manufacturing process unit or an associated non-waste-treatment-manufacturing unit, is not subject to regulation under Rules R315-262 through 265, 268, 270, and 124 or to the notification requirements of section 3010 of RCRA until it exits the unit in which it was generated, unless the unit is a surface impoundment, or unless the hazardous waste remains in the unit more than 90 days after the unit ceases to be operated for manufacturing, or for storage or transportation of product or raw materials.

(d)(1) Samples. Except as provided in Subsection R315-261-4(d)(2), a sample of solid waste or a sample of

water, soil, or air, which is collected for the sole purpose of testing to determine its characteristics or composition, is not subject to any requirements of Rules R315-261 through 266, 268 or 270 or 124 or to the notification requirements of Section 3010 of RCRA, when:

(i) The sample is being transported to a laboratory for the purpose of testing; or

(ii) The sample is being transported back to the sample collector after testing; or

(iii) The sample is being stored by the sample collector before transport to a laboratory for testing; or

(iv) The sample is being stored in a laboratory before testing; or

(v) The sample is being stored in a laboratory after testing but before it is returned to the sample collector; or

(vi) The sample is being stored temporarily in the laboratory after testing for a specific purpose (for example, until conclusion of a court case or enforcement action where further testing of the sample may be necessary).

(2) In order to qualify for the exemption in Subsections R315-261-4(d)(1) (i) and (ii), a sample collector shipping samples to a laboratory and a laboratory returning samples to a sample collector shall:

(i) Comply with U.S. Department of Transportation (DOT), U.S. Postal Service (USPS), or any other applicable shipping requirements; or

(ii) Comply with the following requirements if the sample collector determines that DOT, USPS, or other shipping requirements do not apply to the shipment of the sample:

(A) Assure that the following information accompanies the sample:

(I) The sample collector's name, mailing address, and telephone number;

(II) The laboratory's name, mailing address, and telephone number;

(III) The quantity of the sample;

(IV) The date of shipment; and

(V) A description of the sample.

(B) Package the sample so that it does not leak, spill, or vaporize from its packaging.

(3) This exemption does not apply if the laboratory determines that the waste is hazardous but the laboratory

is no longer meeting any of the conditions stated in Subsection R315-261-4(d)(1).

(e)(1) Treatability Study Samples. Except as provided in Subsection R315-261-4(e)(2), persons who generate or collect samples for the purpose of conducting treatability studies as defined in Section R315-260-10, are not subject to any requirement of Rules R315-261 through 263 or to the notification requirements of Section 3010 of RCRA, nor are such samples included in the quantity determinations of Section R315-261-5 and Subsection R315-262-34(d) when:

(i) The sample is being collected and prepared for transportation by the generator or sample collector; or

(ii) The sample is being accumulated or stored by the generator or sample collector prior to transportation to a laboratory or testing facility; or

(iii) The sample is being transported to the laboratory or testing facility for the purpose of conducting a treatability study.

(2) The exemption in Subsection R315-261-4(e)(1) is applicable to samples of hazardous waste being collected and shipped for the purpose of conducting treatability studies provided that:

(i) The generator or sample collector uses (in "treatability studies") no more than 10,000 kg of media contaminated with non-acute hazardous waste, 1000 kg of non-acute hazardous waste other than contaminated media, 1 kg of acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste for each process being evaluated for each generated waste stream; and

(ii) The mass of each sample shipment does not exceed 10,000 kg; the 10,000 kg quantity may be all media contaminated with non-acute hazardous waste, or may include 2500 kg of media contaminated with acute hazardous waste, 1000 kg of hazardous waste, and 1 kg of acute hazardous waste; and

(iii) The sample shall be packaged so that it will not leak, spill, or vaporize from its packaging during shipment and the requirements of Subsections R315-261-4(e)(2)(iii)(A) or (B) are met.

(A) The transportation of each sample shipment complies with U.S. Department of Transportation (DOT), U.S. Postal Service (USPS), or any other applicable shipping requirements; or

(B) If the DOT, USPS, or other shipping requirements do not apply to the shipment of the sample, the following information shall accompany the sample:

(I) The name, mailing address, and telephone number of the originator of the sample;

(II) The name, address, and telephone number of the facility that will perform the treatability study;

(III) The quantity of the sample;

(IV) The date of shipment; and

(V) A description of the sample, including its EPA Hazardous Waste Number.

(iv) The sample is shipped to a laboratory or testing facility which is exempt under Subsection R315-261-4(f) or has an appropriate RCRA permit or interim status.

(v) The generator or sample collector maintains the following records for a period ending three years after completion of the treatability study:

(A) Copies of the shipping documents;

(B) A copy of the contract with the facility conducting the treatability study;

(C) Documentation showing:

(I) The amount of waste shipped under this exemption;

(II) The name, address, and EPA identification number of the laboratory or testing facility that received the waste;

(III) The date the shipment was made; and

(IV) Whether or not unused samples and residues were returned to the generator.

(vi) The generator reports the information required under Subsection R315-261-4(e)(2)(v)(C) in its biennial report.

(3) The Director may grant requests on a case-by-case basis for up to an additional two years for treatability studies involving bioremediation. The Director may grant requests on a case-by-case basis for quantity limits in excess of those specified in Subsections R315-261-4(e)(2)(i) and (ii) and Subsection R315-261-4(f)(4), for up to an additional 5000 kg of media contaminated with non-acute hazardous waste, 500 kg of non-acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste and 1 kg of acute hazardous waste:

(i) In response to requests for authorization to ship, store and conduct treatability studies on additional quantities in advance of commencing treatability studies. Factors to be considered in reviewing such requests include

the nature of the technology; the type of process, e.g., batch versus continuous; size of the unit undergoing testing, particularly in relation to scale-up considerations; the time/quantity of material required to reach steady state operating conditions; or test design considerations such as mass balance calculations.

(ii) In response to requests for authorization to ship, store and conduct treatability studies on additional quantities after initiation or completion of initial treatability studies, when: There has been an equipment or mechanical failure during the conduct of a treatability study; there is a need to verify the results of a previously conducted treatability study; there is a need to study and analyze alternative techniques within a previously evaluated treatment process; or there is a need to do further evaluation of an ongoing treatability study to determine final specifications for treatment.

(iii) The additional quantities and timeframes allowed in Subsections R315-261-4(e)(3)(i) and (ii) are subject to all the provisions in Subsections R315-261-4(e)(1) and (e)(2)(iii) through (vi). The generator or sample collector shall apply to the Director and provide in writing the following information:

(A) The reason why the generator or sample collector requires additional time or quantity of sample for treatability study evaluation and the additional time or quantity needed;

(B) Documentation accounting for all samples of hazardous waste from the waste stream which have been sent for or undergone treatability studies including the date each previous sample from the waste stream was shipped, the quantity of each previous shipment, the laboratory or testing facility to which it was shipped, what treatability study processes were conducted on each sample shipped, and the available results on each treatability study;

(C) A description of the technical modifications or change in specifications which will be evaluated and the expected results;

(D) If such further study is being required due to equipment or mechanical failure, the applicant shall include information regarding the reason for the failure or breakdown and also include what procedures or equipment improvements have been made to protect against further breakdowns; and

(E) Such other information that the Director considers necessary.

(f) Samples Undergoing Treatability Studies at Laboratories and Testing Facilities. Samples undergoing treatability studies and the laboratory or testing facility conducting such treatability studies, to the extent such facilities are not otherwise subject to RCRA requirements, are not subject to any requirement of Rules R315-261 through 266, 268 and 270, or to the notification requirements of Section 3010 of RCRA provided that the conditions of Subsection R315-261-4(f)(1) through (11) are met. A mobile treatment unit (MTU) may qualify as a testing facility subject to Subsections R315-261-4(f)(1) through (11). Where a group of MTUs are located at the same site, the limitations specified in Subsections R315-261-4(f)(1) through (11) apply to the entire group of MTUs collectively as if the group were one MTU.

(1) No less than 45 days before conducting treatability studies, the facility notifies the Director, in writing that it intends to conduct treatability studies under Subsection R315-261-4(f).

(2) The laboratory or testing facility conducting the treatability study has an EPA identification number.

(3) No more than a total of 10,000 kg of “as received” media contaminated with non-acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste or 250 kg of other “as received” hazardous waste is subject to initiation of treatment in all treatability studies in any single day. “As received” waste refers to the waste as received in the shipment from the generator or sample collector.

(4) The quantity of “as received” hazardous waste stored at the facility for the purpose of evaluation in treatability studies does not exceed 10,000 kg, the total of which can include 10,000 kg of media contaminated with non-acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste, 1000 kg of non-acute hazardous wastes other than contaminated media, and 1 kg of acute hazardous waste. This quantity limitation does not include treatment materials, including nonhazardous solid waste, added to “as received” hazardous waste.

(5) No more than 90 days have elapsed since the treatability study for the sample was completed, or no more than one year, two years for treatability studies involving bioremediation, have elapsed since the generator or sample

collector shipped the sample to the laboratory or testing facility, whichever date first occurs. Up to 500 kg of treated material from a particular waste stream from treatability studies may be archived for future evaluation up to five years from the date of initial receipt. Quantities of materials archived are counted against the total storage limit for the facility.

(6) The treatability study does not involve the placement of hazardous waste on the land or open burning of hazardous waste.

(7) The facility maintains records for three years following completion of each study that show compliance with the treatment rate limits and the storage time and quantity limits. The following specific information shall be included for each treatability study conducted:

(i) The name, address, and EPA identification number of the generator or sample collector of each waste sample;

(ii) The date the shipment was received;

(iii) The quantity of waste accepted;

(iv) The quantity of “as received” waste in storage each day;

(v) The date the treatment study was initiated and the amount of “as received” waste introduced to treatment each day;

(vi) The date the treatability study was concluded;

(vii) The date any unused sample or residues generated from the treatability study were returned to the generator or sample collector or, if sent to a designated facility, the name of the facility and the EPA identification number.

(8) The facility keeps, on-site, a copy of the treatability study contract and all shipping papers associated with the transport of treatability study samples to and from the facility for a period ending three years from the completion date of each treatability study.

(9) The facility prepares and submits a report to the Director, by March 15 of each year, that includes the following information for the previous calendar year:

(i) The name, address, and EPA identification number of the facility conducting the treatability studies;

(ii) The types (by process) of treatability studies conducted;

(iii) The names and addresses of persons for whom studies have been conducted, including their EPA identification numbers;

(iv) The total quantity of waste in storage each day;

(v) The quantity and types of waste subjected to treatability studies;

(vi) When each treatability study was conducted;

(vii) The final disposition of residues and unused sample from each treatability study.

(10) The facility determines whether any unused sample or residues generated by the treatability study are hazardous waste under Section R315-261-3 and, if so, are subject to Rules R315-261 through 268 and 270, unless the residues and unused samples are returned to the sample originator under the Subsection R3315-261-4(e) exemption.

(11) The facility notifies the Director, by letter when the facility is no longer planning to conduct any treatability studies at the site.

(g) Dredged material that is not a hazardous waste. Dredged material that is subject to the requirements of a permit that has been issued under 404 of the Federal Water Pollution Control Act (33 U.S.C.1344) or section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1413) is not a hazardous waste. For Subsection R315-261-4(g), the following definitions apply:

(1) The term dredged material has the same meaning as defined in 40 CFR 232.2;

(2) The term permit means:

(i) A permit issued by the U.S. Army Corps of Engineers (Corps) or an approved State under section 404 of the Federal Water Pollution Control Act (33 U.S.C. 1344);

(ii) A permit issued by the Corps under section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1413); or

(iii) In the case of Corps civil works projects, the administrative equivalent of the permits referred to in Subsections R315-261-4(g)(2)(i) and (ii), as provided for in Corps regulations.

(h) Carbon dioxide stream injected for geologic sequestration. Carbon dioxide streams that are captured and transported for purposes of injection into an underground injection well subject to the requirements for Class VI Underground Injection Control wells, including the requirements in Rule R317-7, are not a hazardous waste, provided the following conditions are met:

(1) Transportation of the carbon dioxide stream shall be in compliance with U.S. Department of Transportation requirements, including the pipeline safety laws, 49 U.S.C.

60101 et seq. and regulations, 49 CFR Parts 190-199, of the U.S. Department of Transportation, and pipeline safety regulations adopted and administered by a state authority pursuant to a certification under 49 U.S.C. 60105, as applicable.

(2) Injection of the carbon dioxide stream shall be in compliance with the applicable requirements for Class VI Underground Injection Control wells, including the applicable requirements in Rule R317-7;

(3) No hazardous wastes shall be mixed with, or otherwise co-injected with, the carbon dioxide stream; and

(4)(i) Any generator of a carbon dioxide stream, who claims that a carbon dioxide stream is excluded under Subsection R315-261-4(h), shall have an authorized representative, as defined in Section R315-260-10, sign a certification statement worded as follows: I certify under penalty of law that the carbon dioxide stream that I am claiming to be excluded under Subsection R315-261.4(h) has not been mixed with hazardous wastes, and I have transported the carbon dioxide stream in compliance with, or have contracted with a pipeline operator or transporter to transport the carbon dioxide stream in compliance with, Department of Transportation requirements, including the pipeline safety laws, 49 U.S.C. 60101 et seq., and regulations, 49 CFR Parts 190-199, of the U.S. Department of Transportation, and the pipeline safety regulations adopted and administered by a state authority pursuant to a certification under 49 U.S.C. 60105, as applicable, for injection into a well subject to the requirements for the Class VI Underground Injection Control Program of Rule R317-7.

(ii) Any Class VI Underground Injection Control well owner or operator, who claims that a carbon dioxide stream is excluded under Subsection R315-261-4(h), shall have an authorized representative, as defined in Section R315-260-10, sign a certification statement worded as follows: I certify under penalty of law that the carbon dioxide stream that I am claiming to be excluded under Subsection R315-261-4(h) has not been mixed with, or otherwise co-injected with, hazardous waste at the Underground Injection Control (UIC) Class VI permitted facility, and that injection of the carbon dioxide stream is in compliance with the applicable requirements for UIC Class VI wells, including the applicable requirements in Rule R317-7.

(iii) The signed certification statement shall be kept on-site for no less than three years, and shall be made available within 72 hours of a written request from the Director. The signed certification statement shall be renewed every year that the exclusion is claimed, by having an authorized representative, as defined in Section R315-260-10, annually prepare and sign a new copy of the certification statement within one year of the date of the previous statement. The signed certification statement shall also be readily accessible on the facility's publicly-available Web site, if such Web site exists, as a public notification with the title of “Carbon Dioxide Stream Certification” at the time the exclusion is claimed.

R315-261-5. Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators.

(a) A generator is a conditionally exempt small quantity generator in a calendar month if he generates no more than 100 kilograms of hazardous waste in that month.

(b) Except for those wastes identified in Subsections R315-261-5(e), (f), (g), and (j), a conditionally exempt small quantity generator's hazardous wastes are not subject to regulation under Rules R315-262 through 268, 270 and 124, and the notification requirements of section 3010 of RCRA, provided the generator complies with the requirements of Subsections R315-261-5(f), (g), and (j).

(c) When making the quantity determinations of Rules R315-261 and 262, the generator shall include all hazardous waste that it generates, except hazardous waste that:

(1) Is exempt from regulation under Subsections R315-261-4(c) through (f), R315-261-6(a)(3), R315-261-7(a)(1), or R315-261-8; or

(2) Is managed immediately upon generation only in on-site elementary neutralization units, wastewater treatment units, or totally enclosed treatment facilities as defined in Section R315-260-10; or

(3) Is recycled, without prior storage or accumulation, only in an on-site process subject to regulation under Subsection R315-261-6(c)(2); or

(4) Is used oil managed under the requirements of Subsection R315-261-6(a)(4) and Rule R315-15; or

(5) Is spent lead-acid batteries managed under the requirements of Section R315-266-80; or

(6) Is universal waste managed under Section R315-261-9 and Rule R315-273;

(7) Is a hazardous waste that is an unused commercial chemical product, listed in Sections R315-261-30 through 35 or exhibiting one or more characteristics in Sections R315-261-20 through 24, that is generated solely as a result of a laboratory clean-out conducted at an eligible academic entity pursuant to Section R315-262-213. For purposes of this provision, the term eligible academic entity shall have the meaning as defined in Section R315-262-200.

(d) In determining the quantity of hazardous waste generated, a generator need not include:

(1) Hazardous waste when it is removed from on-site storage; or

(2) Hazardous waste produced by on-site treatment, including reclamation, of his hazardous waste, so long as the hazardous waste that is treated was counted once; or

(3) Spent materials that are generated, reclaimed, and subsequently reused on-site, so long as such spent materials have been counted once.

(e) If a generator generates acute hazardous waste in a calendar month in quantities greater than set forth below, all quantities of that acute hazardous waste are subject to full regulation under Rules R315-262 through 268, 270 and 124, and the notification requirements of section 3010 of RCRA:

(1) A total of one kilogram of acute hazardous wastes listed in Section R315-261-31 or Subsection R315-261-33(e).

(2) A total of 100 kilograms of any residue or contaminated soil, waste, or other debris resulting from the clean-up of a spill, into or on any land or water, of any acute hazardous wastes listed in Section R315-261-31 or Subsection R315-261-33(e).

Note to Subsection R315-261-33(e): “Full regulation” means those regulations applicable to generators of 1,000 kg or greater of hazardous waste in a calendar month.

(f) In order for acute hazardous wastes generated by a generator of acute hazardous wastes in quantities equal to or less than those set forth in Subsections R315-261-5(e)(1) or (2) to be excluded from full regulation under Section R315-261-5, the generator shall comply with the following requirements:

(1) Section R315-262-11;

(2) The generator may accumulate acute hazardous waste on-site. If he accumulates at any time acute

hazardous wastes in quantities greater than those set forth in Subsections R315-261-(e)(1) or (2), all of those accumulated wastes are subject to regulation under Rules R315-262 through 266, 268, 270 and 124, and the applicable notification requirements of section 3010 of RCRA. The time period of Subsection R315-262-34(a), for accumulation of wastes on-site, begins when the accumulated wastes exceed the applicable exclusion limit;

(3) A conditionally exempt small quantity generator may either treat or dispose of his acute hazardous waste in an on-site facility or ensure delivery to an off-site treatment, storage, or disposal facility, either of which, if located in the U.S., is:

(i) Permitted under Rule R315-270;

(ii) In interim status under Rules R315-270 and 265;

(iii) Authorized to manage hazardous waste by a State with a hazardous waste management program approved under 40 CFR 271;

(iv) Permitted, licensed, or registered by a State to manage municipal solid waste and, if managed in a municipal solid waste landfill is subject to Rules R315-301 through 320;

(v) Permitted, licensed, or registered by a State to manage non-municipal non-hazardous waste and, if managed in a non-municipal non-hazardous waste disposal unit after January 1, 1998, is subject to the requirements in 40 CFR 257.5 through 257.30; or

(vi) A facility which:

(A) Beneficially uses or reuses, or legitimately recycles or reclaims its waste; or

(B) Treats its waste prior to beneficial use or reuse, or legitimate recycling or reclamation; or

(vii) For universal waste managed under Rule R315-273, a universal waste handler or destination facility subject to the requirements of Rule R315-273.

(g) In order for hazardous waste generated by a conditionally exempt small quantity generator in quantities of 100 kilograms or less of hazardous waste during a calendar month to be excluded from full regulation under Section R316-261-5, the generator shall comply with the following requirements:

(1) Section R315-262-11;

(2) The conditionally exempt small quantity generator may accumulate hazardous waste on-site. If he accumulates at any time 1,000 kilograms or greater of his hazardous

wastes, all of those accumulated wastes are subject to regulation under the special provisions of Rule R315-262 applicable to generators of greater than 100 kg and less than 1000 kg of hazardous waste in a calendar month as well as the requirements of Rules R315-263 through 266, 268, 270 and 124, and the applicable notification requirements of section 3010 of RCRA. The time period of Subsection R315-262-34(d) for accumulation of wastes on-site begins for a conditionally exempt small quantity generator when the accumulated wastes equal or exceed 1000 kilograms;

(3) A conditionally exempt small quantity generator may either treat or dispose of his hazardous waste in an on-site facility or ensure delivery to an off-site treatment, storage or disposal facility, either of which, if located in the U.S., is:

(i) Permitted under Rule R315-270;

(ii) In interim status under Rules R315-265 and 270;

(iii) Authorized to manage hazardous waste by a State with a hazardous waste management program approved under 40 CFR 271;

(iv) Permitted, licensed, or registered to manage municipal solid waste and, if managed in a municipal solid waste landfill is subject to Rules R315-301 through 320;

(v) Permitted, licensed, or registered by a State to manage non-municipal non-hazardous waste and, if managed in a non-municipal non-hazardous waste disposal unit after January 1, 1998, is subject to the requirements in 40 CFR 257.5 through 257.30; or

(vi) A facility which:

(A) Beneficially uses or reuses, or legitimately recycles or reclaims its waste; or

(B) Treats its waste prior to beneficial use or reuse, or legitimate recycling or reclamation; or

(vii) For universal waste managed under Rule R315-273, a universal waste handler or destination facility subject to the requirements of Rule R315-273.

(h) Hazardous waste subject to the reduced requirements of Section R315-261-5 may be mixed with non-hazardous waste and remain subject to these reduced requirements even though the resultant mixture exceeds the quantity limitations identified in Section R315-261-5, unless the mixture meets any of the characteristics of hazardous waste identified in Sections R315-261-20 through 24.

(i) If any person mixes a solid waste with a hazardous waste that exceeds a quantity exclusion level of Section R315-261-5, the mixture is subject to full regulation.

(j) If a conditionally exempt small quantity generator's wastes are mixed with used oil, the mixture is subject to Rule R315-15. Any material produced from such a mixture by processing, blending, or other treatment is also so regulated.

R315-261-6. Requirements for Recyclable Materials.

(a)(1) Hazardous wastes that are recycled are subject to the requirements for generators, transporters, and storage facilities of Subsections R315-261-6(b) and (c), except for the materials listed in Subsections R315-261-6(a)(2) and (a)(3). Hazardous wastes that are recycled shall be known as “recyclable materials.”

(2) The following recyclable materials are not subject to the requirements of Section R315-261-6 but are regulated under Sections R315-266-20 through 23, Section R315-266-70, Section R315-266-80, Sections R315-266-100 through 112, Sections R315-266-200 through 206, and Sections R315-266-210, 220, 225, 230,235, 240, 245, 250, 255, 260, 310, 315, 320, 325, 330, 335, 340, 345,350, 355, and 360 and all applicable provisions in Rules R315-268, 270 and 124.

(i) Recyclable materials used in a manner constituting disposal, Sections R315-266-20 through 23;

(ii) Hazardous wastes burned, as defined in Subsection R315-266-100(a), in boilers and industrial furnaces that are not regulated under Sections R315-264-340 through 345, 347 and 351; Sections R315-370, 373, 375, 377, and 381 through 383; and Section R315-266-100 through 112;

(iii) Recyclable materials from which precious metals are reclaimed, Section R315-266-70;

(iv) Spent lead-acid batteries that are being reclaimed, Section R315-266-80.

(3) The following recyclable materials are not subject to regulation under Rules R315-262 through 268, 270 and 124, and are not subject to the notification requirements of section 3010 of RCRA:

(i) Industrial ethyl alcohol that is reclaimed except that, unless provided otherwise in an international agreement as specified in Section R315-262-58:

(A) A person initiating a shipment for reclamation in a foreign country, and any intermediary arranging for the shipment, shall comply with the requirements applicable to a primary exporter in Section R315-262-53, Subsections R315-262-56(a)(1)through (4), (6), and (b), and Section R315-262-57, export such materials only upon consent of the receiving country and in conformance with the EPA Acknowledgment of Consent as defined in Sections R315-262-50 through 58, and provide a copy of the EPA Acknowledgment of Consent to the shipment to the transporter transporting the shipment for export;

(B) Transporters transporting a shipment for export may not accept a shipment if he knows the shipment does not conform to the EPA Acknowledgment of Consent, shall ensure that a copy of the EPA Acknowledgment of Consent accompanies the shipment and shall ensure that it is delivered to the facility designated by the person initiating the shipment.

(ii) Scrap metal that is not excluded under Subsection R315-261-4(a)(13);

(iii) Fuels produced from the refining of oil-bearing hazardous waste along with normal process streams at a petroleum refining facility if such wastes result from normal petroleum refining, production, and transportation practices, this exemption does not apply to fuels produced from oil recovered from oil-bearing hazardous waste, where such recovered oil is already excluded under Subsection R315-261-4(a)(12);

(iv)(A) Hazardous waste fuel produced from oil-bearing hazardous wastes from petroleum refining, production, or transportation practices, or produced from oil reclaimed from such hazardous wastes, where such hazardous wastes are reintroduced into a process that does not use distillation or does not produce products from crude oil so long as the resulting fuel meets the used oil specification under Subsection R315-15-1.2(c) and so long as no other hazardous wastes are used to produce the hazardous waste fuel;

(B) Hazardous waste fuel produced from oil-bearing hazardous waste from petroleum refining production, and transportation practices, where such hazardous wastes are reintroduced into a refining process after a point at which contaminants are removed, so long as the fuel meets the used oil fuel specification under Subsection R315-15-1.2(c); and

(C) Oil reclaimed from oil-bearing hazardous wastes from petroleum refining, production, and transportation practices, which reclaimed oil is burned as a fuel without reintroduction to a refining process, so long as the reclaimed oil meets the used oil fuel specification under Subsection R315-15-1.2(c).

(4) Used oil that is recycled and is also a hazardous waste solely because it exhibits a hazardous characteristic is not subject to the requirements of Rules R315-260 through 268, but is regulated under Rule R315-15. Used oil that is recycled includes any used oil which is reused, following its original use, for any purpose, including the purpose for which the oil was originally used. Such term includes, but is not limited to, oil which is re-refined, reclaimed, burned for energy recovery, or reprocessed.

(5) Hazardous waste that is exported to or imported from designated member countries of the Organization for Economic Cooperation and Development (OECD), as defined in Subsection R315-262-58(a)(1), for purpose of recovery is subject to the requirements of Sections R315-262-80 through 87 and 89, if it is subject to either the manifesting requirements of Rule R315-262, to the universal waste management standards of Rule R315-273.

(b) Generators and transporters of recyclable materials are subject to the applicable requirements of Rules R315-262 and 263 and the notification requirements under section 3010 of RCRA, except as provided in Subsection R315-261-6(a).

(c)(1) Owners and operators of facilities that store recyclable materials before they are recycled are regulated under all applicable provisions of Rules R315-264 and 265, and under Rules R315-266, 268, 270 and 124 and the notification requirements under section 3010 of RCRA, except as provided in Subsection R315-261-6(a). The recycling process itself is exempt from regulation except as provided in Subsection R315-261-6(d).

(2) Owners or operators of facilities that recycle recyclable materials without storing them before they are recycled are subject to the following requirements, except as provided in R315-261-6(a):

(i) Notification requirements under section 3010 of RCRA;

(ii) 40 CFR 265.71 and 72, which are adopted by reference; dealing with the use of the manifest and manifest discrepancies.

(iii) Subsection R315-261-6(d).

(d) Owners or operators of facilities subject to permitting requirements under Section 19-6-108 with hazardous waste management units that recycle hazardous wastes are subject to the requirements of Sections R315-264-1030 through 1036; Sections R315-264-1050 through 1065; 40 CFR 265.1030 through 1035, which are adopted and incorporated by reference; or 40 CFR 265.1050 through 1064, which are adopted and incorporated by reference.

R315-261-7. Residues of Hazardous Waste in Empty Containers.

(a)(1) Any hazardous waste remaining in either: an empty container; or an inner liner removed from an empty container, as defined in Subsection R315-261-7(b), is not subject to regulation under Rules R315-261 through 266, 268, 270 or 124 or to the notification requirements of section 3010 of RCRA.

(2) Any hazardous waste in either a container that is not empty or an inner liner removed from a container that is not empty, as defined in Subsection R315-261-7(b), is subject to regulation under Rules R315-261 through 266, 268, 270 and 124 and to the notification requirements of section 3010 of RCRA.

(b)(1) A container or an inner liner removed from a container that has held any hazardous waste, except a waste that is a compressed gas or that is identified as an acute hazardous waste listed in Section R315-261-31 or Subsection R315-261-33(e) is empty if:

(i) All wastes have been removed that can be removed using the practices commonly employed to remove materials from that type of container, e.g., pouring, pumping, and aspirating, and

(ii) No more than 2.5 centimeters, one inch, of residue remain on the bottom of the container or inner liner, or

(iii)(A) No more than three percent by weight of the total capacity of the container remains in the container or inner liner if the container is less than or equal to 119 gallons in size; or

(B) No more than 0.3 percent by weight of the total capacity of the container remains in the container or inner liner if the container is greater than 119 gallons in size.

(2) A container that has held a hazardous waste that is a compressed gas is empty when the pressure in the container approaches atmospheric.

(3) A container or an inner liner removed from a container that has held an acute hazardous waste listed in Section R315-261-31 or Subsection R315-261-33(e) is empty if:

(i) The container or inner liner has been triple rinsed using a solvent capable of removing the commercial chemical product or manufacturing chemical intermediate;

(ii) The container or inner liner has been cleaned by another method that has been shown in the scientific literature, or by tests conducted by the generator, to achieve equivalent removal; or

(iii) In the case of a container, the inner liner that prevented contact of the commercial chemical product or manufacturing chemical intermediate with the container, has been removed.

R315-261-8. PCB Wastes Regulated Under Toxic Substance Control Act.

The disposal of PCB-containing dielectric fluid and electric equipment containing such fluid authorized for use and regulated under 40 CFR 761 and that are hazardous only because they fail the test for the Toxicity Characteristic. Hazardous Waste Codes D018 through D043 only, are exempt from regulation under Rules R315-261 through 265, 268, 270 and 124, and the notification requirements of section 3010 of RCRA.

R315-261-9. Requirements for Universal Waste.

The wastes listed in Section R315-261-9 are exempt from regulation under Rules R315-262 through 270 except as specified in Rule R315-273 and, therefore are not fully regulated as hazardous waste. The wastes listed in Section R315-261-9 are subject to regulation under Rule R315-273:

(a) Batteries as described in Section R315-273-2;

(b) Pesticides as described in Section R315-273-3;

(c) Mercury-containing equipment as described in Section R315-273-4; and

(d) Lamps as described in Section R315-273-5.

(e) Antifreeze as described in Subsection R315-273-6(a).

(f) Aerosol cans as described in Subsection R315-273-6(b).

R315-261-10. Criteria for Identifying the Characteristics of Hazardous Waste.

(a) The Board shall identify and define a characteristic of hazardous waste in Sections R315-261-20 through 24 only upon determining that:

(1) A solid waste that exhibits the characteristic may:

(i) Cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or

(ii) Pose a substantial present or potential hazard to human health or the environment when it is improperly treated, stored, transported, disposed of or otherwise managed; and

(2) The characteristic can be:

(i) Measured by an available standardized test method which is reasonably within the capability of generators of solid waste or private sector laboratories that are available to serve generators of solid waste; or

(ii) Reasonably detected by generators of solid waste through their knowledge of their waste.

R315-261-11. Criteria for Listing Hazardous Waste.

(a) The Board shall list a solid waste as a hazardous waste only upon determining that the solid waste meets one of the following criteria:

(1) It exhibits any of the characteristics of hazardous waste identified in Sections R315-261-20 through 24.

(2) It has been found to be fatal to humans in low doses or, in the absence of data on human toxicity, it has been shown in studies to have an oral LD 50 toxicity, rat, of less than 50 milligrams per kilogram, an inhalation LC 50 toxicity, rat, of less than 2 milligrams per liter, or a dermal LD 50 toxicity, rabbit, of less than 200 milligrams per kilogram or is otherwise capable of causing or significantly contributing to an increase in serious irreversible, or incapacitating reversible, illness. Waste listed in accordance with these criteria shall be designated Acute Hazardous Waste.

(3) It contains any of the toxic constituents listed in Rule R315-261 appendix VIII and, after considering the following factors, the Board concludes that the waste is capable of posing a substantial present or potential hazard

to human health or the environment when improperly treated, stored, transported or disposed of, or otherwise managed:

(i) The nature of the toxicity presented by the constituent.

(ii) The concentration of the constituent in the waste.

(iii) The potential of the constituent or any toxic degradation product of the constituent to migrate from the waste into the environment under the types of improper management considered in Subsection R315-261-11(a)(3)(vii).

(iv) The persistence of the constituent or any toxic degradation product of the constituent.

(v) The potential for the constituent or any toxic degradation product of the constituent to degrade into non-harmful constituents and the rate of degradation.

(vi) The degree to which the constituent or any degradation product of the constituent bioaccumulates in ecosystems.

(vii) The plausible types of improper management to which the waste could be subjected.

(viii) The quantities of the waste generated at individual generation sites or on a regional or national basis.

(ix) The nature and severity of the human health and environmental damage that has occurred as a result of the improper management of wastes containing the constituent.

(x) Action taken by other governmental agencies or regulatory programs based on the health or environmental hazard posed by the waste or waste constituent.

(xi) Such other factors as may be appropriate. Substances shall be listed on appendix VIII of Rule R315-261 only if they have been shown in scientific studies to have toxic, carcinogenic, mutagenic or teratogenic effects on humans or other life forms. Wastes listed in accordance with these criteria shall be designated Toxic wastes.

(b) The Board may list classes or types of solid waste as hazardous waste if it has reason to believe that individual wastes, within the class or type of waste, typically or frequently are hazardous under the definition of hazardous waste found in Section 19-6-102.

(c) The Board shall use the criteria for listing specified in Section R315-261-11 to establish the exclusion limits referred to in Subsection R315-261-5(c).

R315-261-20. Characteristics of Hazardous Waste - General

(a) A solid waste, as defined in Section R315-261-2, which is not excluded from regulation as a hazardous waste under Subsection R315-261-4(b), is a hazardous waste if it exhibits any of the characteristics identified in Sections R315-261-20 through 24.

(b) A hazardous waste which is identified by a characteristic in Sections R315-261-20 through 24 is assigned every EPA Hazardous Waste Number that is applicable as set forth in Sections R315-261-20 through 24. This number shall be used in complying with the notification requirements of section 3010 of RCRA and all applicable recordkeeping and reporting requirements under Rules R315-262 through 265, 368 and 270.

(c) For purposes of Sections R315-261-20 through 24, the Board shall consider a sample obtained using any of the applicable sampling methods specified in appendix I of Rule R315-261 to be a representative sample within the meaning of Rule R315-260.

R315-261-21. Characteristics of Hazardous Waste - Characteristic of Ignitability.

(a) A solid waste exhibits the characteristic of ignitability if a representative sample of the waste has any of the following properties:

(1) It is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume and has flash point less than 60 °C (140 °F), as determined by a Pensky-Martens Closed Cup Tester, using the test method specified in ASTM Standard D 93-79 or D 93-80, see Section R315-260-11, or a Setaflash Closed Cup Tester, using the test method specified in ASTM Standard D 3278-78, see Section R315-260-11.

(2) It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard.

(3) It is an ignitable compressed gas.

(i) The term “compressed gas” shall designate any material or mixture having in the container an absolute pressure exceeding 40 p.s.i. at 70 degrees Fahrenheit or, regardless of the pressure at 70 degrees Fahrenheit, having an absolute pressure exceeding 104 p.s.i. at 130 degrees Fahrenheit; or any liquid flammable material having a vapor

pressure exceeding 40 p.s.i. absolute at 100 degrees Fahrenheit as determined by ASTM Test D-323.

(ii) A compressed gas shall be characterized as ignitable if any one of the following occurs:

(A) Either a mixture of 13 percent or less, by volume, with air forms a flammable mixture or the flammable range with air is wider than 12 percent regardless of the lower limit. These limits shall be determined at atmospheric temperature and pressure. The method of sampling and test procedure shall be acceptable to the Bureau of Explosives and approved by the director, Pipeline and Hazardous Materials Technology, U.S. Department of Transportation, see Note 2.

(B) Using the Bureau of Explosives' Flame Projection Apparatus, see Note 1, the flame projects more than 18 inches beyond the ignition source with valve opened fully, or, the flame flashes back and burns at the valve with any degree of valve opening.

(C) Using the Bureau of Explosives' Open Drum Apparatus, see Note 1, there is any significant propagation of flame away from the ignition source.

(D) Using the Bureau of Explosives' Closed Drum Apparatus, see Note 1, there is any explosion of the vapor-air mixture in the drum.

(4) It is an oxidizer. An oxidizer for the purpose of this subchapter is a substance such as a chlorate, permanganate, inorganic peroxide, or a nitrate, that yields oxygen readily to stimulate the combustion of organic matter (see Note 4).

(i) An organic compound containing the bivalent -O-O- structure and which may be considered a derivative of hydrogen peroxide where one or more of the hydrogen atoms have been replaced by organic radicals shall be classed as an organic peroxide unless:

(A) The material meets the definition of a Class A explosive or a Class B explosive, as defined in Subsection R315-261-23(a)(8), in which case it shall be classed as an explosive,

(B) The material is forbidden to be offered for transportation according to 49 CFR 172.101 and 49 CFR 173.21,

(C) It is determined that the predominant hazard of the material containing an organic peroxide is other than that of an organic peroxide, or

(D) According to data on file with the Pipeline and Hazardous Materials Safety Administration in the U.S. Department of Transportation (see Note 3), it has been determined that the material does not present a hazard in transportation.

(b) A solid waste that exhibits the characteristic of ignitability has the EPA Hazardous Waste Number of D001.

Note 1: A description of the Bureau of Explosives' Flame Projection Apparatus, Open Drum Apparatus, Closed Drum Apparatus, and method of tests may be procured from the Bureau of Explosives.

Note 2: As part of a U.S. Department of Transportation (DOT) reorganization, the Office of Hazardous Materials Technology (OHMT), which was the office listed in the 1980 publication of 49 CFR 173.300 for the purposes of approving sampling and test procedures for a flammable gas, ceased operations on February 20, 2005. OHMT programs have moved to the Pipeline and Hazardous Materials Safety Administration (PHMSA) in the DOT.

Note 3: As part of a U.S. Department of Transportation (DOT) reorganization, the Research and Special Programs Administration (RSPA), which was the office listed in the 1980 publication of 49 CFR 173.151a for the purposes of determining that a material does not present a hazard in transport, ceased operations on February 20, 2005. RSPA programs have moved to the Pipeline and Hazardous Materials Safety Administration (PHMSA) in the DOT.

Note 4: The DOT regulatory definition of an oxidizer was contained in §173.151 of 49 CFR, and the definition of an organic peroxide was contained in paragraph 173.151a. An organic peroxide is a type of oxidizer.

R315-261-22. Characteristics of Hazardous Waste - Characteristic of Corrosivity.

(a) A solid waste exhibits the characteristic of corrosivity if a representative sample of the waste has either of the following properties:

(1) It is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter using Method 9040C in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW-846, see Section R315-260-11 which incorporates 40 CFR 260.11 by reference.

(2) It is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test

temperature of 55 °C (130 °F) as determined by Method 1110A in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, see Section R315-260-11 which incorporates 40 CFR 260.11 by reference.

(b) A solid waste that exhibits the characteristic of corrosivity has the EPA Hazardous Waste Number of D002.

R315-261-23. Characteristics of Hazardous Waste - Characteristic of Reactivity.

(a) A solid waste exhibits the characteristic of reactivity if a representative sample of the waste has any of the following properties:

(1) It is normally unstable and readily undergoes violent change without detonating.

(2) It reacts violently with water.

(3) It forms potentially explosive mixtures with water.

(4) When mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.

(5) It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.

(6) It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement.

(7) It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure.

(8) It is a forbidden explosive as defined in 49 CFR 173.54, or is a Division 1.1, 1.2 or 1.3 explosive as defined in 49 CFR 173.50 and 173.53.

(b) A solid waste that exhibits the characteristic of reactivity has the EPA Hazardous Waste Number of D003.

R315-261-24. Characteristics of Hazardous Waste - Toxicity Characteristic.

(a) A solid waste (except manufactured gas plant waste) exhibits the characteristic of toxicity if, using the Toxicity Characteristic Leaching Procedure, test Method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, see

Section R315-260-11, the extract from a representative sample of the waste contains any of the contaminants listed in Table 1 at the concentration equal to or greater than the respective value given in that Table 1. Where the waste contains less than 0.5 percent filterable solids, the waste itself, after filtering using the methodology outlined in Method 1311, is considered to be the extract for the purpose of Section R315-261-24.

(b) A solid waste that exhibits the characteristic of toxicity has the EPA Hazardous Waste Number specified in Table 1 which corresponds to the toxic contaminant causing it to be hazardous.

Table 1
Maximum Concentration of Contaminants for the Toxicity Characteristic

PA HW(1)	Contaminant CAS(2)	Regulatory Level (mg/L)
D004 Arsenic	7440-38-2	5.0
D005 Barium	7440-39-3	100.0
D018 Benzene	71-43-2	0.5
D006 Cadmium	7440-43-9	1.0
D019 Carbon tetrachloride	56-23-5	0.5
D020 Chlordane	57-74-9	0.03
D021 Chlorobenzene	108-90-7	100.0
D022 Chloroform	67-66-3	6.0
D007 Chromium	7440-47-3	5.0
D023 o-Cresol	95-48-7	200.0(4)
D024 m-Cresol	108-39-4	200.0(4)
D025 p-Cresol	106-44-5	200.0(4)
D026 Cresol		200.0(4)
D016 2,4-D	94-75-7	10.0
D027 1,4-Dichlorobenzene	106-46-7	7.5
D028 1,2-Dichloroethane	107-06-2	0.5
D029 1,1-Dichloroethylene	75-35-4	0.7
D030 2,4-Dinitrotoluene	121-14-2	0.13(3)
D012 Endrin	72-20-8	0.02

D031 Heptachlor (and its epoxide)	76-44-8	0.008
D032 Hexachlorobenzene	118-74-1	0.13(3)
D033 Hexachlorobutadiene	87-68-3	0.5
D034 Hexachloroethane	67-72-1	3.0
D008 Lead	7439-92-1	5.0
D013 Lindane	58-89-9	0.4
D009 Mercury	7439-97-6	0.2
D014 Methoxychlor	72-43-5	10.0
D035 Methyl ethyl ketone	78-93-3	200.0
D036 Nitrobenzene	98-95-3	2.0
D037 Pentrachlorophenol	87-86-5	100.0
D038 Pyridine	110-86-1	5.0(3)
D010 Selenium	7782-49-2	1.0
D011 Silver	7440-22-4	5.0
D039 Tetrachloroethylene	127-18-4	0.7
D015 Toxaphene	8001-35-2	0.5
D040 Trichloroethylene	79-01-6	0.5
D04 2,4,5-Trichlorophenol	95-95-4	400.0
D042 2,4,6-Trichlorophenol	88-06-2	2.0
D017 2,4,5-TP (Silvex)	93-72-1	1.0
D043 Vinyl chloride	75-01-4	0.2

(1)Hazardous waste number.
(2)Chemical abstracts service number.
(3)Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory level.
(4)If o-, m-, and p-Cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used. The regulatory level of total cresol is 200 mg/l.

R315-261-30. Lists of Hazardous Wastes - General.

(a) A solid waste is a hazardous waste if it is listed in Sections R315-261-30 through 35, unless it has

been excluded from this list under Sections R315-260.20 and 22.

(b) The Board shall indicate his basis for listing the classes or types of wastes listed in Sections R315-261-30 through 35 by employing one or more of the following Hazard Codes:

(1) Ignitable Waste: (I)

(2) Corrosive Waste: (C)

(3) Reactive Waste: (R)

(4) Toxicity Characteristic Waste: (E)

(5) Acute Hazardous Waste: (H)

(6) Toxic Waste: (T)

Appendix VII identifies the constituent which caused the Board to list the waste as a Toxicity Characteristic Waste or Toxic Waste in Sections R315-261-31 and 32.

(c) Each hazardous waste listed in Sections R315-261-30 through 35 is assigned an EPA Hazardous Waste Number which precedes the name of the waste. This number shall be used in complying with the notification requirements of Section 3010 of the RCRA and certain recordkeeping and reporting requirements under Rules R315-262 through 265, 268, and 270.

(d) The following hazardous wastes listed in Section R315-261-31 are subject to the exclusion limits for acutely hazardous wastes established in Section R315-261-5: EPA Hazardous Wastes Nos. F020, F021, F022, F023, F026 and F027.

R315-261-31. Lists of Hazardous Wastes - Hazardous Wastes from Non-Specific Sources.

(a) The following solid wastes are listed hazardous wastes from non-specific sources unless they are excluded under Sections R315-260-20 and 22 and listed in R315-260 appendix IX which incorporates 40 CFR 260 appendix IX by reference.

Table 2
Hazardous Wastes From Non-specific Sources

Industry and EPA hazardous waste No.	Hazardous waste	Hazard Code
Generic:		

F001	The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more, by volume, of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(T)
F002	The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane, and 1,1,2-trichloroethane; all spent solvent mixtures/ blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those listed in F001, F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(T)
F003	The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and, a total of ten percent or more, by volume, of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(I)*
F004	The following spent non-halogenated solvents: Cresols and cresylic acid, and	(T)

	nitrobenzene; all spent solvent mixtures/ blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	
F005	The following spent non-halogenated solvents: Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more, by volume, of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(I,T)
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating, segregated basis, on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum	(T)
F007	Spent cyanide plating bath solutions from electroplating operations	(R,T)
F008	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process	(R,T)
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process	(R,T)
F010	Quenching bath residues from oil baths from metal heat treating operations where	(R,T)

	cyanides are used in the process	
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations	(R,T)
F012	Quenching waste water treatment sludges from metal heat treating operations where cyanides are used in the process	(T)
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process. Wastewater treatment sludges from the manufacturing of motor vehicles using a zinc phosphating process will not be subject to this listing at the point of generation if the wastes are not placed outside on the land prior to shipment to a landfill for disposal and are either: disposed in a Subtitle D municipal or industrial landfill unit that is equipped with a single clay liner and is permitted, licensed or otherwise authorized by the state; or disposed in a landfill unit subject to, or otherwise meeting, the landfill requirements in Sections R315-258-40, R315-264-301 or 40 CFR 265.301, which is adopted by reference. For the purposes of this listing, motor vehicle manufacturing is defined in Subsection R315-261-31(b)(4)(i) and Subsection R315-261-31(ii) describes the recordkeeping requirements for motor vehicle manufacturing facilities	(T)
F020	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production or manufacturing use, as a reactant, chemical intermediate, or component in a formulating process) of tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. This listing does not include wastes from the production of Hexachlorophene from highly	(H)

purified 2,4,5-trichlorophenol.

F021	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use, as a reactant, chemical intermediate, or component in a formulating process) of pentachlorophenol, or of intermediates used to produce its derivatives	(H)
F022	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the manufacturing use; as a reactant, chemical intermediate, or component in a formulating process; of tetra-, penta-, or hexachlorobenzenes under alkaline conditions	(H)
F023	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use;as a reactant, chemical intermediate, or component in a formulating process; of tri- and tetrachlorophenols. This listing does not include wastes from equipment used only for the production or use of Hexachlorophene from highly purified 2,4,5-trichlorophenol.	(H)
F024	Process wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. This listing does not include wastewaters, wastewater treatment sludges, spent catalysts, and wastes listed in Sections R315-261.31 or 32.	(T)
F025	Condensed light ends, spent filters and filter aids, and spent desiccant wastes from	(T)

	the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution	
F026	Wastes, except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the manufacturing use, as a reactant, chemical intermediate, or component in a formulating process, of tetra-, penta-, or hexachlorobenzene under alkaline conditions	(H)
F027	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. This listing does not include formulations containing Hexachlorophene sythesized from prepurified 2,4,5-trichlorophenol as the sole component.	(H)
F028	Residues resulting from the incineration or thermal treatment of soil contaminated with EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, and F027	(T)
F032	Wastewaters, except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations, except potentially cross-contaminated wastes that have had the F032 waste code deleted in accordance with Section R315-261-35 or potentially cross-contaminated wastes that are otherwise currently regulated as hazardous wastes, i.e., F034 or F035, and where the generator does not resume or initiate use of	(T)

	chlorophenolic formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol	
F034	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol	(T)
F035	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol	(T)
F037	Petroleum refinery primary oil/water/solids separation sludge-Any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oily cooling wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in oil/water/solids separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludge generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges generated in aggressive biological treatment units as	(T)

defined in Subsection R315-261-31(b)(2), including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units, and K051 wastes are not included in this listing. This listing does include residuals generated from processing or recycling oil-bearing hazardous secondary materials excluded under Subsection R315-261-(a)(12)(i), if those residuals are to be disposed of

F038 Petroleum refinery secondary (emulsified) oil/water/solids separation sludge-Any sludge and/or float generated from the physical and/or chemical separation of oil/water/solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in: induced air flotation (IAF) units, tanks and impoundments, and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges and floats generated in aggressive biological treatment units as defined in Subsection R315-261-31(b)(2), including sludges and floats generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and F037, K048, and K051 wastes are not included in this listing (T)

F039 Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous under Sections R316-261-30 through 35. Leachate resulting from the disposal of one or more of the following EPA Hazardous Wastes and no other Hazardous Wastes retains its EPA Hazardous (T)

Waste Number(s): F020, F021, F022, F026, F027, and/or F028.

F999 Residues from demilitarization, treatment, R,T,C,H) and testing of nerve, military, and chemical agents CX, GA, GB, GD, H, HD, HL, HN-1, HN-2, HN-3, HT, L, T, and VX.

*(I,T) should be used to specify mixtures that are ignitable and contain toxic constituents.

(b) Listing Specific Definitions:

(1) For the purposes of the F037 and F038 listings, oil/water/solids is defined as oil and/or water and/or solids.

(2)(i) For the purposes of the F037 and F038 listings, aggressive biological treatment units are defined as units which employ one of the following four treatment methods: activated sludge; trickling filter; rotating biological contactor for the continuous accelerated biological oxidation of wastewaters; or high-rate aeration. High-rate aeration is a system of surface impoundments or tanks, in which intense mechanical aeration is used to completely mix the wastes, enhance biological activity, and

(A) the units employ a minimum of 6 hp per million gallons of treatment volume; and either

(B) the hydraulic retention time of the unit is no longer than 5 days; or

(C) the hydraulic retention time is no longer than 30 days and the unit does not generate a sludge that is a hazardous waste by the Toxicity Characteristic.

(ii) Generators and treatment, storage and disposal facilities have the burden of proving that their sludges are exempt from listing as F037 and F038 wastes under this definition. Generators and treatment, storage and disposal facilities shall maintain, in their operating or other onsite records, documents and data sufficient to prove that:

(A) the unit is an aggressive biological treatment unit as defined in this subsection; and

(B) the sludges sought to be exempted from the definitions of F037 and/or F038 were actually generated in the aggressive biological treatment unit.

(3)(i) For the purposes of the F037 listing, sludges are considered to be generated at the moment of deposition

in the unit, where deposition is defined as at least a temporary cessation of lateral particle movement.

(ii) For the purposes of the F038 listing,

(A) sludges are considered to be generated at the moment of deposition in the unit, where deposition is defined as at least a temporary cessation of lateral particle movement and

(B) floats are considered to be generated at the moment they are formed in the top of the unit.

(4) For the purposes of the F019 listing, the following apply to wastewater treatment sludges from the manufacturing of motor vehicles using a zinc phosphating process.

(i) Motor vehicle manufacturing is defined to include the manufacture of automobiles and light trucks/utility vehicles, including light duty vans, pick-up trucks, minivans, and sport utility vehicles. Facilities shall be engaged in manufacturing complete vehicles, body and chassis or unibody, or chassis only.

(ii) Generators shall maintain in their on-site records documentation and information sufficient to prove that the wastewater treatment sludges to be exempted from the F019 listing meet the conditions of the listing. These records shall include: the volume of waste generated and disposed of off site; documentation showing when the waste volumes were generated and sent off site; the name and address of the receiving facility; and documentation confirming receipt of the waste by the receiving facility. Generators shall maintain these documents on site for no less than three years. The retention period for the documentation is automatically extended during the course of any enforcement action or as requested by the Director.

R315-261-32. Lists of Hazardous Wastes - Hazardous Wastes from Specific Sources.

(a) The following solid wastes are listed hazardous wastes from specific sources unless they are excluded under Sections R315-260-20 and 22 and listed in appendix IX.

Industry and EPA hazardous waste No.	Hazardous waste	Hazard

code

Wood preservation:

K001 (T) Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol

Inorganic pigments:

K002 (T) Wastewater treatment sludge from the production of chrome yellow and orange pigments

K003 (T) Wastewater treatment sludge from the production of molybdate orange pigments

K004 (T) Wastewater treatment sludge from the production of zinc yellow pigments

K005 (T) Wastewater treatment sludge from the production of chrome green pigments

K006 (T) Wastewater treatment sludge from the production of chrome oxide green pigments, anhydrous and hydrated,

K007 (T) Wastewater treatment sludge from the production of iron blue pigments

K008 (T) Oven residue from the production of chrome oxide green pigments

Organic chemicals:

K009 (T) Distillation bottoms from the production of

acetaldehyde from ethylene

K010 Distillation side cuts from the production (T)
of acetaldehyde from ethylene

K011 Bottom stream from the wastewater (R,T)
stripper in the production of acrylonitrile

K013 Bottom stream from the acetonitrile (R,T)
column in the production of acrylonitrile

K014 Bottoms from the acetonitrile purification (T)
column in the production of acrylonitrile

K015 Still bottoms from the distillation of (T)
benzyl chloride

K016 Heavy ends or distillation residues (T)
from the production of carbon tetrachloride

K017 Heavy ends (still bottoms) from the (T)
purification column in the production of
epichlorohydrin

K018 Heavy ends from the fractionation column in (T)
ethyl chloride production

K019 Heavy ends from the distillation of (T)
ethylene dichloride in ethylene dichloride
production

K020 Heavy ends from the distillation of vinyl (T)
chloride in vinyl chloride monomer production

K021 Aqueous spent antimony catalyst waste from (T)
fluoromethanes production

K022 (T)	Distillation bottom tars from the production of phenol/acetone from cumene	
K023 (T)	Distillation light ends from the production of phthalic anhydride from naphthalene	
K024 (T)	Distillation bottoms from the production of phthalic anhydride from naphthalene	
K025 (T)	Distillation bottoms from the production of nitrobenzene by the nitration of benzene	
K026 (T)	Stripping still tails from the production of methy ethyl pyridines	
K027	Centrifuge and distillation residues from toluene diisocyanate production	(R,T)
K028 (T)	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane	
K029 (T)	Waste from the product steam stripper in the production of 1,1,1-trichloroethane	
K030 (T)	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene	
K083 (T)	Distillation bottoms from aniline production	
K085 (T)	Distillation or fractionation column bottoms from the production of chlorobenzenes	

K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene	(T)
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene	(T)
K095	Distillation bottoms from the production of 1,1,1-trichloroethane	(T)
K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane	(T)
K103	Process residues from aniline extraction from the production of aniline	(T)
K104	Combined wastewater streams generated from nitrobenzene/aniline production	(T)
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes	(T)
K107	Column bottoms from product separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides	(C,T)
K108	Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides	(I,T)
K109	Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides	(T)

K110	Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from arboxylic acid hydrazides	(T)
K111	Product washwaters from the production of dinitrotoluene via nitration of toluene	(C,T)
K112	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
K113	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
K114	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine	(T)
K117	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethane	(T)

K118 (T)	Spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethane
K136 (T)	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethane
K149 (T)	Distillation bottoms from the production of alpha-, or methyl-, chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups, This waste does not include still bottoms from the distillation of benzyl chloride.
K150 (T)	Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of alpha-, or methyl-, chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups
K151 (T)	Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of wastewaters from the production of alpha-, or methyl-, chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups
K156 (T)	Organic waste, including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates, from the production of carbamates and carbamoyl oximes. This listing does not apply to wastes generated from the manufacture of

	3-iodo-2-propynyl n-butylcarbamate.	
K157 (T)	Wastewaters, including scrubber waters, condenser waters, washwaters, and separation waters, from the production of carbamates and carbamoyl oximes. This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.	
K158 (T)	Bag house dusts and filter/separation solids from the production of carbamates and carbamoyl oximes. This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.	
K159 (T)	Organics from the treatment of thiocarbamate wastes	
K161	Purification solids; including filtration, evaporation, and centrifugation solids; bag house dust and floor sweepings from the production of dithiocarbamate acids and their salts. This listing does not include K125 or K126.	(R,T)
K174 (T)	Wastewater treatment sludges from the production of ethylene dichloride or vinyl chloride monomer, including sludges that result from commingled ethylene dichloride or vinyl chloride monomer wastewater and other wastewater, unless the sludges meet the following conditions: (i) they are disposed of in a subtitle C or non-hazardous landfill licensed or permitted by the state or federal government; (ii) they are not otherwise placed on the land prior to final disposal; and (iii) the generator maintains documentation demonstrating that the waste was either disposed of in an on-site landfill or consigned to a transporter or disposal	

	facility that provided a written commitment to dispose of the waste in an off-site landfill. Respondents in any action brought to enforce the requirements of subtitle C shall, upon a showing by the government that the respondent managed wastewater treatment sludges from the production of vinyl chloride monomer or ethylene dichloride, demonstrate that they meet the terms of the exclusion set forth above. In doing so, they shall provide appropriate documentation, e.g., contracts between the generator and the landfill owner/operator, invoices documenting delivery of waste to landfill, etc., that the terms of the exclusion were met
K175 (T)	Wastewater treatment sludges from the production of vinyl chloride monomer using mercuric chloride catalyst in an acetylene-based process
K181 (T)	Nonwastewaters from the production of dyes and/or pigments, including nonwastewaters commingled at the point of generation with nonwastewaters from other processes, that, at the point of generation, contain mass loadings of any of the constituents identified in Subsection R315-261-32(c) that are equal to or greater than the corresponding Subsection R315-261-32(c) levels, as determined on a calendar year basis. These wastes will not be hazardous if the nonwastewaters are: (i) disposed in a Class I or V lined landfill, (ii) disposed in a hazardous waste landfill unit subject to either Section R315-264-301 or 40 CFR 265.301, which is adopted by reference, (iii) disposed in other landfill units that are Class I or V lined landfills regulated under Rules R315-301 through 320 or meet the design criteria in

	Sections R315-264-301, or 40 CFR 265.301, which is adopted by reference, or (iv) treated in a combustion unit that is permitted under Rules R315-260 through 270, or an onsite combustion unit that is permitted under the Clean Air Act. For the purposes of this listing, dyes and/or pigments production is defined in Subsection R315-261-32(b)(1). Section R315-261-32(d) describes the process for demonstrating that a facility's nonwastewaters are not K181. This listing does not apply to wastes that are otherwise identified as hazardous under Sections R315-261-21 through 24 and R315-261-31 through 33 at the point of generation. Also, the listing does not apply to wastes generated before any annual mass loading limit is met	
Inorganic chemicals:		
K071	Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used	(T)
K073	Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production	(T)
K106	Wastewater treatment sludge from the mercury cell process in chlorine production	(T)
K176	Baghouse filters from the production of antimony oxide, including filters from the production of intermediates, e.g., antimony metal or crude antimony oxide	(E)
K177	Slag from the production of antimony oxide that is speculatively accumulated or disposed, including slag from the production of intermediates, e.g., antimony metal or crude antimony oxide	(T)
K178	Residues from manufacturing and	(T)

	manufacturing-site storage of ferric chloride from acids formed during the production of titanium dioxide using the chloride-ilmenite process	

Pesticides:

K031	By-product salts generated in the production of MSMA and cacodylic acid	(T)
K032	Wastewater treatment sludge from the production of chlordane	(T)
K033	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane	(T)
K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane	(T)
K035	Wastewater treatment sludges generated in the production of creosote	(T)
K036	Still bottoms from toluene reclamation distillation in the production of disulfoton	(T)
K037	Wastewater treatment sludges from the production of disulfoton	(T)
K038	Wastewater from the washing and stripping of phorate production	(T)
K039	Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate	(T)
K040	Wastewater treatment sludge from the production of phorate	(T)
K041	Wastewater treatment sludge from the production of toxaphene	(T)
K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in	(T)

	the production of 2,4,5-T	
K043	2,6-Dichlorophenol waste from the production of 2,4-D	(T)
K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane	(T)
K098	Untreated process wastewater from the production of toxaphene	(T)
K099	Untreated wastewater from the production of 2,4-D	(T)
K123	Process wastewater (including supernates, filtrates, and washwaters) from the production of ethylenebisdithiocarbamic acid and its salt	(T)
K124	Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts	(C,T)
K125	Filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts	(T)
K126	Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts	(T)
K131	Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide	(C,T)
K132	Spent absorbent and wastewater separator solids from the production of methyl bromide	(T)
Explosives:		
K044	Wastewater treatment sludges from the	(R)

	manufacturing and processing of explosives	
K045	Spent carbon from the treatment of wastewater containing explosives	(R)
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds	(T)
K047	Pink/red water from TNT operations	(R)
Petroleum refining:		
K048	Dissolved air flotation (DAF) float from the petroleum refining industry	(T)
K049	Slop oil emulsion solids from the petroleum refining industry	(T)
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry	(T)
K051	API separator sludge from the petroleum refining industry	(T)
K052	Tank bottoms, leaded, from the petroleum refining industry	(T)
K169	Crude oil storage tank sediment from petroleum refining operations	(T)
K170	Clarified slurry oil tank sediment and/or in-line filter/separation solids from petroleum refining operations	(T)
K171	Spent Hydrotreating catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors, this listing does not include inert support media	(I,T)
K172	Spent Hydrorefining catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors, this listing	(I,T)

	does not include inert support media	
Iron and steel:		
K061	Emission control dust/sludge from the primary production of steel in electric furnaces	(T)
K062	Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry, SIC Codes 331 and 332	(C,T)
Primary aluminum:		
K088	Spent potliners from primary aluminum reduction	(T)
Secondary lead:		
K069	Emission control dust/sludge from secondary lead smelting. Note: This listing is stayed administratively for sludge generated from secondary acid scrubber systems. The stay will remain in effect until further administrative action is taken. If EPA takes further action effecting this stay, EPA will publish a notice of the action in the Federal Register	(T)
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting	(T)
Veterinary pharmaceuticals:		
K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary	(T)

	pharmaceuticals from arsenic or organo-arsenic compounds	
K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
Ink formulation:		
K086	Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead	(T)
Coking:		
K060	Ammonia still lime sludge from coking operations	(T)
K087	Decanter tank tar sludge from coking operations	(T)
K141	Process residues from the recovery of coal tar, including, but not limited to, collecting sump residues from the production of coke from coal or the recovery of coke by-products produced from coal. This listing does not include K087, decanter tank tar sludges from coking operations	(T)
K142	Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal	(T)
K143	Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal	(T)
K144	Wastewater sump residues from light oil	(T)

	refining, including, but not limited to, intercepting or contamination sump sludges from the recovery of coke by-products produced from coal	
K145	Residues from naphthalene collection and recovery operations from the recovery of coke by-products produced from coal	(T)
K147	Tar storage tank residues from coal tar refining	(T)
K148	Residues from coal tar distillation, including but not limited to, still bottoms	(T)

(b) Listing Specific Definitions: (1) For the purposes of the K181 listing, dyes and/or pigments production is defined to include manufacture of the following product classes: dyes, pigments, or FDA certified colors that are classified as azo, triarylmethane, perylene or anthraquinone classes. Azo products include azo, monoazo, diazo, triazo, polyazo, azoic, benzidine, and pyrazolone products. Triarylmethane products include both triarylmethane and triphenylmethane products. Wastes that are not generated at a dyes and/or pigments manufacturing site, such as wastes from the offsite use, formulation, and packaging of dyes and/or pigments, are not included in the K181 listing.

(c) K181 Listing Levels. Nonwastewaters containing constituents in amounts equal to or exceeding the following levels during any calendar year are subject to the K181 listing, unless the conditions in the K181 listing are met.

Constituent	**Chemical abstracts No.**	**Mass levels (kg/yr)**
Aniline	62-53-3	9,300
o-Anisidine	90-04-0	110
4-Chloroaniline	106-47-8	4,800
p-Cresidine	120-71-8	660
2,4-Dimethylaniline	95-68-1	100
1,2-Phenylenediamine	95-54-5	710
1,3-Phenylenediamine	108-45-2	1,200

(d) Procedures for demonstrating that dyes and/or pigment nonwastewaters are not K181. The procedures

described in Subsections R315-261-32(d)(1) through(d)(3) and (d)(5) establish when nonwastewaters from the production of dyes/pigments would not be hazardous, these procedures apply to wastes that are not disposed in landfill units or treated in combustion units as specified in Subsection R315-261-32(a). If the nonwastewaters are disposed in landfill units or treated in combustion units as described in Subsection R315-261-32(a), then the nonwastewaters are not hazardous. In order to demonstrate that it is meeting the landfill disposal or combustion conditions contained in the K181 listing description, the generator shall maintain documentation as described in Subsection R315-261-32(d)(4).

(1) Determination based on no K181 constituents. Generators that have knowledge; e.g., knowledge of constituents in wastes based on prior sampling and analysis data and/or information about raw materials used, production processes used, and reaction and degradation products formed; that their wastes contain none of the K181 constituents, see Subsection R315-261-32(c), can use their knowledge to determine that their waste is not K181. The generator shall document the basis for all such determinations on an annual basis and keep each annual documentation for three years.

(2) Determination for generated quantities of 1,000 MT/yr or less for wastes that contain K181 constituents. If the total annual quantity of dyes and/or pigment nonwastewaters generated is 1,000 metric tons or less, the generator can use knowledge of the wastes; e.g., knowledge of constituents in wastes based on prior analytical data and/or information about raw materials used, production processes used, and reaction and degradation products formed; to conclude that annual mass loadings for the K181 constituents are below the listing levels of Subsection R315-261-32(c). To make this determination, the generator shall:

(i) Each year document the basis for determining that the annual quantity of nonwastewaters expected to be generated will be less than 1,000 metric tons.

(ii) Track the actual quantity of nonwastewaters generated from January 1 through December 31 of each year. If, at any time within the year, the actual waste quantity exceeds 1,000 metric tons, the generator shall comply with the requirements of Subsection R315-261-32(d)(3) for the remainder of the year.

(iii) Keep a running total of the K181 constituent mass loadings over the course of the calendar year.

(iv) Keep the following records on site for the three most recent calendar years in which the hazardous waste determinations are made:

(A) The quantity of dyes and/or pigment nonwastewaters generated.

(B) The relevant process information used.

(C) The calculations performed to determine annual total mass loadings for each K181 constituent in the nonwastewaters during the year.

(3) Determination for generated quantities greater than 1,000 MT/yr for wastes that contain K181 constituents. If the total annual quantity of dyes and/or pigment nonwastewaters generated is greater than 1,000 metric tons, the generator shall perform all of the steps described in Subsections R315-261-32(d)(3)(i) through (d)(3)(xi) in order to make a determination that its waste is not K181.

(i) Determine which K181 constituents, see Subsection R315-261-32(c), are reasonably expected to be present in the wastes based on knowledge of the wastes; e.g., based on prior sampling and analysis data and/or information about raw materials used, production processes used, and reaction and degradation products formed.

(ii) If 1,2-phenylenediamine is present in the wastes, the generator can use either knowledge or sampling and analysis procedures to determine the level of this constituent in the wastes. For determinations based on use of knowledge, the generator shall comply with the procedures for using knowledge described in Subsection R315-261-32(d)(2) and keep the records described in Subsection R315-261-32(d)(2)(iv). For determinations based on sampling and analysis, the generator shall comply with the sampling and analysis and recordkeeping requirements described in Subsections R315-261-32(d)(3)(iii) through (xi).

(iii) Develop a waste sampling and analysis plan, or modify an existing plan, to collect and analyze representative waste samples for the K181 constituents reasonably expected to be present in the wastes. At a minimum, the plan shall include:

(A) A discussion of the number of samples needed to characterize the wastes fully;

(B) The planned sample collection method to obtain representative waste samples;

(C) A discussion of how the sampling plan accounts for potential temporal and spatial variability of the wastes.

(D) A detailed description of the test methods to be used, including sample preparation, clean up, if necessary, and determinative methods.

(iv) Collect and analyze samples in accordance with the waste sampling and analysis plan.

(A) The sampling and analysis shall be unbiased, precise, and representative of the wastes.

(B) The analytical measurements shall be sufficiently sensitive, accurate and precise to support any claim that the constituent mass loadings are below the listing levels of Subsection R315-261-32(c).

(v) Record the analytical results.

(vi) Record the waste quantity represented by the sampling and analysis results.

(vii) Calculate constituent-specific mass loadings, product of concentrations and waste quantity.

(viii) Keep a running total of the K181 constituent mass loadings over the course of the calendar year.

(ix) Determine whether the mass of any of the K181 constituents listed in Subsection R315-261-32(c) generated between January 1 and December 31 of any year is below the K181 listing levels.

(x) Keep the following records on site for the three most recent calendar years in which the hazardous waste determinations are made:

(A) The sampling and analysis plan.

(B) The sampling and analysis results, including QA/QC data.

(C) The quantity of dyes and/or pigment nonwastewaters generated.

(D) The calculations performed to determine annual mass loadings.

(xi) Nonhazardous waste determinations shall be conducted annually to verify that the wastes remain nonhazardous.

(A) The annual testing requirements are suspended after three consecutive successful annual demonstrations that the wastes are nonhazardous. The generator can then use knowledge of the wastes to support subsequent annual determinations.

(B) The annual testing requirements are reinstated if the manufacturing or waste treatment processes generating

the wastes are significantly altered, resulting in an increase of the potential for the wastes to exceed the listing levels.

(C) If the annual testing requirements are suspended, the generator shall keep records of the process knowledge information used to support a nonhazardous determination. If testing is reinstated, a description of the process change shall be retained.

(4) Recordkeeping for the landfill disposal and combustion exemptions. For the purposes of meeting the landfill disposal and combustion condition set out in the K181 listing description, the generator shall maintain on site for three years documentation demonstrating that each shipment of waste was received by a landfill unit that is subject to or meets the landfill design standards set out in the listing description, or was treated in combustion units as specified in the listing description.

(5) Waste holding and handling. During the interim period, from the point of generation to completion of the hazardous waste determination, the generator is responsible for storing the wastes appropriately. If the wastes are determined to be hazardous and the generator has not complied with the hazardous waste requirements during the interim period, the generator could be subject to an enforcement action for improper management.

R315-261-33. Lists of Hazardous Wastes - Discarded Commercial Chemical Products, Off-Specification Species, Container Residues, and Spill Residues Thereof.

The following materials or items are hazardous wastes if and when they are discarded or intended to be discarded as described in Subsection R315-261-2(a)(2)(i), when they are mixed with waste oil or used oil or other material and applied to the land for dust suppression or road treatment, when they are otherwise applied to the land in lieu of their original intended use or when they are contained in products that are applied to the land in lieu of their original intended use, or when, in lieu of their original intended use, they are produced for use as, or a component of, a fuel, distributed for use as a fuel, or burned as a fuel.

(a) Any commercial chemical product, or manufacturing chemical intermediate having the generic name listed in Subsections R315-261-33(e) or (f).

(b) Any off-specification commercial chemical product or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in Subsection R315-261-33(e) or (f).

(c) Any residue remaining in a container or in an inner liner removed from a container that has held any commercial chemical product or manufacturing chemical intermediate having the generic name listed in Subsection R315-261-33(e) or (f), unless the container is empty as defined in Subsection R315-261-7(b). Unless the residue is being beneficially used or reused, or legitimately recycled or reclaimed; or being accumulated, stored, transported or treated prior to such use, re-use, recycling or reclamation, the Director considers the residue to be intended for discard, and thus, a hazardous waste. An example of a legitimate re-use of the residue would be where the residue remains in the container and the container is used to hold the same commercial chemical product or manufacturing chemical intermediate it previously held. An example of the discard of the residue would be where the drum is sent to a drum reconditioner who reconditions the drum but discards the residue.

(d) Any residue or contaminated soil, water or other debris resulting from the cleanup of a spill into or on any land or water of any commercial chemical product or manufacturing chemical intermediate having the generic name listed in Subsection R315-261-33(e) or (f), or any residue or contaminated soil, water or other debris resulting from the cleanup of a spill, into or on any land or water, of any off-specification chemical product and manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in Subsection R315-261-33(e) or (f). The phrase “commercial chemical product or manufacturing chemical intermediate having the generic name listed in . . .” refers to a chemical substance which is manufactured or formulated for commercial or manufacturing use which consists of the commercially pure grade of the chemical, any technical grades of the chemical that are produced or marketed, and all formulations in which the chemical is the sole active ingredient. It does not refer to a material, such as a manufacturing process waste, that contains any of the substances listed in Subsection R315-261-33(e) or (f). Where a manufacturing process waste is deemed to be a hazardous waste because it contains a substance listed in Subsection R315-261-33(e) or

(f), such waste shall be listed in either Sections R315-261-31 or 32 or shall be identified as a hazardous waste by the characteristics set forth in Sections R315-261-20 through 24.

(e) The commercial chemical products, manufacturing chemical intermediates or off-specification commercial chemical products or manufacturing chemical intermediates referred to in Subsections R315-261-33(a) through (d), are identified as acute hazardous wastes (H) and are subject to the small quantity exclusion defined in Subsection R315-261-5(e). For the convenience of the regulated community the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), and R (Reactivity). Absence of a letter indicates that the compound only is listed for acute toxicity. Wastes are first listed in alphabetical order by substance and then listed again in numerical order by Hazardous Waste Number. These wastes and their corresponding EPA Hazardous Waste Numbers are:

Hazardous waste No.	Chemical abstracts No.	Substance
P023	107-20-0	Acetaldehyde, chloro-
P002	591-08-2	Acetamide, N-(aminothioxomethyl)-
P057	640-19-7	Acetamide, 2-fluoro-
P058	62-74-8	Acetic acid, fluoro-, sodium salt
P002	591-08-2	1-Acetyl-2-thiourea
P003	107-02-8	Acrolein
P070	116-06-3	Aldicarb
P203	1646-88-4	Aldicarb sulfone.
P004	309-00-2	Aldrin
P005	107-18-6	Allyl alcohol
P006	20859-73-8	Aluminum phosphide (R,T)
P007	2763-96-4	5-(Aminomethyl)-3-isoxazolol
P008	504-24-5	4-Aminopyridine
P009	131-74-8	Ammonium picrate (R)
P119	7803-55-6	Ammonium vanadate
P099	506-61-6	Argentate(1-), bis(cyano-C)-, potassium
P010	7778-39-4	Arsenic acid H3 AsO4
P012	1327-53-3	Arsenic oxide As2 O3
P011	1303-28-2	Arsenic oxide As2 O5
P011	1303-28-2	Arsenic pentoxide

P012	1327-53-3	Arsenic trioxide
P038	692-42-2	Arsine, diethyl-
P036	696-28-6	Arsonous dichloride, phenyl-
P054	151-56-4	Aziridine
P067	75-55-8	Aziridine, 2-methyl-
P013	542-62-1	Barium cyanide
P024	106-47-8	Benzenamine, 4-chloro-
P077	100-01-6	Benzenamine, 4-nitro-
P028	100-44-7	Benzene, (chloromethyl)-
P042	51-43-4	1,2-Benzenediol, 4-(1-hydroxy-2-(methylamino)ethyl)-, (R)-
P046	122-09-8	Benzeneethanamine, alpha,alpha-dimethyl-
P014	108-98-5	Benzenethiol
P127	1563-66-2	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-,methylcarbamate.
P188	57-64-7	Benzoic acid, 2-hydroxy-, compd. with (3aS-cis)-1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo(2,3-b)indol-5-ylmethylcarbamate ester (1:1).
P001	(1)81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, & salts, when present at concentrations greater than 0.3%
P028	100-44-7	Benzyl chloride
P015	7440-41-7	Beryllium powder
P017	598-31-2	Bromoacetone
P018	357-57-3	Brucine
P045	39196-18-4	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-methylamino)carbonyl) oxime
P021	592-01-8	Calcium cyanide
P021	592-01-8	Calcium cyanide Ca(CN)2
P189	55285-14-8	Carbamic acid, ((dibutylamino)-thio)methyl-, 2,3-dihydro-2,2-dimethyl- 7-benzofuranyl ester.
P191	644-64-4	Carbamic acid, dimethyl-, 1-((dimethyl-amino)carbonyl)-5-methyl-1H- pyrazol-3-yl ester.
P192	119-38-0	Carbamic acid, dimethyl-, 3-methyl-1- (1-methylethyl)-1H-pyrazol-5-yl ester.
P190	1129-41-5	Carbamic acid, methyl-, 3-methylphenyl ester.

P127	1563-66-2	Carbofuran.
P022	75-15-0	Carbon disulfide
P095	75-44-5	Carbonic dichloride
P189	55285-14-8	Carbosulfan.
P023	107-20-0	Chloroacetaldehyde
P024	106-47-8	p-Chloroaniline
P026	5344-82-1	1-(o-Chlorophenyl)thiourea
P027	542-76-7	3-Chloropropionitrile
P029	544-92-3	Copper cyanide
P029	544-92-3	Copper cyanide Cu(CN)
P202	64-00-6	m-Cumenyl methylcarbamate.
P030		Cyanides (soluble cyanide salts), not otherwise specified
P031	460-19-5	Cyanogen
P033	506-77-4	Cyanogen chloride
P033	506-77-4	Cyanogen chloride (CN)Cl
P034	131-89-5	2-Cyclohexyl-4,6-dinitrophenol
P016	542-88-1	Dichloromethyl ether
P036	696-28-6	Dichlorophenylarsine
P037	60-57-1	Dieldrin
P038	692-42-2	Diethylarsine
P041	311-45-5	Diethyl-p-nitrophenyl phosphate
P040	297-97-2	O,O-Diethyl O-pyrazinyl phosphorothioate
P043	55-91-4	Diisopropylfluorophosphate (DFP)
P004	309-00-2	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa- chloro- 1,4,4a,5,8,8a,- hexahydro-, (1alpha, 4alpha, 4abeta, 5alpha,8alpha,8abeta)-
P060	465-73-6	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa- chloro- 1,4,4a,5,8,8ahexahydro-, (1alpha, 4alpha, 4abeta, 5beta, 8beta,8abeta)-
P037	60-57-1	2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro- 1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha, 2beta, 2aalpha, 3beta, 6beta, 6aalpha,7beta, 7aalpha)-
P051	(1)72-20-8	2,7:3,6-Dimethanonaphth (2,3-b)oxirene, 3,4,5,6,9,9- hexachloro- 1a,2,2a,3,6,6a,7,7a- octahydro-, (1aalpha, 2beta, 2abeta, 3alpha, 6alpha, 6abeta, 7beta, 7aalpha)-, & metabolites

P044	60-51-5	Dimethoate
P046	122-09-8	alpha,alpha-Dimethylphenethylamine
P191	644-64-4	Dimetilan.
P047	(1)534-52-1	4,6-Dinitro-o-cresol, & salts
P048	51-28-5	2,4-Dinitrophenol
P020	88-85-7	Dinoseb
P085	152-16-9	Diphosphoramide, octamethyl-
P111	107-49-3	Diphosphoric acid, tetraethyl ester
P039	298-04-4	Disulfoton
P049	541-53-7	Dithiobiuret
P185	26419-73-8	1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, O- ((methylamino)-carbonyl)oxime.
P050	115-29-7	Endosulfan
P088	145-73-3	Endothall
P051	72-20-8	Endrin
P051	72-20-8	Endrin, & metabolites
P042	51-43-4	Epinephrine
P031	460-19-5	Ethanedinitrile
P194	23135-22-0	Ethanimidothioic acid, 2-(dimethylamino)-N-(((methylamino) carbonyl)oxy)-2-oxo-, methyl ester.
P066	16752-77-5	Ethanimidothioic acid, N-(((methylamino)carbonyl)oxy)-, methyl ester
P101	107-12-0	Ethyl cyanide
P054	151-56-4	Ethyleneimine
P097	52-85-7	Famphur
P056	7782-41-4	Fluorine
P057	640-19-7	Fluoroacetamide
P058	62-74-8	Fluoroacetic acid, sodium salt
P198	23422-53-9	Formetanate hydrochloride.
P197	17702-57-7	Formparanate.
P065	628-86-4	Fulminic acid, mercury(2+) salt (R,T)
P059	76-44-8	Heptachlor
P062	757-58-4	Hexaethyl tetraphosphate
P116	79-19-6	Hydrazinecarbothioamide
P068	60-34-4	Hydrazine, methyl-
P063	74-90-8	Hydrocyanic acid
P063	74-90-8	Hydrogen cyanide
P096	7803-51-2	Hydrogen phosphide
P060	465-73-6	Isodrin
P192	119-38-0	Isolan.
P202	64-00-6	3-Isopropylphenyl N-methylcarbamate.

P007	2763-96-4	3(2H)-Isoxazolone, 5-(aminomethyl)-
P196	15339-36-3	Manganese, bis(dimethylcarbamodithioato-S,S′)-,
P196	15339-36-3	Manganese dimethyldithiocarbamate.
P092	62-38-4	Mercury, (acetato-O)phenyl-
P065	628-86-4	Mercury fulminate (R,T)
P082	62-75-9	Methanamine, N-methyl-N-nitroso-
P064	624-83-9	Methane, isocyanato-
P016	542-88-1	Methane, oxybis(chloro-
P112	509-14-8	Methane, tetranitro- (R)
P118	75-70-7	Methanethiol, trichloro-
P198	23422-53-9	Methanimidamide, N,N-dimethyl-N′-(3-(((methylamino)-carbonyl)oxy)phenyl)-, monohydrochloride.
P197	17702-57-7	Methanimidamide, N,N-dimethyl-N′-(2-methyl-4-(((methylamino)carbonyl)oxy)phenyl)-
P050	115-29-7	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10- hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide
P059	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro- 3a,4,7,7a-tetrahydro-
P199	2032-65-7	Methiocarb.
P066	16752-77-5	Methomyl
P068	60-34-4	Methyl hydrazine
P064	624-83-9	Methyl isocyanate
P069	75-86-5	2-Methyllactonitrile
P071	298-00-0	Methyl parathion
P190	1129-41-5	Metolcarb.
P128	315-8-4	Mexacarbate.
P072	86-88-4	alpha-Naphthylthiourea
P073	13463-39-3	Nickel carbonyl
P073	13463-39-3	Nickel carbonyl Ni(CO)4, (T-4)-
P074	557-19-7	Nickel cyanide
P074	557-19-7	Nickel cyanide Ni(CN)2
P075	(1)54-11-5	Nicotine, & salts
P076	10102-43-9	Nitric oxide
P077	100-01-6	p-Nitroaniline
P078	10102-44-0	Nitrogen dioxide
P076	10102-43-9	Nitrogen oxide NO
P078	10102-44-0	Nitrogen oxide NO2
P081	55-63-0	Nitroglycerine (R)
P082	62-75-9	N-Nitrosodimethylamine
P084	4549-40-0	N-Nitrosomethylvinylamine

P085	152-16-9	Octamethylpyrophosphoramide
P087	20816-12-0	Osmium oxide OsO4, (T-4)-
P087	20816-12-0	Osmium tetroxide
P088	145-73-3	7-Oxabicyclo(2.2.1)heptane-2,3-dicarboxylic acid
P194	23135-22-0	Oxamyl.
P089	56-38-2	Parathion
P034	131-89-5	Phenol, 2-cyclohexyl-4,6-dinitro-
P048	51-28-5	Phenol, 2,4-dinitro-
P047	(1)534-52-1	Phenol, 2-methyl-4,6-dinitro-, & salts
P020	88-85-7	Phenol, 2-(1-methylpropyl)-4,6-dinitro-
P009	131-74-8	Phenol, 2,4,6-trinitro-, ammonium salt (R)
P128	315-18-4	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester).
P199	2032-65-7	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate
P202	64-00-6	Phenol, 3-(1-methylethyl)-, methyl carbamate.
P201	2631-37-0	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate.
P092	62-38-4	Phenylmercury acetate
P093	103-85-5	Phenylthiourea
P094	298-02-2	Phorate
P095	75-44-5	Phosgene
P096	7803-51-2	Phosphine
P041	311-45-5	Phosphoric acid, diethyl 4-nitrophenyl ester
P039	298-04-4	Phosphorodithioic acid, O,O-diethyl S-(2- (ethylthio)ethyl) ester
P094	298-02-2	Phosphorodithioic acid, O,O-diethyl S-((ethylthio)methyl) ester
P044	60-51-5	Phosphorodithioic acid, O,O-dimethyl S-(2- (methylamino)-2-oxoethyl) ester
P043	55-91-4	Phosphorofluoridic acid, bis(1-methylethyl) ester
P089	56-38-2	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester
P040	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
P097	52-85-7	Phosphorothioic acid, O-(4-((dimethylamino)sulfonyl)phenyl) O,O-

		dimethyl ester
P071	298-00-0	Phosphorothioic acid, O,O,-dimethyl O-(4-nitrophenyl) ester
P204	57-47-6	Physostigmine.
P188	57-64-7	Physostigmine salicylate.
P110	78-00-2	Plumbane, tetraethyl-
P098	151-50-8	Potassium cyanide
P098	151-50-8	Potassium cyanide K(CN)
P099	506-61-6	Potassium silver cyanide
P201	2631-37-0	Promecarb
P070	116-06-3	Propanal, 2-methyl-2-(methylthio)-, O-((methylamino)carbonyl)oxime
P203	1646-88-4	Propanal, 2-methyl-2-(methyl-sulfonyl)-, O- ((methylamino)carbonyl) oxime.
P101	107-12-0	Propanenitrile
P027	542-76-7	Propanenitrile, 3-chloro-
P069	75-86-5	Propanenitrile, 2-hydroxy-2-methyl-
P081	55-63-0	1,2,3-Propanetriol, trinitrate (R)
P017	598-31-2	2-Propanone, 1-bromo-
P102	107-19-7	Propargyl alcohol
P003	107-02-8	2-Propenal
P005	107-18-6	2-Propen-1-ol
P067	75-55-8	1,2-Propylenimine
P102	107-19-7	2-Propyn-1-ol
P008	504-24-5	4-Pyridinamine
P075	(1)54-11-5	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-, & salts
P204	57-47-6	Pyrrolo(2,3-b)indol-5-ol, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester), (3aS-cis)-.
P114	12039-52-0	Selenious acid, dithallium(1+) salt
P103	630-10-4	Selenourea
P104	506-64-9	Silver cyanide
P104	506-64-9	Silver cyanide Ag(CN)
P105	26628-22-8	Sodium azide
P106	143-33-9	Sodium cyanide
P106	143-33-9	Sodium cyanide Na(CN)
P108	(1)57-24-9	Strychnidin-10-one, & salts
P018	357-57-3	Strychnidin-10-one, 2,3-dimethoxy-
P108	(1)57-24-9	Strychnine, & salts
P115	7446-18-6	Sulfuric acid, dithallium(1+) salt
P109	3689-24-5	Tetraethyldithiopyrophosphate
P110	78-00-2	Tetraethyl lead

P111	107-49-3	Tetraethyl pyrophosphate
P112	509-14-8	Tetranitromethane (R)
P062	757-58-4	Tetraphosphoric acid, hexaethyl ester
P113	1314-32-5	Thallic oxide
P113	1314-32-5	Thallium oxide Tl2 O3
P114	12039-52-0	Thallium(I) selenite
P115	7446-18-6	Thallium(I) sulfate
P109	3689-24-5	Thiodiphosphoric acid, tetraethyl ester
P045	39196-18-4	Thiofanox
P049	541-53-7	Thioimidodicarbonic diamide ((H2 N)C(S))2 NH
P014	108-98-5	Thiophenol
P116	79-19-6	Thiosemicarbazide
P026	5344-82-1	Thiourea, (2-chlorophenyl)-
P072	86-88-4	Thiourea, 1-naphthalenyl-
P093	103-85-5	Thiourea, phenyl-
P185	26419-73-8	Tirpate.
P123	8001-35-2	Toxaphene
P118	75-70-7	Trichloromethanethiol
P119	7803-55-6	Vanadic acid, ammonium salt
P120	1314-62-1	Vanadium oxide V2 O5
P120	1314-62-1	Vanadium pentoxide
P084	4549-40-0	Vinylamine, N-methyl-N-nitroso-
P001	(1)81-81-2	Warfarin, & salts, when present at concentrations greater than 0.3%
P205	137-30-4	Zinc, bis(dimethylcarbamodithioato-S,S')-,
P121	557-21-1	Zinc cyanide
P121	557-21-1	Zinc cyanide Zn(CN)2
P122	1314-84-7	Zinc phosphide Zn3 P2, when present at concentrations greater than 10% (R,T)
P205	137-30-4	Ziram.
P001	(1)81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, & salts, when present at concentrations greater than 0.3%
P001	(1)81-81-2	Warfarin, & salts, when present at concentrations greater than 0.3%
P002	591-08-2	Acetamide, -(aminothioxomethyl)-
P002	591-08-2	1-Acetyl-2-thiourea
P003	107-02-8	Acrolein
P003	107-02-8	2-Propenal
P004	309-00-2	Aldrin

P004	309-00-2	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa-chloro-1,4,4a,5,8,8a,- hexahydro-, (1alpha, 4alpha, 4abeta, 5alpha, 8alpha,8abeta)-
P005	107-18-6	Allyl alcohol
P005	107-18-6	2-Propen-1-ol
P006	20859-73-8	Aluminum phosphide (R,T)
P007	2763-96-4	5-(Aminomethyl)-3-isoxazolol
P007	2763-96-4	3(2H)-Isoxazolone, 5-(aminomethyl)-
P008	504-24-5	4-Aminopyridine
P008	504-24-5	4-Pyridinamine
P009	131-74-8	Ammonium picrate (R)
P009	131-74-8	Phenol, 2,4,6-trinitro-, ammonium salt (R)
P010	7778-39-4	Arsenic acid H3 AsO4
P011	1303-28-2	Arsenic oxide As2 O5
P011	1303-28-2	Arsenic pentoxide
P012	1327-53-3	Arsenic oxide As2 O3
P012	1327-53-3	Arsenic trioxide
P013	542-62-1	Barium cyanide
P014	108-98-5	Benzenethiol
P014	108-98-5	Thiophenol
P015	7440-41-7	Beryllium powder
P016	542-88-1	Dichloromethyl ether
P016	542-88-1	Methane, oxybis(chloro-
P017	598-31-2	Bromoacetone
P017	598-31-2	2-Propanone, 1-bromo-
P018	357-57-3	Brucine
P018	357-57-3	Strychnidin-10-one, 2,3-dimethoxy-
P020	88-85-7	Dinoseb
P020	88-85-7	Phenol, 2-(1-methylpropyl)-4,6-dinitro-
P021	592-01-8	Calcium cyanide
P021	592-01-8	Calcium cyanide Ca(CN)2
P022	75-15-0	Carbon disulfide
P023	107-20-0	Acetaldehyde, chloro-
P023	107-20-0	Chloroacetaldehyde
P024	106-47-8	Benzenamine, 4-chloro-
P024	106-47-8	p-Chloroaniline
P026	5344-82-1	1-(o-Chlorophenyl)thiourea
P026	5344-82-1	Thiourea, (2-chlorophenyl)-
P027	542-76-7	3-Chloropropionitrile
P027	542-76-7	Propanenitrile, 3-chloro-
P028	100-44-7	Benzene, (chloromethyl)-

P028	100-44-7	Benzyl chloride
P029	544-92-3	Copper cyanide
P029	544-92-3	Copper cyanide Cu(CN)
P030		Cyanides (soluble cyanide salts), not otherwise specified
P031	460-19-5	Cyanogen
P031	460-19-5	Ethanedinitrile
P033	506-77-4	Cyanogen chloride
P033	506-77-4	Cyanogen chloride (CN)Cl
P034	131-89-5	2-Cyclohexyl-4,6-dinitrophenol
P034	131-89-5	Phenol, 2-cyclohexyl-4,6-dinitro-
P036	696-28-6	Arsonous dichloride, phenyl-
P036	696-28-6	Dichlorophenylarsine
P037	60-57-1	Dieldrin
P037	60-57-1	2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro- 1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha, 2beta, 2aalpha, 3beta, 6beta,6aalpha,7beta, 7aalpha)-
P038	692-42-2	Arsine, diethyl-
P038	692-42-2	Diethylarsine
P039	298-04-4	Disulfoton
P039	298-04-4	Phosphorodithioic acid, O,O-diethyl S-(2- (ethylthio)ethyl) ester
P040	297-97-2	O,O-Diethyl O-pyrazinyl phosphorothioate
P040	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
P041	311-45-5	Diethyl-p-nitrophenyl phosphate
P041	311-45-5	Phosphoric acid, diethyl 4-nitrophenyl ester
P042	51-43-4	1,2-Benzenediol, 4-(1-hydroxy-2-(methylamino)ethyl)-, (R)-
P042	51-43-4	Epinephrine
P043	55-91-4	Diisopropylfluorophosphate (DFP)
P043	55-91-4	Phosphorofluoridic acid, bis(1-methylethyl) ester
P044	60-51-5	Dimethoate
P044	60-51-5	Phosphorodithioic acid, O,O-dimethyl S-(2-(methyl amino)-2-oxoethyl) ester
P045	39196-18-4	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-((methylamino)carbonyl) oxime
P045	39196-18-4	Thiofanox
P046	122-09-8	Benzeneethanamine, alpha,alpha-

		dimethyl-
P046	122-09-8	alpha,alpha-Dimethylphenethylamine
P047	(1)534-52-1	4,6-Dinitro-o-cresol, & salts
P047	(1)534-52-1	Phenol, 2-methyl-4,6-dinitro-, & salts
P048	51-28-5	2,4-Dinitrophenol
P048	51-28-5	Phenol, 2,4-dinitro-
P049	541-53-7	Dithiobiuret
P049	541-53-7	Thioimidodicarbonic diamide ((H2 N)C(S))2 NH
P050	115-29-7	Endosulfan
P050	115-29-7	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro- 1,5,5a,6,9,9a- hexahydro-, 3-oxide
P051	(1)72-20-8	2,7:3,6-Dimethanonaphth (2,3- b)oxirene, 3,4,5,6,9,9-hexachloro- 1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha, 2beta,2abeta, 3alpha, 6alpha, 6abeta,7beta, 7aalpha)-, & metabolites
P051	72-20-8	Endrin
P051	72-20-8	Endrin, & metabolites
P054	151-56-4	Aziridine
P054	151-56-4	Ethyleneimine
P056	7782-41-4	Fluorine
P057	640-19-7	Acetamide, 2-fluoro-
P057	640-19-7	Fluoroacetamide
P058	62-74-8	Acetic acid, fluoro-, sodium salt
P058	62-74-8	Fluoroacetic acid, sodium salt
P059	76-44-8	Heptachlor
P059	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8- heptachloro-3a,4,7,7a-tetrahydro-
P060	465-73-6	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa-chloro- 1,4,4a,5,8,8a-hexahydro-, (1alpha, 4alpha,4abeta,5beta, 8beta,8abeta)-
P060	465-73-6	Isodrin
P062	757-58-4	Hexaethyl tetraphosphate
P062	757-58-4	Tetraphosphoric acid, hexaethyl ester
P063	74-90-8	Hydrocyanic acid
P063	74-90-8	Hydrogen cyanide
P064	624-83-9	Methane, isocyanato-
P064	624-83-9	Methyl isocyanate
P065	628-86-4	Fulminic acid, mercury(2+) salt (R,T)
P065	628-86-4	Mercury fulminate (R,T)

P066	16752-77-5	Ethanimidothioic acid, N-(((methylamino)carbonyl)oxy)-, methyl ester
P066	16752-77-5	Methomyl
P067	75-55-8	Aziridine, 2-methyl-
P067	75-55-8	1,2-Propylenimine
P068	60-34-4	Hydrazine, methyl-
P068	60-34-4	Methyl hydrazine
P069	75-86-5	2-Methyllactonitrile
P069	75-86-5	Propanenitrile, 2-hydroxy-2-methyl-
P070	116-06-3	Aldicarb
P070	116-06-3	Propanal, 2-methyl-2-(methylthio)-, O-((methylamino)carbonyl)oxime
P071	298-00-0	Methyl parathion
P071	298-00-0	Phosphorothioic acid, O,O,-dimethyl O-(4-nitrophenyl) ester
P072	86-88-4	alpha-Naphthylthiourea
P072	86-88-4	Thiourea, 1-naphthalenyl-
P073	13463-39-3	Nickel carbonyl
P073	13463-39-3	Nickel carbonyl Ni(CO)4, (T-4)-
P074	557-19-7	Nickel cyanide
P074	557-19-7	Nickel cyanide Ni(CN)2
P075	(1)54-11-5	Nicotine, & salts
P075	(1)54-11-5	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, S)-, & salts
P076	10102-43-9	Nitric oxide
P076	10102-43-9	Nitrogen oxide NO
P077	100-01-6	Benzenamine, 4-nitro-
P077	100-01-6	p-Nitroaniline
P078	10102-44-0	Nitrogen dioxide
P078	10102-44-0	Nitrogen oxide NO2
P081	55-63-0	Nitroglycerine (R)
P081	55-63-0	1,2,3-Propanetriol, trinitrate (R)
P082	62-75-9	Methanamine, -methyl-N-nitroso-
P082	62-75-9	N-Nitrosodimethylamine
P084	4549-40-0	N-Nitrosomethylvinylamine
P084	4549-40-0	Vinylamine, -methyl-N-nitroso-
P085	152-16-9	Diphosphoramide, octamethyl-
P085	152-16-9	Octamethylpyrophosphoramide
P087	20816-12-0	Osmium oxide OsO4, (T-4)-
P087	20816-12-0	Osmium tetroxide
P088	145-73-3	Endothall
P088	145-73-3	7-Oxabicyclo(2.2.1)heptane-2,3-dicarboxylic acid
P089	56-38-2	Parathion

P089	56-38-2	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester
P092	62-38-4	Mercury, (acetato-O)phenyl-
P092	62-38-4	Phenylmercury acetate
P093	103-85-5	Phenylthiourea
P093	103-85-5	Thiourea, phenyl-
P094	298-02-2	Phorate
P094	298-02-2	Phosphorodithioic acid, O,O-diethyl S-((ethylthio)methyl) ester
P095	75-44-5	Carbonic dichloride
P095	75-44-5	Phosgene
P096	7803-51-2	Hydrogen phosphide
P096	7803-51-2	Phosphine
P097	52-85-7	Famphur
P097	52-85-7	Phosphorothioic acid, O-(4-((dimethylamino)sulfonyl)phenyl) O,O-dimethyl ester
P098	151-50-8	Potassium cyanide
P098	151-50-8	Potassium cyanide K(CN)
P099	506-61-6	Argentate(1-), bis(cyano-C)-, potassium
P099	506-61-6	Potassium silver cyanide
P101	107-12-0	Ethyl cyanide
P101	107-12-0	Propanenitrile
P102	107-19-7	Propargyl alcohol
P102	107-19-7	2-Propyn-1-ol
P103	630-10-4	Selenourea
P104	506-64-9	Silver cyanide
P104	506-64-9	Silver cyanide Ag(CN)
P105	26628-22-8	Sodium azide
P106	143-33-9	Sodium cyanide
P106	143-33-9	Sodium cyanide Na(CN)
P108	(1)157-24-9	Strychnidin-10-one, & salts
P108	(1)157-24-9	Strychnine, & salts
P109	3689-24-5	Tetraethyldithiopyrophosphate
P109	3689-24-5	Thiodiphosphoric acid, tetraethyl ester
P110	78-00-2	Plumbane, tetraethyl-
P110	78-00-2	Tetraethyl lead
P111	107-49-3	Diphosphoric acid, tetraethyl ester
P111	107-49-3	Tetraethyl pyrophosphate
P112	509-14-8	Methane, tetranitro-(R)
P112	509-14-8	Tetranitromethane (R)
P113	1314-32-5	Thallic oxide
P113	1314-32-5	Thallium oxide Tl2 O3

P114	12039-52-0	Selenious acid, dithallium(1+) salt
P114	12039-52-0	Tetraethyldithiopyrophosphate
P115	7446-18-6	Thiodiphosphoric acid, tetraethyl ester
P115	7446-18-6	Plumbane, tetraethyl-
P116	79-19-6	Tetraethyl lead
P116	79-19-6	Thiosemicarbazide
P118	75-70-7	Methanethiol, trichloro-
P118	75-70-7	Trichloromethanethiol
P119	7803-55-6	Ammonium vanadate
P119	7803-55-6	Vanadic acid, ammonium salt
P120	1314-62-1	Vanadium oxide V2O5
P120	1314-62-1	Vanadium pentoxide
P121	557-21-1	Zinc cyanide
P121	557-21-1	Zinc cyanide Zn(CN)2
P122	1314-84-7	Zinc phosphide Zn3 P2, when present at concentrations greater than 10% (R,T)
P123	8001-35-2	Toxaphene
P127	1563-66-2	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-, methylcarbamate.
P127	1563-66-2	Carbofuran
P128	315-8-4	Mexacarbate
P128	315-18-4	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester)
P185	26419-73-8	1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, O-((methylamino)-carbonyl)oxime.
P185	26419-73-8	Tirpate
P188	57-64-7	Benzoic acid, 2-hydroxy-, compd. with (3aS-cis)-1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo(2,3-b)indol-5-yl methylcarbamate ester (1:1)
P188	57-64-7	Physostigmine salicylate
P189	55285-14-8	Carbamic acid, ((dibutylamino)-thio)methyl-, 2,3-dihydro-2,2-dimethyl-7-benzofuranyl ester
P189	55285-14-8	Carbosulfan
P190	1129-41-5	Carbamic acid, methyl-, 3-methylphenyl ester
P190	1129-41-5	Metolcarb
P191	644-64-4	Carbamic acid, dimethyl-, 1-((dimethyl-amino)carbonyl)-5-methyl-1H-pyrazol-3-yl ester

P191	644-64-4	Dimetilan
P192	119-38-0	Carbamic acid, dimethyl-, 3-methyl-1-(1-methylethyl)-1H-pyrazol-5-yl ester
P192	119-38-0	Isolan
P194	23135-22-0	Ethanimidthioic acid, 2-(dimethylamino)-N- (((methylamino) carbonyl)oxy)-2-oxo-, methyl ester
P194	23135-22-0	Oxamyl
P196	15339-36-3	Manganese, bis(dimethylcarbamodithioato-S,S′)-,
P196	15339-36-3	Manganese dimethyldithiocarbamate
P197	17702-57-7	Formparanate
P197	17702-57-7	Methanimidamide, N,N-dimethyl-N′-(2-methyl-4-(((methylamino)carbonyl)oxy)phenyl)-
P198	23422-53-9	Formetanate hydrochloride
P198	23422-53-9	Methanimidamide, N,N-dimethyl-N′-(3-(((methylamino)-carbonyl)oxy)phenyl)-monohydrochloride
P199	2032-65-7	Methiocarb
P199	2032-65-7	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate
P201	2631-37-0	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate
P201	2631-37-0	Promecarb
P202	64-00-6	m-Cumenyl methylcarbamate
P202	64-00-6	3-Isopropylphenyl N-methylcarbamate
P202	64-00-6	Phenol, 3-(1-methylethyl)-, methyl carbamate
P203	1646-88-4	Aldicarb sulfone
P203	1646-88-4	Propanal, 2-methyl-2-(methyl-sulfonyl)-, O- ((methylamino)carbonyl) oxime
P204	57-47-6	Physostigmine
P204	57-47-6	Pyrrolo(2,3-b)indol-5-ol, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester), (3aS-cis)-
P205	137-30-4	Zinc, bis(dimethylcarbamodithioato-S,S′)-,
P205	137-30-4	Ziram
P999		Nerve, Military, and Chemical Agents (i.e., CX, GA, GB, GD, H, HD, HL, HN-1, HN-2, HN-3, HT, L, T, and VX.)

Note (1) CAS Number given for parent compound only.

(f) The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products referred to in Subsections R315-261-33(a) through (d), are identified as toxic wastes (T), unless otherwise designated and are subject to the small quantity generator exclusion defined in Subsection R315-261-5(a) and (g). For the convenience of the regulated community, the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), R (Reactivity), I (Ignitability) and C (Corrosivity). Absence of a letter indicates that the compound is only listed for toxicity. Wastes are first listed in alphabetical order by substance and then listed again in numerical order by Hazardous Waste Number. These wastes and their corresponding EPA Hazardous Waste Numbers are:

Hazardous waste No.	Chemical abstracts No.	Substance
U394	30558-43-1	A2213.
U001	75-07-0	Acetaldehyde (I)
U034	75-87-6	Acetaldehyde, trichloro-
U187	62-44-2	Acetamide, N-(4-ethoxyphenyl)-
U005	53-96-3	Acetamide, N-9H-fluoren-2-yl-
U240	(1)94-75-7	Acetic acid, (2,4-dichlorophenoxy)-, salts & esters
U112	141-78-6	Acetic acid ethyl ester (I)
U144	301-04-2	Acetic acid, lead(2+) salt
U214	563-68-8	Acetic acid, thallium(1+) salt
see F027	93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-
U002	67-64-1	Acetone (I)
U003	75-05-8	Acetonitrile (I,T)
U004	98-86-2	Acetophenone
U005	53-96-3	2-Acetylaminofluorene
U006	75-36-5	Acetyl chloride (C,R,T)
U007	79-06-1	Acrylamide
U008	79-10-7	Acrylic acid (I)
U009	107-13-1	Acrylonitrile
U011	61-82-5	Amitrole
U012	62-53-3	Aniline (I,T)
U136	75-60-5	Arsinic acid, dimethyl-
U014	492-80-8	Auramine

U015	115-02-6	Azaserine
U010	50-07-7	Azirino(2′,3′:3,4)pyrrolo(1,2-a)indole-4,7-dione, 6-amino-8-(((aminocarbonyl)oxy) methyl)-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-, (1aS-(1aalpha, 8beta, 8aalpha,8balpha))-
U280	101-27-9	Barban.
U278	22781-23-3	Bendiocarb.
U364	22961-82-6	Bendiocarb phenol.
U271	17804-35-2	Benomyl.
U157	56-49-5	Benz(j)aceanthrylene, 1,2-dihydro-3-methyl-
U016	225-51-4	Benz(c)acridine
U017	98-87-3	Benzal chloride
U192	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-
U018	56-55-3	Benz(a)anthracene
U094	57-97-6	Benz(a)anthracene, 7,12-dimethyl-
U012	62-53-3	Benzenamine (I,T)
U014	492-80-8	Benzenamine, 4,4′-carbonimidoylbis(N,N-dimethyl-
U049	3165-93-3	Benzenamine, 4-chloro-2-methyl-, hydrochloride
U093	60-11-7	Benzenamine, N,N-dimethyl-4-(phenylazo)-
U328	95-53-4	Benzenamine, 2-methyl-
U353	106-49-0	Benzenamine, 4-methyl-
U158	101-14-4	Benzenamine, 4,4′-methylenebis(2-chloro-
U222	636-21-5	Benzenamine, 2-methyl-, hydrochloride
U181	99-55-8	Benzenamine, 2-methyl-5-nitro-
U019	71-43-2	Benzene (I,T)
U038	510-15-6	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester
U030	101-55-3	Benzene, 1-bromo-4-phenoxy-
U035	305-03-3	Benzenebutanoic acid, 4-(bis(2-chloroethyl)amino)-
U037	108-90-7	Benzene, chloro-
U221	25376-45-8	Benzenediamine, ar-methyl-
U028	117-81-7	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester
U069	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl

		ester
U088	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester
U102	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester
U107	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester
U070	95-50-1	Benzene, 1,2-dichloro-
U071	541-73-1	Benzene, 1,3-dichloro-
U072	106-46-7	Benzene, 1,4-dichloro-
U060	72-54-8	Benzene, 1,1′-(2,2-dichloroethylidene) bis(4-chloro-
U017	98-87-3	Benzene, (dichloromethyl)-
U223	26471-62-5	Benzene, 1,3-diisocyanatomethyl- (R,T)
U239	1330-20-7	Benzene, dimethyl- (I)
U201	108-46-3	1,3-Benzenediol
U127	118-74-1	Benzene, hexachloro-
U056	110-82-7	Benzene, hexahydro- (I)
U220	108-88-3	Benzene, methyl-
U105	121-14-2	Benzene, 1-methyl-2,4-dinitro-
U106	606-20-2	Benzene, 2-methyl-1,3-dinitro-
U055	98-82-8	Benzene, (1-methylethyl)- (I)
U169	98-95-3	Benzene, nitro-
U183	608-93-5	Benzene, pentachloro-
U185	82-68-8	Benzene, pentachloronitro-
U020	98-09-9	Benzenesulfonic acid chloride (C,R)
U020	98-09-9	Benzenesulfonyl chloride (C,R)
U207	95-94-3	Benzene, 1,2,4,5-tetrachloro-
U061	50-29-3	Benzene, 1,1′-(2,2,2-trichloroethylidene) bis(4-chloro-
U247	72-43-5	Benzene, 1,1′-(2,2,2-trichloroethylidene) bis(4- methoxy-
U023	98-07-7	Benzene, (trichloromethyl)-
U234	99-35-4	Benzene, 1,3,5-trinitro-
U021	92-87-5	Benzidine
U278	22781-23-3	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate.
U364	22961-82-6	1,3-Benzodioxol-4-ol, 2,2-dimethyl-,
U203	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-
U141	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-
U367	1563-38-8	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-
U090	94-58-6	1,3-Benzodioxole, 5-propyl-

U064	189-55-9	Benzo(rst)pentaphene
U248	(1)81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenyl-butyl)-, & salts, when present at concentrations of 0.3% or less
U022	50-32-8	Benzo(a)pyrene
U197	106-51-4	p-Benzoquinone
U023	98-07-7	Benzotrichloride (C,R,T)
U085	1464-53-5	2,2′-Bioxirane
U021	92-87-5	(1,1′-Biphenyl)-4,4′-diamine
U073	91-94-1	(1,1′-Biphenyl)-4,4′-diamine, 3,3′-dichloro-
U091	119-90-4	(1,1′-Biphenyl)-4,4′-diamine, 3,3′-dimethoxy-
U095	119-93-7	(1,1′-Biphenyl)-4,4′-diamine, 3,3′-dimethyl-
U225	75-25-2	Bromoform
U030	101-55-3	4-Bromophenyl phenyl ether
U128	87-68-3	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-
U172	924-16-3	1-Butanamine, N-butyl-N-nitroso-
U031	71-36-3	1-Butanol (I)
U159	78-93-3	2-Butanone (I,T)
U160	1338-23-4	2-Butanone, peroxide (R,T)
U053	4170-30-3	2-Butenal
U074	764-41-0	2-Butene, 1,4-dichloro- (I,T)
U143	303-34-4	2-Butenoic acid, 2-methyl-, 7-((2,3-dihydroxy- 2-(1-methoxyethyl)-3-methyl-1-oxobutoxy)methyl)- 2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, (1S- (1alpha(Z),7(2S*,3R*),7aalpha))-
U031	71-36-3	n-Butyl alcohol (I)
U136	75-60-5	Cacodylic acid
U032	13765-19-0	Calcium chromate
U372	10605-21-7	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester.
U271	17804-35-2	Carbamic acid, (1-((butylamino)carbonyl)-1H-benzimidazol-2-yl)-, methyl ester.
U280	101-27-9	Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester.
U238	51-79-6	Carbamic acid, ethyl ester
U178	615-53-2	Carbamic acid, methylnitroso-, ethyl ester
U373	122-42-9	Carbamic acid, phenyl-, 1-methylethyl

		ester.
U409	23564-05-8	Carbamic acid, (1,2-phenylenebis (iminocarbonothioyl))bis-, dimethyl ester.
U097	79-44-7	Carbamic chloride, dimethyl-
U389	2303-17-5	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester.
U387	52888-80-9	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester.
U114	(1)111-54-6	Carbamodithioic acid, 1,2-ethanediylbis-, salts & esters
U062	2303-16-4	Carbamothioic acid, bis(1-methylethyl)-, S- (2,3-dichloro-2-propenyl) ester
U279	63-25-2	Carbaryl.
U372	10605-21-7	Carbendazim.
U367	1563-38-8	Carbofuran phenol.
U215	6533-73-9	Carbonic acid, dithallium(1+) salt
U033	353-50-4	Carbonic difluoride
U156	79-22-1	Carbonochloridic acid, methyl ester (I,T)
U033	353-50-4	Carbon oxyfluoride (R,T)
U211	56-23-5	Carbon tetrachloride
U034	75-87-6	Chloral
U035	305-03-3	Chlorambucil
U036	57-74-9	Chlordane, alpha & gamma isomers
U026	494-03-1	Chlornaphazin
U037	108-90-7	Chlorobenzene
U038	510-15-6	Chlorobenzilate
U039	59-50-7	p-Chloro-m-cresol
U042	110-75-8	2-Chloroethyl vinyl ether
U044	67-66-3	Chloroform
U046	107-30-2	Chloromethyl methyl ether
U047	91-58-7	beta-Chloronaphthalene
U048	95-57-8	o-Chlorophenol
U049	3165-93-3	4-Chloro-o-toluidine, hydrochloride
U032	13765-19-0	Chromic acid H2 CrO4, calcium salt
U050	218-01-9	Chrysene
U051		Creosote
U052	1319-77-3	Cresol (Cresylic acid)
U053	4170-30-3	Crotonaldehyde
U055	98-82-8	Cumene (I)
U246	506-68-3	Cyanogen bromide (CN)Br

U197	106-51-4	2,5-Cyclohexadiene-1,4-dione
U056	110-82-7	Cyclohexane (I)
U129	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha, 5alpha, 6beta)-
U057	108-94-1	Cyclohexanone (I)
U130	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-
U058	50-18-0	Cyclophosphamide
U240	(1)94-75-7	2,4-D, salts & esters
U059	20830-81-3	Daunomycin
U060	72-54-8	DDD
U061	50-29-3	DDT
U062	2303-16-4	Diallate
U063	53-70-3	Dibenz(a,h)anthracene
U064	189-55-9	Dibenzo(a,i)pyrene
U066	96-12-8	1,2-Dibromo-3-chloropropane
U069	84-74-2	Dibutyl phthalate
U070	95-50-1	o-Dichlorobenzene
U071	541-73-1	m-Dichlorobenzene
U072	106-46-7	p-Dichlorobenzene
U073	91-94-1	3,3′-Dichlorobenzidine
U074	764-41-0	1,4-Dichloro-2-butene (I,T)
U075	75-71-8	Dichlorodifluoromethane
U078	75-35-4	1,1-Dichloroethylene
U079	156-60-5	1,2-Dichloroethylene
U025	111-44-4	Dichloroethyl ether
U027	108-60-1	Dichloroisopropyl ether
U024	111-91-1	Dichloromethoxy ethane
U081	120-83-2	2,4-Dichlorophenol
U082	87-65-0	2,6-Dichlorophenol
U084	542-75-6	1,3-Dichloropropene
U085	1464-53-5	1,2:3,4-Diepoxybutane (I,T)
U108	123-91-1	1,4-Diethyleneoxide
U028	117-81-7	Diethylhexyl phthalate
U395	5952-26-1	Diethylene glycol, dicarbamate.
U086	1615-80-1	N,N′-Diethylhydrazine
U087	3288-58-2	O,O-Diethyl S-methyl dithiophosphate
U088	84-66-2	Diethyl phthalate
U089	56-53-1	Diethylstilbesterol
U090	94-58-6	Dihydrosafrole
U091	119-90-4	3,3′-Dimethoxybenzidine
U092	124-40-3	Dimethylamine (I)
U093	60-11-7	p-Dimethylaminoazobenzene

U094	57-97-6	7,12-Dimethylbenz(a)anthracene
U095	119-93-7	3,3′-Dimethylbenzidine
U096	80-15-9	alpha,alpha-Dimethylbenzylhydroperoxide (R)
U097	79-44-7	Dimethylcarbamoyl chloride
U098	57-14-7	1,1-Dimethylhydrazine
U099	540-73-8	1,2-Dimethylhydrazine
U101	105-67-9	2,4-Dimethylphenol
U102	131-11-3	Dimethyl phthalate
U103	77-78-1	Dimethyl sulfate
U105	121-14-2	2,4-Dinitrotoluene
U106	606-20-2	2,6-Dinitrotoluene
U107	117-84-0	Di-n-octyl phthalate
U108	123-91-1	1,4-Dioxane
U109	122-66-7	1,2-Diphenylhydrazine
U110	142-84-7	Dipropylamine (I)
U111	621-64-7	Di-n-propylnitrosamine
U041	106-89-8	Epichlorohydrin
U001	75-07-0	Ethanal (I)
U404	121-44-8	Ethanamine, N,N-diethyl-
U174	55-18-5	Ethanamine, N-ethyl-N-nitroso-
U155	91-80-5	1,2-Ethanediamine, N,N-dimethyl-N′-2-pyridinyl-N′-(2-thienylmethyl)-
U067	106-93-4	Ethane, 1,2-dibromo-
U076	75-34-3	Ethane, 1,1-dichloro-
U077	107-06-2	Ethane, 1,2-dichloro-
U131	67-72-1	Ethane, hexachloro-
U024	111-91-1	Ethane, 1,1′-(methylenebis(oxy))bis(2-chloro-
U117	60-29-7	Ethane, 1,1′-oxybis-(I)
U025	111-44-4	Ethane, 1,1′-oxybis(2-chloro-
U184	76-01-7	Ethane, pentachloro-
U208	630-20-6	Ethane, 1,1,1,2-tetrachloro-
U209	79-34-5	Ethane, 1,1,2,2-tetrachloro-
U218	62-55-5	Ethanethioamide
U226	71-55-6	Ethane, 1,1,1-trichloro-
U227	79-00-5	Ethane, 1,1,2-trichloro-
U410	59669-26-0	Ethanimidothioic acid, N,N′-(thiobis((methylimino)carbonyloxy))bis-, dimethyl ester
U394	30558-43-1	Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo-, methyl ester.

U359	110-80-5	Ethanol, 2-ethoxy-
U173	1116-54-7	Ethanol, 2,2′-(nitrosoimino)bis-
U395	5952-26-1	Ethanol, 2,2′-oxybis-, dicarbamate.
U004	98-86-2	Ethanone, 1-phenyl-
U043	75-01-4	Ethene, chloro-
U042	110-75-8	Ethene, (2-chloroethoxy)-
U078	75-35-4	Ethene, 1,1-dichloro-
U079	156-60-5	Ethene, 1,2-dichloro-, (E)-
U210	127-18-4	Ethene, tetrachloro-
U228	79-01-6	Ethene, trichloro-
U112	141-78-6	Ethyl acetate (I)
U113	140-88-5	Ethyl acrylate (I)
U238	51-79-6	Ethyl carbamate (urethane)
U117	60-29-7	Ethyl ether (I)
U114	(1)111-54-6	Ethylenebisdithiocarbamic acid, salts & esters
U067	106-93-4	Ethylene dibromide
U077	107-06-2	Ethylene dichloride
U359	110-80-5	Ethylene glycol monoethyl ether
U115	75-21-8	Ethylene oxide (I,T)
U116	96-45-7	Ethylenethiourea
U076	75-34-3	Ethylidene dichloride
U118	97-63-2	Ethyl methacrylate
U119	62-50-0	Ethyl methanesulfonate
U120	206-44-0	Fluoranthene
U122	50-00-0	Formaldehyde
U123	64-18-6	Formic acid (C,T)
U124	110-00-9	Furan (I)
U125	98-01-1	2-Furancarboxaldehyde (I)
U147	108-31-6	2,5-Furandione
U213	109-99-9	Furan, tetrahydro-(I)
U125	98-01-1	Furfural (I)
U124	110-00-9	Furfuran (I)
U206	18883-66-4	Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-, D-
U206	18883-66-4	D-Glucose, 2-deoxy-2-(((methylnitrosoamino)-carbonyl)amino)-
U126	765-34-4	Glycidylaldehyde
U163	70-25-7	Guanidine, N-methyl-N′-nitro-N-nitroso-
U127	118-74-1	Hexachlorobenzene
U128	87-68-3	Hexachlorobutadiene
U130	77-47-4	Hexachlorocyclopentadiene

U131	67-72-1	Hexachloroethane
U132	70-30-4	Hexachlorophene
U243	1888-71-7	Hexachloropropene
U133	302-01-2	Hydrazine (R,T)
U086	1615-80-1	Hydrazine, 1,2-diethyl-
U098	57-14-7	Hydrazine, 1,1-dimethyl-
U099	540-73-8	Hydrazine, 1,2-dimethyl-
U109	122-66-7	Hydrazine, 1,2-diphenyl-
U134	7664-39-3	Hydrofluoric acid (C,T)
U134	7664-39-3	Hydrogen fluoride (C,T)
U135	7783-06-4	Hydrogen sulfide
U135	7783-06-4	Hydrogen sulfide H2 S
U096	80-15-9	Hydroperoxide, 1-methyl-1-phenylethyl- (R)
U116	96-45-7	2-Imidazolidinethione
U137	193-39-5	Indeno(1,2,3-cd)pyrene
U190	85-44-9	1,3-Isobenzofurandione
U140	78-83-1	Isobutyl alcohol (I,T)
U141	120-58-1	Isosafrole
U142	143-50-0	Kepone
U143	303-34-4	Lasiocarpine
U144	301-04-2	Lead acetate
U146	1335-32-6	Lead, bis(acetato-O)tetrahydroxytri-
U145	7446-27-7	Lead phosphate
U146	1335-32-6	Lead subacetate
U129	58-89-9	Lindane
U163	70-25-7	MNNG
U147	108-31-6	Maleic anhydride
U148	123-33-1	Maleic hydrazide
U149	109-77-3	Malononitrile
U150	148-82-3	Melphalan
U151	7439-97-6	Mercury
U152	126-98-7	Methacrylonitrile (I, T)
U092	124-40-3	Methanamine, N-methyl- (I)
U029	74-83-9	Methane, bromo-
U045	74-87-3	Methane, chloro- (I, T)
U046	107-30-2	Methane, chloromethoxy-
U068	74-95-3	Methane, dibromo-
U080	75-09-2	Methane, dichloro-
U075	75-71-8	Methane, dichlorodifluoro-
U138	74-88-4	Methane, iodo-
U119	62-50-0	Methanesulfonic acid, ethyl ester
U211	56-23-5	Methane, tetrachloro-
U153	74-93-1	Methanethiol (I, T)
U225	75-25-2	Methane, tribromo-

U044	67-66-3	Methane, trichloro-
U121	75-69-4	Methane, trichlorofluoro-
U036	57-74-9	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-
U154	67-56-1	Methanol (I)
U155	91-80-5	Methapyrilene
U142	143-50-0	1,3,4-Metheno-2H-cyclobuta(cd)pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-
U247	72-43-5	Methoxychlor
U154	67-56-1	Methyl alcohol (I)
U029	74-83-9	Methyl bromide
U186	504-60-9	1-Methylbutadiene (I)
U045	74-87-3	Methyl chloride (I,T)
U156	79-22-1	Methyl chlorocarbonate (I,T)
U226	71-55-6	Methyl chloroform
U157	56-49-5	3-Methylcholanthrene
U158	101-14-4	4,4'-Methylenebis(2-chloroaniline)
U068	74-95-3	Methylene bromide
U080	75-09-2	Methylene chloride
U159	78-93-3	Methyl ethyl ketone (MEK) (I,T)
U160	1338-23-4	Methyl ethyl ketone peroxide (R,T)
U138	74-88-4	Methyl iodide
U161	108-10-1	Methyl isobutyl ketone (I)
U162	80-62-6	Methyl methacrylate (I,T)
U161	108-10-1	4-Methyl-2-pentanone (I)
U164	56-04-2	Methylthiouracil
U010	50-07-7	Mitomycin C
U059	20830-81-3	5,12-Naphthacenedione, 8-acetyl-10-((3-amino-2,3,6-trideoxy)-alpha-L-lyxo-hexopyranosyl)oxy)-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-
U167	134-32-7	1-Naphthalenamine
U168	91-59-8	2-Naphthalenamine
U026	494-03-1	Naphthalenamine, N,N'-bis(2-chloroethyl)-
U165	91-20-3	Naphthalene
U047	91-58-7	Naphthalene, 2-chloro-
U166	130-15-4	1,4-Naphthalenedione
U236	72-57-1	2,7-Naphthalenedisulfonic acid, 3,3'-((3,3'- dimethyl(1,1'-biphenyl)-4,4'-

		diyl)bis(azo)bis(5-amino-4-hydroxy)-, tetrasodium salt
U279	63-25-2	1-Naphthalenol, methylcarbamate.
U166	130-15-4	1,4-Naphthoquinone
U167	134-32-7	alpha-Naphthylamine
U168	91-59-8	beta-Naphthylamine
U217	10102-45-1	Nitric acid, thallium(1+) salt
U169	98-95-3	Nitrobenzene (I,T)
U170	100-02-7	p-Nitrophenol
U171	79-46-9	2-Nitropropane (I,T)
U172	924-16-3	N-Nitrosodi-n-butylamine
U173	1116-54-7	N-Nitrosodiethanolamine
U174	55-18-5	N-Nitrosodiethylamine
U176	759-73-9	N-Nitroso-N-ethylurea
U177	684-93-5	N-Nitroso-N-methylurea
U178	615-53-2	N-Nitroso-N-methylurethane
U179	100-75-4	N-Nitrosopiperidine
U180	930-55-2	N-Nitrosopyrrolidine
U181	99-55-8	5-Nitro-o-toluidine
U193	1120-71-4	1,2-Oxathiolane, 2,2-dioxide
U058	50-18-0	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide
U115	75-21-8	Oxirane (I,T)
U126	765-34-4	Oxiranecarboxyaldehyde
U041	106-89-8	Oxirane, (chloromethyl)-
U182	123-63-7	Paraldehyde
U183	608-93-5	Pentachlorobenzene
U184	76-01-7	Pentachloroethane
U185	82-68-8	Pentachloronitrobenzene (PCNB)
See F027	87-86-5	Pentachlorophenol
U161	108-10-1	Pentanol, 4-methyl-
U186	504-60-9	1,3-Pentadiene (I)
U187	62-44-2	Phenacetin
U188	108-95-2	Phenol
U048	95-57-8	Phenol, 2-chloro-
U039	59-50-7	Phenol, 4-chloro-3-methyl-
U081	120-83-2	Phenol, 2,4-dichloro-
U082	87-65-0	Phenol, 2,6-dichloro-
U089	56-53-1	Phenol, 4,4′-(1,2-diethyl-1,2-ethenediyl)bis-, (E)-
U101	105-67-9	Phenol, 2,4-dimethyl-
U052	1319-77-3	Phenol, methyl-
U132	70-30-4	Phenol, 2,2′-methylenebis(3,4,6-trichloro-

U411	114-26-1	Phenol, 2-(1-methylethoxy)-, methylcarbamate.
U170	100-02-7	Phenol, 4-nitro-
See F027	87-86-5	Phenol, pentachloro-
See F027	58-90-2	Phenol, 2,3,4,6-tetrachloro-
See F027	95-95-4	Phenol, 2,4,5-trichloro-
See F027	88-06-2	Phenol, 2,4,6-trichloro-
U150	148-82-3	L-Phenylalanine, 4-(bis(2-chloroethyl)amino)-
U145	7446-27-7	Phosphoric acid, lead(2+) salt (2:3)
U087	3288-58-2	Phosphorodithioic acid, O,O-diethyl S-methyl ester
U189	1314-80-3	Phosphorus sulfide (R)
U190	85-44-9	Phthalic anhydride
U191	109-06-8	2-Picoline
U179	100-75-4	Piperidine, 1-nitroso-
U192	23950-58-5	Pronamide
U194	107-10-8	1-Propanamine (I,T)
U111	621-64-7	1-Propanamine, N-nitroso-N-propyl-
U110	142-84-7	1-Propanamine, N-propyl- (I)
U066	96-12-8	Propane, 1,2-dibromo-3-chloro-
U083	78-87-5	Propane, 1,2-dichloro-
U149	109-77-3	Propanedinitrile
U171	79-46-9	Propane, 2-nitro- (I,T)
U027	108-60-1	Propane, 2,2′-oxybis(2-chloro-
U193	1120-71-4	1,3-Propane sultone
See F027	93-72-1	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-
U235	126-72-7	1-Propanol, 2,3-dibromo-, phosphate (3:1)
U140	78-83-1	1-Propanol, 2-methyl- (I,T)
U002	67-64-1	2-Propanone (I)
U007	79-06-1	2-Propenamide
U084	542-75-6	1-Propene, 1,3-dichloro-
U243	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-
U009	107-13-1	2-Propenenitrile
U152	126-98-7	2-Propenenitrile, 2-methyl- (I,T)
U008	79-10-7	2-Propenoic acid (I)
U113	140-88-5	2-Propenoic acid, ethyl ester (I)
U118	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester
U162	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester (I,T)
U373	122-42-9	Propham.

U411	114-26-1	Propoxur.
U387	52888-80-9	Prosulfocarb.
U194	107-10-8	n-Propylamine (I,T)
U083	78-87-5	Propylene dichloride
U148	123-33-1	3,6-Pyridazinedione, 1,2-dihydro-
U196	110-86-1	Pyridine
U191	109-06-8	Pyridine, 2-methyl-
U237	66-75-1	2,4-(1H,3H)-Pyrimidinedione, 5-(bis(2-chloroethyl)amino)-
U164	56-04-2	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-
U180	930-55-2	Pyrrolidine, 1-nitroso-
U200	50-55-5	Reserpine
U201	108-46-3	Resorcinol
U203	94-59-7	Safrole
U204	7783-00-8	Selenious acid
U204	7783-00-8	Selenium dioxide
U205	7488-56-4	Selenium sulfide
U205	7488-56-4	Selenium sulfide SeS2 (R,T)
U015	115-02-6	L-Serine, diazoacetate (ester)
See F027	93-72-1	Silvex (2,4,5-TP)
U206	18883-66-4	Streptozotocin
U103	77-78-1	Sulfuric acid, dimethyl ester
U189	1314-80-3	Sulfur phosphide (R)
See F027	93-76-5	2,4,5-T
U207	95-94-3	1,2,4,5-Tetrachlorobenzene
U208	630-20-6	1,1,1,2-Tetrachloroethane
U209	79-34-5	1,1,2,2-Tetrachloroethane
U210	127-18-4	Tetrachloroethylene
See F027	58-90-2	2,3,4,6-Tetrachlorophenol
U213	109-99-9	Tetrahydrofuran (I)
U214	563-68-8	Thallium(I) acetate
U215	6533-73-9	Thallium(I) carbonate
U216	7791-12-0	Thallium(I) chloride
U216	7791-12-0	thallium chloride TlCl
U217	10102-45-1	Thallium(I) nitrate
U218	62-55-5	Thioacetamide
U410	59669-26-0	Thiodicarb.
U153	74-93-1	Thiomethanol (I,T)
U244	137-26-8	Thioperoxydicarbonic diamide ((H2 N)C(S))2 S2, tetramethyl-
U409	23564-05-8	Thiophanate-methyl.
U219	62-56-6	Thiourea
U244	137-26-8	Thiram

U220	108-88-3	Toluene
U221	25376-45-8	Toluenediamine
U223	26471-62-5	Toluene diisocyanate (R,T)
U328	95-53-4	o-Toluidine
U353	106-49-0	p-Toluidine
U222	636-21-5	o-Toluidine hydrochloride
U389	2303-17-5	Triallate.
U011	61-82-5	1H-1,2,4-Triazol-3-amine
U226	71-55-6	1,1,1-Trichloroethane
U227	79-00-5	1,1,2-Trichloroethane
U228	79-01-6	Trichloroethylene
U121	75-69-4	Trichloromonofluoromethane
See F027	95-95-4	2,4,5-Trichlorophenol
See F027	88-06-2	2,4,6-Trichlorophenol
U404	121-44-8	Triethylamine.
U234	99-35-4	1,3,5-Trinitrobenzene (R,T)
U182	123-63-7	1,3,5-Trioxane, 2,4,6-trimethyl-
U235	126-72-7	Tris(2,3-dibromopropyl) phosphate
U236	72-57-1	Trypan blue
U237	66-75-1	Uracil shallard
U176	759-73-9	Urea, N-ethyl-N-nitroso-
U177	684-93-5	Urea, N-methyl-N-nitroso-
U043	75-01-4	Vinyl chloride
U248	(1)81-81-2	Warfarin, & salts, when present at concentrations of 0.3% or less
U239	1330-20-7	Xylene (I)
U200	50-55-5	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-((3,4,5-trimethoxybenzoyl) oxy)-, methyl ester, (3beta,16beta, 17alpha,18beta, 20alpha)-
U249	1314-84-7	Zinc phosphide Zn3 P2, when present at concentrations of 10% or less
U001	75-07-0	Acetaldehyde (I)
U001	75-07-0	Ethanal (I)
U002	67-64-1	Acetone (I)
U002	67-64-1	2-Propanone (I)
U003	75-05-8	Acetonitrile (I,T)
U004	98-86-2	Acetophenone
U004	98-86-2	Ethanone, 1-phenyl-
U005	53-96-3	Acetamide, -9H-fluoren-2-yl-
U005	53-96-3	2-Acetylaminofluorene
U006	75-36-5	Acetyl chloride (C,R,T)
U007	79-06-1	Acrylamide
U007	79-06-1	2-Propenamide

U008	79-10-7	Acrylic acid (I)
U008	79-10-7	2-Propenoic acid (I)
U009	107-13-1	Acrylonitrile
U009	107-13-1	2-Propenenitrile
U010	50-07-7	Azirino(2′,3′:3,4)pyrrolo(1,2-a)indole-4,7-dione, 6-amino-8-(((aminocarbonyl) oxy)methyl)-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-, (1aS-(1aalpha, 8beta, 8aalpha,8balpha))-
U010	50-07-7	Mitomycin C
U011	61-82-5	Amitrole
U011	61-82-5	1H-1,2,4-Triazol-3-amine
U012	62-53-3	Aniline (I,T)
U012	62-53-3	Benzenamine (I,T)
U014	492-80-8	Auramine
U014	492-80-8	Benzenamine, 4,4′-carbonimidoylbis(N,N-dimethyl-
U015	115-02-6	Azaserine
U015	115-02-6	L-Serine, diazoacetate (ester)
U016	225-51-4	Benz(c)acridine
U017	98-87-3	Benzal chloride
U017	98-87-3	Benzene, (dichloromethyl)-
U018	56-55-3	Benz(a)anthracene
U019	71-43-2	Benzene (I,T)
U020	98-09-9	Benzenesulfonic acid chloride (C,R)
U020	98-09-9	Benzenesulfonyl chloride (C,R)
U021	92-87-5	Benzidine
U021	92-87-5	(1,1′-Biphenyl)-4,4′-diamine
U022	50-32-8	Benzo(a)pyrene
U023	98-07-7	Benzene, (trichloromethyl)-
U023	98-07-7	Benzotrichloride (C,R,T)
U024	111-91-1	Dichloromethoxy ethane
U024	111-91-1	Ethane, 1,1′-(methylenebis(oxy))bis(2-chloro-
U025	111-44-4	Dichloroethyl ether
U025	111-44-4	Ethane, 1,1′-oxybis(2-chloro-
U026	494-03-1	Chlornaphazin
U026	494-03-1	Naphthalenamine, N,N′-bis(2-chloroethyl)-
U027	108-60-1	Dichloroisopropyl ether
U027	108-60-1	Propane, 2,2′-oxybis(2-chloro-
U028	117-81-7	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester

U028	117-81-7	Diethylhexyl phthalate
U029	74-83-9	Methane, bromo-
U029	74-83-9	Methyl bromide
U030	101-55-3	Benzene, 1-bromo-4-phenoxy-
U030	101-55-3	4-Bromophenyl phenyl ether
U031	71-36-3	1-Butanol (I)
U031	71-36-3	n-Butyl alcohol (I)
U032	13765-19-0	Calcium chromate
U032	13765-19-0	Chromic acid H2 CrO4, calcium salt
U033	353-50-4	Carbonic difluoride
U033	353-50-4	Carbon oxyfluoride (R,T)
U034	75-87-6	Acetaldehyde, trichloro-
U034	75-87-6	Chloral
U035	305-03-3	Benzenebutanoic acid, 4-(bis(2-chloroethyl)amino)-
U035	305-03-3	Chlorambucil
U036	57-74-9	Chlordane, alpha & gamma isomers
U036	57-74-9	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-
U037	108-90-7	Benzene, chloro-
U037	108-90-7	Chlorobenzene
U038	510-15-6	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester
U038	510-15-6	Chlorobenzilate
U039	59-50-7	p-Chloro-m-cresol
U039	59-50-7	Phenol, 4-chloro-3-methyl-
U041	106-89-8	Epichlorohydrin
U041	106-89-8	Oxirane, (chloromethyl)-
U042	110-75-8	2-Chloroethyl vinyl ether
U042	110-75-8	Ethene, (2-chloroethoxy)-
U043	75-01-4	Ethene, chloro-
U043	75-01-4	Vinyl chloride
U044	67-66-3	Chloroform
U044	67-66-3	Methane, trichloro-
U045	74-87-3	Methane, chloro- (I,T)
U045	74-87-3	Methyl chloride (I,T)
U046	107-30-2	Chloromethyl methyl ether
U046	107-30-2	Methane, chloromethoxy-
U047	91-58-7	beta-Chloronaphthalene
U047	91-58-7	Naphthalene, 2-chloro-
U048	95-57-8	o-Chlorophenol
U048	95-57-8	Phenol, 2-chloro-
U049	3165-93-3	Benzenamine, 4-chloro-2-methyl-,

		hydrochloride
U049	3165-93-3	4-Chloro-o-toluidine, hydrochloride
U050	218-01-9	Chrysene
U051		Creosote
U052	1319-77-3	Cresol (Cresylic acid)
U052	1319-77-3	Phenol, methyl-
U053	4170-30-3	2-Butenal
U053	4170-30-3	Crotonaldehyde
U055	98-82-8	Benzene, (1-methylethyl)-(I)
U055	98-82-8	Cumene (I)
U056	110-82-7	Benzene, hexahydro-(I)
U056	110-82-7	Cyclohexane (I)
U057	108-94-1	Cyclohexanone (I)
U058	50-18-0	Cyclophosphamide
U058	50-18-0	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide
U059	20830-81-3	Daunomycin
U059	20830-81-3	5,12-Naphthacenedione, 8-acetyl-10-((3-amino-2,3,6-trideoxy)-alpha-L-lyxo-hexopyranosyl)oxy)-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-
U060	72-54-8	Benzene, 1,1′-(2,2-dichloroethylidene)bis(4-chloro-
U060	72-54-8	DDD
U061	50-29-3	Benzene, 1,1′-(2,2,2-trichloroethylidene)bis(4-chloro-
U061	50-29-3	DDT
U062	2303-16-4	Carbamothioic acid, bis(1-methylethyl)-, S- (2,3-di chloro-2-propenyl) ester
U062	2303-16-4	Diallate
U063	53-70-3	Dibenz(a,h)anthracene
U064	189-55-9	Benzo(rst)pentaphene
U064	189-55-9	Dibenzo(a,i)pyrene
U066	96-12-8	1,2-Dibromo-3-chloropropane
U066	96-12-8	Propane, 1,2-dibromo-3-chloro-
U067	106-93-4	Ethane, 1,2-dibromo-
U067	106-93-4	Ethylene dibromide
U068	74-95-3	Methane, dibromo-
U068	74-95-3	Methylene bromide
U069	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester

U069	84-74-2	Dibutyl phthalate
U070	95-50-1	Benzene, 1,2-dichloro-
U070	95-50-1	o-Dichlorobenzene
U071	541-73-1	Benzene, 1,3-dichloro-
U071	541-73-1	m-Dichlorobenzene
U072	106-46-7	Benzene, 1,4-dichloro-
U072	106-46-7	p-Dichlorobenzene
U073	91-94-1	(1,1′-Biphenyl)-4,4′-diamine, 3,3′-dichloro-
U073	91-94-1	3,3′-Dichlorobenzidine
U074	764-41-0	2-Butene, 1,4-dichloro-(I,T)
U074	764-41-0	1,4-Dichloro-2-butene (I,T)
U075	75-71-8	Dichlorodifluoromethane
U075	75-71-8	Methane, dichlorodifluoro-
U076	75-34-3	Ethane, 1,1-dichloro-
U076	75-34-3	Ethylidene dichloride
U077	107-06-2	Ethane, 1,2-dichloro-
U077	107-06-2	Ethylene dichloride
U078	75-35-4	1,1-Dichloroethylene
U078	75-35-4	Ethene, 1,1-dichloro-
U079	156-60-5	1,2-Dichloroethylene
U079	156-60-5	Ethene, 1,2-dichloro-, (E)-
U080	75-09-2	Methane, dichloro-
U080	75-09-2	Methylene chloride
U081	120-83-2	2,4-Dichlorophenol
U081	120-83-2	Phenol, 2,4-dichloro-
U082	87-65-0	2,6-Dichlorophenol
U082	87-65-0	Phenol, 2,6-dichloro-
U083	78-87-5	Propane, 1,2-dichloro-
U083	78-87-5	Propylene dichloride
U084	542-75-6	1,3-Dichloropropene
U084	542-75-6	1-Propene, 1,3-dichloro-
U085	1464-53-5	2,2′-Bioxirane
U085	1464-53-5	1,2:3,4-Diepoxybutane (I,T)
U086	1615-80-1	N,N′-Diethylhydrazine
U086	1615-80-1	Hydrazine, 1,2-diethyl-
U087	3288-58-2	O,O-Diethyl S-methyl dithiophosphate
U087	3288-58-2	Phosphorodithioic acid, O,O-diethyl S-methyl ester
U088	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester
U088	84-66-2	Diethyl phthalate
U089	56-53-1	Diethylstilbesterol
U089	56-53-1	Phenol, 4,4′-(1,2-diethyl-1,2-

		ethenediyl)bis-, (E)-
U090	94-58-6	1,3-Benzodioxole, 5-propyl-
U090	94-58-6	Dihydrosafrole
U091	119-90-4	(1,1′-Biphenyl)-4,4′-diamine, 3,3′-dimethoxy-
U091	119-90-4	3,3′-Dimethoxybenzidine
U092	124-40-3	Dimethylamine (I)
U092	124-40-3	Methanamine, -methyl-(I)
U093	60-11-7	Benzenamine, N,N-dimethyl-4-(phenylazo)-
U093	60-11-7	p-Dimethylaminoazobenzene
U094	57-97-6	Benz(a)anthracene, 7,12-dimethyl-
U094	57-97-6	7,12-Dimethylbenz(a)anthracene
U095	119-93-7	(1,1′-Biphenyl)-4,4′-diamine, 3,3′-dimethyl-
U095	119-93-7	3,3′-Dimethylbenzidine
U096	80-15-9	alpha,alpha-Dimethylbenzylhydroperoxide (R)
U096	80-15-9	Hydroperoxide, 1-methyl-1-phenylethyl-(R)
U097	79-44-7	Carbamic chloride, dimethyl-
U097	79-44-7	Dimethylcarbamoyl chloride
U098	57-14-7	1,1-Dimethylhydrazine
U098	57-14-7	Hydrazine, 1,1-dimethyl-
U099	540-73-8	1,2-Dimethylhydrazine
U099	540-73-8	Hydrazine, 1,2-dimethyl-
U101	105-67-9	2,4-Dimethylphenol
U101	105-67-9	Phenol, 2,4-dimethyl-
U102	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester
U102	131-11-3	Dimethyl phthalate
U103	77-78-1	Dimethyl sulfate
U103	77-78-1	Sulfuric acid, dimethyl ester
U105	121-14-2	Benzene, 1-methyl-2,4-dinitro-
U105	121-14-2	2,4-Dinitrotoluene
U106	606-20-2	Benzene, 2-methyl-1,3-dinitro-
U106	606-20-2	2,6-Dinitrotoluene
U107	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester
U107	117-84-0	Di-n-octyl phthalate
U108	123-91-1	1,4-Diethyleneoxide
U108	123-91-1	1,4-Dioxane
U109	122-66-7	1,2-Diphenylhydrazine
U109	122-66-7	Hydrazine, 1,2-diphenyl-

U110	142-84-7	Dipropylamine (I)
U110	142-84-7	1-Propanamine, N-propyl-(I)
U111	621-64-7	Di-n-propylnitrosamine
U111	621-64-7	1-Propanamine, N-nitroso-N-propyl-
U112	141-78-6	Acetic acid ethyl ester (I)
U112	141-78-6	Ethyl acetate (I)
U113	140-88-5	Ethyl acrylate (I)
U113	140-88-5	2-Propenoic acid, ethyl ester (I)
U114	(1)111-54-6	Carbamodithioic acid, 1,2-ethanediylbis-, salts & esters
U114	(1)111-54-6	Ethylenebisdithiocarbamic acid, salts & esters
U115	75-21-8	Ethylene oxide (I,T)
U115	75-21-8	Oxirane (I,T)
U116	96-45-7	Ethylenethiourea
U116	96-45-7	2-Imidazolidinethione
U117	60-29-7	Ethane, 1,1′-oxybis-(I)
U117	60-29-7	Ethyl ether (I)
U118	97-63-2	Ethyl methacrylate
U118	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester
U119	62-50-0	Ethyl methanesulfonate
U119	62-50-0	Methanesulfonic acid, ethyl ester
U120	206-44-0	Fluoranthene
U121	75-69-4	Methane, trichlorofluoro-
U121	75-69-4	Trichloromonofluoromethane
U122	50-00-0	Formaldehyde
U123	64-18-6	Formic acid (C,T)
U124	110-00-9	Furan (I)
U124	110-00-9	Furfuran (I)
U125	98-01-1	2-Furancarboxaldehyde (I)
U125	98-01-1	Furfural (I)
U126	765-34-4	Glycidylaldehyde
U126	765-34-4	Oxiranecarboxyaldehyde
U127	118-74-1	Benzene, hexachloro-
U127	118-74-1	Hexachlorobenzene
U128	87-68-3	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-
U128	87-68-3	Hexachlorobutadiene
U129	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha,5alpha, 6beta)-
U129	58-89-9	Lindane
U130	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-

U130	77-47-4	Hexachlorocyclopentadiene
U131	67-72-1	Ethane, hexachloro-
U131	67-72-1	Hexachloroethane
U132	70-30-4	Hexachlorophene
U132	70-30-4	Phenol, 2,2'-methylenebis(3,4,6-trichloro-
U133	302-01-2	Hydrazine (R,T)
U134	7664-39-3	Hydrofluoric acid (C,T)
U134	7664-39-3	Hydrogen fluoride (C,T)
U135	7783-06-4	Hydrogen sulfide
U135	7783-06-4	Hydrogen sulfide H2S
U136	75-60-5	Arsinic acid, dimethyl-
U136	75-60-5	Cacodylic acid
U137	193-39-5	Indeno(1,2,3-cd)pyrene
U138	74-88-4	Methane, iodo-
U138	74-88-4	Methyl iodide
U140	78-83-1	Isobutyl alcohol (I,T)
U140	78-83-1	1-Propanol, 2-methyl- (I,T)
U141	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-
U141	120-58-1	Isosafrole
U142	143-50-0	Kepone
U142	143-50-0	1,3,4-Metheno-2H-cyclobuta(cd)pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-
U143	303-34-4	2-Butenoic acid, 2-methyl-, 7-((2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy)methyl)-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, (1S- (1alpha(Z),7(2S*,3R*), 7aalpha))-
U143	303-34-4	Lasiocarpine
U144	301-04-2	Acetic acid, lead(2+) salt
U144	301-04-2	Lead acetate
U145	7446-27-7	Lead phosphate
U145	7446-27-7	Phosphoric acid, lead(2+) salt (2:3)
U146	1335-32-6	Lead, bis(acetato-O)tetrahydroxytri-
U146	1335-32-6	Lead subacetate
U147	108-31-6	2,5-Furandione
U147	108-31-6	Maleic anhydride
U148	123-33-1	Maleic hydrazide
U148	123-33-1	3,6-Pyridazinedione, 1,2-dihydro-
U149	109-77-3	Malononitrile
U149	109-77-3	Propanedinitrile

U150	148-82-3	Melphalan
U150	148-82-3	L-Phenylalanine, 4-(bis(2-chloroethyl)amino)-
U151	7439-97-6	Mercury
U152	126-98-7	Methacrylonitrile (I,T)
U152	126-98-7	2-Propenenitrile, 2-methyl- (I,T)
U153	74-93-1	Methanethiol (I,T)
U153	74-93-1	Thiomethanol (I,T)
U154	67-56-1	Methanol (I)
U154	67-56-1	Methyl alcohol (I)
U155	91-80-5	1,2-Ethanediamine, N,N-dimethyl-N′-2-pyridinyl-N′-(2-thienylmethyl)-
U155	91-80-5	Methapyrilene
U156	79-22-1	Carbonochloridic acid, methyl ester (I,T)
U156	79-22-1	Methyl chlorocarbonate (I,T)
U157	56-49-5	Benz(j)aceanthrylene, 1,2-dihydro-3-methyl-
U157	56-49-5	3-Methylcholanthrene
U158	101-14-4	Benzenamine, 4,4′-methylenebis(2-chloro-
U158	101-14-4	4,4′-Methylenebis(2-chloroaniline)
U159	78-93-3	2-Butanone (I,T)
U159	78-93-3	Methyl ethyl ketone (MEK) (I,T)
U160	1338-23-4	2-Butanone, peroxide (R,T)
U160	1338-23-4	Methyl ethyl ketone peroxide (R,T)
U161	108-10-1	Methyl isobutyl ketone (I)
U161	108-10-1	4-Methyl-2-pentanone (I)
U161	108-10-1	Pentanol, 4-methyl-
U162	80-62-6	Methyl methacrylate (I,T)
U162	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester (I,T)
U163	70-25-7	Guanidine, -methyl-N'-nitro-N-nitroso-
U163	70-25-7	MNNG
U164	56-04-2	Methylthiouracil
U164	56-04-2	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-
U165	91-20-3	Naphthalene
U166	130-15-4	1,4-Naphthalenedione
U166	130-15-4	1,4-Naphthoquinone
U167	134-32-7	1-Naphthalenamine
U167	134-32-7	alpha-Naphthylamine
U168	91-59-8	2-Naphthalenamine
U168	91-59-8	beta-Naphthylamine

U169	98-95-3	Benzene, nitro-
U169	98-95-3	Nitrobenzene (I,T)
U170	100-02-7	p-Nitrophenol
U170	100-02-7	Phenol, 4-nitro-
U171	79-46-9	2-Nitropropane (I,T)
U171	79-46-9	Propane, 2-nitro- (I,T)
U172	924-16-3	1-Butanamine, N-butyl-N-nitroso-
U172	924-16-3	N-Nitrosodi-n-butylamine
U173	1116-54-7	Ethanol, 2,2′-(nitrosoimino)bis-
U173	1116-54-7	N-Nitrosodiethanolamine
U174	55-18-5	Ethanamine, -ethyl-N-nitroso-
U174	55-18-5	N-Nitrosodiethylamine
U176	759-73-9	N-Nitroso-N-ethylurea
U176	759-73-9	Urea, N-ethyl-N-nitroso-
U177	684-93-5	N-Nitroso-N-methylurea
U177	684-93-5	Urea, N-methyl-N-nitroso-
U178	615-53-2	Carbamic acid, methylnitroso-, ethyl ester
U178	615-53-2	N-Nitroso-N-methylurethane
U179	100-75-4	N-Nitrosopiperidine
U179	100-75-4	Piperidine, 1-nitroso-
U180	930-55-2	N-Nitrosopyrrolidine
U180	930-55-2	Pyrrolidine, 1-nitroso-
U181	99-55-8	Benzenamine, 2-methyl-5-nitro-
U181	99-55-8	5-Nitro-o-toluidine
U182	123-63-7	1,3,5-Trioxane, 2,4,6-trimethyl-
U182	123-63-7	Paraldehyde
U183	608-93-5	Benzene, pentachloro-
U183	608-93-5	Pentachlorobenzene
U184	76-01-7	Ethane, pentachloro-
U184	76-01-7	Pentachloroethane
U185	82-68-8	Benzene, pentachloronitro-
U185	82-68-8	Pentachloronitrobenzene (PCNB)
U186	504-60-9	1-Methylbutadiene (I)
U186	504-60-9	1,3-Pentadiene (I)
U187	62-44-2	Acetamide, -(4-ethoxyphenyl)-
U187	62-44-2	Phenacetin
U188	108-95-2	Phenol
U189	1314-80-3	Phosphorus sulfide (R)
U189	1314-80-3	Sulfur phosphide (R)
U190	85-44-9	1,3-Isobenzofurandione
U190	85-44-9	Phthalic anhydride
U191	109-06-8	2-Picoline
U191	109-06-8	Pyridine, 2-methyl-

U192	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-
U192	23950-58-5	Pronamide
U193	1120-71-4	1,2-Oxathiolane, 2,2-dioxide
U193	1120-71-4	1,3-Propane sultone
U194	107-10-8	1-Propanamine (I,T)
U194	107-10-8	n-Propylamine (I,T)
U196	110-86-1	Pyridine
U197	106-51-4	p-Benzoquinone
U197	106-51-4	2,5-Cyclohexadiene-1,4-dione
U200	50-55-5	Reserpine
U200	50-55-5	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-((3,4,5-trimethoxybenzoyl)oxy)-, methyl ester,(3beta,16beta,17alpha,18beta,20alpha)-
U201	108-46-3	1,3-Benzenediol
U201	108-46-3	Resorcinol
U203	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-
U203	94-59-7	Safrole
U204	7783-00-8	Selenious acid
U204	7783-00-8	Selenium dioxide
U205	7488-56-4	Selenium sulfide
U205	7488-56-4	Selenium sulfide SeS2 (R,T)
U206	18883-66-4	Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-, D-
U206	18883-66-4	D-Glucose, 2-deoxy-2-(((methylnitrosoamino)-carbonyl)amino)-
U206	18883-66-4	Streptozotocin
U207	95-94-3	Benzene, 1,2,4,5-tetrachloro-
U207	95-94-3	1,2,4,5-Tetrachlorobenzene
U208	630-20-6	Ethane, 1,1,1,2-tetrachloro-
U208	630-20-6	1,1,1,2-Tetrachloroethane
U209	79-34-5	Ethane, 1,1,2,2-tetrachloro-
U209	79-34-5	1,1,2,2-Tetrachloroethane
U210	127-18-4	Ethene, tetrachloro-
U210	127-18-4	Tetrachloroethylene
U211	56-23-5	Carbon tetrachloride
U211	56-23-5	Methane, tetrachloro-
U213	109-99-9	Furan, tetrahydro-(I)
U213	109-99-9	Tetrahydrofuran (I)
U214	563-68-8	Acetic acid, thallium(1+) salt
U214	563-68-8	Thallium(I) acetate
U215	6533-73-9	Carbonic acid, dithallium(1+) salt

U215	6533-73-9	Thallium(I) carbonate
U216	7791-12-0	Thallium(I) chloride
U216	7791-12-0	Thallium chloride TlCl
U217	10102-45-1	Nitric acid, thallium(1+) salt
U217	10102-45-1	Thallium(I) nitrate
U218	62-55-5	Ethanethioamide
U218	62-55-5	Thioacetamide
U219	62-56-6	Thiourea
U220	108-88-3	Benzene, methyl-
U220	108-88-3	Toluene
U221	25376-45-8	Benzenediamine, ar-methyl-
U221	25376-45-8	Toluenediamine
U222	636-21-5	Benzenamine, 2-methyl-, hydrochloride
U222	636-21-5	o-Toluidine hydrochloride
U223	26471-62-5	Benzene, 1,3-diisocyanatomethyl- (R,T)
U223	26471-62-5	Toluene diisocyanate (R,T)
U225	75-25-2	Bromoform
U225	75-25-2	Methane, tribromo-
U226	71-55-6	Ethane, 1,1,1-trichloro-
U226	71-55-6	Methyl chloroform
U226	71-55-6	1,1,1-Trichloroethane
U227	79-00-5	Ethane, 1,1,2-trichloro-
U227	79-00-5	1,1,2-Trichloroethane
U228	79-01-6	Ethene, trichloro-
U228	79-01-6	Trichloroethylene
U234	99-35-4	Benzene, 1,3,5-trinitro-
U234	99-35-4	1,3,5-Trinitrobenzene (R,T)
U235	126-72-7	1-Propanol, 2,3-dibromo-, phosphate (3:1)
U235	126-72-7	Tris(2,3-dibromopropyl) phosphate
U236	72-57-1	2,7-Naphthalenedisulfonic acid, 3,3'-((3,3'-dimethyl(1,1'-biphenyl)-4,4'-diyl)bis(azo)bis(5-amino-4-hydroxy)-, tetrasodium salt
U236	72-57-1	Trypan blue
U237	66-75-1	2,4-(1H,3H)-Pyrimidinedione, 5-(bis(2-chloroethyl)amino)-
U237	66-75-1	Uracil shallard
U238	51-79-6	Carbamic acid, ethyl ester
U238	51-79-6	Ethyl carbamate (urethane)
U239	1330-20-7	Benzene, dimethyl- (I,T)
U239	1330-20-7	Xylene (I)
U240	(1)94-75-7	Acetic acid, (2,4-dichlorophenoxy)-, salts & esters

U240	(1)94-75-7	2,4-D, salts & esters
U243	1888-71-7	Hexachloropropene
U243	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-
U244	137-26-8	Thioperoxydicarbonic diamide ((H2N)C(S))2 S2, tetramethyl-
U244	137-26-8	Thiram
U246	506-68-3	Cyanogen bromide (CN)Br
U247	72-43-5	Benzene, 1,1′-(2,2,2-trichloroethylidene)bis(4- methoxy-
U247	72-43-5	Methoxychlor
U248	(1)81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenyl-butyl)-, & salts, when present at concentrations of 0.3% or less
U248	(1)81-81-2	Warfarin, & salts, when present at concentrations of 0.3% or less
U249	1314-84-7	Zinc phosphide Zn3 P2, when present at concentrations of 10% or less
U271	17804-35-2	Benomyl
U271	17804-35-2	Carbamic acid, (1-((butylamino)carbonyl)-1H-benzimidazol-2-yl)-, methyl ester
U278	22781-23-3	Bendiocarb
U278	22781-23-3	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate
U279	63-25-2	Carbaryl
U279	63-25-2	1-Naphthalenol, methylcarbamate
U280	101-27-9	Barban
U280	101-27-9	Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester
U328	95-53-4	Benzenamine, 2-methyl-
U328	95-53-4	o-Toluidine
U353	106-49-0	Benzenamine, 4-methyl-
U353	106-49-0	p-Toluidine
U359	110-80-5	Ethanol, 2-ethoxy-
U359	110-80-5	Ethylene glycol monoethyl ether
U364	22961-82-6	Bendiocarb phenol
U364	22961-82-6	1,3-Benzodioxol-4-ol, 2,2-dimethyl-,
U367	1563-38-8	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-
U367	1563-38-8	Carbofuran phenol
U372	10605-21-7	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester
U372	10605-21-7	Carbendazim

U373	122-42-9	Carbamic acid, phenyl-, 1-methylethyl ester
U373	122-42-9	Propham
U387	52888-80-9	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester
U387	52888-80-9	Prosulfocarb
U389	2303-17-5	Carbamothioic acid, bis(1-methylethyl)-, S- (2,3,3-trichloro-2-propenyl) ester
U389	2303-17-5	Triallate
U394	30558-43-1	A2213
U394	30558-43-1	Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo-, methyl ester
U395	5952-26-1	Diethylene glycol, dicarbamate
U395	5952-26-1	Ethanol, 2,2′-oxybis-, dicarbamate
U404	121-44-8	Ethanamine, N,N-diethyl-
U404	121-44-8	Triethylamine
U409	23564-05-8	Carbamic acid, (1,2-phenylenebis (iminocarbonothioyl))bis-, dimethyl ester
U409	23564-05-8	Thiophanate-methyl
U410	59669-26-0	Ethanimidothioic acid, N,N′-(thiobis((methylimino)carbonyloxy)) bis-, dimethyl ester
U410	59669-26-0	Thiodicarb
U411	114-26-1	Phenol, 2-(1-methylethoxy)-, methylcarbamate
U411	114-26-1	Propoxur
See F027	93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-
See F027	7-86-5	Pentachlorophenol
See F027	87-86-5	Phenol, pentachloro-
See F027	58-90-2	Phenol, 2,3,4,6-tetrachloro-
See F027	95-95-4	Phenol, 2,4,5-trichloro-
See F027	88-06-2	Phenol, 2,4,6-trichloro-
See F027	93-72-1	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-
See F027	93-72-1	Silvex (2,4,5-TP)
See F027	93-76-5	2,4,5-T
See F027	58-90-2	2,3,4,6-Tetrachlorophenol
See F027	95-95-4	2,4,5-Trichlorophenol
See F027	88-06-2	2,4,6-Trichlorophenol

R315-261-35. Lists of Hazardous Wastes - Deletion Of Certain Hazardous Waste Codes Following Equipment Cleaning and Replacement.

(a) Wastes from wood preserving processes at plants that do not resume or initiate use of chlorophenolic preservatives will not meet the listing definition of F032 once the generator has met all of the requirements of Subsections R315-261-35(b) and (c). These wastes may, however, continue to meet another hazardous waste listing description or may exhibit one or more of the hazardous waste characteristics.

(b) Generators shall either clean or replace all process equipment that may have come into contact with chlorophenolic formulations or constituents thereof, including, but not limited to, treatment cylinders, sumps, tanks, piping systems, drip pads, fork lifts, and trams, in a manner that minimizes or eliminates the escape of hazardous waste or constituents, leachate, contaminated drippage, or hazardous waste decomposition products to the ground water, surface water, or atmosphere.

(1) Generators shall do one of the following:

(i) Prepare and follow an equipment cleaning plan and clean equipment in accordance with Section R315-261-35;

(ii) Prepare and follow an equipment replacement plan and replace equipment in accordance with Section R315-261-35; or

(iii) Document cleaning and replacement in accordance with Section R315-261-35, carried out after termination of use of chlorophenolic preservations.

(2) Cleaning Requirements.

(i) Prepare and sign a written equipment cleaning plan that describes:

(A) The equipment to be cleaned;

(B) How the equipment will be cleaned;

(C) The solvent to be used in cleaning;

(D) How solvent rinses will be tested; and

(E) How cleaning residues will be disposed.

(ii) Equipment shall be cleaned as follows:

(A) Remove all visible residues from process equipment;

(B) Rinse process equipment with an appropriate solvent until dioxins and dibenzofurans are not detected in the final solvent rinse.

(iii) Analytical requirements.

(A) Rinses shall be tested by using an appropriate method.

(B) “Not detected” means at or below the following lower method calibration limits (MCLs): The 2,3,7,8-TCDD-based MCL-0.01 parts per trillion (ppt), sample weight of 1000 g, IS spiking level of 1 ppt, final extraction volume of 10-50 microliters. For other congeners-multiply the values by 1 for TCDF/PeCDD/PeCDF, by 2.5 for HxCDD/HxCDF/HpCDD/HpCDF, and by 5 for OCDD/OCDF.

(iv) The generator shall manage all residues from the cleaning process as F032 waste.

(3) Replacement requirements.

(i) Prepare and sign a written equipment replacement plan that describes:

(A) The equipment to be replaced;

(B) How the equipment will be replaced; and

(C) How the equipment will be disposed.

(ii) The generator shall manage the discarded equipment as F032 waste.

(4) Documentation requirements.

(i) Document that previous equipment cleaning and/or replacement was performed in accordance with Section R315-261-35 and occurred after cessation of use of chlorophenolic preservatives.

(c) The generator shall maintain the following records documenting the cleaning and replacement as part of the facility's operating record:

(1) The name and address of the facility;

(2) Formulations previously used and the date on which their use ceased in each process at the plant;

(3) Formulations currently used in each process at the plant;

(4) The equipment cleaning or replacement plan;

(5) The name and address of any persons who conducted the cleaning and replacement;

(6) The dates on which cleaning and replacement were accomplished;

(7) The dates of sampling and testing;

(8) A description of the sample handling and preparation techniques, including techniques used for extraction, containerization, preservation, and chain-of-custody of the samples;

(9) A description of the tests performed, the date the tests were performed, and the results of the tests;

(10) The name and model numbers of the instrument(s) used in performing the tests;

(11) QA/QC documentation; and

(12) The following statement signed by the generator or his authorized representative: I certify under penalty of law that all process equipment required to be cleaned or replaced under Section R315-261-35 was cleaned or replaced as represented in the equipment cleaning and replacement plan and accompanying documentation. I am aware that there are significant penalties for providing false information, including the possibility of fine or imprisonment.

R315-261-39. Exclusions and Exemptions - Conditional Exclusion for Used, Broken Cathode Ray Tubes (CRTs) and Processed CRT Glass Undergoing Recycling.

Used, broken CRTs are not solid wastes if they meet the following conditions:

(a) Prior to processing: These materials are not solid wastes if they are destined for recycling and if they meet the following requirements:

(1) Storage. The broken CRTs shall be either:

(i) Stored in a building with a roof, floor, and walls, or

(ii) Placed in a container, i.e., a package or a vehicle, that is constructed, filled, and closed to minimize releases to the environment of CRT glass, including fine solid materials.

(2) Labeling. Each container in which the used, broken CRT is contained shall be labeled or marked clearly with one of the following phrases: “Used cathode ray tube(s)-contains leaded glass ” or “Leaded glass from televisions or computers.” It shall also be labeled: “Do not mix with other glass materials.”

(3) Transportation. The used, broken CRTs shall be transported in a container meeting the requirements of Subsections R315-261-39(a)(1)(ii) and (2).

(4) Speculative accumulation and use constituting disposal. The used, broken CRTs are subject to the limitations on speculative accumulation as defined in Subsection R315-261-39(c)(8). If they are used in a manner constituting disposal, they shall comply with the applicable requirements of Sections R315-266-20 through 23 instead of the requirements of Section R315-261-39.

(5) Exports. In addition to the applicable conditions specified in Subsections R315-261-39(a)(1)through (4),

exporters of used, broken CRTs shall comply with the following requirements:

(i) Notify EPA of an intended export before the CRTs are scheduled to leave the United States. A complete notification should be submitted sixty days before the initial shipment is intended to be shipped off-site. This notification may cover export activities extending over a twelve month or lesser period. The notification shall be in writing, signed by the exporter, and include the following information:

(A) Name, mailing address, telephone number and EPA ID number, if applicable, of the exporter of the CRTs.

(B) The estimated frequency or rate at which the CRTs are to be exported and the period of time over which they are to be exported.

(C) The estimated total quantity of CRTs specified in kilograms.

(D) All points of entry to and departure from each foreign country through which the CRTs will pass.

(E) A description of the means by which each shipment of the CRTs will be transported; e.g., mode of transportation vehicle, air, highway, rail, water, etc.; type(s) of container, drums, boxes, tanks, etc.

(F) The name and address of the recycler or recyclers and the estimated quantity of used CRTs to be sent to each facility, as well as the names of any alternate recyclers.

(G) A description of the manner in which the CRTs will be recycled in the foreign country that will be receiving the CRTs.

(H) The name of any transit country through which the CRTs will be sent and a description of the approximate length of time the CRTs will remain in such country and the nature of their handling while there.

(ii) Notifications submitted by mail should be sent to the following mailing address: Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division, (Mail Code 2254A), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460. Hand-delivered notifications should be sent to: Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division, (Mail Code 2254A), Environmental Protection Agency, Ariel Rios Bldg., Room 6144, 1200 Pennsylvania Ave., NW., Washington, DC. In both cases, the following shall be prominently displayed on

the front of the envelope: “Attention: Notification of Intent to Export CRTs.”

(iii) Upon request by EPA, the exporter shall furnish to EPA any additional information which a receiving country requests in order to respond to a notification.

(iv) EPA shall provide a complete notification to the receiving country and any transit countries. A notification is complete when EPA receives a notification which EPA determines satisfies the requirements of Subsection R315-261-39(a)(5)(i). Where a claim of confidentiality is asserted with respect to any notification information required by Subsection R315-261-39(a)(5)(i), EPA may find the notification not complete until any such claim is resolved in accordance with 40 CFR 260.2.

(v) The export of CRTs is prohibited unless the receiving country consents to the intended export. When the receiving country consents in writing to the receipt of the CRTs, EPA shall forward an Acknowledgment of Consent to Export CRTs to the exporter. Where the receiving country objects to receipt of the CRTs or withdraws a prior consent, EPA shall notify the exporter in writing. EPA shall also notify the exporter of any responses from transit countries.

(vi) When the conditions specified on the original notification change, the exporter shall provide EPA with a written renotification of the change, except for changes to the telephone number in Subsection R315-261-39(a)(5)(i)(A) and decreases in the quantity indicated pursuant to Subsection R315-261-39(a)(5)(i)(C). The shipment cannot take place until consent of the receiving country to the changes has been obtained, except for changes to information about points of entry and departure and transit countries pursuant to Subsections R315-261-39(a)(5)(i)(D) and (a)(5)(i)(H), and the exporter of CRTs receives from EPA a copy of the Acknowledgment of Consent to Export CRTs reflecting the receiving country's consent to the changes.

(vii) A copy of the Acknowledgment of Consent to Export CRTs shall accompany the shipment of CRTs. The shipment shall conform to the terms of the Acknowledgment.

(viii) If a shipment of CRTs cannot be delivered for any reason to the recycler or the alternate recycler, the exporter of CRTs shall renotify EPA of a change in the conditions of the original notification to allow shipment to a new recycler in accordance with Subsection R315-261-

39(a)(5)(vi) and obtain another Acknowledgment of Consent to Export CRTs.

(ix) Exporters shall keep copies of notifications and Acknowledgments of Consent to Export CRTs for a period of three years following receipt of the Acknowledgment.

(x) CRT exporters shall file with EPA no later than March 1 of each year, an annual report summarizing the quantities, in kilograms; frequency of shipment; and ultimate destination(s), i.e., the facility or facilities where the recycling occurs, of all used CRTs exported during the previous calendar year. Such reports shall also include the following:

(A) The name; EPA ID number, if applicable; and mailing and site address of the exporter;

(B) The calendar year covered by the report;

(C) A certification signed by the CRT exporter that states:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

(xi) Annual reports shall be submitted to the office specified in Subsection R315-261-39(a)(5)(ii). Exporters shall keep copies of each annual report for a period of at least three years from the due date of the report.

(b) Requirements for used CRT processing: Used, broken CRTs undergoing CRT processing as defined in Section R315-260-10 are not solid wastes if they meet the following requirements:

(1) Storage. Used, broken CRTs undergoing processing are subject to the requirement of Subsection R315-261-39(a)(4).

(2) Processing.

(i) All activities specified in Subsections R315-260-10(23)(ii) and (iii) shall be performed within a building with a roof, floor, and walls; and

(ii) No activities may be performed that use temperatures high enough to volatilize lead from CRTs.

(c) Processed CRT glass sent to CRT glass making or lead smelting: Glass from used CRTs that is destined for recycling at a CRT glass manufacturer or a lead smelter after processing is not a solid waste unless it is speculatively accumulated as defined in Subsection R315-261-1(c)(8).

(d) Use constituting disposal: Glass from used CRTs that is used in a manner constituting disposal shall comply with the requirements of Section R315-266-20 through 23 instead of the requirements of Section R315-261-39.

(x) CRT exporters shall file with EPA no later than March 1 of each year, an annual report summarizing the quantities, in kilograms; frequency of shipment; and ultimate destination(s), i.e., the facility or facilities where the recycling occurs, of all used CRTs exported during the previous calendar year. Such reports shall also include the following:

(A) The name, EPA ID number, if applicable, and mailing and site address of the exporter;

(B) The calendar year covered by the report;

(C) A certification signed by the CRT exporter that states: "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

(xi) Annual reports shall be submitted to the office specified in Subsection R315-261-39(a)(5)(ii). Exporters shall keep copies of each annual report for a period of at least three years from the due date of the report.

R315-261-40. Exclusions and Exemptions - Conditional Exclusion for Used, Intact Cathode Ray Tubes (CRTs) Exported for Recycling.

Used, intact CRTs exported for recycling are not solid wastes if they meet the notice and consent conditions of Subsection R315-261-39(a)(5), and if they are not speculatively accumulated as defined in Subsection R315-261-1(c)(8).

R315-261-41. Exclusions and Exemptions - Notification and Recordkeeping for Used, Intact Cathode Ray Tubes (CRTs) Exported for Reuse.

(a) CRT exporters who export used, intact CRTs for reuse shall send a notification to EPA. This notification may cover export activities extending over a 12 month or lesser period.

(1) The notification shall be in writing, signed by the exporter, and include the following information:

(i) Name, mailing address, telephone number, and EPA ID number, if applicable, of the exporter of the used, intact CRTs;

(ii) The estimated frequency or rate at which the used, intact CRTs are to be exported for reuse and the period of time over which they are to be exported;

(iii) The estimated total quantity of used, intact CRTs specified in kilograms;

(iv) All points of entry to and departure from each transit country through which the used, intact CRTs will pass, a description of the approximate length of time the used, intact CRTs will remain in such country, and the nature of their handling while there;

(v) A description of the means by which each shipment of the used, intact CRTs will be transported; e.g., mode of transportation vehicle, air, highway, rail, water, etc.; type(s) of container, drums, boxes, tanks, etc.;

(vi) The name and address of the ultimate destination facility or facilities where the used, intact CRTs will be reused, refurbished, distributed, or sold for reuse and the estimated quantity of used, intact CRTs to be sent to each facility, as well as the name of any alternate destination facility or facilities;

(vii) A description of the manner in which the used, intact CRTs will be reused, including reuse after refurbishment, in the foreign country that will be receiving the used, intact CRTs; and

(viii) A certification signed by the CRT exporter that states: "I certify under penalty of law that the CRTs described in this notice are intact and fully functioning or capable of being functional after refurbishment and that the used CRTs will be reused or refurbished and reused. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that, based on my inquiry of those individuals immediately responsible for

obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

(2) Notifications submitted by mail should be sent to the following mailing address: Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division, (Mail Code 2254A), Environmental Protection Agency, 1200 Pennsylvania Ave. NW., Washington, DC 20460. Hand-delivered notifications should be sent to: Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division, (Mail Code 2254A), Environmental Protection Agency, William Jefferson Clinton Building, Room 6144, 1200 Pennsylvania Ave. NW., Washington, DC 20004. In both cases, the following shall be prominently displayed on the front of the envelope: "Attention: Notification of Intent to Export CRTs."

(b) CRT exporters of used, intact CRTs sent for reuse shall keep copies of normal business records, such as contracts, demonstrating that each shipment of exported used, intact CRTs will be reused. This documentation shall be retained for a period of at least three years from the date the CRTs were exported. If the documents are written in a language other than English, CRT exporters of used, intact CRTs sent for reuse shall provide both the original, non-English version of the normal business records as well as a third-party translation of the normal business records into English within 30 days upon request by EPA.

R315-261-140. Financial Requirements for Management of Excluded Hazardous Secondary Materials - Applicability.

(a) The requirements of Sections R315-261-140 through 143 and R315-261-147 through 151 apply to owners or operators of reclamation and intermediate facilities managing hazardous secondary materials excluded under Subsection R315-261-4(a)(24), except as provided otherwise in Subsection R315-261-140(b).

(b) States and the Federal government are exempt from the financial assurance requirements of Sections R315-261-140 through 143and R315-261-147 through 151.

R315-261-141. Financial Requirements for Management of Excluded Hazardous Secondary Materials - Definitions of Terms as Used in Sections R315-261-140 Through 151.
The terms defined in 40 CFR 265.141(d), (f), (g), and (h), which are adopted by reference, have the same meaning as they do in 40 CFR 265.141, which is adopted by reference.

R315-261-142. Financial Requirements for Management of Excluded Hazardous Secondary Materials - Cost Estimate.
(a) The owner or operator shall have a detailed written estimate, in current dollars, of the cost of disposing of any hazardous secondary material as listed or characteristic hazardous waste, and the potential cost of closing the facility as a treatment, storage, and disposal facility.
(1) The estimate shall equal the cost of conducting the activities described in Subsection R315-261-142(a) at the point when the extent and manner of the facility's operation would make these activities the most expensive; and
(2) The cost estimate shall be based on the costs to the owner or operator of hiring a third party to conduct these activities. A third party is a party who is neither a parent nor a subsidiary of the owner or operator. See definition of parent corporation in 40 CFR 265.141(d), which is adopted by reference. The owner or operator may use costs for on-site disposal in accordance with applicable requirements if he can demonstrate that on-site disposal capacity will exist at all times over the life of the facility.
(3) The cost estimate may not incorporate any salvage value that may be realized with the sale of hazardous secondary materials, or hazardous or non-hazardous wastes if applicable under 40 CFR 265.5113(d), which is adopted by reference; facility structures or equipment, land, or other assets associated with the facility.
(4) The owner or operator may not incorporate a zero cost for hazardous secondary materials, or hazardous or non-hazardous wastes if applicable under 40 CFR 265.5113(d), which is adopted by reference, that might have economic value.
(b) During the active life of the facility, the owner or operator shall adjust the cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply

with Section R315-261-143. For owners and operators using the financial test or corporate guarantee, the cost estimate shall be updated for inflation within 30 days after the close of the firm's fiscal year and before submission of updated information to the Director as specified in Subsection R315-261-143(e)(3). The adjustment may be made by recalculating the cost estimate in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its Survey of Current Business, as specified in Subsections R315-261-142(b)(1) and (2). The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

(1) The first adjustment is made by multiplying the cost estimate by the inflation factor. The result is the adjusted cost estimate.

(2) Subsequent adjustments are made by multiplying the latest adjusted cost estimate by the latest inflation factor.

(c) During the active life of the facility, the owner or operator shall revise the cost estimate no later than 30 days after a change in a facility's operating plan or design that would increase the costs of conducting the activities described in Subsection R315-261-142(a) or no later than 60 days after an unexpected event which increases the cost of conducting the activities described in Subsection R315-261-142(a). The revised cost estimate shall be adjusted for inflation as specified in Subsection R315-261-142(b).

(d) The owner or operator shall keep the following at the facility during the operating life of the facility: The latest cost estimate prepared in accordance with Subsections R315-261-142(a) and (c) and, when this estimate has been adjusted in accordance with Subsection R315-261-142(b), the latest adjusted cost estimate.

R315-261-143. Financial Requirements for Management of Excluded Hazardous Secondary Materials - Financial Assurance Condition.

AS provided in Subsection R315-261-4(a)(24)(vi)(F), an owner or operator of a reclamation or intermediate facility shall have financial assurance as a condition of the exclusion as required under Subsection R315-261-4(a)(24).

He shall choose from the options as specified in Subsections R315-261-143(a) through (e).

(a) Trust fund.

(1) An owner or operator may satisfy the requirements of Section R315-261-143 by establishing a trust fund which conforms to the requirements of Subsection R315-261-143(a) and submitting an originally signed duplicate of the trust agreement to the Director. The trustee shall be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

(2) The wording of the trust agreement shall be identical to the wording specified in Subsection R315-261-151(a)(1), and the trust agreement shall be accompanied by a formal certification of acknowledgment, for example, see Subsection R315-261-151(a)(2). Schedule A of the trust agreement shall be updated within 60 days after a change in the amount of the current cost estimate covered by the agreement.

(3) The trust fund shall be funded for the full amount of the current cost estimate before it may be relied upon to satisfy the requirements of Section R315-261-143.

(4) Whenever the current cost estimate changes, the owner or operator shall compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, shall either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current cost estimate, or obtain other financial assurance as specified in Section R315-261-143 to cover the difference.

(5) If the value of the trust fund is greater than the total amount of the current cost estimate, the owner or operator may submit a written request to the Director for release of the amount in excess of the current cost estimate.

(6) If an owner or operator substitutes other financial assurance as specified in Section R315-261-143 for all or part of the trust fund, he may submit a written request to the Director for release of the amount in excess of the current cost estimate covered by the trust fund.

(7) Within 60 days after receiving a request from the owner or operator for release of funds as specified in Subsections R315-261-143(a)(5) or (6), the Director shall

instruct the trustee to release to the owner or operator such funds as the Director specifies in writing. If the owner or operator begins final closure under Sections R315-264-110 through 120 or 40 CFR 265.110 through 121, which is adopted by reference; an owner or operator may request reimbursements for partial or final closure expenditures by submitting itemized bills to the Director. The owner or operator may request reimbursements for partial closure only if sufficient funds are remaining in the trust fund to cover the maximum costs of closing the facility over its remaining operating life. No later than 60 days after receiving bills for partial or final closure activities, the Director shall instruct the trustee to make reimbursements in those amounts as the Director specifies in writing, if the Director determines that the partial or final closure expenditures are in accordance with the approved closure plan, or otherwise justified. If the Director has reason to believe that the maximum cost of closure over the remaining life of the facility will be significantly greater than the value of the trust fund, he may withhold reimbursements of such amounts as he deems prudent until he determines, in accordance with 40 CFR 265.143(i), which is adopted by reference, that the owner or operator is no longer required to maintain financial assurance for final closure of the facility. If the Director does not instruct the trustee to make such reimbursements, he shall provide to the owner or operator a detailed written statement of reasons.

(8) The Director shall agree to termination of the trust when:

(i) An owner or operator substitutes alternate financial assurance as specified in Section R315-261-143; or

(ii) The Director releases the owner or operator from the requirements of Section R315-261-143 in accordance with Subsection R315-261-143(i).

(b) Surety bond guaranteeing payment into a trust fund.

(1) An owner or operator may satisfy the requirements of Section R315-261-143 by obtaining a surety bond which conforms to the requirements of Subsection R315-261-143(b) and submitting the bond to the Direcotr. The surety company issuing the bond shall, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

(2) The wording of the surety bond shall be identical to the wording specified in Subsection R315-261-151(b).

(3) The owner or operator who uses a surety bond to satisfy the requirements of Section R315-261-143 shall also establish a standby trust fund. Under the terms of the bond, all payments made thereunder shall be deposited by the surety directly into the standby trust fund in accordance with instructions from the Director. This standby trust fund shall meet the requirements specified in Subsection R315-261-143(a), except that:

(i) An originally signed duplicate of the trust agreement shall be submitted to the Director with the surety bond; and

(ii) Until the standby trust fund is funded pursuant to the requirements of Section R315-261-143, the following are not required by these regulations:

(A) Payments into the trust fund as specified in Subsection R315-261-143(a);

(B) Updating of Schedule A of the trust agreement, see Subsection R315-261.151(a), to show current cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The bond shall guarantee that the owner or operator shall:

(i) Fund the standby trust fund in an amount equal to the penal sum of the bond before loss of the exclusion under Subsection R315-261-4(a)(24) or

(ii) Fund the standby trust fund in an amount equal to the penal sum within 15 days after an administrative order to begin closure issued by the Director becomes final, or within 15 days after an order to begin closure is issued by a U.S. district court or other court of competent jurisdiction; or

(iii) Provide alternate financial assurance as specified in Section R315-261-143, and obtain the Director's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Director of a notice of cancellation of the bond from the surety.

(5) Under the terms of the bond, the surety shall become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

(6) The penal sum of the bond shall be in an amount at least equal to the current cost estimate, except as provided in Subsection R315-261-143(f).

(7) Whenever the current cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, shall either cause the penal sum to be increased to an amount at least equal to the current cost estimate and submit evidence of such increase to the Director, or obtain other financial assurance as specified in Section R315-261-143 to cover the increase. Whenever the current cost estimate decreases, the penal sum may be reduced to the amount of the current cost estimate following written approval by the Director.

(8) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Director. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Director, as evidenced by the return receipts.

(9) The owner or operator may cancel the bond if the Director has given prior written consent based on his receipt of evidence of alternate financial assurance as specified in Section R315-261-143.

(c) Letter of credit.

(1) An owner or operator may satisfy the requirements of Section R315-261-143 by obtaining an irrevocable standby letter of credit which conforms to the requirements of Subsection R315-261-143(c) and submitting the letter to the Director. The issuing institution shall be an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a Federal or State agency.

(2) The wording of the letter of credit shall be identical to the wording specified in Subsection R315-261-151(c).

(3) An owner or operator who uses a letter of credit to satisfy the requirements of Section R315-261-143 shall also establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Director shall be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Director. This standby trust fund shall meet the requirements of the trust fund specified in Subsection R315-261-143(a), except that:

(i) An originally signed duplicate of the trust agreement shall be submitted to the Director with the letter of credit; and

(ii) Unless the standby trust fund is funded pursuant to the requirements of Section R315-261-143, the following are not required by these regulations:

(A) Payments into the trust fund as specified in Subsection R315-261-143(a);

(B) Updating of Schedule A of the trust agreement, see Subsection R315-261-151(a), to show current cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The letter of credit shall be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the following information: The EPA Identification Number, if any issued; name; and address of the facility; and the amount of funds assured for the facility by the letter of credit.

(5) The letter of credit shall be irrevocable and issued for a period of at least 1 year. The letter of credit shall provide that the expiration date shall be automatically extended for a period of at least 1 year unless, at least 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the Director by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days will begin on the date when both the owner or operator and the Director have received the notice, as evidenced by the return receipts.

(6) The letter of credit shall be issued in an amount at least equal to the current cost estimate, except as provided in Subsection R315-261-143(f).

(7) Whenever the current cost estimate increases to an amount greater than the amount of the credit, the owner or operator, within 60 days after the increase, shall either cause the amount of the credit to be increased so that it at least equals the current cost estimate and submit evidence of such increase to the Director, or obtain other financial assurance as specified in Section R315-261-143 to cover the increase. Whenever the current cost estimate decreases, the amount of the credit may be reduced

to the amount of the current cost estimate following written approval by the Director.

(8) Following a determination by the Director that the hazardous secondary materials do not meet the conditions of the exclusion under Subsection R315-261-4(a)(24), the Director may draw on the letter of credit.

(9) If the owner or operator does not establish alternate financial assurance as specified in Section R315-261-143 and obtain written approval of such alternate assurance from the Director within 90 days after receipt by both the owner or operator and the Director of a notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the Director shall draw on the letter of credit. The Director may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any such extension the Director shall draw on the letter of credit if the owner or operator has failed to provide alternate financial assurance as specified in Section R315-261-143 and obtain written approval of such assurance from the Director.

(10) The Director shall return the letter of credit to the issuing institution for termination when:

(i) An owner or operator substitutes alternate financial assurance as specified in Section R315-261-143; or

(ii) The Director releases the owner or operator from the requirements of Section R315-261-143 in accordance with Subsection R315-261-143(i).

(d) Insurance.

(1) An owner or operator may satisfy the requirements of Section R315-261-143 by obtaining insurance which conforms to the requirements of Subsection R315-261-143(d) and submitting a certificate of such insurance to the Director. At a minimum, the insurer shall be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in Utah.

(2) The wording of the certificate of insurance shall be identical to the wording specified in Subsection R315-261-151(d).

(3) The insurance policy shall be issued for a face amount at least equal to the current cost estimate, except as provided in subsection R315-261-143(f). The term “face amount” means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will

not change the face amount, although the insurer's future liability shall be lowered by the amount of the payments.

(4) The insurance policy shall guarantee that funds shall be available whenever needed to pay the cost of removal of all hazardous secondary materials from the unit, to pay the cost of decontamination of the unit, to pay the costs of the performance of activities required under Sections R315-264-110 through 120 or 40 CFR 265.110 through 121, which is adopted by reference; as applicable, for the facilities covered by this policy. The policy shall also guarantee that once funds are needed, the insurer shall be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the Director, to such party or parties as the Director specifies.

(5) After beginning partial or final closure under Rules R315-264 or 265, as applicable, an owner or operator or any other authorized person may request reimbursements for closure expenditures by submitting itemized bills to the Director. The owner or operator may request reimbursements only if the remaining value of the policy is sufficient to cover the maximum costs of closing the facility over its remaining operating life. Within 60 days after receiving bills for closure activities, the Director shall instruct the insurer to make reimbursements in such amounts as the Director specifies in writing if the Director determines that the expenditures are in accordance with the approved plan or otherwise justified. If the Director has reason to believe that the maximum cost over the remaining life of the facility will be significantly greater than the face amount of the policy, he may withhold reimbursement of such amounts as he deems prudent until he determines, in accordance with Subsection R315-261-143(h), that the owner or operator is no longer required to maintain financial assurance for the particular facility. If the Director does not instruct the insurer to make such reimbursements, he shall provide to the owner or operator a detailed written statement of reasons.

(6) The owner or operator shall maintain the policy in full force and effect until the Director consents to termination of the policy by the owner or operator as specified in Subsection R315-261-143(i)(10). Failure to pay the premium, without substitution of alternate financial assurance as specified in Section R315-261-143, shall constitute a significant violation of these regulations

warranting such remedy as the Director deems necessary. Such violation shall be deemed to begin upon receipt by the Director of a notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.

(7) Each policy shall contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.

(8) The policy shall provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy shall, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice by certified mail to the owner or operator and the Director. Cancellation, termination, or failure to renew may not occur, however, during the 120 days beginning with the date of receipt of the notice by both the Direcotr and the owner or operator, as evidenced by the return receipts. Cancellation, termination, or failure to renew may not occur and the policy shall remain in full force and effect in the event that on or before the date of expiration:

(i) The Director deems the facility abandoned; or

(ii) Conditional exclusion or interim status is lost, terminated, or revoked; or

(iii) Closure is ordered by the Director or a U.S. district court or other court of competent jurisdiction; or

(iv) The owner or operator is named as debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; or

(v) The premium due is paid.

(9) Whenever the current cost estimate increases to an amount greater than the face amount of the policy, the owner or operator, within 60 days after the increase, shall either cause the face amount to be increased to an amount at least equal to the current cost estimate and submit evidence of such increase to the Director, or obtain other financial assurance as specified in Section R315-261-143 to cover the increase. Whenever the current cost estimate decreases, the face amount may be reduced to the amount of the current cost estimate following written approval by the Director.

(10) The Director shall give written consent to the owner or operator that he may terminate the insurance policy when:

(i) An owner or operator substitutes alternate financial assurance as specified in Section R315-261-143; or

(ii) The Director releases the owner or operator from the requirements of Section R315-261-143 in accordance with Subsection R315-261-143(i).

(e) Financial test and corporate guarantee.

(1) An owner or operator may satisfy the requirements of Section R315-261-143 by demonstrating that he passes a financial test as specified in Subsection R315-261-143(e). To pass this test the owner or operator shall meet the criteria of either Subsections R315-261-143(e)(1)(i) or (ii):

(i) The owner or operator shall have:

(A) Two of the following three ratios: A ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and

(B) Net working capital and tangible net worth each at least six times the sum of the current cost estimates and the current plugging and abandonment cost estimates; and

(C) Tangible net worth of at least $10 million; and

(D) Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the current cost estimates and the current plugging and abandonment cost estimates.

(ii) The owner or operator shall have:

(A) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's; and

(B) Tangible net worth at least six times the sum of the current cost estimates and the current plugging and abandonment cost estimates; and

(C) Tangible net worth of at least $10 million; and

(D) Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the current cost estimates and the current plugging and abandonment cost estimates.

(2) The phrase “current cost estimates” as used in Subsection R315-261-143(e)(1) refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer, Subsection R315-261-151(e). The phrase “current plugging and abandonment cost estimates” as used in Subsection R315-261-143(e)(1) refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer, 40 CFR 144.70(f).

(3) To demonstrate that he meets this test, the owner or operator shall submit the following items to the Director:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in Subsection R315-261-151(e); and

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and

(iii) If the chief financial officer's letter providing evidence of financial assurance includes financial data showing that the owner or operator satisfies Subsection R315-261-143(e)(1)(i) that are different from the data in the audited financial statements referred to in Subsection R315-261-143(e)(3)(ii) or any other audited financial statement or data filed with the SEC, then a special report from the owner's or operator's independent certified public accountant to the owner or operator is required. The special report shall be based upon an agreed upon procedures engagement in accordance with professional auditing standards and shall describe the procedures performed in comparing the data in the chief financial officer's letter derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements, the findings of the comparison, and the reasons for any differences.

(4) The owner or operator may obtain an extension of the time allowed for submission of the documents specified in Subsection R315-261-143(e)(3) if the fiscal year of the owner or operator ends during the 90 days prior to the effective date of these regulations and if the year-end financial statements for that fiscal year shall be audited by an independent certified public accountant. The extension shall end no later than 90 days after the end of the owner's or operator's fiscal year. To obtain the

extension, the owner's or operator's chief financial officer shall send, by the effective date of these regulations, a letter to the Director. This letter from the chief financial officer shall:

(i) Request the extension;

(ii) Certify that he has grounds to believe that the owner or operator meets the criteria of the financial test;

(iii) Specify for each facility to be covered by the test the EPA Identification Number, if any are issued; name; address; and current cost estimates to be covered by the test;

(iv) Specify the date ending the owner's or operator's last complete fiscal year before the effective date of Sections R315-261-140 through 143 and R315-261-147 through 151;

(v) Specify the date, no later than 90 days after the end of such fiscal year, when he shall submit the documents specified in Subsection R315-261-143 (e)(3); and

(vi) Certify that the year-end financial statements of the owner or operator for such fiscal year shall be audited by an independent certified public accountant.

(5) After the initial submission of items specified in Subsection R315-261-143(e)(3), the owner or operator shall send updated information to the Director within 90 days after the close of each succeeding fiscal year. This information shall consist of all three items specified in Subsection R315-261-143(e)(3).

(6) If the owner or operator no longer meets the requirements of Subsection R315-261-143(e)(1), he shall send notice to the Director of intent to establish alternate financial assurance as specified in Section R315-261-143. The notice shall be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements. The owner or operator shall provide the alternate financial assurance within 120 days after the end of such fiscal year.

(7) The Director may, based on a reasonable belief that the owner or operator may no longer meet the requirements of Subsection R315-261-143(e)(1), require reports of financial condition at any time from the owner or operator in addition to those specified in Subsection R315-261-143(e)(3). If the Director finds, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of Subsection

R315-261-143(e)(1), the owner or operator shall provide alternate financial assurance as specified in Section R315-261-143 within 30 days after notification of such a finding.

(8) The Director may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements, see Subsection R315-261-143(e)(3)(ii). An adverse opinion or a disclaimer of opinion shall be cause for disallowance. The Director shall evaluate other qualifications on an individual basis. The owner or operator shall provide alternate financial assurance as specified in Section R315-261-143 within 30 days after notification of the disallowance.

(9) The owner or operator is no longer required to submit the items specified in Subsection R315-261-143(e)(3) when:

(i) An owner or operator substitutes alternate financial assurance as specified in Section R315-261-143; or

(ii) The Director releases the owner or operator from the requirements of Section R315-261-143 in accordance with Subsection R315-261-143(i).

(10) An owner or operator may meet the requirements of Section R315-261-143 by obtaining a written guarantee. The guarantor shall be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a “substantial business relationship” with the owner or operator. The guarantor shall meet the requirements for owners or operators in Subsections R315-261-143(e)(1) through (8) and shall comply with the terms of the guarantee. The wording of the guarantee shall be identical to the wording specified in Subsection R315-261-151(g)(1). A certified copy of the guarantee shall accompany the items sent to the Director as specified in Subsection R315-261-143(e)(3). One of these items shall be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, the letter shall describe the value received in consideration of the guarantee. If the guarantor is a firm with a “substantial business relationship” with the owner or operator, this letter shall describe this “substantial

business relationship" and the value received in consideration of the guarantee. The terms of the guarantee shall provide that:

(i) Following a determination by the Director that the hazardous secondary materials at the owner or operator's facility covered by this guarantee do not meet the conditions of the exclusion under Subsection R315-261-4(a)(24), the guarantor shall dispose of any hazardous secondary material as hazardous waste and close the facility in accordance with closure requirements found in Rules R315-264 or 265, as applicable, or establish a trust fund as specified in Subsection R315-261-143(a) in the name of the owner or operator in the amount of the current cost estimate.

(ii) The corporate guarantee shall remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the Director. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Director, as evidenced by the return receipts.

(iii) If the owner or operator fails to provide alternate financial assurance as specified in Section R315-261-143 and obtain the written approval of such alternate assurance from the Director within 90 days after receipt by both the owner or operator and the Director of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor shall provide such alternate financial assurance in the name of the owner or operator.

(f) Use of multiple financial mechanisms. An owner or operator may satisfy the requirements of Section R315-261-143 by establishing more than one financial mechanism per facility. These mechanisms are limited to trust funds, surety bonds, letters of credit, and insurance. The mechanisms shall be as specified in Subsection R315-261-143(a) through (d), except that it is the combination of mechanisms, rather than the single mechanism, which shall provide financial assurance for an amount at least equal to the current cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, he may use the trust fund as the standby trust fund for the other mechanisms. A single standby trust fund may be established for two or more mechanisms. The Director may use any or all of the mechanisms to provide for the facility.

(g) Use of a financial mechanism for multiple facilities. An owner or operator may use a financial assurance mechanism specified in Section R315-261-143 to meet the requirements of Section R315-261-143 for more than one facility. Evidence of financial assurance submitted to the Director shall include a list showing, for each facility, the EPA Identification Number,if any issued; name; address; and the amount of funds assured by the mechanism. In directing funds available through the mechanism for any of the facilities covered by the mechanism, the Director may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

(h) Removal and Decontamination Plan for Release

(1) An owner or operator of a reclamation facility or an intermediate facility who wishes to be released from his financial assurance obligations under Subsection R315-261-4(a)(24)(vi)(F) shall submit a plan for removing all hazardous secondary material residues to the Director at least 180 days prior to the date on which he expects to cease to operate under the exclusion.

(2) The plan shall include, at least:

(A) For each hazardous secondary materials storage unit subject to financial assurance requirements under Subsection R315-261-4(a)(24)(vi)(F), a description of how all excluded hazardous secondary materials shall be recycled or sent for recycling, and how all residues, contaminated containment systems, liners, etc; contaminated soils; subsoils; structures; and equipment shall be removed or decontaminated as necessary to protect human health and the environment, and

(B) A detailed description of the steps necessary to remove or decontaminate all hazardous secondary material residues and contaminated containment system components, equipment, structures, and soils including, but not limited to, procedures for cleaning equipment and removing contaminated soils, methods for sampling and testing surrounding soils, and criteria for determining the extent of decontamination necessary to protect human health and the environment; and

(C) A detailed description of any other activities necessary to protect human health and the environment during this timeframe, including, but not limited to, leachate collection, run-on and run-off control, etc; and

(D) A schedule for conducting the activities described which, at a minimum, includes the total time required to remove all excluded hazardous secondary materials for recycling and decontaminate all units subject to financial assurance under Subsection R315-261-4(a)(24)(vi)(F) and the time required for intervening activities which will allow tracking of the progress of decontamination.

(3) The Director shall provide the owner or operator and the public, through a newspaper notice, the opportunity to submit written comments on the plan and request modifications to the plan no later than 30 days from the date of the notice. He shall also, in response to a request or at his discretion, hold a public hearing whenever such a hearing might clarify one or more issues concerning the plan. The Director shall give public notice of the hearing at least 30 days before it occurs. Public notice of the hearing may be given at the same time as notice of the opportunity for the public to submit written comments, and the two notices may be combined. The Director shall approve, modify, or disapprove the plan within 90 days of its receipt. If the Director does not approve the plan, he shall provide the owner or operator with a detailed written statement of reasons for the refusal and the owner or operator shall modify the plan or submit a new plan for approval within 30 days after receiving such written statement. The Director shall approve or modify this plan in writing within 60 days. If the Director modifies the plan, this modified plan becomes the approved plan. The Director shall assure that the approved plan is consistent with Subsection R315-261-143(h). A copy of the modified plan with a detailed statement of reasons for the modifications shall be mailed to the owner or operator.

(4) Within 60 days of completion of the activities described for each hazardous secondary materials management unit, the owner or operator shall submit to the Director, by registered mail, a certification that all hazardous secondary materials have been removed from the unit and the unit has been decontaminated in accordance with the specifications in the approved plan. The certification shall be signed by the owner or operator and by a qualified Professional Engineer. Documentation supporting the Professional Engineer's certification shall be furnished to the Director, upon request, until he releases the owner or

operator from the financial assurance requirements for Subsection R315-261-4(a)(24)(vi)(F).

(i) Release of the owner or operator from the requirements of Section R315-261-143. Within 60 days after receiving certifications from the owner or operator and a qualified Professional Engineer that all hazardous secondary materials have been removed from the facility or a unit at the facility and the facility or a unit has been decontaminated in accordance with the approved plan as required in Subsection R315-261-143(h), the Director shall notify the owner or operator in writing that he is no longer required under Subsection R315-261-4(a)(24)(vi)(F) to maintain financial assurance for that facility or a unit at the facility, unless the Director has reason to believe that all hazardous secondary materials have not been removed from the facility or unit at a facility or that the facility or unit has not been decontaminated in accordance with the approved plan. The Director shall provide the owner or operator a detailed written statement of any such reason to believe that all hazardous secondary materials have not been removed from the unit or that the unit has not been decontaminated in accordance with the approved plan.

R315-261-147. Financial Requirements for Management of Excluded Hazardous Secondary Materials - Liability Requirements.

(a) Coverage for sudden accidental occurrences. An owner or operator of a hazardous secondary material reclamation facility or an intermediate facility subject to financial assurance requirements under Subsection R315-261-4(a)(24)(vi)(F), or a group of such facilities, shall demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator shall have and maintain liability coverage for sudden accidental occurrences in the amount of at least $1 million per occurrence with an annual aggregate of at least $2 million, exclusive of legal defense costs. This liability coverage may be demonstrated as specified in Subsections R315-261-147(a)(1), (2), (3), (4), (5), or (6):

(1) An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in Section R315-261-147.

(i) Each insurance policy shall be amended by attachment of the Hazardous Secondary Material Facility Liability Endorsement, or evidenced by a Certificate of Liability Insurance. The wording of the endorsement shall be identical to the wording specified in Subsection R315-261-151(h). The wording of the certificate of insurance shall be identical to the wording specified in Subsection R315-261-151(i). The owner or operator shall submit a signed duplicate original of the endorsement or the certificate of insurance to the Director. If requested by a Director, the owner or operator shall provide a signed duplicate original of the insurance policy.

(ii) Each insurance policy shall be issued by an insurer which, at a minimum, is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer in Utah.

(2) An owner or operator may meet the requirements of Section R315-261-147 by passing a financial test or using the guarantee for liability coverage as specified in Subsections R315-261-147(f) and (g).

(3) An owner or operator may meet the requirements of Subsection R315-261-147 by obtaining a letter of credit for liability coverage as specified in Subsection R315-261-147(h).

(4) An owner or operator may meet the requirements of Subsection R315-261-147 by obtaining a surety bond for liability coverage as specified in Subsection R315-261-147(i).

(5) An owner or operator may meet the requirements of Subsection R315-261-147 by obtaining a trust fund for liability coverage as specified in Subsection R315-261-147(j).

(6) An owner or operator may demonstrate the required liability coverage through the use of combinations of insurance, financial test, guarantee, letter of credit, surety bond, and trust fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated shall total at least the minimum amounts required by Subsection R315-261-147. If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under this paragraph, the owner or operator shall specify

at least one such assurance as “primary” coverage and shall specify other assurance as “excess” coverage.

(7) An owner or operator shall notify the Director in writing within 30 days whenever:

(i) A claim results in a reduction in the amount of financial assurance for liability coverage provided by a financial instrument authorized in Subsections R315-261-147(a)(1) through (a)(6); or

(ii) A Certification of Valid Claim for bodily injury or property damages caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous secondary material reclamation facility or intermediate facility is entered between the owner or operator and third-party claimant for liability coverage under Subsections R315-261-147(a)(1) through (a)(6); or

(iii) A final court order establishing a judgment for bodily injury or property damage caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous secondary material reclamation facility or intermediate facility is issued against the owner or operator or an instrument that is providing financial assurance for liability coverage under Subsections R315-261-147(a)(1) through (a)(6).

(b) Coverage for nonsudden accidental occurrences. An owner or operator of a hazardous secondary material reclamation facility or intermediate facility with land-based units, as defined in Section R315-260-10, which are used to manage hazardous secondary materials excluded under Subsection R315-261-4(a)(24) or a group of such facilities, shall demonstrate financial responsibility for bodily injury and property damage to third parties caused by nonsudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator shall have and maintain liability coverage for nonsudden accidental occurrences in the amount of at least $3 million per occurrence with an annual aggregate of at least $6 million, exclusive of legal defense costs. An owner or operator who shall meet the requirements of Section R315-261-147 may combine the required per-occurrence coverage levels for sudden and nonsudden accidental occurrences into a single per-occurrence level, and combine the required annual aggregate coverage levels for sudden and nonsudden accidental occurrences into a single annual aggregate level. Owners or operators who combine coverage levels for sudden and nonsudden accidental occurrences shall maintain

liability coverage in the amount of at least $4 million per occurrence and $8 million annual aggregate. This liability coverage may be demonstrated as specified in Subsections R315-261-147(b)(1), (2), (3), (4), (5), or (6):

(1) An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in Subsection R315-261-147.

(i) Each insurance policy shall be amended by attachment of the Hazardous Secondary Material Facility Liability Endorsement or evidenced by a Certificate of Liability Insurance. The wording of the endorsement shall be identical to the wording specified in Subsection R315-261-151(h). The wording of the certificate of insurance shall be identical to the wording specified in Subsection R315-261-151(i). The owner or operator shall submit a signed duplicate original of the endorsement or the certificate of insurance to the Director.

(ii) Each insurance policy shall be issued by an insurer which, at a minimum, is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer in Utah.

(2) An owner or operator may meet the requirements of Section R315-261-147 by passing a financial test or using the guarantee for liability coverage as specified in Subsections R315-261-147(f) and (g).

(3) An owner or operator may meet the requirements of Subsection R315-261-147 by obtaining a letter of credit for liability coverage as specified in Subsection R315-261-147(h).

(4) An owner or operator may meet the requirements of Section R315-261-147 by obtaining a surety bond for liability coverage as specified in Subsection R315-261-147(i).

(5) An owner or operator may meet the requirements of Subsection R315-261-147 by obtaining a trust fund for liability coverage as specified in Subsection R315-261-147(j).

(6) An owner or operator may demonstrate the required liability coverage through the use of combinations of insurance, financial test, guarantee, letter of credit, surety bond, and trust fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor.

The amounts of coverage demonstrated shall total at least the minimum amounts required by Section R315-261-147. If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under Subsection R315-261-147(b)(6), the owner or operator shall specify at least one such assurance as “primary” coverage and shall specify other assurance as “excess” coverage.

(7) An owner or operator shall notify the Director in writing within 30 days whenever:

(i) A claim results in a reduction in the amount of financial assurance for liability coverage provided by a financial instrument authorized in Subsections R315-261-147(b)(1) through (b)(6); or

(ii) A Certification of Valid Claim for bodily injury or property damages caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous secondary material treatment and/or storage facility is entered between the owner or operator and third-party claimant for liability coverage under Subsection R315-261-147(b)(1) through (b)(6); or

(iii) A final court order establishing a judgment for bodily injury or property damage caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous secondary material treatment and/or storage facility is issued against the owner or operator or an instrument that is providing financial assurance for liability coverage under Subsections R315-261-147(b)(1) through (b)(6).

(c) Request for variance. If an owner or operator can demonstrate to the satisfaction of the Director that the levels of financial responsibility required by Subsection R315-261-147(a) or (b) are not consistent with the degree and duration of risk associated with treatment and/or storage at the facility or group of facilities, the owner or operator may obtain a variance from the Director. The request for a variance shall be submitted in writing to the Director. If granted, the variance shall take the form of an adjusted level of required liability coverage, such level to be based on the Director's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. The Director may require an owner or operator who requests a variance to provide such technical and engineering information as is deemed necessary by the Director to

determine a level of financial responsibility other than that required by Subsection R315-261-147(a) or (b).

(d) Adjustments by the Director. If the Director determines that the levels of financial responsibility required by Subsections R315-261-147(a) or (b) are not consistent with the degree and duration of risk associated with treatment and/or storage at the facility or group of facilities, the Director may adjust the level of financial responsibility required under Subsections R315-261-147(a) or (b) as may be necessary to protect human health and the environment. This adjusted level shall be based on the Director's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. In addition, if the Director determines that there is a significant risk to human health and the environment from nonsudden accidental occurrences resulting from the operations of a facility that is not a surface impoundment, pile, or land treatment facility, he may require that an owner or operator of the facility comply with Subsection R315-261-147(b). An owner or operator shall furnish to the Director, within a reasonable time, any information which the Director requests to determine whether cause exists for such adjustments of level or type of coverage.

(e) Period of coverage. Within 60 days after receiving certifications from the owner or operator and a qualified Professional Engineer that all hazardous secondary materials have been removed from the facility or a unit at the facility and the facility or a unit has been decontaminated in accordance with the approved plan per Subsection R315-261-143(h), the Director shall notify the owner or operator in writing that he is no longer required under Subsection R315-261-4(a)(24)(vi)(F) to maintain liability coverage for that facility or a unit at the facility, unless the Director has reason to believe that that all hazardous secondary materials have not been removed from the facility or unit at a facility or that the facility or unit has not been decontaminated in accordance with the approved plan.

(f) Financial test for liability coverage.

(1) An owner or operator may satisfy the requirements of Section R315-261-147 by demonstrating that he passes a financial test as specified in this paragraph. To pass this test the owner or operator shall meet the criteria of Subsections R315-261-147(f)(1)(i) or (ii):

(i) The owner or operator shall have:

(A) Net working capital and tangible net worth each at least six times the amount of liability coverage to be demonstrated by this test; and

(B) Tangible net worth of at least $10 million; and

(C) Assets in the United States amounting to either:

(1) At least 90 percent of his total assets; or

(2) at least six times the amount of liability coverage to be demonstrated by this test.

(ii) The owner or operator shall have:

(A) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's, or Aaa, Aa, A, or Baa as issued by Moody's; and

(B) Tangible net worth of at least $10 million; and

(C) Tangible net worth at least six times the amount of liability coverage to be demonstrated by this test; and

(D) Assets in the United States amounting to either:

(1) At least 90 percent of his total assets; or

(2) at least six times the amount of liability coverage to be demonstrated by this test.

(2) The phrase “amount of liability coverage” as used in Subsection R315-261-147(f)(1) refers to the annual aggregate amounts for which coverage is required under Subsections R315-261-147(a) and (b) and the annual aggregate amounts for which coverage is required under Subsections R315-264-147(a) and (b) and 40 CFR 265.147(a) and(b), which are adopted by reference,.

(3) To demonstrate that he meets this test, the owner or operator shall submit the following three items to the Director:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in Subsection R315-261-151(f). If an owner or operator is using the financial test to demonstrate both assurance as specified by Subsection R315-261-143(e), and liability coverage, he shall submit the letter specified in Subsection R315-261-151(f) to cover both forms of financial responsibility; a separate letter as specified in Subsection R315-261-151(e) is not required.

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year.

(iii) If the chief financial officer's letter providing evidence of financial assurance includes

financial data showing that the owner or operator satisfies Subsection R315-261-147(f)(1)(i) that are different from the data in the audited financial statements referred to in Subsection R315-261-147(f)(3)(ii) or any other audited financial statement or data filed with the SEC, then a special report from the owner's or operator's independent certified public accountant to the owner or operator is required. The special report shall be based upon an agreed upon procedures engagement in accordance with professional auditing standards and shall describe the procedures performed in comparing the data in the chief financial officer's letter derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements, the findings of the comparison, and the reasons for any difference.

(4) The owner or operator may obtain a one-time extension of the time allowed for submission of the documents specified in Subsection R315-261-147(f)(3) if the fiscal year of the owner or operator ends during the 90 days prior to the effective date of these regulations and if the year-end financial statements for that fiscal year shall be audited by an independent certified public accountant. The extension shall end no later than 90 days after the end of the owner's or operator's fiscal year. To obtain the extension, the owner's or operator's chief financial officer shall send, by the effective date of these regulations, a letter to the Director. This letter from the chief financial officer shall:

(i) Request the extension;

(ii) Certify that he has grounds to believe that the owner or operator meets the criteria of the financial test;

(iii) Specify for each facility to be covered by the test the EPA Identification Number, name, address, the amount of liability coverage and, when applicable, current closure and post-closure cost estimates to be covered by the test;

(iv) Specify the date ending the owner's or operator's last complete fiscal year before the effective date of these regulations;

(v) Specify the date, no later than 90 days after the end of such fiscal year, when he will submit the documents specified in Subsection R315-261-147(f)(3); and

(vi) Certify that the year-end financial statements of the owner or operator for such fiscal year will be audited by an independent certified public accountant.

(5) After the initial submission of items specified in Subsection R315-261-147(f)(3), the owner or operator shall send updated information to the Director within 90 days after the close of each succeeding fiscal year. This information shall consist of all three items specified in Subsection R315-261-147(f)(3).

(6) If the owner or operator no longer meets the requirements of Subsection R315-261-147(f)(1), he shall obtain insurance, a letter of credit, a surety bond, a trust fund, or a guarantee for the entire amount of required liability coverage as specified in Section R315-261-147. Evidence of liability coverage shall be submitted to the Director within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the test requirements.

(7) The Director may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements, see Subsection R315-261-147(f)(3)(ii). An adverse opinion or a disclaimer of opinion shall be cause for disallowance. The Director shall evaluate other qualifications on an individual basis. The owner or operator shall provide evidence of insurance for the entire amount of required liability coverage as specified in Section R315-261-147 within 30 days after notification of disallowance.

(g) Guarantee for liability coverage.

(1) Subject to Subsection R315-261-147(g)(2), an owner or operator may meet the requirements of Section R315-261-147 by obtaining a written guarantee, hereinafter referred to as “guarantee.” The guarantor shall be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a “substantial business relationship” with the owner or operator. The guarantor shall meet the requirements for owners or operators in Subsection R315-261-147(f)(1) through (f)(6). The wording of the guarantee shall be identical to the wording specified in Subsection R315-261-151(g)(2). A certified copy of the guarantee shall accompany the items sent to the Director as specified in Subsection R315-261-147(f)(3). One of these items shall be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent

corporation of the owner or operator, this letter shall describe the value received in consideration of the guarantee. If the guarantor is a firm with a “substantial business relationship” with the owner or operator, this letter shall describe this “substantial business relationship” and the value received in consideration of the guarantee.

(i) If the owner or operator fails to satisfy a judgment based on a determination of liability for bodily injury or property damage to third parties caused by sudden or nonsudden accidental occurrences, or both as the case may be, arising from the operation of facilities covered by this corporate guarantee, or fails to pay an amount agreed to in settlement of claims arising from or alleged to arise from such injury or damage, the guarantor shall do so up to the limits of coverage.

(2)(i) In the case of corporations incorporated outside the United States, a guarantee may be used to satisfy the requirements of Section R315-261-147 only if the non-U.S. corporation has identified a registered agent for service of process in Utah.

(h) Letter of credit for liability coverage.

(1) An owner or operator may satisfy the requirements of Section R315-261-147 by obtaining an irrevocable standby letter of credit that conforms to the requirements of Subsection R315-261-147(h) and submits a copy of the letter of credit to the Director.

(2) The financial institution issuing the letter of credit shall be an entity that has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by a Federal or Utah agency.

(3) The wording of the letter of credit shall be identical to the wording specified in Subsection R315-261-151(j).

(4) An owner or operator who uses a letter of credit to satisfy the requirements of Section R315-261-147 may also establish a standby trust fund. Under the terms of such a letter of credit, all amounts paid pursuant to a draft by the trustee of the standby trust shall be deposited by the issuing institution into the standby trust in accordance with instructions from the trustee. The trustee of the standby trust fund shall be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or Utah agency.

(5) The wording of the standby trust fund shall be identical to the wording specified in Subsection R315-261-151(m).

(i) Surety bond for liability coverage.

(1) An owner or operator may satisfy the requirements of Section R315-261-147 by obtaining a surety bond that conforms to the requirements of Subsection R315-261-147(i) and submitting a copy of the bond to the Director.

(2) The surety company issuing the bond shall be among those listed as acceptable sureties on Federal bonds in the most recent Circular 570 of the U.S. Department of the Treasury.

(3) The wording of the surety bond shall be identical to the wording specified in Subsection R315-261-151(k).

(j) Trust fund for liability coverage.

(1) An owner or operator may satisfy the requirements of Section R315-261-147 by establishing a trust fund that conforms to the requirements of Subsection R315-261-147(j) and submitting an originally signed duplicate of the trust agreement to the Director.

(2) The trustee shall be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or Utah agency.

(3) The trust fund for liability coverage shall be funded for the full amount of the liability coverage to be provided by the trust fund before it may be relied upon to satisfy the requirements of Section R315-261-147. If at any time after the trust fund is created the amount of funds in the trust fund is reduced below the full amount of the liability coverage to be provided, the owner or operator, by the anniversary date of the establishment of the Fund, shall either add sufficient funds to the trust fund to cause its value to equal the full amount of liability coverage to be provided, or obtain other financial assurance as specified in Section R315-261-147 to cover the difference. For purposes of Subsection R315-261-147(j), “the full amount of the liability coverage to be provided” means the amount of coverage for sudden and/or nonsudden occurrences required to be provided by the owner or operator by Section R315-261-147, less the amount of financial assurance for liability coverage that is being provided by other financial assurance mechanisms being used to demonstrate financial assurance by the owner or operator.

(4) The wording of the trust fund shall be identical to the wording specified in Subsection R315-261-151(l).

R315-261-148. Financial Requirements for Management of Excluded Hazardous Secondary Materials - Incapacity of Owners or Operators, Guarantors, or Financial Institutions.

(a) An owner or operator shall notify the Director by certified mail of the commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming the owner or operator as debtor, within 10 days after commencement of the proceeding. A guarantor of a corporate guarantee as specified in Subsection R315-261-143(e) shall make such a notification if he is named as debtor, as required under the terms of the corporate guarantee.

(b) An owner or operator who fulfills the requirements of Sections R315-261-143 or R315-261-147 by obtaining a trust fund, surety bond, letter of credit, or insurance policy shall be deemed to be without the required financial assurance or liability coverage in the event of bankruptcy of the trustee or issuing institution, or a suspension or revocation of the authority of the trustee institution to act as trustee or of the institution issuing the surety bond, letter of credit, or insurance policy to issue such instruments. The owner or operator shall establish other financial assurance or liability coverage within 60 days after such an event.

R315-261-151. Financial Requirements for Management of Excluded Hazardous Secondary Materials - Wording of the Instruments.

(a)(1) A trust agreement for a trust fund, as specified in Subsection R315-261-143(a) shall be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Trust Agreement

Trust Agreement, the “Agreement,” entered into as of (date) by and between (name of the owner or operator), a (name of State) (insert “corporation,” “partnership,” “association,” or “proprietorship”), the “Grantor,” and (name of corporate trustee), (insert “incorporated in the State of ___-----” or “a national bank”), the “Trustee.”

Whereas, the Utah Waste Management and Radiation Control Board of the State of Utah, (the "BOARD") has established certain regulations applicable to the Grantor, requiring that an owner or operator of a facility regulated under Rules R315-264, or 265, or satisfying the conditions of the exclusion under Subsection R315-261-4(a)(24) shall provide assurance that funds shall be available if needed for care of the facility under Sections R315-264-110 through 120 or 40 CFR 265.110 through 121, which are adopted by reference; as applicable,

Whereas, the Grantor has elected to establish a trust to provide all or part of such financial assurance for the facilities identified herein,

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee,

Now, Therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

(c) The term "BOARD", "Waste Management and Radiation Control Board" created pursuant to Utah Code Annotated 19-1-106.

(d) The term "DIRECTOR" means the Director, Division of Waste Management and Radiation Control his successors, designees, and any subsequent entity of the State of Utah upon whom the duties of regulation and enforcement of regulations governing hazardous waste.

Section 2. Identification of Facilities and Cost Estimates. This Agreement pertains to the facilities and cost estimates identified on attached Schedule A (on Schedule A,

for each facility list the EPA Identification Number, if available; name; address; and the current cost estimates, or portions thereof; for which financial assurance is demonstrated by this Agreement).

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund, the “Fund,” for the benefit of the Director in the event that the hazardous secondary materials of the grantor no longer meet the conditions of the exclusion under Subsection R315-261-4(a)(24). The Grantor and the Trustee intend that no third party have access to the Fund except as herein provided. The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by Director.

Section 4. Payments from the Fund. The Trustee shall make payments from the Fund as the Director shall direct, in writing, to provide for the payment of the costs of the performance of activities required under Sections R315-264-110 through 120 or 40 CFR 265.110 through 121, which are adopted by reference, for the facilities covered by this Agreement. The Trustee shall reimburse the Grantor or other persons as specified by the Director from the Fund for expenditures for such activities in such amounts as the beneficiary shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as the Director specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2.(a), shall not be acquired or held, unless they are securities or other obligations of the Federal or a State government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or State government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or

the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depositary even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depositary with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuation. The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the Director a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the Director shall constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the

appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the Diector, and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee. All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendment to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the Director to the Trustee shall be in writing, signed by the Director, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or the Director hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or the Director, except as provided for herein.

Section 15. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the Director, or by the Trustee and the Director if the Grantor ceases to exist.

Section 16. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the Director, or by the Trustee and the Direcotr, if the Grantor ceases to exist. Upon

termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

Section 17. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the Director issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 18. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of (insert name of State).

Section 19. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written: The parties below certify that the wording of this Agreement is identical to the wording specified in Subsection R315-261-151(a)(1) as such regulations were constituted on the date first above written.

(Signature of Grantor)

(Title)

Attest:

(Title)

(Seal)

(Signature of Trustee)

Attest:

(Title)

(Seal)

(2) The following is an example of the certification of acknowledgment which shall accompany the trust agreement for a trust fund as specified in Subsection R315-261-143(a). State of Utah requirements may differ on the proper content of this acknowledgment.

State of County of On this (date), before me personally came (owner or operator) to me known, who, being by me duly sworn, did depose and say that she/he resides at (address), that she/he is (title) of (corporation), the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

(Signature of Notary Public)

(b) A surety bond guaranteeing payment into a trust fund, as specified in Subsection R315-261-143(b), shall be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Financial Guarantee Bond

Date bond executed:

Effective date:

Principal: (legal name and business address of owner or operator)

Type of Organization: (insert “individual,” “joint venture,” “partnership,” or “corporation”)

State of incorporation:

Surety(ies): (name(s) and business address(es))

EPA and State Identification Numbers, name, address and amount(s) for each facility guaranteed by this bond:

Total penal sum of bond: $

Surety's bond number:

Know All Persons By These Presents, That we, the Principal and Surety(ies) are firmly bound to the Director of the Division of Waste management and Radiation Control of the State of Utah (hereinafter called the Director) in the event that the hazardous secondary materials at the reclamation or intermediate facility listed below no longer meet the conditions of the exclusion under Subsection R315-261-4(a)(24), in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum “jointly and severally” only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

Whereas said Principal is required, under the Utah Solid and Hazardous Waste Act as amended, to have a permit or interim status in order to own or operate each facility identified above, or to meet conditions under Subsection R315-261-4(a)(24), and

Whereas said Principal is required to provide financial assurance as a condition of permit or interim status or as a condition of an exclusion under Subsection R315-261-4(a)(24) and

Whereas said Principal shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

Now, Therefore, the conditions of the obligation are such that if the Principal shall faithfully, before the beginning of final closure of each facility identified above, fund the standby trust fund in the amount(s) identified above for the facility,

Or, if the Principal shall satisfy all the conditions established for exclusion of hazardous secondary materials from coverage as solid waste under Subsection R315-261-4(a)(24),

Or, if the Principal shall fund the standby trust fund in such amount(s) within 15 days after a final order to begin closure is issued by the Director or a U.S. district court or other court of competent jurisdiction,

Or, if the Principal shall provide alternate financial assurance, as specified in Sections R315-261-140 through 143 and R315-261-147 through 151, as applicable, and obtain the Director's written approval of such assurance, within 90 days after the date notice of cancellation is received by both the Principal and the Director from the Surety(ies), then this obligation shall be null and void; otherwise it is to remain in full force and effect.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above. Upon notification by the Director that the Principal has failed to perform as guaranteed by this bond, the Surety(ies) shall place funds in the amount guaranteed for the facility(ies) into the standby trust fund as directed by the Director.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and to the Director, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by both the Principal and the Director, as evidenced by the return receipts.

The Principal may terminate this bond by sending written notice to the Surety(ies), provided, however, that no such notice shall become effective until the Surety(ies) receive(s) written authorization for termination of the bond by the Director.

(The following paragraph is an optional rider that may be included but is not required.)

Principal and Surety(ies) hereby agree to adjust the penal sum of the bond yearly so that it guarantees a new amount, provided that the penal sum does not increase by more than 20 percent in any one year, and no decrease in the penal sum takes place without the written permission of the Director.

In Witness Whereof, the Principal and Surety(ies) have executed this Financial Guarantee Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in Subsection R315-261-151(b) as such regulations were constituted on the date this bond was executed.

Principal
(Signature(s))

(Name(s))

(Title(s))

(Corporate seal)Corporate Surety(ies)
(Name and address)

State of incorporation:Liability limit:

$(Signature(s))

(Name(s) and title(s))

(Corporate seal)

(For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.)

Bond premium: $

(c) A letter of credit, as specified in Subsection R315-261-143(c), shall be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Irrevocable Standby Letter of Credit

(Director name), Director,
Division of Waste Management and Radiation Control
195 North 1950 West
P.O Box 144880
Salt Lake City, Utah 84114-4880

Dear Director: We hereby establish our Irrevocable Standby Letter of Credit No.____ in your favor, in the event that the hazardous secondary materials at the covered reclamation or intermediary facility(ies) no longer meet the conditions of the exclusion under Subsection R315-261-4(a)(24), at the request and for the account of (owner's or operator's name and address) up to the aggregate amount of (in words) U.S. dollars $____, available upon presentation of

(1) your sight draft, bearing reference to this letter of credit No.__, and

(2) your signed statement reading as follows: “I certify that the amount of the draft is payable pursuant to regulations issued under authority of the Utah Solid and Hazardous Waste Act as amended.”

This letter of credit is effective as of (date) and shall expire on (date at least 1 year later), but such expiration date shall be automatically extended for a period of (at least 1 year) on (date) and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify both you, the Director, and (owner's or operator's name) by certified mail that we have decided not to extend this letter of credit beyond the current expiration date. In the event you are so notified, any unused portion of the credit shall be available upon presentation of your sight draft for 120 days after the date of receipt by both you and (owner's or operator's name), as shown on the signed return receipts.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us, and we shall deposit the amount of the draft directly into the standby trust fund of (owner's or operator's name) in accordance with your instructions.

We certify that the wording of this letter of credit is identical to the wording specified in Subsection R315-261-151(c) as such regulations were constituted on the date shown immediately below.

(Signature(s) and title(s) of official(s) of issuing institution) (Date)

This credit is subject to (insert “the most recent edition of the Uniform Customs and Practice for Documentary Credits, published and copyrighted by the International Chamber of Commerce,” or “the Uniform Commercial Code”).

(d) A certificate of insurance, as specified in Subsection R315-261-143(e), shall be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Certificate of Insurance

Name and Address of Insurer (herein called the “Insurer”):

Name and Address of Insured (herein called the “Insured”):

Facilities Covered: (List for each facility: The EPA and State Identification Numbers (if any issued), name, address, and the amount of insurance for all facilities covered, which shall total the face amount shown below.)

Face Amount:

Policy Number:

Effective Date:

The Insurer hereby certifies that it has issued to the Insured the policy of insurance identified above to provide financial assurance so that in accordance with applicable regulations all hazardous secondary materials can be removed from the facility or any unit at the facility and the facility or any unit at the facility can be decontaminated at the facilities identified above. The Insurer further warrants that such policy conforms in all respects with the requirements of Subsection R315-261-143(d) as applicable and as such regulations were constituted on the date shown immediately below. It is agreed that any provision of the policy inconsistent with such regulations is hereby amended to eliminate such inconsistency.

Whenever requested by the Director of the Division of Waste Management and Radiation Control, the Insurer agrees to furnish to the Director a duplicate original of the policy listed above, including all endorsements thereon.

I hereby certify that the wording of this certificate is identical to the wording specified in Subsection R315-261-151(d) such regulations were constituted on the date shown immediately below.

(Authorized signature for Insurer)
(Name of person signing)
(Title of person signing)
Signature of witness or notary:(Date)

(e) A letter from the chief financial officer, as specified in Subsection R315-261-143(e), shall be worded as follows, except that instructions in parentheses are to be

replaced with the relevant information and the parentheses deleted:

Letter From Chief Financial Officer

Director
Division of Waste Management and Radiation Control
195 North 1950 West
P.O. Box 144880
Salt Lake City, UT 84114-4880

I am the chief financial officer of (name and address of firm). This letter is in support of this firm's use of the financial test to demonstrate financial assurance, as specified in Sections R315-261-140 through 143 and R315-261-147 through 151.

(Fill out the following nine paragraphs regarding facilities and associated cost estimates. If your firm has no facilities that belong in a particular paragraph, write “None” in the space indicated. For each facility, include its EPA and State Identification Numbers (if any issued), name, address, and current cost estimates.)

1. This firm is the owner or operator of the following facilities for which financial assurance is demonstrated through the financial test specified in Sections R315-261-140 through 143 and R315-261-147 through 151. The current cost estimates covered by the test are shown for each facility: ____.

2. This firm guarantees, through the guarantee specified in Sections R315-261-140 through 143 and R315-261-147 through 151, the following facilities owned or operated by the guaranteed party. The current cost estimates so guaranteed are shown for each facility: ____. The firm identified above is (insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee____, or (3) engaged in the following substantial business relationship with the owner or operator ____, and receiving the following value in consideration of this guarantee____). (Attach a written

description of the business relationship or a copy of the contract establishing such relationship to this letter).

3. In all other states this firm, as owner or operator or guarantor, is demonstrating financial assurance for the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Sections R315-261-140 through 143 and R315-261-147 through 151. The current cost estimates covered by such a test are shown for each facility:____.

4. This firm is the owner or operator of the following hazardous secondary materials management facilities for which financial assurance is not demonstrated either to EPA or a State through the financial test or any other financial assurance mechanism specified in Sections R315-261-140 through 143 and R315-261-147 through 151 or equivalent or substantially equivalent State mechanisms. The current cost estimates not covered by such financial assurance are shown for each facility:____.

5. This firm is the owner or operator of the following UIC facilities for which financial assurance for plugging and abandonment is required under 40 CFR 144. The current closure cost estimates as required by 40 CFR 144.62 are shown for each facility:____.

6. This firm is the owner or operator of the following facilities for which financial assurance for closure or post-closure care is demonstrated through the financial test specified in Sections R315-264-140 through 151 or 40 CFR 265.140 through 150, which are adopted by reference. The current closure and/or post-closure cost estimates covered by the test are shown for each facility: ____ .

7. This firm guarantees, through the guarantee specified in Sections R315-264-140 through 151 or 40 CFR 265.140 through 150, which are adopted by reference; the closure or post-closure care of the following facilities owned or operated by the guaranteed party. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility: ____. The firm identified above is (insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner

or operator, and receiving the following value in consideration of this guarantee ___; or (3) engaged in the following substantial business relationship with the owner or operator __, and receiving the following value in consideration of this guarantee __). (Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter).

8. In other jurisdictions and states where the Director is not authorized to administer the financial requirements of R315-264-140 through 151 or 40 CFR 265.140 through 150, which are adopted by reference, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Sections R315-264-140 through 151 or 40 CFR 265.140 through 150, which are adopted by reference. The current closure and/or post-closure cost estimates covered by such a test are shown for each facility: __.

9. This firm is the owner or operator of the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to EPA or a State through the financial test or any other financial assurance mechanism specified in Sections R315-264-140 through 151 or 40 CFR 265.140 through 150, which are adopted by reference, or equivalent or substantially equivalent State mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: __.

This firm (insert “is required” or “is not required”) to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on (month, day). The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended (date).

(Fill in Alternative I if the criteria of Subsection R315-261-143(e)(1)(i) are used. Fill in Alternative II if the criteria of Subsection R315-261-143(e)(1)(ii) are used.)

Alternative I

1. Sum of current cost estimates (total of all cost estimates shown in the nine paragraphs above) $__

*2. Total liabilities (if any portion of the cost estimates is included in total liabilities, you may deduct the amount of that portion from this line and add that amount to lines 3 and 4) $__

*3. Tangible net worth $____

*4. Net worth $____-

*5. Current assets $____

*6. Current liabilities $____

7. Net working capital (line 5 minus line 6) $____

*8. The sum of net income plus depreciation, depletion, and amortization $____-

*9. Total assets in U.S. (required only if less than 90% of firm's assets are located in the U.S.) $____-

10. Is line 3 at least $10 million? (Yes/No) ____

11. Is line 3 at least 6 times line 1? (Yes/No) ____-

12. Is line 7 at least 6 times line 1? (Yes/No) ____-

*13. Are at least 90% of firm's assets located in the U.S.? If not, complete line 14 (Yes/No) ____

14. Is line 9 at least 6 times line 1? (Yes/No) ____-

15. Is line 2 divided by line 4 less than 2.0? (Yes/No) ____-

16. Is line 8 divided by line 2 greater than 0.1? (Yes/No) ____-

17. Is line 5 divided by line 6 greater than 1.5? (Yes/No) ____-

Alternative II
1. Sum of current cost estimates (total of all cost estimates shown in the eight paragraphs above) $____-

2. Current bond rating of most recent issuance of this firm and name of rating service ____-

3. Date of issuance of bond ____-

4. Date of maturity of bond ____-

*5. Tangible net worth (if any portion of the cost estimates is included in “total liabilities” on your firm's financial statements, you may add the amount of that portion to this line) $____-

*6. Total assets in U.S. (required only if less than 90% of firm's assets are located in the U.S.) $____-

7. Is line 5 at least $10 million? (Yes/No) ____

8. Is line 5 at least 6 times line 1? (Yes/No) ____

*9. Are at least 90% of firm's assets located in the U.S.? If not, complete line 10 (Yes/No) ____

10. Is line 6 at least 6 times line 1? (Yes/No) ____-

I hereby certify that the wording of this letter is identical to the wording specified in Subsection R315-261-151(e) as such regulations were constituted on the date shown immediately below.

(Signature) (Name) (Title) (Date)

(f) A letter from the chief financial officer, as specified in Subsection R315-261-147(f), shall be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted.

Letter From Chief Financial Officer

Director
Division of Waste Management and Radiation Control
P.O. 144880
Salt Lake City, Utah 84114-4880

I am the chief financial officer of (firm's name and address). This letter is in support of the use of the financial test to demonstrate financial responsibility for liability coverage under Section R315-261-147(insert “and costs assured Subsection R315-261-143(e)” if applicable) as specified in Sections R315-261-140 through 143 and R315-261-147 through 151.

(Fill out the following paragraphs regarding facilities and liability coverage. If there are no facilities that belong in a particular paragraph, write “None” in the space indicated. For each facility, include its EPA Identification Number (if any issued), name, and address).

The firm identified above is the owner or operator of the following facilities for which liability coverage for (insert “sudden” or “nonsudden” or “both sudden and nonsudden”) accidental occurrences is being demonstrated through the financial test specified in Sections R315-261-140 through 143 and R315-261-147 through 151:____

The firm identified above guarantees, through the guarantee specified in Sections R315-261-140 through 143 and R315-261-147 through 151, liability coverage for (insert “sudden” or “nonsudden” or “both sudden and nonsudden”) accidental occurrences at the following facilities owned or operated by the following: ____-. The firm identified above is (insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee -____; or (3) engaged in the following substantial business relationship with the owner or operator ____-, and receiving the following value in consideration of this guarantee ____-). (Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter.)

The firm identified above is the owner or operator of the following facilities for which liability coverage for (insert “sudden” or “nonsudden” or “both sudden and nonsudden”) accidental occurrences is being demonstrated through the financial test specified in Sections R315-264-140 through 151 and 40 CFR 265.140 through 150, which are adopted by reference,:____

The firm identified above guarantees, through the guarantee specified in Sections R315-264-140 through 151 and 40 CFR 265.140 through 150, which are adopted by reference; liability coverage for (insert “sudden” or “nonsudden” or “both sudden and nonsudden”) accidental occurrences at the following facilities owned or operated by the following: __. The firm identified above is (insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee __; or (3) engaged in the following substantial business relationship with the owner or operator __, and receiving the following value in consideration of this guarantee __). (Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter.)

(If you are using the financial test to demonstrate coverage of both liability and costs assured under Subsection R315-261-143(e) or closure or post-closure care costs under Sections R315-264-143; R315-264-145; 40 CFR 265.143 or 145, which are adopted by reference; fill in the following nine paragraphs regarding facilities and associated cost estimates. If there are no facilities that belong in a particular paragraph, write “None” in the space indicated. For each facility, include its EPA and State identification number (if any issued), name, address, and current cost estimates.)

1. This firm is the owner or operator of the following facilities for which financial assurance is demonstrated through the financial test specified in Sections R315-261-140 through 143 and R315-261-147 through 151. The current cost estimates covered by the test are shown for each facility:____.

2. This firm guarantees, through the guarantee specified in Sections R315-261-140 through 143 and R315-261-147 through 151, the following facilities owned or operated by the guaranteed party. The current cost estimates so guaranteed are shown for each facility:____. The firm identified above is (insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee____, or (3) engaged in the following substantial business relationship with the owner or operator ____, and receiving the following value in consideration of this guarantee____). (Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter).

3. In all other states this firm, as owner or operator or guarantor, is demonstrating financial assurance for the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Sections R315-261-140 through 143 and R315-261-147 through 151. The current cost estimates covered by such a test are shown for each facility:____.

4. This firm is the owner or operator of the following hazardous secondary materials management facilities for which financial assurance is not demonstrated either to EPA or a State through the financial test or any other financial assurance mechanism specified in Sections R315-261-140 through 143 and R315-261-147 through 151 or equivalent or substantially equivalent State mechanisms. The current cost estimates not covered by such financial assurance are shown for each facility:____.

5. This firm is the owner or operator of the following UIC facilities for which financial assurance for plugging and abandonment is required under 40 CFR 144. The current closure cost estimates as required by 40 CFR 144.62 are shown for each facility:____.

6. This firm is the owner or operator of the following facilities for which financial assurance for closure or post-closure care is demonstrated through the financial test specified in Sections R315-264-140 through 151 and 40

CFR 265.140 through 150, which are adopted by reference. The current closure and/or post-closure cost estimates covered by the test are shown for each facility: ____.

7. This firm guarantees, through the guarantee specified in Sections R315-264-140 through 151 and 40 CFR 265.140 through 150, which are adopted by reference; the closure or post-closure care of the following facilities owned or operated by the guaranteed party. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility: ____. The firm identified above is (insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee ____; or (3) engaged in the following substantial business relationship with the owner or operator ____, and receiving the following value in consideration of this guarantee ____).

(Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter).

8. In other jurisdictions, and states where the Director is not authorized to administer the financial requirements of R315-264.264-140 through 151 or 40 CFR 265.140 through 150, which are adopted by reference, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Sections R315-264-140 through 151 and 40 CFR 265.140 through 150, which are adopted by reference. The current closure and/or post-closure cost estimates covered by such a test are shown for each facility: ____.

9. This firm is the owner or operator of the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to EPA or a State through the financial test or any other financial assurance mechanism specified in Sections R315-264-140 through 151 and 40 CFR 265.140 through 150, which are adopted by

reference, or equivalent or substantially equivalent State mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: ____.

This firm (insert “is required” or “is not required”) to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on (month, day). The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended (date).

Part A. Liability Coverage for Accidental Occurrences (Fill in Alternative I if the criteria of Subsection R315-261-147(f)(1)(i) are used. Fill in Alternative II if the criteria of Subsection R315-261-147(f)(1)(ii) are used.)

Alternative I

1. Amount of annual aggregate liability coverage to be demonstrated $____-.

*2. Current assets $____-.

*3. Current liabilities $____-.

4. Net working capital (line 2 minus line 3) $____-.

*5. Tangible net worth $____-.

*6. If less than 90% of assets are located in the U.S., give total U.S. assets $____-.

7. Is line 5 at least $10 million? (Yes/No) ____-.

8. Is line 4 at least 6 times line 1? (Yes/No) ____-.

9. Is line 5 at least 6 times line 1? (Yes/No) ____-.

*10. Are at least 90% of assets located in the U.S.? (Yes/No) ____. If not, complete line 11.

11. Is line 6 at least 6 times line 1? (Yes/No) ____.

Alternative II

1. Amount of annual aggregate liability coverage to be demonstrated $____-.

2. Current bond rating of most recent issuance and name of rating service ____-____-.

3. Date of issuance of bond _____—.

4. Date of maturity of bond _____—.

*5. Tangible net worth $____-.

*6. Total assets in U.S. (required only if less than 90% of assets are located in the U.S.) $____-.

7. Is line 5 at least $10 million? (Yes/No) ____-.

8. Is line 5 at least 6 times line 1? ____-.

9. Are at least 90% of assets located in the U.S.? If not, complete line 10. (Yes/No) __.

10. Is line 6 at least 6 times line 1? ____-.

(Fill in part B if you are using the financial test to demonstrate assurance of both liability coverage and costs assured under Subsection R315-261-143(e) or closure or post-closure care costs under Sections R315-264-143; R315-264-145; 40 CFR 265.143 or 145, which is adopted by reference.)

Part B. Facility Care and Liability Coverage

(Fill in Alternative I if the criteria of Subsection R315-261-143(e)(1)(i) and Subsection R315-261-147(f)(1)(i) are used. Fill in Alternative II if the criteria of Subsection R315-261-143(e)(1)(ii) and Subsection R315-261-147(f)(1)(ii) are used.)

Alternative I

1. Sum of current cost estimates (total of all cost estimates listed above) $____-

2. Amount of annual aggregate liability coverage to be demonstrated $____-

3. Sum of lines 1 and 2 $____

*4. Total liabilities (if any portion of your cost estimates is included in your total liabilities, you may deduct that portion from this line and add that amount to lines 5 and 6) $____-

*5. Tangible net worth $____

*6. Net worth $____-

*7. Current assets $____

*8. Current liabilities $____

9. Net working capital (line 7 minus line 8) $____

*10. The sum of net income plus depreciation, depletion, and amortization $____-

*11. Total assets in U.S. (required only if less than 90% of assets are located in the U.S.) $____

12. Is line 5 at least $10 million? (Yes/No)

13. Is line 5 at least 6 times line 3? (Yes/No)

14. Is line 9 at least 6 times line 3? (Yes/No)

*15. Are at least 90% of assets located in the U.S.? (Yes/No) If not, complete line 16.

16. Is line 11 at least 6 times line 3? (Yes/No)

17. Is line 4 divided by line 6 less than 2.0? (Yes/No)

18. Is line 10 divided by line 4 greater than 0.1? (Yes/No)

19. Is line 7 divided by line 8 greater than 1.5? (Yes/No)

Alternative II

1. Sum of current cost estimates (total of all cost estimates listed above) $____-

2. Amount of annual aggregate liability coverage to be demonstrated $____-

3. Sum of lines 1 and 2 $____

4. Current bond rating of most recent issuance and name of rating service _____-

5. Date of issuance of bond _____—

6. Date of maturity of bond _____—

*7. Tangible net worth (if any portion of the cost estimates is included in “total liabilities” on your financial statements you may add that portion to this line) $____-

*8. Total assets in the U.S. (required only if less than 90% of assets are located in the U.S.) $____-

9. Is line 7 at least $10 million? (Yes/No)

10. Is line 7 at least 6 times line 3? (Yes/No)

*11. Are at least 90% of assets located in the U.S.? (Yes/No) If not complete line 12.

12. Is line 8 at least 6 times line 3? (Yes/No)

I hereby certify that the wording of this letter is identical to the wording specified in Subsection R315-261-151(f) as such regulations were constituted on the date shown immediately below.

(Signature)
(Name)
(Title)
(Date)

(g)(1) A corporate guarantee, as specified in Subsection R315-261-143(e), shall be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Corporate Guarantee for Facility Care

Guarantee made this (date) by (name of guaranteeing entity), a business corporation organized under the laws of the State of (insert name of State), herein referred to as guarantor. This guarantee is made on behalf of the (owner or operator) of (business address), which is (one of the following: “our subsidiary”; “a subsidiary of (name and address of common parent corporation), of which guarantor is a subsidiary”; or “an entity with which guarantor has a substantial business relationship, as defined in Subsections R315-264-141(h) and 40 CFR 265.141(h), which is adopted by reference,” to the Director of the Utah Division of Waste Management and Radiation Control (the Director).

Recitals

1. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as specified in Subsection R315-261-143(e).

2. (Owner or operator) owns or operates the following facility(ies) covered by this guarantee: (List for each facility: EPA and State Identification Number (if any issued), name, and address.

3. “Closure plans” as used below refer to the plans maintained as required by Sections R315-261-140 through 143 and R315-261-147 through 151 for the care of facilities as identified above.

4. For value received from (owner or operator), guarantor guarantees that in the event of a determination by the Director that the hazardous secondary materials at the owner or operator's facility covered by this guarantee do not meet the conditions of the exclusion under Subsection R315-261-4(a)(24), the guarantor shall dispose of any hazardous secondary material as hazardous waste, and close the facility in accordance with closure requirements found in Sections R315-264-110 through 120 or 40 CFR 265-110

through 121 which are adopted by reference, as applicable, or establish a trust fund as specified in Subsection R315-261-143(a) in the name of the owner or operator in the amount of the current cost estimate.

5. Guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, the guarantor fails to meet the financial test criteria, guarantor shall send within 90 days, by certified mail, notice to the Director and to (owner or operator) that he intends to provide alternate financial assurance as specified in Sections R315-261-140 through 143 and R315-261-147 though 151, as applicable, in the name of (owner or operator). Within 120 days after the end of such fiscal year, the guarantor shall establish such financial assurance unless (owner or operator) has done so.

6. The guarantor agrees to notify the Director by certified mail, of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming guarantor as debtor, within 10 days after commencement of the proceeding.

7. Guarantor agrees that within 30 days after being notified by the Director of a determination that guarantor no longer meets the financial test criteria or that he is disallowed from continuing as a guarantor, he shall establish alternate financial assurance as specified in of Sections R315-264-140 through 151 or 40 CFR 265-140 through 150 that are adopted by reference, or Sections R315-261-140 through 143 and R315-261-147 though 151, as applicable, in the name of (owner or operator) unless (owner or operator) has done so.

8. Guarantor agrees to remain bound under this guarantee notwithstanding any or all of the following: amendment or modification of the closure plan, the extension or reduction of the time of performance, or any other modification or alteration of an obligation of the owner or operator pursuant to Rules R315-264, 265, or Sections R315-261-140 through 143 and R315-261-147 though 151.

9. Guarantor agrees to remain bound under this guarantee for as long as (owner or operator) shall comply with the applicable financial assurance requirements of Sections R315-264-140 through 151 or 40 CFR 265-140 through 150 that

are adopted by reference, or the financial assurance condition of Subsection R315-261-4(a)(24)(vi)(F) for the above-listed facilities, except as provided in paragraph 10 of this agreement.

10. (Insert the following language if the guarantor is (a) a direct or higher-tier corporate parent, or (b) a firm whose parent corporation is also the parent corporation of the owner or operator):

Guarantor may terminate this guarantee by sending notice by certified mail to the Director and to (owner or operator), provided that this guarantee may not be terminated unless and until (the owner or operator) obtains, and the Director approves, alternate coverage complying with Section R315-261-143.

(Insert the following language if the guarantor is a firm qualifying as a guarantor due to its “substantial business relationship” with the owner or operator)

Guarantor may terminate this guarantee 120 days following the receipt of notification, through certified mail, by the Director and by (the owner or operator).

11. Guarantor agrees that if (owner or operator) fails to provide alternate financial assurance as specified in Sections R315-264-140 through 151 or 40 CFR 265-140 through 150 that are adopted by reference, or Sections R315-261-140 through 143 and R315-261-147 though 151, as applicable, and obtain written approval of such assurance from the Director within 90 days after a notice of cancellation by the guarantor is received by theDirector from guarantor, guarantor shall provide such alternate financial assurance in the name of (owner or operator).

12. Guarantor expressly waives notice of acceptance of this guarantee by the Director or by (owner or operator). Guarantor also expressly waives notice of amendments or modifications of the closure plan and of amendments or modifications of the applicable requirements of Sections R315-264-140 through 151 or 40 CFR 265-140 through 150 that are adopted by reference, or Sections R315-261-140 through 143 and R315-261-147 though 151.

I hereby certify that the wording of this guarantee is identical to the wording specified in Subsection R315-261-151(g)(1) as such regulations were constituted on the date first above written.

Effective date: (Name of guarantor) (Authorized signature for guarantor) (Name of person signing) (Title of person signing) Signature of witness or notary:

(2) A guarantee, as specified in Subsection R315-261-147(g), shall be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Guarantee for Liability Coverage

Guarantee made this (date) by (name of guaranteeing entity), a business corporation organized under the laws of (if incorporated within the United States insert “the State of ____-” and insert name of State; if incorporated outside the United States insert the name of the country in which incorporated, the principal place of business within the United States, and the name and address of the registered agent in the State of the principal place of business), herein referred to as guarantor. This guarantee is made on behalf of (owner or operator) of (business address), which is one of the following: “our subsidiary;” “a subsidiary of (name and address of common parent corporation), of which guarantor is a subsidiary;” or “an entity with which guarantor has a substantial business relationship, as defined in (either Subsection R315-264-141(h) or 40 CFR 265.141(h), which is adopted by reference)”, to any and all third parties who have sustained or may sustain bodily injury or property damage caused by (sudden and/or nonsudden) accidental occurrences arising from operation of the facility(ies) covered by this guarantee.

Recitals

1. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as specified in Subsection R315-261-147(g).

2. (Owner or operator) owns or operates the following facility(ies) covered by this guarantee: (List for each

facility: EPA and state identification number (if any issued), name, and address; and if guarantor is incorporated outside the United States list the name and address of the guarantor's registered agent in each State.) This corporate guarantee satisfies RCRA third-party liability requirements for (insert “sudden” or “nonsudden” or “both sudden and nonsudden”) accidental occurrences in above-named owner or operator facilities for coverage in the amount of (insert dollar amount) for each occurrence and (insert dollar amount) annual aggregate.

3. For value received from (owner or operator), guarantor guarantees to any and all third parties who have sustained or may sustain bodily injury or property damage caused by (sudden and/or nonsudden) accidental occurrences arising from operations of the facility(ies) covered by this guarantee that in the event that (owner or operator) fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by (sudden and/or nonsudden) accidental occurrences, arising from the operation of the above-named facilities, or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor shall satisfy such judgment(s), award(s) or settlement agreement(s) up to the limits of coverage identified above.

4. Such obligation does not apply to any of the following:

(a) Bodily injury or property damage for which (insert owner or operator) is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that (insert owner or operator) would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of (insert owner or operator) under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of (insert owner or operator) arising from, and in the course of, employment by (insert owner or operator); or

(2) The spouse, child, parent, brother, or sister of that employee as a consequence of, or arising from, and in the course of employment by (insert owner or operator). This exclusion applies:

(A) Whether (insert owner or operator) may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who shall pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by (insert owner or operator);

(2) Premises that are sold, given away or abandoned by (insert owner or operator) if the property damage arises out of any part of those premises;

(3) Property loaned to (insert owner or operator);

(4) Personal property in the care, custody or control of (insert owner or operator);

(5) That particular part of real property on which (insert owner or operator) or any contractors or subcontractors working directly or indirectly on behalf of (insert owner or operator) are performing operations, if the property damage arises out of these operations.

5. Guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, the guarantor fails to meet the financial test criteria, guarantor shall send within 90 days, by certified mail, notice to the Director and to (owner or operator) that he intends to provide alternate liability coverage as specified in Section R315-261-147, as applicable, in the name of (owner or operator). Within 120 days after the end of such fiscal year, the

guarantor shall establish such liability coverage unless (owner or operator) has done so.

6. The guarantor agrees to notify the Director by certified mail of a voluntary or involuntary proceeding under title 11 (Bankruptcy), U.S. Code, naming guarantor as debtor, within 10 days after commencement of the proceeding. Guarantor agrees that within 30 days after being notified by the Director of a determination that guarantor no longer meets the financial test criteria or that he is disallowed from continuing as a guarantor, he shall establish alternate liability coverage as specified in Section R315-261-147 in the name of (owner or operator), unless (owner or operator) has done so.

7. Guarantor reserves the right to modify this agreement to take into account amendment or modification of the liability requirements set by Section R315-261-147, provided that such modification shall become effective only if the Director does not disapprove the modification within 30 days of receipt of notification of the modification.

8. Guarantor agrees to remain bound under this guarantee for so long as (owner or operator) shall comply with the applicable requirements of Section R315-261-147 for the above-listed facility(ies), except as provided in paragraph 10 of this agreement.

9. (Insert the following language if the guarantor is (a) a direct or higher-tier corporate parent, or (b) a firm whose parent corporation is also the parent corporation of the owner or operator):

10. Guarantor may terminate this guarantee by sending notice by certified mail to the Director and to (owner or operator), provided that this guarantee may not be terminated unless and until (the owner or operator) obtains, and the Director approves, alternate liability coverage complying with Section R315-261-147.

(Insert the following language if the guarantor is a firm qualifying as a guarantor due to its “substantial business relationship” with the owner or operator):

Guarantor may terminate this guarantee 120 days following receipt of notification, through certified mail, by the Director and by (the owner or operator).

11. Guarantor hereby expressly waives notice of acceptance of this guarantee by any party.

12. Guarantor agrees that this guarantee is in addition to and does not affect any other responsibility or liability of the guarantor with respect to the covered facilities.

13. The Guarantor shall satisfy a third-party liability claim only on receipt of one of the following documents:

(a) Certification from the Principal and the third-party claimant(s) that the liability claim should be paid. The certification shall be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Certification of Valid Claim
The undersigned, as parties (insert Principal) and (insert name and address of third-party claimant(s)), hereby certify that the claim of bodily injury and/or property damage caused by a (sudden or nonsudden) accidental occurrence arising from operating (Principal's) facility should be paid in the amount of $.

(Signatures) Principal (Notary) Date (Signatures) Claimant(s) (Notary) Date

(b) A valid final court order establishing a judgment against the Principal for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Principal's facility or group of facilities.

14. In the event of combination of this guarantee with another mechanism to meet liability requirements, this guarantee shall be considered (insert “primary” or “excess”) coverage.

I hereby certify that the wording of the guarantee is identical to the wording specified in Subsection R315-261-

151(g)(2) as such regulations were constituted on the date shown immediately below.

Effective date:
(Name of guarantor) (Authorized signature for guarantor)
(Name of person signing) (Title of person signing)
Signature of witness or notary:

(h) A hazardous waste facility liability endorsement as required by Section R315-261-147 shall be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Hazardous Secondary Material Reclamation/Intermediate Facility Liability Endorsement

1. This endorsement certifies that the policy to which the endorsement is attached provides liability insurance covering bodily injury and property damage in connection with the insured's obligation to demonstrate financial responsibility under Section R35-261-147. The coverage applies at (list EPA and state Identification Number (if any issued), name, and address for each facility) for (insert “sudden accidental occurrences,” “nonsudden accidental occurrences,” or “sudden and nonsudden accidental occurrences”; if coverage is for multiple facilities and the coverage is different for different facilities, indicate which facilities are insured for sudden accidental occurrences, which are insured for nonsudden accidental occurrences, and which are insured for both). The limits of liability are (insert the dollar amount of the “each occurrence” and “annual aggregate” limits of the Insurer's liability), exclusive of legal defense costs.

2. The insurance afforded with respect to such occurrences is subject to all of the terms and conditions of the policy; provided, however, that any provisions of the policy inconsistent with subsections (a) through (e) of this Paragraph 2 are hereby amended to conform with subsections (a) through (e):

(a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy to which this endorsement is attached.

(b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in Subsection R315-261-147(f).

(c) Whenever requested by the Director of the Utah Division of Waste Management and Radiation Control (the Director), the Insurer agrees to furnish to the Director a signed duplicate original of the policy and all endorsements.

(d) Cancellation of this endorsement, whether by the Insurer, the insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the facility, shall be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the Director.

(e) Any other termination of this endorsement shall be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Director.

Attached to and forming part of policy No. __ issued by (name of Insurer), herein called the Insurer, of (address of Insurer) to (name of insured) of (address) this _____ day of _____, 20__. The effective date of said policy is _____ day of _____, 20__.

I hereby certify that the wording of this endorsement is identical to the wording specified in Subsection R315-261-151(h) as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(Signature of Authorized Representative of Insurer)

(Type name)

(Title), Authorized Representative of (name of Insurer)

(Address of Representative)

(i) A certificate of liability insurance as required in Section R315-261-147 shall be worded as follows, except that the instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Hazardous Secondary Material Reclamation/Intermediate Facility Certificate of Liability Insurance
1. (Name of Insurer), (the "Insurer"), of (address of Insurer) hereby certifies that it has issued liability insurance covering bodily injury and property damage to (name of insured), (the "insured"), of (address of insured) in connection with the insured's obligation to demonstrate financial responsibility under Rules R315-264 and 265, and the financial assurance condition of Subsection R315-261-4(a)(24)(vi)(F). The coverage applies at (list EPA and state Identification Number (if any issued), name, and address for each facility) for (insert "sudden accidental occurrences," "nonsudden accidental occurrences," or "sudden and nonsudden accidental occurrences"; if coverage is for multiple facilities and the coverage is different for different facilities, indicate which facilities are insured for sudden accidental occurrences, which are insured for nonsudden accidental occurrences, and which are insured for both). The limits of liability are (insert the dollar amount of the "each occurrence" and "annual aggregate" limits of the Insurer's liability), exclusive of legal defense costs. The coverage is provided under policy number, issued on (date). The effective date of said policy is (date).

2. The Insurer further certifies the following with respect to the insurance described in Paragraph 1:

(a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy.

(b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of

reimbursement by the insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in Section R315-261-147.

(c) Whenever requested by the Director of the Utah Division of Waste Management and Radiation Control (the Director), the Insurer agrees to furnish to the Director a signed duplicate original of the policy and all endorsements.

(d) Cancellation of the insurance, whether by the insurer, the insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the hazardous waste management facility, shall be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the Director.

(e) Any other termination of the insurance shall be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Director.

I hereby certify that the wording of this instrument is identical to the wording specified in Subsection R315-261-151(i) as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(Signature of authorized representative of Insurer)

(Type name)

(Title), Authorized Representative of (name of Insurer)

(Address of Representative)

(j) A letter of credit, as specified in Subsection R315-261-147(h) of this chapter, shall be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Irrevocable Standby Letter of Credit

(Name and Address of Issuing Institution)

(Director name), Director,
Division of Waste Management and Radiation Control
195 North 1950 West
P.O Box 144880
Salt Lake City, Utah 84114-4880

Dear Sir or Madam:

We hereby establish our Irrevocable Standby Letter of Credit No. ____----- in the favor of (”any and all third-party liability claimants” or insert name of trustee of the standby trust fund), at the request and for the account of (owner or operator's name and address) for third-party liability awards or settlements up to (in words) U.S. dollars $____----- per occurrence and the annual aggregate amount of (in words) U.S. dollars $_—, for sudden accidental occurrences and/or for third-party liability awards or settlements up to the amount of (in words) U.S. dollars $____----- per occurrence, and the annual aggregate amount of (in words) U.S. dollars $____-----, for nonsudden accidental occurrences available upon presentation of a sight draft bearing reference to this letter of credit No. ____-----, and (insert the following language if the letter of credit is being used without a standby trust fund: (1) a signed certificate reading as follows:

Certificate of Valid Claim
The undersigned, as parties (insert principal) and (insert name and address of third party claimant(s)), hereby certify that the claim of bodily injury and/or property damage caused by a (sudden or nonsudden) accidental occurrence arising from operations of (principal's) facility should be paid in the amount of $( ). We hereby certify that the claim does not apply to any of the following:

(a) Bodily injury or property damage for which (insert principal) is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that

(insert principal) would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of (insert principal) under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of (insert principal) arising from, and in the course of, employment by (insert principal); or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by (insert principal).

This exclusion applies:

(A) Whether (insert principal) may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who shall pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by (insert principal);

(2) Premises that are sold, given away or abandoned by (insert principal) if the property damage arises out of any part of those premises;

(3) Property loaned to (insert principal);

(4) Personal property in the care, custody or control of (insert principal);

(5) That particular part of real property on which (insert principal) or any contractors or subcontractors working

directly or indirectly on behalf of (insert principal) are performing operations, if the property damage arises out of these operations.

(Signatures)
Grantor

(Signatures)
Claimant(s)

or (2) a valid final court order establishing a judgment against the Grantor for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Grantor's facility or group of facilities.)

This letter of credit is effective as of (date) and shall expire on (date at least one year later), but such expiration date shall be automatically extended for a period of (at least one year) on (date and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify you, the Director, and (owner's or operator's name) by certified mail that we have decided not to extend this letter of credit beyond the current expiration date.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us.

(Insert the following language if a standby trust fund is not being used: “In the event that this letter of credit is used in combination with another mechanism for liability coverage, this letter of credit shall be considered (insert “primary” or “excess” coverage).”

We certify that the wording of this letter of credit is identical to the wording specified in Subsection R315-261-151(j) as such regulations were constituted on the date shown immediately below.

(Signature(s)
and title(s) of official(s) of issuing institution)
(Date).

This credit is subject to (insert “the most recent edition of the Uniform Customs and Practice for Documentary Credits, published and copyrighted by the International Chamber of Commerce,” or “the Uniform Commercial Code”).

(k) A surety bond, as specified in Subsection R315-261-147(i), shall be worded as follows: except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Payment Bond

Surety Bond No. (Insert number)

Parties (Insert name and address of owner or operator), Principal, incorporated in (Insert State of incorporation) of (Insert city and State of principal place of business) and (Insert name and address of surety company(ies)), Surety Company(ies), of (Insert surety(ies) place of business).

(EPA and State Identification Number (if any issued), name, and address for each facility guaranteed by this bond:) __

	Nonsudden accidental occurrences	Sudden accidental occurrences
Penal Sum Per Occurrence	(insert amount)	(insert amount)
Annual Aggregate	(insert amount)	(insert amount)

Purpose: This is an agreement between the Surety(ies) and the Principal under which the Surety(ies), its(their) successors and assignees, agree to be responsible for the payment of claims against the Principal for bodily injury and/or property damage to third parties caused by (“sudden” and/or “nonsudden”) accidental occurrences arising from operations of the facility or group of facilities in the sums prescribed herein; subject to the governing provisions and the following conditions.

Governing Provisions:

(1) Section 3004 of the Resource Conservation and Recovery Act of 1976, as amended.

(2) Rules adopted by the Utah Waste Management and Radiation Control Board, particularly Rules R315-264; 265, that is adopted by reference; and Sections R315-261-140 through 143 and R315-261-147 through 151 (if applicable).

Conditions:

(1) The Principal is subject to the applicable governing provisions that require the Principal to have and maintain liability coverage for bodily injury and property damage to third parties caused by (“sudden” and/or “nonsudden”) accidental occurrences arising from operations of the facility or group of facilities. Such obligation does not apply to any of the following:

(a) Bodily injury or property damage for which (insert Principal) is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that (insert Principal) would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of (insert Principal) under a workers' compensation, disability benefits, or unemployment compensation law or similar law.

(c) Bodily injury to:

(1) An employee of (insert Principal) arising from, and in the course of, employment by (insert principal); or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by (insert Principal). This exclusion applies:

(A) Whether (insert Principal) may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who shall pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by (insert Principal);

(2) Premises that are sold, given away or abandoned by (insert Principal) if the property damage arises out of any part of those premises;

(3) Property loaned to (insert Principal);

(4) Personal property in the care, custody or control of (insert Principal);

(5) That particular part of real property on which (insert Principal) or any contractors or subcontractors working directly or indirectly on behalf of (insert Principal) are performing operations, if the property damage arises out of these operations.

(2) This bond assures that the Principal will satisfy valid third party liability claims, as described in condition 1.

(3) If the Principal fails to satisfy a valid third party liability claim, as described above, the Surety(ies) becomes liable on this bond obligation.

(4) The Surety(ies) shall satisfy a third party liability claim only upon the receipt of one of the following documents:

(a) Certification from the Principal and the third party claimant(s) that the liability claim should be paid. The certification shall be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Certification of Valid Claim
The undersigned, as parties (insert name of Principal) and (insert name and address of third party claimant(s)), hereby certify that the claim of bodily injury and/or

property damage caused by a (sudden or nonsudden) accidental occurrence arising from operating (Principal's) facility should be paid in the amount of $( ).

(Signature)

Principal

(Notary) Date

(Signature(s))

Claimant(s)

(Notary) Date

or (b) A valid final court order establishing a judgment against the Principal for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Principal's facility or group of facilities.

(5) In the event of combination of this bond with another mechanism for liability coverage, this bond shall be considered (insert “primary” or “excess”) coverage.

(6) The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond. In no event shall the obligation of the Surety(ies) hereunder exceed the amount of said annual aggregate penal sum, provided that the Surety(ies) furnish(es) notice to the Director forthwith of all claims filed and payments made by the Surety(ies) under this bond.

(7) The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and the Director, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by the Principal and the Director, as evidenced by the return receipt.

(8) The Principal may terminate this bond by sending written notice to the Surety(ies) and to the Director.

(9) The Surety(ies) hereby waive(s) notification of amendments to applicable laws, statutes, rules and regulations and agree(s) that no such amendment shall in any way alleviate its (their) obligation on this bond.

(10) This bond is effective from (insert date) (12:01 a.m., standard time, at the address of the Principal as stated herein) and shall continue in force until terminated as described above.

In Witness Whereof, the Principal and Surety(ies) have executed this Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in Subsection R315-261-151(k), as such regulations were constituted on the date this bond was executed.

PRINCIPAL
(Signature(s))

(Name(s))

(Title(s))

(Corporate Seal)

CORPORATE SURETY(IES)
(Name and address)

State of incorporation: Liability Limit: $(Signature(s))

(Name(s) and title(s))

(Corporate seal)

(For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.)

Bond premium: $

(l)(1) A trust agreement, as specified in Subsection R315-261-147(j), shall be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Trust Agreement

Trust Agreement, the "Agreement," entered into as of (date) by and between (name of the owner or operator) a (name of State) (insert "corporation," "partnership," "association," or "proprietorship"), the "Grantor," and (name of corporate trustee), (insert, "incorporated in the State of ____" or "a national bank"), the "trustee."

Whereas, the Waste Management and Radiation Control Board of the State of Utah, "the Board", has established certain regulations applicable to the Grantor, requiring that an owner or operator shall demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental and/or nonsudden accidental occurrences arising from operations of the facility or group of facilities.

Whereas, the Grantor has elected to establish a trust to assure all or part of such financial responsibility for the facilities identified herein.

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee.

Now, therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "BOARD", "Utah Waste Management and Radiation Control Board" created pursuant to Utah Code Annotated 19-1-106.

(b) The term "Director" means the Director, of the Division of Waste Management and Radiation Control his successors,

designees, and any subsequent entity of the State of Utah upon whom the duties of regulation and enforcement of regulations governing hazardous waste.

(c) The term “Grantor” means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(d) The term “Trustee” means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of Facilities. This agreement pertains to the facilities identified on attached schedule A (on schedule A, for each facility list the EPA and State Identification Number (if any issued), name, and address of the facility(ies) and the amount of liability coverage, or portions thereof, if more than one instrument affords combined coverage as demonstrated by this Agreement).

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund, hereinafter the “Fund,” for the benefit of any and all third parties injured or damaged by (sudden and/or nonsudden) accidental occurrences arising from operation of the facility(ies) covered by this guarantee, in the amounts of ____-(up to $1 million) per occurrence and (up to $2 million) annual aggregate for sudden accidental occurrences and ____ (up to $3 million) per occurrence and ____-(up to $6 million) annual aggregate for nonsudden occurrences, except that the Fund is not established for the benefit of third parties for the following:

(a) Bodily injury or property damage for which (insert Grantor) is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that (insert Grantor) would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of (insert Grantor) under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of (insert Grantor) arising from, and in the course of, employment by (insert Grantor); or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by (insert Grantor). This exclusion applies:

(A) Whether (insert Grantor) may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who shall pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by (insert Grantor);

(2) Premises that are sold, given away or abandoned by (insert Grantor) if the property damage arises out of any part of those premises;

(3) Property loaned to (insert Grantor);

(4) Personal property in the care, custody or control of (insert Grantor);

(5) That particular part of real property on which (insert Grantor) or any contractors or subcontractors working directly or indirectly on behalf of (insert Grantor) are performing operations, if the property damage arises out of these operations.

In the event of combination with another mechanism for liability coverage, the Fund shall be considered (insert “primary” or “excess”) coverage.

The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in

Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by Director.

Section 4. Payment for Bodily Injury or Property Damage. The Trustee shall satisfy a third party liability claim by making payments from the Fund only upon receipt of one of the following documents;

(a) Certification from the Grantor and the third party claimant(s) that the liability claim should be paid. The certification shall be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Certification of Valid Claim
The undersigned, as parties (insert Grantor) and (insert name and address of third party claimant(s)), hereby certify that the claim of bodily injury and/or property damage caused by a (sudden or nonsudden) accidental occurrence arising from operating (Grantor's) facility or group of facilities should be paid in the amount of $( ).

(Signatures)
Grantor

(Signatures)
Claimant(s)

(b) A valid final court order establishing a judgment against the Grantor for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Grantor's facility or group of facilities.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstance then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2.(a), shall not be acquired or held unless they are securities or other obligations of the Federal or a State government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or State government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common commingled, or collective trust fund created by the Trustee in which the fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 81a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to

the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuations. The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the Director a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the Director shall constitute a conclusively binding assent by the Grantor barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation

or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the Director, and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee. All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendments to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the Director to the Trustee shall be in writing, signed by the Director, or their designees, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or the Director hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or the Direcotr, except as provided for herein.

Section 15. Notice of Nonpayment. If a payment for bodily injury or property damage is made under Section 4 of this trust, the Trustee shall notify the Grantor of such payment and the amount(s) thereof within five (5) working days. The Grantor shall, on or before the anniversary date of the

establishment of the Fund following such notice, either make payments to the Trustee in amounts sufficient to cause the trust to return to its value immediately prior to the payment of claims under Section 4, or shall provide written proof to the Trustee that other financial assurance for liability coverage has been obtained equaling the amount necessary to return the trust to its value prior to the payment of claims. If the Grantor does not either make payments to the Trustee or provide the Trustee with such proof, the Trustee shall within 10 working days after the anniversary date of the establishment of the Fund provide a written notice of nonpayment to the Director.

Section 16. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the Director, or by the Trustee and the Director if the Grantor ceases to exist.

Section 17. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the Director, or by the Trustee and the Director, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

The Director shall agree to termination of the Trust when the owner or operator substitutes alternate financial assurance as specified in this section.

Section 18. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the Director issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 19. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of Utah.

Section 20. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in Subsection R315-261-151(l) as such regulations were constituted on the date first above written.

(Signature of Grantor)
(Title)
Attest:

(Title)
(Seal)
(Signature of Trustee)
Attest:

(Title)
(Seal)

(2) The following is an example of the certification of acknowledgement which shall accompany the trust agreement for a trust fund as specified in Subsection R315-261-147(j). State requirements may differ on the proper

State of
County of

On this (date), before me personally came (owner or operator) to me known, who, being by me duly sworn, did depose and say that she/he resides at (address), that she/he is (title) of (corporation), the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal

affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/ his name thereto by like order.

(Signature of Notary Public)

(m)(1) A standby trust agreement, as specified in Subsection R315-261-147(h), shall be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Standby Trust Agreement

Trust Agreement, the "Agreement," entered into as of (date) by and between (name of the owner or operator) a (name of a State) (insert "corporation," "partnership," "association," or "proprietorship"), the "Grantor," and (name of corporate trustee), (insert, "incorporated in the State of _____" or "a national bank"), the "trustee."

Whereas the Utah Waste Management and Radiation Control Board (Board), has established certain regulations applicable to the Grantor, requiring that an owner or operator shall demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental and/or nonsudden accidental occurrences arising from operations of the facility or group of facilities.

Whereas, the Grantor has elected to establish a standby trust into which the proceeds from a letter of credit may be deposited to assure all or part of such financial responsibility for the facilities identified herein.

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee.

Now, therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "Board", "Utah Waste Management and Radiation Control Board" created pursuant to Utah Code Annotated 19-1-106.

(b) The term "Director" means the Director,of the Division of Waste Management and Radiation Control his successors, designees, and any subsequent entity of the State of Utah upon whom the duties of regulation and enforcement of regulations governing hazardous waste.

(c) The term Grantor means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(d) The term Trustee means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of Facilities. This Agreement pertains to the facilities identified on attached schedule A (on schedule A, for each facility list the EPA and State Identification Number (if any issued), name, and address of the facility(ies) and the amount of liability coverage, or portions thereof, if more than one instrument affords combined coverage as demonstrated by this Agreement).

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a standby trust fund, hereafter the "Fund," for the benefit of any and all third parties injured or damaged by (sudden and/or nonsudden) accidental occurrences arising from operation of the facility(ies) covered by this guarantee, in the amounts of ____-(up to $1 million) per occurrence and ____-(up to $2 million) annual aggregate for sudden accidental occurrences and ____-(up to $3 million) per occurrence and ____-(up to $6 million) annual aggregate for nonsudden occurrences, except that the Fund is not established for the benefit of third parties for the following:

(a) Bodily injury or property damage for which (insert Grantor) is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that (insert Grantor) would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of (insert Grantor) under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of (insert Grantor) arising from, and in the course of, employment by (insert Grantor); or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by (insert Grantor).

This exclusion applies:

(A) Whether (insert Grantor) may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who shall pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by (insert Grantor);

(2) Premises that are sold, given away or abandoned by (insert Grantor) if the property damage arises out of any part of those premises;

(3) Property loaned by (insert Grantor);

(4) Personal property in the care, custody or control of (insert Grantor);

(5) That particular part of real property on which (insert Grantor) or any contractors or subcontractors working directly or indirectly on behalf of (insert Grantor) are performing operations, if the property damage arises out of these operations.

In the event of combination with another mechanism for liability coverage, the Fund shall be considered (insert “primary” or “excess”) coverage.

The Fund is established initially as consisting of the proceeds of the letter of credit deposited into the Fund. Such proceeds and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by the Director.

Section 4. Payment for Bodily Injury or Property Damage. The Trustee shall satisfy a third party liability claim by drawing on the letter of credit described in Schedule B and by making payments from the Fund only upon receipt of one of the following documents:

(a) Certification from the Grantor and the third party claimant(s) that the liability claim should be paid. The certification shall be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Certification of Valid Claim
The undersigned, as parties (insert Grantor) and (insert name and address of third party claimant(s)), hereby certify that the claim of bodily injury and/or property damage caused by a (sudden or nonsudden) accidental occurrence arising from operating (Grantor's) facility should be paid in the amount of $( )

(Signature)
Grantor
(Signatures)
Claimant(s)

(b) A valid final court order establishing a judgment against the Grantor for bodily injury or property damage

caused by sudden or nonsudden accidental occurrences arising from the operation of the Grantor's facility or group of facilities.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of the proceeds from the letter of credit drawn upon by the Trustee in accordance with the requirements of Subsection R315-261-151(k) and Section 4 of this Agreement.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2(a), shall not be acquired or held, unless they are securities or other obligations of the Federal or a State government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or a State government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust

fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depositary even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depositary with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve Bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements to the Trustee shall be paid from the Fund.

Section 10. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 11. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 12. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent

jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the Director and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

Section 13. Instructions to the Trustee. All orders, requests, certifications of valid claims, and instructions to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendments to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or the Director hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or the Director, except as provided for herein.

Section 14. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the Director, or by the Trustee and the Director if the Grantor ceases to exist.

Section 15. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 14, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the Director, or by the Trustee and the Director, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be paid to the Grantor.

The Director shall agree to termination of the Trust when the owner or operator substitutes alternative financial assurance as specified in this section.

Section 16. Immunity and indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor and the Director issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 17. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of Utah.

Section 18. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation of the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in Subsection R315-261-151(m) as such regulations were constituted on the date first above written.

(Signature of Grantor)

(Title)

Attest:

(Title)

(Seal)

(Signature of Trustee)

Attest:

(Title)

(Seal)

(2) The following is an example of the certification of acknowledgement which shall accompany the trust agreement for a standby trust fund as specified in Subsection R315-261-147(h).

State of
County of

On this (date), before me personally came (owner or operator) to me known, who, being by me duly sworn, did depose and say that she/he resides at (address), that she/he is (title) of (corporation), the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/ his name thereto by like order.

(Signature of Notary Public)

R315-261-170. Use and Management of Containers - Applicability.
Sections R315-261-170 through 179 apply to hazardous secondary materials excluded under the remanufacturing exclusion at Subsection R315-261-4(a)(27) and stored in containers.

R315-261-171. Use and Management of Containers - Condition of Containers.
If a container holding hazardous secondary material is not in good condition, e.g., severe rusting, apparent structural defects, or if it begins to leak, the hazardous secondary material shall be transferred from this container to a container that is in good condition or managed in some other way that complies with the requirements of Rule R315-261.

R315-261-172. Use and Management of Containers - Compatibility Of Hazardous Secondary Materials With Containers.

The container shall be made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous secondary material to be stored, so that the ability of the container to contain the material is not impaired.

R315-261-173. Use and Management of Containers - Management of Containers.

(a) A container holding hazardous secondary material shall always be closed during storage, except when it is necessary to add or remove the hazardous secondary material.

(b) A container holding hazardous secondary material shall not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.

R315-261-175. Use and Management of Containers - Containment.

(a) Container storage areas shall have a containment system that is designed and operated in accordance with Subsection R315-261-175(b).

(b) A containment system shall be designed and operated as follows:

(1) A base shall underlie the containers which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed;

(2) The base shall be sloped or the containment system shall be otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids;

(3) The containment system shall have sufficient capacity to contain 10% of the volume of containers or the volume of the largest container, whichever is greater.

(4) Run-on into the containment system shall be prevented unless the collection system has sufficient excess capacity in addition to that required in Subsection R315-261-175(b)(3) to contain any run-on which might enter the system; and

(5) Spilled or leaked material and accumulated precipitation shall be removed from the sump or collection

area in as timely a manner as is necessary to prevent overflow of the collection system.

R315-261-176. Use and Management of Containers - Special Requirements For Ignitable or Reactive Hazardous Secondary Material.

Containers holding ignitable or reactive hazardous secondary material shall be located at least 15 meters (50 feet) from the facility's property line.

R315-261-177. Use and Management of Containers - Special Requirements For Incompatible Materials.

(a) Incompatible materials shall not be placed in the same container.

(b) Hazardous secondary material shall not be placed in an unwashed container that previously held an incompatible material.

(c) A storage container holding a hazardous secondary material that is incompatible with any other materials stored nearby shall be separated from the other materials or protected from them by means of a dike, berm, wall, or other device.

R315-261-179. Use and Management of Containers - Air Emission Standards.

The remanufacturer or other person that stores or treats the hazardous secondary material shall manage all hazardous secondary material placed in a container in accordance with the applicable requirements of Sections R315-261-1030 through 1035, 1050 through 1064 and 1080 through 1089.

R315-261-190. Tank Systems - Applicability.

(a) The requirements of Sections R315-261-190 through 200 apply to tank systems for storing or treating hazardous secondary material excluded under the remanufacturing exclusion at Subsection R315-261-4(a)(27).

(b) Tank systems, including sumps, as defined in Section R315-260-10, that serve as part of a secondary containment system to collect or contain releases of hazardous secondary materials are exempted from the requirements in Subsection R315-261-193(a).

R315-261-191. Tank Systems - Assessment Of Existing Tank System's Integrity.

(a) Tank systems shall meet the secondary containment requirements of Section R315-261-193, or the remanufacturer or other person that handles the hazardous secondary material shall determine that the tank system is not leaking or is unfit for use. Except as provided in Subsection R315-261-191(c), a written assessment reviewed and certified by a qualified Professional Engineer shall be kept on file at the remanufacturer's facility or other facility that stores or treats the hazardous secondary material that attests to the tank system's integrity.

(b) This assessment shall determine that the tank system is adequately designed and has sufficient structural strength and compatibility with the material(s) to be stored or treated, to ensure that it will not collapse, rupture, or fail. At a minimum, this assessment shall consider the following:

(1) Design standard(s), if available, according to which the tank and ancillary equipment were constructed;

(2) Hazardous characteristics of the material(s) that have been and will be handled;

(3) Existing corrosion protection measures;

(4) Documented age of the tank system, if available, otherwise, an estimate of the age; and

(5) Results of a leak test, internal inspection, or other tank integrity examination such that:

(i) For non-enterable underground tanks, the assessment shall include a leak test that is capable of taking into account the effects of temperature variations, tank end deflection, vapor pockets, and high water table effects, and

(ii) For other than non-enterable underground tanks and for ancillary equipment, this assessment shall include either a leak test, as described above, or other integrity examination that is certified by a qualified Professional Engineer that addresses cracks, leaks, corrosion, and erosion.

Note to Subsection R315-261-191(b)(5)(ii): The practices described in the American Petroleum Institute (API) Publication, Guide for Inspection of Refinery Equipment, Chapter XIII, “Atmospheric and Low-Pressure Storage Tanks,” 4th edition, 1981, may be used, where applicable, as guidelines in conducting other than a leak test.

(c) If, as a result of the assessment conducted in accordance with Subsection R315-261-191(a), a tank system

is found to be leaking or unfit for use, the remanufacturer or other person that stores or treats the hazardous secondary material shall comply with the requirements of Section R315-261-196.

R315-261-193. Tank Systems - Containment and Detection of Releases.

(a) Secondary containment systems shall be:

(1) Designed, installed, and operated to prevent any migration of materials or accumulated liquid out of the system to the soil, ground water, or surface water at any time during the use of the tank system; and

(2) Capable of detecting and collecting releases and accumulated liquids until the collected material is removed.

Note to Subsection R315-261-193(a): If the collected material is a hazardous waste under Rule R315-261, it is subject to management as a hazardous waste in accordance with all applicable requirements of Rules R315-262 through 265, 266, and 268. If the collected material is discharged through a point source to waters of the United States, it is subject to the requirements of sections 301, 304, and 402 of the Clean Water Act, as amended. If discharged to a Publicly Owned Treatment Works (POTW), it is subject to the requirements of section 307 of the Clean Water Act, as amended. If the collected material is released to the environment, it may be subject to the reporting requirements of 40 CFR part 302.

(b) To meet the requirements of Subsection R315-261-193(a), secondary containment systems shall be at a minimum:

(1) Constructed of or lined with materials that are compatible with the materials(s) to be placed in the tank system and shall have sufficient strength and thickness to prevent failure owing to pressure gradients, including static head and external hydrological forces, physical contact with the material to which it is exposed, climatic conditions, and the stress of daily operation, (including stresses from nearby vehicular traffic;

(2) Placed on a foundation or base capable of providing support to the secondary containment system, resistance to pressure gradients above and below the system, and capable of preventing failure due to settlement, compression, or uplift;

(3) Provided with a leak-detection system that is designed and operated so that it will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous secondary material or accumulated liquid in the secondary containment system at the earliest practicable time; and

(4) Sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation. Spilled or leaked material and accumulated precipitation shall be removed from the secondary containment system within 24 hours, or in as timely a manner as is possible to prevent harm to human health and the environment.

(c) Secondary containment for tanks shall include one or more of the following devices:

(1) A liner, external to the tank;

(2) A vault; or

(3) A double-walled tank.

(d) In addition to the requirements of Subsections R315-261-193(a), (b), and (c), secondary containment systems shall satisfy the following requirements:

(1) External liner systems shall be:

(i) Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary;

(ii) Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. Such additional capacity shall be sufficient to contain precipitation from a 25-year, 24-hour rainfall event.

(iii) Free of cracks or gaps; and

(iv) Designed and installed to surround the tank completely and to cover all surrounding earth likely to come into contact with the material if the material is released from the tank(s), i.e., capable of preventing lateral as well as vertical migration of the material.

(2) Vault systems shall be:

(i) Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary;

(ii) Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. Such additional capacity shall be sufficient

to contain precipitation from a 25-year, 24-hour rainfall event;

(iii) Constructed with chemical-resistant water stops in place at all joints, if any;

(iv) Provided with an impermeable interior coating or lining that is compatible with the stored material and that will prevent migration of material into the concrete;

(v) Provided with a means to protect against the formation of and ignition of vapors within the vault, if the material being stored or treated is ignitable or reactive; and

(vi) Provided with an exterior moisture barrier or be otherwise designed or operated to prevent migration of moisture into the vault if the vault is subject to hydraulic pressure.

(3) Double-walled tanks shall be:

(i) Designed as an integral structure, i.e., an inner tank completely enveloped within an outer shell, so that any release from the inner tank is contained by the outer shell;

(ii) Protected, if constructed of metal, from both corrosion of the primary tank interior and of the external surface of the outer shell; and

(iii) Provided with a built-in continuous leak detection system capable of detecting a release within 24 hours, or at the earliest practicable time.

Note to Subsection R315-261-193(d)(3): The provisions outlined in the Steel Tank Institute's (STI) “Standard for Dual Wall Underground Steel Storage Tanks” may be used as guidelines for aspects of the design of underground steel double-walled tanks.

(e) Reserved

(f) Ancillary equipment shall be provided with secondary containment, e.g., trench, jacketing, double-walled piping, that meets the requirements of Subsections R315-261-193(a) and (b) except for:

(1) Aboveground piping, exclusive of flanges, joints, valves, and other connections, that are visually inspected for leaks on a daily basis;

(2) Welded flanges, welded joints, and welded connections that are visually inspected for leaks on a daily basis;

(3) Sealless or magnetic coupling pumps and sealless valves that are visually inspected for leaks on a daily basis; and

(4) Pressurized aboveground piping systems with automatic shut-off devices, e.g., excess flow check valves, flow metering shutdown devices, loss of pressure actuated shut-off devices, that are visually inspected for leaks on a daily basis.

R315-261-194. Tank Systems - General Operating Requirements.

(a) Hazardous secondary materials or treatment reagents shall not be placed in a tank system if they could cause the tank, its ancillary equipment, or the containment system to rupture, leak, corrode, or otherwise fail.

(b) The remanufacturer or other person that stores or treats the hazardous secondary material shall use appropriate controls and practices to prevent spills and overflows from tank or containment systems. These include at a minimum:

(1) Spill prevention controls, e.g., check valves, dry disconnect couplings;

(2) Overfill prevention controls, e.g., level sensing devices, high level alarms, automatic feed cutoff, or bypass to a standby tank; and

(3) Maintenance of sufficient freeboard in uncovered tanks to prevent overtopping by wave or wind action or by precipitation.

(c) The remanufacturer or other person that stores or treats the hazardous secondary material shall comply with the requirements of Section R315-261-196 if a leak or spill occurs in the tank system.

R315-261-196. Tank Systems - Response To Leaks or Spills and Disposition of Leaking or Unfit-For-Use Tank Systems.

A tank system or secondary containment system from which there has been a leak or spill, or which is unfit for use, shall be removed from service immediately, and the remanufacturer or other person that stores or treats the hazardous secondary material shall satisfy the following requirements:

(a) Cessation of use; prevent flow or addition of materials. The remanufacturer or other person that stores or treats the hazardous secondary material shall immediately stop the flow of hazardous secondary material

into the tank system or secondary containment system and inspect the system to determine the cause of the release.

(b) Removal of material from tank system or secondary containment system.

(1) If the release was from the tank system, the remanufacturer or other person that stores or treats the hazardous secondary material shall, within 24 hours after detection of the leak or, if the remanufacturer or other person that stores or treats the hazardous secondary material demonstrates that it is not possible, at the earliest practicable time, remove as much of the material as is necessary to prevent further release of hazardous secondary material to the environment and to allow inspection and repair of the tank system to be performed.

(2) If the material released was to a secondary containment system, all released materials shall be removed within 24 hours or in as timely a manner as is possible to prevent harm to human health and the environment.

(c) Containment of visible releases to the environment. The remanufacturer or other person that stores or treats the hazardous secondary material shall immediately conduct a visual inspection of the release and, based upon that inspection:

(1) Prevent further migration of the leak or spill to soils or surface water; and

(2) Remove, and properly dispose of, any visible contamination of the soil or surface water.

(d) Notifications, reports. (1) Any release to the environment, except as provided in Subsection R315-261-196(d)(2), shall be reported to the Director within 24 hours of its detection. If the release has been reported pursuant to 40 CFR part 302, that report will satisfy this requirement.

(2) A leak or spill of hazardous secondary material is exempted from the requirements of Subsection R315-261-196(d) if it is:

(i) Less than or equal to a quantity of 1 pound, and

(ii) Immediately contained and cleaned up.

(3) Within 30 days of detection of a release to the environment, a report containing the following information shall be submitted to the Director:

(i) Likely route of migration of the release;

(ii) Characteristics of the surrounding soil, soil composition, geology, hydrogeology, climate;

(iii) Results of any monitoring or sampling conducted in connection with the release, if available. If sampling or monitoring data relating to the release are not available within 30 days, these data shall be submitted to the Director as soon as they become available.

(iv) Proximity to downgradient drinking water, surface water, and populated areas; and

(v) Description of response actions taken or planned.

(e) Provision of secondary containment, repair, or closure.

(1) Unless the remanufacturer or other person that stores or treats the hazardous secondary material satisfies the requirements of Subsections R315-261-196(e)(2) through (4), the tank system shall cease to operate under the remanufacturing exclusion at Subsection R315-261-4(a)(27).

(2) If the cause of the release was a spill that has not damaged the integrity of the system, the remanufacturer or other person that stores or treats the hazardous secondary material may return the system to service as soon as the released material is removed and repairs, if necessary, are made.

(3) If the cause of the release was a leak from the primary tank system into the secondary containment system, the system shall be repaired prior to returning the tank system to service.

(4) If the source of the release was a leak to the environment from a component of a tank system without secondary containment, the remanufacturer or other person that stores or treats the hazardous secondary material shall provide the component of the system from which the leak occurred with secondary containment that satisfies the requirements of Section R315-261-193 before it can be returned to service, unless the source of the leak is an aboveground portion of a tank system that can be inspected visually. If the source is an aboveground component that can be inspected visually, the component shall be repaired and may be returned to service without secondary containment as long as the requirements of Subsection R315-261-196(f) are satisfied. Additionally, if a leak has occurred in any portion of a tank system component that is not readily accessible for visual inspection, e.g., the bottom of an inground or onground tank, the entire component shall be provided with secondary containment in accordance with Section R315-261-193 prior to being returned to use.

(f) Certification of major repairs. If the remanufacturer or other person that stores or treats the hazardous secondary material has repaired a tank system in accordance with Subsection R315-261-196(e), and the repair has been extensive, e.g., installation of an internal liner; repair of a ruptured primary containment or secondary containment vessel, the tank system shall not be returned to service unless the remanufacturer or other person that stores or treats the hazardous secondary material has obtained a certification by a qualified Professional Engineer that the repaired system is capable of handling hazardous secondary materials without release for the intended life of the system. This certification shall be kept on file at the facility and maintained until closure of the facility.

Note 1 to Section R315-261-196: The Director may, on the basis of any information received that there is or has been a release of hazardous secondary material or hazardous constituents into the environment, issue an order under RCRA section 7003(a) requiring corrective action or such other response as deemed necessary to protect human health or the environment.

Note 2 to Section R315-261-196: 40 CFR part 302 may require the owner or operator to notify the National Response Center of certain releases.

R315-261-197. Tank Systems - Termination of Remanufacturing Exclusion.

Hazardous secondary material stored in units more than 90 days after the unit ceases to operate under the remanufacturing exclusion at Subsection R315-261-4(a)(27) or otherwise ceases to be operated for manufacturing, or for storage of a product or a raw material, then becomes subject to regulation as hazardous waste under Rules R315-261 through 266, 268, 270, and 124, as applicable.

R315-261-198. Tank Systems - Special Requirements for Ignitable or Reactive Materials.

(a) Ignitable or reactive material shall not be placed in tank systems, unless the material is stored or treated in such a way that it is protected from any material or conditions that may cause the material to ignite or react.

(b) The remanufacturer or other person that stores or treats hazardous secondary material which is ignitable or reactive shall store or treat the hazardous secondary material in a tank that is in compliance with the requirements for the maintenance of protective distances between the material management area and any public ways, streets, alleys, or an adjoining property line that can be built upon as required in Tables 2-1 through 2-6 of the National Fire Protection Association's “Flammable and Combustible Liquids Code,” (1977 or 1981), incorporated by reference, see Section R315-260-11.

R315-261-199. Tank Systems - Special Requirements for Incompatible Materials.

(a) Incompatible materials shall not be placed in the same tank system.

(b) Hazardous secondary material shall not be placed in a tank system that has not been decontaminated and that previously held an incompatible material.

R315-261-200. Tank Systems - Air Emission Standards.

The remanufacturer or other person that stores or treats the hazardous secondary material shall manage all hazardous secondary material placed in a tank in accordance with the applicable requirements of Sections R315-261-1030 through 1035, 1050 through 1064, and 1080 through 1089.

R315-261-400. Emergency Preparedness and Response for Management of Excluded Hazardous Secondary Materials - Applicability.

The requirements of Sections R315-261-400, 410, 411, and 420 apply to those areas of an entity managing hazardous secondary materials excluded under Subsection R315-261-4(a)(23) and/or (24) where hazardous secondary materials are generated or accumulated on site.

(a) A generator of hazardous secondary material, or an intermediate or reclamation facility operating under a verified recycler variance under Subsection R315-260-31(d), that accumulates 6000 kg or less of hazardous secondary material at any time shall comply with Sections R315-261-410 and 411.

(b) A generator of hazardous secondary material, or an intermediate or reclamation facility operating under a verified recycler variance under Subsection R315-260-31(d) that accumulates more than 6000 kg of hazardous secondary

material at any time shall comply with Sections R315-261-410 and 420.

R315-261-410. Emergency Preparedness and Response for Management of Excluded Hazardous Secondary Materials - Preparedness and Prevention.

(a) Maintenance and operation of facility. Facilities generating or accumulating hazardous secondary material shall be maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous secondary materials or hazardous secondary material constituents to air, soil, or surface water which could threaten human health or the environment.

(b) Required equipment. All facilities generating or accumulating hazardous secondary material shall be equipped with the following, unless none of the hazards posed by hazardous secondary material handled at the facility could require a particular kind of equipment specified below:

(1) An internal communications or alarm system capable of providing immediate emergency instruction, voice or signal, to facility personnel;

(2) A device, such as a telephone, immediately available at the scene of operations, or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or state or local emergency response teams;

(3) Portable fire extinguishers, fire control equipment, including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals, spill control equipment, and decontamination equipment; and

(4) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

(c) Testing and maintenance of equipment. All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, shall be tested and maintained as necessary to assure its proper operation in time of emergency.

(d) Access to communications or alarm system.

(1) Whenever hazardous secondary material is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation shall have immediate access to an internal alarm or emergency communication device, either

directly or through visual or voice contact with another employee, unless such a device is not required under Subsection R315-261-410(b).

(2) If there is ever just one employee on the premises while the facility is operating, he shall have immediate access to a device, such as a telephone, immediately available at the scene of operation, or a hand-held two-way radio, capable of summoning external emergency assistance, unless such a device is not required under Subsection R315-261-410(b).

(e) Required aisle space. The hazardous secondary material generator or intermediate or reclamation facility operating under a verified recycler variance under Subsection R315-260-31(d) shall maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes.

(f) Arrangements with local authorities.

(1) The hazardous secondary material generator or an intermediate or reclamation facility operating under a verified recycler variance under Subsection R315-260-31(d) shall attempt to make the following arrangements, as appropriate for the type of waste handled at his facility and the potential need for the services of these organizations:

(i) Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous secondary material handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes;

(ii) Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority;

(iii) Agreements with state emergency response teams, emergency response contractors, and equipment suppliers; and

(iv) Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility

and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

(2) Where state or local authorities decline to enter into such arrangements, the hazardous secondary material generator or an intermediate or reclamation facility operating under a verified recycler variance under Subsection R315-260-31(d) shall document the refusal in the operating record.

R315-261-411. Emergency Preparedness and Response for Management of Excluded Hazardous Secondary Materials - Emergency Procedures For Facilities Generating or Accumulating 6000 Kg or Less of Hazardous Secondary Material.

A generator or an intermediate or reclamation facility operating under a verified recycler variance under Subsection R315-260-31(d) that generates or accumulates 6000 kg or less of hazardous secondary material shall comply with the following requirements:

(a) At all times there shall be at least one employee either on the premises or on call, i.e., available to respond to an emergency by reaching the facility within a short period of time, with the responsibility for coordinating all emergency response measures specified in Subsection R315-261-411(d). This employee is the emergency coordinator.

(b) The generator or intermediate or reclamation facility operating under a verified recycler variance under Subsection R315-260-31(d) shall post the following information next to the telephone:

(1) The name and telephone number of the emergency coordinator;

(2) Location of fire extinguishers and spill control material, and, if present, fire alarm; and

(3) The telephone number of the fire department, unless the facility has a direct alarm.

(c) The generator or an intermediate or reclamation facility operating under a verified recycler variance under Subsection R315-260-31(d) shall ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies;

(d) The emergency coordinator or his designee shall respond to any emergencies that arise. The applicable responses are as follows:

(1) In the event of a fire, call the fire department or attempt to extinguish it using a fire extinguisher;

(2) In the event of a spill, contain the flow of hazardous waste to the extent possible, and as soon as is practicable, clean up the hazardous waste and any contaminated materials or soil;

(3) In the event of a fire, explosion, or other release which could threaten human health outside the facility or when the generator or an intermediate or reclamation facility operating under a verified recycler variance under Subsection R315-260-31(d) has knowledge that a spill has reached surface water, the generator or an intermediate or reclamation facility operating under a verified recycler variance under Subsection R315-260-31(d) shall immediately notify the National Response Center, using their 24-hour toll free number 800/424-8802 and follow the requirements Section R316-263-33. The report shall include the following information:

(i) The name, address, and U.S. EPA Identification Number of the facility;

(ii) Date, time, and type of incident, e.g., spill or fire;

(iii) Quantity and type of hazardous waste involved in the incident;

(iv) Extent of injuries, if any; and

(v) Estimated quantity and disposition of recovered materials, if any.

R315-261-420. Emergency Preparedness and Response for Management of Excluded Hazardous Secondary Materials - Contingency Planning and Emergency Procedures for Facilities Generating or Accumulating More Than 6000 Kg of Hazardous Secondary Material.

A generator or an intermediate or reclamation facility operating under a verified recycler variance under Subsection R315-260-31(d) that generates or accumulates more than 6000 kg of hazardous secondary material shall comply with the following requirements:

(a) Purpose and implementation of contingency plan.

(1) Each generator or an intermediate or reclamation facility operating under a verified recycler variance under Subsection R315-260-31(d) that accumulates more than 6000 kg of hazardous secondary material shall have a contingency plan for his facility. The contingency plan shall be designed to minimize hazards to human health or the

environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous secondary material or hazardous secondary material constituents to air, soil, or surface water.

(2) The provisions of the plan shall be carried out immediately whenever there is a fire, explosion, or release of hazardous secondary material or hazardous secondary material constituents which could threaten human health or the environment.

(b) Content of contingency plan.

(1) The contingency plan shall describe the actions facility personnel shall take to comply with Subsection R315-261-420(a) and (f) in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous secondary material or hazardous secondary material constituents to air, soil, or surface water at the facility.

(2) If the generator or an intermediate or reclamation facility operating under a verified recycler variance under Subsection R315-260-31(d) accumulating more than 6000 kg of hazardous secondary material has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with 40 CFR 112, or some other emergency or contingency plan, he need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of Rule R315-261. The hazardous secondary material generator or an intermediate or reclamation facility operating under a verified recycler variance under Subsection R315-260-31(d) may develop one contingency plan which meets all regulatory requirements. The Director recommends that the plan be based on the National Response Team's Integrated Contingency Plan Guidance (“One Plan”). When modifications are made to non-hazardous waste provisions in an integrated contingency plan, the changes do not trigger the need for a hazardous waste permit modification.

(3) The plan shall describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services, pursuant to Subsection R315-262-410(f).

(4) The plan shall list names, addresses, and phone numbers, office and home, of all persons qualified to act as emergency coordinator, see Subsection R315-261-420(e), and this list shall be kept up-to-date. Where more than one

person is listed, one shall be named as primary emergency coordinator and others shall be listed in the order in which they shall assume responsibility as alternates.

(5) The plan shall include a list of all emergency equipment at the facility, such as fire extinguishing systems, spill control equipment, communications and alarm systems, internal and external, and decontamination equipment, where this equipment is required. This list shall be kept up to date. In addition, the plan shall include the location and a physical description of each item on the list, and a brief outline of its capabilities.

(6) The plan shall include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan shall describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes, in cases where the primary routes could be blocked by releases of hazardous waste or fires.

(c) Copies of contingency plan. A copy of the contingency plan and all revisions to the plan shall be:

(1) Maintained at the facility; and

(2) Submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services.

(d) Amendment of contingency plan. The contingency plan shall be reviewed, and immediately amended, if necessary, whenever:

(1) Applicable regulations are revised;

(2) The plan fails in an emergency;

(3) The facility changes-in its design, construction, operation, maintenance, or other circumstances-in a way that materially increases the potential for fires, explosions, or releases of hazardous secondary material or hazardous secondary material constituents, or changes the response necessary in an emergency;

(4) The list of emergency coordinators changes; or

(5) The list of emergency equipment changes.

(e) Emergency coordinator. At all times, there shall be at least one employee either on the facility premises or on call, i.e., available to respond to an emergency by reaching the facility within a short period of time, with the responsibility for coordinating all emergency response measures. This emergency coordinator shall be thoroughly familiar with all aspects of the facility's contingency

plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person shall have the authority to commit the resources needed to carry out the contingency plan. The emergency coordinator's responsibilities are more fully spelled out in Subsection R315-261-420(f). Applicable responsibilities for the emergency coordinator vary, depending on factors such as type and variety of hazardous secondary material(s) handled by the facility, and type and complexity of the facility.

(f) Emergency procedures.

(1) Whenever there is an imminent or actual emergency situation, the emergency coordinator, or his designee when the emergency coordinator is on call, shall immediately:

(i) Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and

(ii) Notify appropriate State or local agencies with designated response roles if their help is needed.

(2) Whenever there is a release, fire, or explosion, the emergency coordinator shall immediately identify the character, exact source, amount, and areal extent of any released materials. The emergency coordinator may do this by observation or review of facility records or manifests and, if necessary, by chemical analysis.

(3) Concurrently, the emergency coordinator shall assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment shall consider both direct and indirect effects of the release, fire, or explosion, e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-offs from water or chemical agents used to control fire and heat-induced explosions.

(4) If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment, outside the facility, he shall report his findings as follows:

(i) If his assessment indicates that evacuation of local areas may be advisable, the emergency coordinator shall immediately notify appropriate local authorities. The emergency coordinator shall be available to help appropriate officials decide whether local areas should be evacuated; and

(ii) The emergency coordinator shall immediately notify the Utah Department of Environmental Quality 24 hour answering service at 801/536-4123, and the National Response Center, using their 24-hour toll free number 800/424-8802. The report shall include:

(A) Name and telephone number of reporter;

(B) Name and address of facility;

(C) Time and type of incident, e.g., release, fire;

(D) Name and quantity of material(s) involved, to the extent known;

(E) The extent of injuries, if any; and

(F) The possible hazards to human health, or the environment, outside the facility.

(5) During an emergency, the emergency coordinator shall take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous secondary material at the facility. These measures shall include, where applicable, stopping processes and operations, collecting and containing released material, and removing or isolating containers.

(6) If the facility stops operations in response to a fire, explosion or release, the emergency coordinator shall monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

(7) Immediately after an emergency, the emergency coordinator shall provide for treating, storing, or disposing of recovered secondary material, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility. Unless the hazardous secondary material generator can demonstrate, in accordance with Subsections R315-261-3(c) or (d), that the recovered material is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and shall manage it in accordance with all applicable requirements of Rules R315-262, 263, and 265.

(8) The emergency coordinator shall ensure that, in the affected area(s) of the facility:

(i) No secondary material that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed; and

(ii) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

(9) The hazardous secondary material generator shall note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, he shall submit a written report on the incident to the Director. The report shall include:

(i) Name, address, and telephone number of the hazardous secondary material generator;

(ii) Name, address, and telephone number of the facility;

(iii) Date, time, and type of incident, e.g., fire, explosion;

(iv) Name and quantity of material(s) involved;

(v) The extent of injuries, if any;

(vi) An assessment of actual or potential hazards to human health or the environment, where this is applicable; and

(vii) Estimated quantity and disposition of recovered material that resulted from the incident.

R315-261-1030. Air Emission Standards for Process Vents - Applicability.

The regulations in Sections R315-261-1030 through 1035 apply to process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or stream stripping operations that manage hazardous secondary materials excluded under the remanufacturing exclusion at Subsection R315-261-4(a)(27) with concentrations of at least 10 ppmw, unless the process vents are equipped with operating air emission controls in accordance with the requirements of an applicable Clean Air Act regulation codified under 40 CFR part 60, part 61, or part 63.

R315-261-1031. Air Emission Standards for Process Vents - Definitions.

(a) As used in Sections R315-261-1030 through 1035, all terms not defined herein shall have the meaning given them in the Resource Conservation and Recovery Act, the Utah Solid and Hazardous Waste Act, and Rules R315-260 through 266.

(1) "Air stripping operation" is a desorption operation employed to transfer one or more volatile components from a liquid mixture into a gas either with or without the application of heat to the liquid. Packed

towers, spray towers, and bubble-cap, sieve, or valve-type plate towers are among the process configurations used for contacting the air and a liquid.

(2) "Bottoms receiver" means a container or tank used to receive and collect the heavier bottoms fractions of the distillation feed stream that remain in the liquid phase.

(3) "Closed-vent system" means a system that is not open to the atmosphere and that is composed of piping, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device.

(4) "Condenser" means a heat-transfer device that reduces a thermodynamic fluid from its vapor phase to its liquid phase.

(5) "Connector" means flanged, screwed, welded, or other joined fittings used to connect two pipelines or a pipeline and a piece of equipment. For the purposes of reporting and recordkeeping, connector means flanged fittings that are not covered by insulation or other materials that prevent location of the fittings.

(6) "Continuous recorder" means a data-recording device recording an instantaneous data value at least once every 15 minutes.

(7) "Control device" means an enclosed combustion device, vapor recovery system, or flare. Any device the primary function of which is the recovery or capture of solvents or other organics for use, reuse, or sale, e.g., a primary condenser on a solvent recovery unit, is not a control device.

(8) "Control device shutdown" means the cessation of operation of a control device for any purpose.

(9) "Distillate receiver" means a container or tank used to receive and collect liquid material, condensed, from the overhead condenser of a distillation unit and from which the condensed liquid is pumped to larger storage tanks or other process units.

(10) "Distillation operation" means an operation, either batch or continuous, separating one or more feed stream(s) into two or more exit streams, each exit stream having component concentrations different from those in the feed stream(s). The separation is achieved by the redistribution of the components between the liquid and vapor phase as they approach equilibrium within the distillation unit.

(11) "Double block and bleed system" means two block valves connected in series with a bleed valve or line that can vent the line between the two block valves.

(12) "Equipment" means each valve, pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, or flange or other connector, and any control devices or systems required by Sections R315-261-1030 through 1035.

(13) "Flame zone" means the portion of the combustion chamber in a boiler occupied by the flame envelope.

(14) "Flow indicator" means a device that indicates whether gas flow is present in a vent stream.

(15) "First attempt at repair" means to take rapid action for the purpose of stopping or reducing leakage of organic material to the atmosphere using best practices.

(16) "Fractionation operation" means a distillation operation or method used to separate a mixture of several volatile components of different boiling points in successive stages, each stage removing from the mixture some proportion of one of the components.

(17) "Hazardous secondary material management unit shutdown" means a work practice or operational procedure that stops operation of a hazardous secondary material management unit or part of a hazardous secondary material management unit. An unscheduled work practice or operational procedure that stops operation of a hazardous secondary material management unit or part of a hazardous secondary material management unit for less than 24 hours is not a hazardous secondary material management unit shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping operation are not hazardous secondary material management unit shutdowns.

(18) "Hot well" means a container for collecting condensate as in a steam condenser serving a vacuum-jet or steam-jet ejector.

(19) "In gas/vapor service" means that the piece of equipment contains or contacts a hazardous secondary material stream that is in the gaseous state at operating conditions.

(20) "In heavy liquid service" means that the piece of equipment is not in gas/vapor service or in light liquid service.

(21) "In light liquid service" means that the piece of equipment contains or contacts a material stream where

the vapor pressure of one or more of the organic components in the stream is greater than 0.3 kilopascals (kPa) at 20 °C, the total concentration of the pure organic components having a vapor pressure greater than 0.3 kilopascals (kPa) at 20 °C is equal to or greater than 20 percent by weight, and the fluid is a liquid at operating conditions.

(22) "In situ sampling systems" means nonextractive samplers or in-line samplers.

(23) "In vacuum service" means that equipment is operating at an internal pressure that is at least 5 kPa below ambient pressure.

(24) "Malfunction" means any sudden failure of a control device or a hazardous secondary material management unit or failure of a hazardous secondary material management unit to operate in a normal or usual manner, so that organic emissions are increased.

(25) "Open-ended valve or line" means any valve, except pressure relief valves, having one side of the valve seat in contact with hazardous secondary material and one side open to the atmosphere, either directly or through open piping.

(26) "Pressure release" means the emission of materials resulting from the system pressure being greater than the set pressure of the pressure relief device.

(27) "Process heater" means a device that transfers heat liberated by burning fuel to fluids contained in tubes, including all fluids except water that are heated to produce steam.

(28) "Process vent" means any open-ended pipe or stack that is vented to the atmosphere either directly, through a vacuum-producing system, or through a tank, e.g., distillate receiver, condenser, bottoms receiver, surge control tank, separator tank, or hot well, associated with hazardous secondary material distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations.

(29) "Repaired" means that equipment is adjusted, or otherwise altered, to eliminate a leak.

(30) "Sampling connection system" means an assembly of equipment within a process or material management unit used during periods of representative operation to take samples of the process or material fluid. Equipment used to take non-routine grab samples is not considered a sampling connection system.

(31) "Sensor" means a device that measures a physical quantity or the change in a physical quantity, such as temperature, pressure, flow rate, pH, or liquid level.

(32) "Separator tank" means a device used for separation of two immiscible liquids.

(33) "Solvent extraction operation" means an operation or method of separation in which a solid or solution is contacted with a liquid solvent, the two being mutually insoluble, to preferentially dissolve and transfer one or more components into the solvent.

(34) "Startup" means the setting in operation of a hazardous secondary material management unit or control device for any purpose.

(35) "Steam stripping operation" means a distillation operation in which vaporization of the volatile constituents of a liquid mixture takes place by the introduction of steam directly into the charge.

(36) "Surge control tank" means a large-sized pipe or storage reservoir sufficient to contain the surging liquid discharge of the process tank to which it is connected.

(37) "Thin-film evaporation operation" means a distillation operation that employs a heating surface consisting of a large diameter tube that may be either straight or tapered, horizontal or vertical. Liquid is spread on the tube wall by a rotating assembly of blades that maintain a close clearance from the wall or actually ride on the film of liquid on the wall.

(38) "Vapor incinerator" means any enclosed combustion device that is used for destroying organic compounds and does not extract energy in the form of steam or process heat.

(39) "Vented" means discharged through an opening, typically an open-ended pipe or stack, allowing the passage of a stream of liquids, gases, or fumes into the atmosphere. The passage of liquids, gases, or fumes is caused by mechanical" means such as compressors or vacuum-producing systems or by process-related" means such as evaporation produced by heating and not caused by tank loading and unloading, working losses, or by natural" means such as diurnal temperature changes.

R315-261-1032. Air Emission Standards for Process Vents - Process Vents.

(a) The remanufacturer or other person that stores or treats hazardous secondary materials in hazardous secondary

material management units with process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations managing hazardous secondary material with organic concentrations of at least 10 ppmw shall either:

(1) Reduce total organic emissions from all affected process vents at the facility below 1.4 kg/h (3 lb/h) and 2.8 Mg/yr (3.1 tons/yr), or

(2) Reduce, by use of a control device, total organic emissions from all affected process vents at the facility by 95 weight percent.

(b) If the remanufacturer or other person that stores or treats the hazardous secondary material installs a closed-vent system and control device to comply with the provisions of Subsection R315-261-1032(a) the closed-vent system and control device shall meet the requirements of Section R315-261-1033.

(c) Determinations of vent emissions and emission reductions or total organic compound concentrations achieved by add-on control devices may be based on engineering calculations or performance tests. If performance tests are used to determine vent emissions, emission reductions, or total organic compound concentrations achieved by add-on control devices, the performance tests shall conform with the requirements of Subsection R315-261-1034(c).

(d) When a remanufacturer or other person that stores or treats the hazardous secondary material and the Director do not agree on determinations of vent emissions and/or emission reductions or total organic compound concentrations achieved by add-on control devices based on engineering calculations, the procedures in Subsection R315-261-1034(c) shall be used to resolve the disagreement.

R315-261-1033. Air Emission Standards for Process Vents - Closed-Vent Systems and Control Devices.

(a)(1) The remanufacturer or other person that stores or treats the hazardous secondary materials in hazardous secondary material management units using closed-vent systems and control devices used to comply with provisions of Rule R315-261 shall comply with the provisions of Sections R315-261-1033.

(2) Reserved

(b) A control device involving vapor recovery, e.g., a condenser or adsorber, shall be designed and operated to

recover the organic vapors vented to it with an efficiency of 95 weight percent or greater unless the total organic emission limits of Subsection R315-261-1032(a)(1) for all affected process vents can be attained at an efficiency less than 95 weight percent.

(c) An enclosed combustion device, e.g., a vapor incinerator, boiler, or process heater, shall be designed and operated to reduce the organic emissions vented to it by 95 weight percent or greater; to achieve a total organic compound concentration of 20 ppmv, expressed as the sum of the actual compounds, not carbon equivalents, on a dry basis corrected to 3 percent oxygen; or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760 °C. If a boiler or process heater is used as the control device, then the vent stream shall be introduced into the flame zone of the boiler or process heater.

(d)(1) A flare shall be designed for and operated with no visible emissions as determined by the methods specified in Subsection R315-261-1033(e)(1), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

(2) A flare shall be operated with a flame present at all times, as determined by the methods specified in Subsection R315-261-1033(f)(2)(iii).

(3) A flare shall be used only if the net heating value of the gas being combusted is 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or if the net heating value of the gas being combusted is 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified in Subsection R315-261-1033(e)(2).

(4)(i) A steam-assisted or nonassisted flare shall be designed for and operated with an exit velocity, as determined by the methods specified in Subsection R315-261-1033(e)(3), less than 18.3 m/s (60 ft/s), except as provided in Subsections R315-261-1033(d)(4)(ii) and (iii).

(ii) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in Subsection R315-261-1033(e)(3), equal to or greater than 18.3 m/s (60 ft/s) but less than 122 m/s (400 ft/s) is allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

(iii) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in Subsection R315-261-1033(e)(3), less than the velocity, V_{max}, as determined by the method specified in Subsection R315-261-1033(e)(4) and less than 122 m/s (400 ft/s) is allowed.

(5) An air-assisted flare shall be designed and operated with an exit velocity less than the velocity, V_{max}, as determined by the method specified in Subsection R315-261-1033(e)(5).

(6) A flare used to comply with Section R315-261-1033 shall be steam-assisted, air-assisted, or nonassisted.

(e)(1) Reference Method 22 in 40 CFR part 60 shall be used to determine the compliance of a flare with the visible emission provisions of Sections R315-261-1030 through 1035. The observation period is 2 hours and shall be used according to Method 22.

(2) The net heating value of the gas being combusted in a flare shall be calculated using the following equation: The equation found in 40 CFR261.1033(e)(2) 2015 ed is adopted and incorporated by reference.

Where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to 1 mol is 20 °C;

K = Constant, 1.74×10^{-7} (1/ppm) (g mol/scm) (MJ/kcal) where standard temperature for (g mol/scm) is 20 °C;

C_i = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 in 40 CFR part 60 and measured for hydrogen and carbon monoxide by ASTM D 1946-82, incorporated by reference as specified in Section R315-260-11; and

H_i = Net heat of combustion of sample component i, kcal/9 mol at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D 2382-83, incorporated by reference as specified in Section R315-260-11, if published values are not available or cannot be calculated.

(3) The actual exit velocity of a flare shall be determined by dividing the volumetric flow rate, in units of standard temperature and pressure, as determined by Reference Methods 2, 2A, 2C, or 2D in 40 CFR part 60 as appropriate, by the unobstructed , free, cross-sectional area of the flare tip.

(4) The maximum allowed velocity in m/s, V_{max}, for a flare complying with Subsection R315-261-1033(d)(4)(iii) shall be determined by the following equation:

$Log_{10}(V_{max}) = (H_T + 28.8)/31.7$

Where:

28.8 = Constant,

31.7 = Constant,

H_T = The net heating value as determined in Subsection R315-261-1033(e)(2).

(5) The maximum allowed velocity in m/s, V_{max}, for an air-assisted flare shall be determined by the following equation:

$V_{max} = 8.706 + 0.7084 (H_T)$

Where:

8.706 = Constant,

0.7084 = Constant,

H_T = The net heating value as determined in Subsection R315-261-1033(e)(2).

(f) The remanufacturer or other person that stores or treats the hazardous secondary material shall monitor and inspect each control device required to comply with Section R315-261-1033 to ensure proper operation and maintenance of the control device by implementing the following requirements:

(1) Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow indicator that provides a record of vent stream flow from each affected process vent to the control device at least once every hour. The flow indicator sensor shall be installed in the vent stream at the nearest feasible point to the control device inlet but before the point at which the vent streams are combined.

(2) Install, calibrate, maintain, and operate according to the manufacturer's specifications a device to continuously monitor control device operation as specified below:

(i) For a thermal vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of ±1 percent of the temperature being monitored in °C or ±0.5 °C, whichever is greater. The temperature sensor shall be installed at a location in the combustion chamber downstream of the combustion zone.

(ii) For a catalytic vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The

device shall be capable of monitoring temperature at two locations and have an accuracy of ±1 percent of the temperature being monitored in °C or ±0.5 °C, whichever is greater. One temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed inlet and a second temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed outlet.

(iii) For a flare, a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame.

(iv) For a boiler or process heater having a design heat input capacity less than 44 MW, a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of ±1 percent of the temperature being monitored in °C or ±0.5 °C, whichever is greater. The temperature sensor shall be installed at a location in the furnace downstream of the combustion zone.

(v) For a boiler or process heater having a design heat input capacity greater than or equal to 44 MW, a monitoring device equipped with a continuous recorder to measure a parameter(s) that indicates good combustion operating practices are being used.

(vi) For a condenser, either:

(A) A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the condenser, or

(B) A temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature with an accuracy of ±1 percent of the temperature being monitored in degrees Celsius (°C) or ±0.5 °C, whichever is greater. The temperature sensor shall be installed at a location in the exhaust vent stream from the condenser exit, i.e., product side.

(vii) For a carbon adsorption system that regenerates the carbon bed directly in the control device such as a fixed-bed carbon adsorber, either:

(A) A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the carbon bed, or

(B) A monitoring device equipped with a continuous recorder to measure a parameter that indicates the carbon bed is regenerated on a regular, predetermined time cycle.

(3) Inspect the readings from each monitoring device required by Subsections R315-261-1033(f)(1) and (2) at least once each operating day to check control device operation and, if necessary, immediately implement the corrective measures necessary to ensure the control device operates in compliance with the requirements of Section R315-261-1033.

(g) A remanufacturer or other person that stores or treats hazardous secondary material in a hazardous secondary material management unit using a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device shall replace the existing carbon in the control device with fresh carbon at a regular, predetermined time interval that is no longer than the carbon service life established as a requirement of Subsection R315-261-1035(b)(4)(iii)(F).

(h) A remanufacturer or other person that stores or treats hazardous secondary material in a hazardous secondary material management unit using a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly onsite in the control device shall replace the existing carbon in the control device with fresh carbon on a regular basis by using one of the following procedures:

(1) Monitor the concentration level of the organic compounds in the exhaust vent stream from the carbon adsorption system on a regular schedule, and replace the existing carbon with fresh carbon immediately when carbon breakthrough is indicated. The monitoring frequency shall be daily or at an interval no greater than 20 percent of the time required to consume the total carbon working capacity established as a requirement of Subsection R315-261-1035(b)(4)(iii)(G), whichever is longer.

(2) Replace the existing carbon with fresh carbon at a regular, predetermined time interval that is less than the design carbon replacement interval established as a requirement of Subsection R315-261-1035(b)(4)(iii)(G).

(i) An alternative operational or process parameter may be monitored if it can be demonstrated that another parameter shall ensure that the control device is operated in conformance with these standards and the control device's design specifications.

(j) A remanufacturer or other person that stores or treats hazardous secondary material at an affected facility

seeking to comply with the provisions of Rule R315-261 by using a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system is required to develop documentation including sufficient information to describe the control device operation and identify the process parameter or parameters that indicate proper operation and maintenance of the control device.

(k) A closed-vent system shall meet either of the following design requirements:

(1) A closed-vent system shall be designed to operate with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background as determined by the procedure in Subsection R315-261-1034(b), and by visual inspections; or

(2) A closed-vent system shall be designed to operate at a pressure below atmospheric pressure. The system shall be equipped with at least one pressure gauge or other pressure measurement device that can be read from a readily accessible location to verify that negative pressure is being maintained in the closed-vent system when the control device is operating.

(l) The remanufacturer or other person that stores or treats the hazardous secondary material shall monitor and inspect each closed-vent system required to comply with Section R315-261-1033 to ensure proper operation and maintenance of the closed-vent system by implementing the following requirements:

(1) Each closed-vent system that is used to comply with Subsection R315-261-1033(k)(1) shall be inspected and monitored in accordance with the following requirements:

(i) An initial leak detection monitoring of the closed-vent system shall be conducted by the remanufacturer or other person that stores or treats the hazardous secondary material on or before the date that the system becomes subject to Section R315-261-1033. The remanufacturer or other person that stores or treats the hazardous secondary material shall monitor the closed-vent system components and connections using the procedures specified in Subsection R315-261-1034(b) to demonstrate that the closed-vent system operates with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background.

(ii) After initial leak detection monitoring required in Subsection R315-261-1033(l)(1)(i), the remanufacturer or

other person that stores or treats the hazardous secondary material shall inspect and monitor the closed-vent system as follows:

(A) Closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed, e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange, shall be visually inspected at least once per year to check for defects that could result in air pollutant emissions. The remanufacturer or other person that stores or treats the hazardous secondary material shall monitor a component or connection using the procedures specified in Subsection R315-261-1034 (b) to demonstrate that it operates with no detectable emissions following any time the component is repaired or replaced, e.g., a section of damaged hard piping is replaced with new hard piping, or the connection is unsealed, e.g., a flange is unbolted.

(B) Closed-vent system components or connections other than those specified in Subsection R315-261-1033(l)(1)(ii)(A) shall be monitored annually and at other times as requested by the Director, except as provided for in Subsection R315-261-1033(o), using the procedures specified in Subsection R315-261-1034(b) to demonstrate that the components or connections operate with no detectable emissions.

(iii) In the event that a defect or leak is detected, the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect or leak in accordance with the requirements of Subsection R315-261-1033(l)(3).

(iv) The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain a record of the inspection and monitoring in accordance with the requirements specified in Section R315-261-1035.

(2) Each closed-vent system that is used to comply with Subsection R315-261-1033(k)(2) shall be inspected and monitored in accordance with the following requirements:

(i) The closed-vent system shall be visually inspected by the remanufacturer or other person that stores or treats the hazardous secondary material to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwork or piping or loose connections.

(ii) The remanufacturer or other person that stores or treats the hazardous secondary material shall perform an

initial inspection of the closed-vent system on or before the date that the system becomes subject to Section R315-261-1033. Thereafter, the remanufacturer or other person that stores or treats the hazardous secondary material shall perform the inspections at least once every year.

(iii) In the event that a defect or leak is detected, the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect in accordance with the requirements of Subsection R315-261-1033(l)(3).

(iv) The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain a record of the inspection and monitoring in accordance with the requirements specified in Section R315-261-1035.

(3) The remanufacturer or other person that stores or treats the hazardous secondary material shall repair all detected defects as follows:

(i) Detectable emissions, as indicated by visual inspection, or by an instrument reading greater than 500 ppmv above background, shall be controlled as soon as practicable, but not later than 15 calendar days after the emission is detected, except as provided for in Subsection R315-261-1033(l)(3)(iii).

(ii) A first attempt at repair shall be made no later than 5 calendar days after the emission is detected.

(iii) Delay of repair of a closed-vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown, or if the remanufacturer or other person that stores or treats the hazardous secondary material determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be completed by the end of the next process unit shutdown.

(iv) The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain a record of the defect repair in accordance with the requirements specified in Section R315-261-1035.

(m) Closed-vent systems and control devices used to comply with provisions of Sections R315-261-1030 through 1035 shall be operated at all times when emissions may be vented to them.

(n) The owner or operator using a carbon adsorption system to control air pollutant emissions shall document that all carbon that is a hazardous waste and that is

removed from the control device is managed in one of the following manners, regardless of the average volatile organic concentration of the carbon:

(1) Regenerated or reactivated in a thermal treatment unit that meets one of the following:

(i) The owner or operator of the unit has been issued a final permit under Rule R315-270 which implements the requirements of Sections R315-264-600 through 603; or

(ii) The unit is equipped with and operating air emission controls in accordance with the applicable requirements of Sections R315-261-1030 through 1035 and 1080 through 1089 or subparts AA and CC of 40 CFR 265 which is incorporated in R315-265; or

(iii) The unit is equipped with and operating air emission controls in accordance with a national emission standard for hazardous air pollutants under 40 CFR part 61 or 40 CFR part 63.

(2) Incinerated in a hazardous waste incinerator for which the owner or operator either:

(i) Has been issued a final permit under Rule R315-270 which implements the requirements of Sections R315-264-340 through 351; or

(ii) Has designed and operates the incinerator in accordance with the interim status requirements of 40 CFR part 265, subpart O, which is incorporated by Rule R315-265.

(3) Burned in a boiler or industrial furnace for which the owner or operator either:

(i) Has been issued a final permit under Rule R315-270 which implements the requirements of Sections R315-266-100 through 112; or

(ii) Has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of Sections R315-266-100 through 112.

(o) Any components of a closed-vent system that are designated, as described in Subsection R315-261-1035(c)(9), as unsafe to monitor are exempt from the requirements of Subsection R315-261-1033(l)(1)(ii)(B) if:

(1) The remanufacturer or other person that stores or treats the hazardous secondary material in a hazardous secondary material management unit using a closed-vent system determines that the components of the closed-vent system are unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with Subsection R315-261-1033(l)(1)(ii)(B); and

(2) The remanufacturer or other person that stores or treats the hazardous secondary material in a hazardous secondary material management unit using a closed-vent system adheres to a written plan that requires monitoring the closed-vent system components using the procedure specified in Subsection R315-261-1033(l)(1)(ii)(B) as frequently as practicable during safe-to-monitor times.

R315-261-1034. Air Emission Standards for Process Vents - Test Methods and Procedures.

(a) Each remanufacturer or other person that stores or treats the hazardous secondary material subject to the provisions of Sections R315-261-1030 through 1035 shall comply with the test methods and procedural requirements provided in Section R315-261-1034.

(b) When a closed-vent system is tested for compliance with no detectable emissions, as required in Subsection R315-261-1033(l), the test shall comply with the following requirements:

(1) Monitoring shall comply with Reference Method 21 in 40 CFR part 60.

(2) The detection instrument shall meet the performance criteria of Reference Method 21.

(3) The instrument shall be calibrated before use on each day of its use by the procedures specified in Reference Method 21.

(4) Calibration gases shall be:

(i) Zero air, less than 10 ppm of hydrocarbon in air.

(ii) A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.

(5) The background level shall be determined as set forth in Reference Method 21.

(6) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.

(7) The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

(c) Performance tests to determine compliance with Subsection R315-261-1032(a) and with the total organic compound concentration limit of Subsection R315-261-1033(c) shall comply with the following:

(1) Performance tests to determine total organic compound concentrations and mass flow rates entering and exiting control devices shall be conducted and data reduced in accordance with the following reference methods and calculation procedures:

(i) Method 2 in 40 CFR part 60 for velocity and volumetric flow rate.

(ii) Method 18 or Method 25A in 40 CFR part 60, appendix A, for organic content. If Method 25A is used, the organic HAP used as the calibration gas shall be the single organic HAP representing the largest percent by volume of the emissions. The use of Method 25A is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.

(iii) Each performance test shall consist of three separate runs; each run conducted for at least 1 hour under the conditions that exist when the hazardous secondary material management unit is operating at the highest load or capacity level reasonably expected to occur. For the purpose of determining total organic compound concentrations and mass flow rates, the average of results of all runs shall apply. The average shall be computed on a time-weighted basis.

(iv) Total organic mass flow rates shall be determined by the following equation:

(A) For sources utilizing Method 18.

The equation found in 40 CFR 261.1034(c)(1)(iv)(A), 2015 ed. is adopted and incorporated by reference

Where:

E_h= Total organic mass flow rate, kg/h;

Q_{2sd}= Volumetric flow rate of gases entering or exiting control device, as determined by Method 2, dscm/h;

n = Number of organic compounds in the vent gas;

C_i= Organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by Method 18;

MW_i= Molecular weight of organic compound i in the vent gas, kg/kg-mol;

0.0416 = Conversion factor for molar volume, kg-mol/m3 (@293 K and 760 mm Hg);

10^{-6} = Conversion from ppm

(B) For sources utilizing Method 25A.

E_h= (Q)(C)(MW)(0.0416)(10^{-6})

Where:
E_h= Total organic mass flow rate, kg/h;
Q = Volumetric flow rate of gases entering or exiting control device, as determined by Method 2, dscm/h;
C = Organic concentration in ppm, dry basis, as determined by Method 25A;
MW = Molecular weight of propane, 44;
0.0416 = Conversion factor for molar volume, kg-mol/m3 (@293 K and 760 mm Hg);
10^{-6} = Conversion from ppm.

(v) The annual total organic emission rate shall be determined by the following equation:

$E_A=(E_h)(H)$

Where:
E_A=Total organic mass emission rate, kg/y;
E_h=Total organic mass flow rate for the process vent, kg/h;
H=Total annual hours of operations for the affected unit, h.

(vi) Total organic emissions from all affected process vents at the facility shall be determined by summing the hourly total organic mass emission rates, E_h, as determined in Subsection R315-261-1034(c)(1)(iv), and by summing the annual total organic mass emission rates, E_A, as determined in Subsection R315-261-1034(c)(1)(v), for all affected process vents at the facility.

(2) The remanufacturer or other person that stores or treats the hazardous secondary material shall record such process information as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test.

(3) The remanufacturer or other person that stores or treats the hazardous secondary material at an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

(i) Sampling ports adequate for the test methods specified in Subsection R315-261-1034(c)(1).

(ii) Safe sampling platform(s).

(iii) Safe access to sampling platform(s).

(iv) Utilities for sampling and testing equipment.

(4) For the purpose of making compliance determinations, the time-weighted average of the results of the three runs shall apply. In the event that a sample is

accidentally lost or conditions occur in which one of the three runs shall be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the remanufacturer's or other person's that stores or treats the hazardous secondary material control, compliance may, upon the Director's approval, be determined using the average of the results of the two other runs.

(d) To show that a process vent associated with a hazardous secondary material distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation is not subject to the requirements of Sections R315-261-1030 through 1035, the remanufacturer or other person that stores or treats the hazardous secondary material shall make an initial determination that the time-weighted, annual average total organic concentration of the material managed by the hazardous secondary material management unit is less than 10 ppmw using one of the following two methods:

(1) Direct measurement of the organic concentration of the material using the following procedures:

(i) The remanufacturer or other person that stores or treats the hazardous secondary material shall take a minimum of four grab samples of material for each material stream managed in the affected unit under process conditions expected to cause the maximum material organic concentration.

(ii) For material generated onsite, the grab samples shall be collected at a point before the material is exposed to the atmosphere such as in an enclosed pipe or other closed system that is used to transfer the material after generation to the first affected distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation. For material generated offsite, the grab samples shall be collected at the inlet to the first material management unit that receives the material provided the material has been transferred to the facility in a closed system such as a tank truck and the material is not diluted or mixed with other material.

(iii) Each sample shall be analyzed and the total organic concentration of the sample shall be computed using Method 9060A, incorporated by reference under Section R315-260-11, of “Test Methods for Evaluating Solid Waste,

Physical/Chemical Methods," EPA Publication SW-846, or analyzed for its individual organic constituents.

(iv) The arithmetic mean of the results of the analyses of the four samples shall apply for each material stream managed in the unit in determining the time-weighted, annual average total organic concentration of the material. The time-weighted average is to be calculated using the annual quantity of each material stream processed and the mean organic concentration of each material stream managed in the unit.

(2) Using knowledge of the material to determine that its total organic concentration is less than 10 ppmw. Documentation of the material determination is required. Examples of documentation that shall be used to support a determination under this provision include production process information documenting that no organic compounds are used, information that the material is generated by a process that is identical to a process at the same or another facility that has previously been demonstrated by direct measurement to generate a material stream having a total organic content less than 10 ppmw, or prior speciation analysis results on the same material stream where it can also be documented that no process changes have occurred since that analysis that could affect the material total organic concentration.

(e) The determination that distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations manage hazardous secondary materials with time-weighted, annual average total organic concentrations less than 10 ppmw shall be made as follows:

(1) By the effective date that the facility becomes subject to the provisions of Sections R315-261-1030 through 1035 or by the date when the material is first managed in a hazardous secondary material management unit, whichever is later, and

(2) For continuously generated material, annually, or

(3) Whenever there is a change in the material being managed or a change in the process that generates or treats the material.

(f) When a remanufacturer or other person that stores or treats the hazardous secondary material and the Director do not agree on whether a distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation manages a hazardous secondary material

with organic concentrations of at least 10 ppmw based on knowledge of the material, the dispute may be resolved by using direct measurement as specified at Subsection R315-261-1034(d)(1).

R315-261-1035. Air Emission Standards for Process Vents - Recordkeeping Requirements.

(a)(1) Each remanufacturer or other person that stores or treats the hazardous secondary material subject to the provisions of Sections R315-261-1030 through 1035 shall comply with the recordkeeping requirements of Section R315-261-1035.

(2) A remanufacturer or other person that stores or treats the hazardous secondary material of more than one hazardous secondary material management unit subject to the provisions of Sections R315-261-1030 through 1035 may comply with the recordkeeping requirements for these hazardous secondary material management units in one recordkeeping system if the system identifies each record by each hazardous secondary material management unit.

(b) The remanufacturer or other person that stores or treats the hazardous secondary material shall keep the following records on-site:

(1) For facilities that comply with the provisions of Subsection R315-261-1033(a)(2), an implementation schedule that includes dates by which the closed-vent system and control device shall be installed and in operation. The schedule shall also include a rationale of why the installation cannot be completed at an earlier date. The implementation schedule shall be kept on-site at the facility by the effective date that the facility becomes subject to the provisions of Sections R315-261-1030 through 1035.

(2) Up-to-date documentation of compliance with the process vent standards in Subsection R315-261-1032, including:

(i) Information and data identifying all affected process vents, annual throughput and operating hours of each affected unit, estimated emission rates for each affected vent and for the overall facility, i.e., the total emissions for all affected vents at the facility, and the approximate location within the facility of each affected unit, e.g., identify the hazardous secondary material management units on a facility plot plan.

(ii) Information and data supporting determinations of vent emissions and emission reductions achieved by add-on control devices based on engineering calculations or source tests. For the purpose of determining compliance, determinations of vent emissions and emission reductions shall be made using operating parameter values, e.g., temperatures, flow rates, or vent stream organic compounds and concentrations, that represent the conditions that result in maximum organic emissions, such as when the hazardous secondary material management unit is operating at the highest load or capacity level reasonably expected to occur. If the remanufacturer or other person that stores or treats the hazardous secondary material takes any action, e.g., managing a material of different composition or increasing operating hours of affected hazardous secondary material management units, that would result in an increase in total organic emissions from affected process vents at the facility, then a new determination is required.

(3) Where a remanufacturer or other person that stores or treats the hazardous secondary material chooses to use test data to determine the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan shall be developed and include:

(i) A description of how it is determined that the planned test is going to be conducted when the hazardous secondary material management unit is operating at the highest load or capacity level reasonably expected to occur. This shall include the estimated or design flow rate and organic content of each vent stream and define the acceptable operating ranges of key process and control device parameters during the test program.

(ii) A detailed engineering description of the closed-vent system and control device including:

(A) Manufacturer's name and model number of control device.

(B) Type of control device.

(C) Dimensions of the control device.

(D) Capacity.

(E) Construction materials.

(iii) A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling

and monitoring frequency, and planned analytical procedures for sample analysis.

(4) Documentation of compliance with Subsection R315-261-1033 shall include the following information:

(i) A list of all information references and sources used in preparing the documentation.

(ii) Records, including the dates, of each compliance test required by Subsection R315-261-1033(k).

(iii) If engineering calculations are used, a design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of “APTI Course 415: Control of Gaseous Emissions,” incorporated by reference as specified in R315-260-11, or other engineering texts acceptable to the Director that present basic control device design information. Documentation provided by the control device manufacturer or vendor that describes the control device design in accordance with Subsections R315-261-1035(b)(4)(iii)(A) through (G) may be used to comply with this requirement. The design analysis shall address the vent stream characteristics and control device operation parameters as specified below.

(A) For a thermal vapor incinerator, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average temperature in the combustion zone and the combustion zone residence time.

(B) For a catalytic vapor incinerator, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average temperatures across the catalyst bed inlet and outlet.

(C) For a boiler or process heater, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average flame zone temperatures, combustion zone residence time, and description of method and location where the vent stream is introduced into the combustion zone.

(D) For a flare, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also consider the requirements specified in Subsection R315-261-1033(d).

(E) For a condenser, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis shall also establish the design outlet organic compound concentration level, design average temperature of the condenser exhaust vent stream, and design average temperatures of the coolant fluid at the condenser inlet and outlet.

(F) For a carbon adsorption system such as a fixed-bed adsorber that regenerates the carbon bed directly onsite in the control device, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis shall also establish the design exhaust vent stream organic compound concentration level, number and capacity of carbon beds, type and working capacity of activated carbon used for carbon beds, design total steam flow over the period of each complete carbon bed regeneration cycle, duration of the carbon bed steaming and cooling/drying cycles, design carbon bed temperature after regeneration, design carbon bed regeneration time, and design service life of carbon.

(G) For a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly onsite in the control device, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis shall also establish the design outlet organic concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed, and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule.

(iv) A statement signed and dated by the remanufacturer or other person that stores or treats the hazardous secondary material certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous secondary material management unit is or would be operating at the highest load or capacity level reasonably expected to occur.

(v) A statement signed and dated by the remanufacturer or other person that stores or treats the hazardous secondary material certifying that the control device is designed to operate at an efficiency of 95

percent or greater unless the total organic concentration limit of Subsection R315-261-1032(a) is achieved at an efficiency less than 95 weight percent or the total organic emission limits of Subsection R315-261-1032(a) for affected process vents at the facility can be attained by a control device involving vapor recovery at an efficiency less than 95 weight percent. A statement provided by the control device manufacturer or vendor certifying that the control equipment meets the design specifications may be used to comply with this requirement.

(vi) If performance tests are used to demonstrate compliance, all test results.

(c) Design documentation and monitoring, operating, and inspection information for each closed-vent system and control device required to comply with the provisions of Rule R315-261 shall be recorded and kept up-to-date at the facility. The information shall include:

(1) Description and date of each modification that is made to the closed-vent system or control device design.

(2) Identification of operating parameter, description of monitoring device, and diagram of monitoring sensor location or locations used to comply with Subsections R315-261-1033 (f)(1) and (2).

(3) Monitoring, operating, and inspection information required by Subsections R315-261-1033(f) through (k).

(4) Date, time, and duration of each period that occurs while the control device is operating when any monitored parameter exceeds the value established in the control device design analysis as specified below:

(i) For a thermal vapor incinerator designed to operate with a minimum residence time of 0.50 second at a minimum temperature of 760 °C, period when the combustion temperature is below 760 °C.

(ii) For a thermal vapor incinerator designed to operate with an organic emission reduction efficiency of 95 weight percent or greater, period when the combustion zone temperature is more than 28 °C below the design average combustion zone temperature established as a requirement of Subsection R315-261-1035(b)(4)(iii)(A).

(iii) For a catalytic vapor incinerator, period when:

(A) Temperature of the vent stream at the catalyst bed inlet is more than 28 °C below the average temperature of the inlet vent stream established as a requirement of Subsection R315-261-1035(b)(4)(iii)(B), or

(B) Temperature difference across the catalyst bed is less than 80 percent of the design average temperature difference established as a requirement of Subsection R315-261-1035(b)(4)(iii)(B).

(iv) For a boiler or process heater, period when:

(A) Flame zone temperature is more than 28 °C below the design average flame zone temperature established as a requirement of Subsection R315-261-1035(b)(4)(iii)(C), or

(B) Position changes where the vent stream is introduced to the combustion zone from the location established as a requirement of Subsection R315-261-1035(b)(4)(iii)(C).

(v) For a flare, period when the pilot flame is not ignited.

(vi) For a condenser that complies with Subsection R315-261-1033(f)(2)(vi)(A), period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the condenser are more than 20 percent greater than the design outlet organic compound concentration level established as a requirement of Subsection R315-261-1035(b)(4)(iii)(E).

(vii) For a condenser that complies with Subsection R315-261-1033(f)(2)(vi)(B), period when:

(A) Temperature of the exhaust vent stream from the condenser is more than 6 °C above the design average exhaust vent stream temperature established as a requirement of Subsection R315-261-1035(b)(4)(iii)(E); or

(B) Temperature of the coolant fluid exiting the condenser is more than 6 °C above the design average coolant fluid temperature at the condenser outlet established as a requirement of Subsection R315-261-1035(b)(4)(iii)(E).

(viii) For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly on-site in the control device and complies with Subsection R315-261-1033(f)(2)(vii)(A), period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the carbon bed are more than 20 percent greater than the design exhaust vent stream organic compound concentration level established as a requirement of Subsection R315-261-1035(b)(4)(iii)(F).

(ix) For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly on-site in the control device and complies with

Subsection R315-261-1033(f)(2)(vii)(B), period when the vent stream continues to flow through the control device beyond the predetermined carbon bed regeneration time established as a requirement of Subsection R315-261-1035(b)(4)(iii)(F).

(5) Explanation for each period recorded under Subsection R315-261-1035(c)(4) of the cause for control device operating parameter exceeding the design value and the measures implemented to correct the control device operation.

(6) For a carbon adsorption system operated subject to requirements specified in Subsections R315-261-1033(g) or (h)(2), date when existing carbon in the control device is replaced with fresh carbon.

(7) For a carbon adsorption system operated subject to requirements specified in Subsection R315-261-1033(h)(1), a log that records:

(i) Date and time when control device is monitored for carbon breakthrough and the monitoring device reading.

(ii) Date when existing carbon in the control device is replaced with fresh carbon.

(8) Date of each control device startup and shutdown.

(9) A remanufacturer or other person that stores or treats the hazardous secondary material designating any components of a closed-vent system as unsafe to monitor pursuant to Subsection R315-261-1033(o) shall record in a log that is kept at the facility the identification of closed-vent system components that are designated as unsafe to monitor in accordance with the requirements of Subsection R315-261-1033(o), an explanation for each closed-vent system component stating why the closed-vent system component is unsafe to monitor, and the plan for monitoring each closed-vent system component.

(10) When each leak is detected as specified in Subsection R315-261-1033(l), the following information shall be recorded:

(i) The instrument identification number, the closed-vent system component identification number, and the operator name, initials, or identification number.

(ii) The date the leak was detected and the date of first attempt to repair the leak.

(iii) The date of successful repair of the leak.

(iv) Maximum instrument reading measured by Method 21 of 40 CFR part 60, appendix A after it is successfully repaired or determined to be nonrepairable.

(v) “Repair delayed” and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

(A) The remanufacturer or other person that stores or treats the hazardous secondary material may develop a written procedure that identifies the conditions that justify a delay of repair. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.

(B) If delay of repair was caused by depletion of stocked parts, there shall be documentation that the spare parts were sufficiently stocked on-site before depletion and the reason for depletion.

(d) Records of the monitoring, operating, and inspection information required by Subsections R315-261-1035(c)(3) through (10) shall be maintained by the owner or operator for at least 3 years following the date of each occurrence, measurement, maintenance, corrective action, or record.

(e) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system, the Director shall specify the appropriate recordkeeping requirements.

(f) Up-to-date information and data used to determine whether or not a process vent is subject to the requirements in Subsection R315-261-1032 including supporting documentation as required by Subsection R315-261-1034(d)(2) when application of the knowledge of the nature of the hazardous secondary material stream or the process by which it was produced is used, shall be recorded in a log that is kept at the facility.

R315-261-1050. Air Emission Standards for Equipment Leaks - Applicability.

(a) The regulations in Sections R315-261-1050 through 1064 apply to equipment that contains hazardous secondary materials excluded under the remanufacturing exclusion at Subsection R315-261-4(a)(27), unless the equipment operations are subject to the requirements of an applicable Clean Air Act regulation codified under 40 CFR part 60, part 61, or part 63.

R315-261-1051. Air Emission Standards for Equipment Leaks - Definitions.

As used in Sections R315-261-1050 through 1064, all terms shall have the meaning given them in Section R315-261-1031, the Resource Conservation and Recovery Act, the Utah Solid and Hazardous Waste Act, and Rules R315-260 through 266.

R315-261-1052. Air Emission Standards: Pumps in Light Liquid Service.

(a)(1) Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in Section R315-261-1063(b), except as provided in Subsections R315-261-1052(d), (e), and (f).

(2) Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.

(b)(1) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(2) If there are indications of liquids dripping from the pump seal, a leak is detected.

(c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section R315-261-1059.

(2) A first attempt at repair, e.g., tightening the packing gland, shall be made no later than five calendar days after each leak is detected.

(d) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of Subsection R315-261-1052(a), provided the following requirements are met:

(1) Each dual mechanical seal system shall be:

(i) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure, or

(ii) Equipped with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with the requirements of Section R315-261-1060, or

(iii) Equipped with a system that purges the barrier fluid into a hazardous secondary material stream with no detectable emissions to the atmosphere.

(2) The barrier fluid system shall not be a hazardous secondary material with organic concentrations 10 percent or greater by weight.

(3) Each barrier fluid system shall be equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

(4) Each pump shall be checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.

(5)(i) Each sensor as described in Subsection R315-261-1052(d)(3) shall be checked daily or be equipped with an audible alarm that shall be checked monthly to ensure that it is functioning properly.

(ii) The remanufacturer or other person that stores or treats the hazardous secondary material shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(6)(i) If there are indications of liquids dripping from the pump seal or the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined in Subsection R315-261-1052(d)(5)(ii), a leak is detected.

(ii) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section R315-261-1059.

(iii) A first attempt at repair, e.g., relapping the seal, shall be made no later than five calendar days after each leak is detected.

(e) Any pump that is designated, as described in Section R315-261-1064(g)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of Subsections R315-261-1052(a), (c), and (d) if the pump meets the following requirements:

(1) Shall have no externally actuated shaft penetrating the pump housing.

(2) Shall operate with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in Section R315-261-1063(c).

(3) Shall be tested for compliance with Subsection R315-261-1052(e)(2) initially upon designation, annually, and at other times as requested by the Director.

(f) If any pump is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the

requirements of Section R315-261-1060, it is exempt from the requirements of Subsections R315-261-1052(a) through (e).

R315-261-1053. Air Emission Standards: Compressors.

(a) Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of total organic emissions to the atmosphere, except as provided in Subsections R315-261-1053(h) and (i).

(b) Each compressor seal system as required in Subsection R315-261-1053(a) shall be:

(1) Operated with the barrier fluid at a pressure that is at all times greater than the compressor stuffing box pressure, or

(2) Equipped with a barrier fluid system that is connected by a closed-vent system to a control device that complies with the requirements of Section R315-261-1060, or

(3) Equipped with a system that purges the barrier fluid into a hazardous secondary material stream with no detectable emissions to atmosphere.

(c) The barrier fluid shall not be a hazardous secondary material with organic concentrations 10 percent or greater by weight.

(d) Each barrier fluid system as described in Subsections R315-261-1053(a) through (c) shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.

(e)(1) Each sensor as required in Subsection R315-261-1053(d) shall be checked daily or shall be equipped with an audible alarm that shall be checked monthly to ensure that it is functioning properly unless the compressor is located within the boundary of an unmanned plant site, in which case the sensor shall be checked daily.

(2) The remanufacturer or other person that stores or treats the hazardous secondary material shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(f) If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined under Subsection R315-261-1053(e)(2), a leak is detected.

(g)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section R315-261-1059.

(2) A first attempt at repair, e.g., tightening the packing gland, shall be made no later than 5 calendar days after each leak is detected.

(h) A compressor is exempt from the requirements of Subsections R315-261-1053(a) and (b) if it is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal to a control device that complies with the requirements of Section R315-261-1060, except as provided in Subsection R315-261-1053(i).

(i) Any compressor that is designated, as described in Section R315-261-1064(g)(2), for no detectable emissions as indicated by an instrument reading of less than 500 ppm above background is exempt from the requirements of Subsections R315-261-1053(a) through (h) if the compressor:

(1) Is determined to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Section R315-261-1063(c).

(2) Is tested for compliance with Subsection R315-261-1053(i)(1) initially upon designation, annually, and at other times as requested by the Director.

R315-261-1054. Air Emission Standards: Pressure Relief Devices in Gas/Vapor Service.

(a) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Subsection R315-261-1063(c).

(b)(1) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in Section R315-261-1059.

(2) No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm

above background, as measured by the method specified in Subsection R315-261-1063(c).

(c) Any pressure relief device that is equipped with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device as described in Section R315-261-1060 is exempt from the requirements of Subsection R315-261-1054(a) and (b).

R315-261-1055. Air Emission Standards: Sampling Connection Systems.

(a) Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system. This system shall collect the sample purge for return to the process or for routing to the appropriate treatment system. Gases displaced during filling of the sample container are not required to be collected or captured.

(b) Each closed-purge, closed-loop, or closed-vent system as required in Subsection R315-261-1055(a) shall meet one of the following requirements:

(1) Return the purged process fluid directly to the process line;

(2) Collect and recycle the purged process fluid; or

(3) Be designed and operated to capture and transport all the purged process fluid to a material management unit that complies with the applicable requirements of Sections R315-261-1084 through1086 or a control device that complies with the requirements of Section R315-261-1060.

(c) In-situ sampling systems and sampling systems without purges are exempt from the requirements of Subsections R315-261-1055(a) and (b).

R315-261-1056. Air Emission Standards: Open-Ended Valves or Lines.

(a)(1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve.

(2) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring hazardous secondary material stream flow through the open-ended valve or line.

(b) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the hazardous secondary material stream end is closed before the second valve is closed.

(c) When a double block and bleed system is being used, the bleed valve or line may remain open during

operations that require venting the line between the block valves but shall comply with Subsection R315-261-1056(a) at all other times.

R315-261-1057. Air Emission Standards: Valves in Gas/Vapor Service or in Light Liquid Service.

(a) Each valve in gas/vapor or light liquid service shall be monitored monthly to detect leaks by the methods specified in Subsection R315-261-1063(b) and shall comply with Subsections R315-261-1057(b) through (e), except as provided in Subsections R315-261-1057(f), (g), and (h) and Sections R315-261-1061 and 1062.

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(c)(1) Any valve for which a leak is not detected for two successive months may be monitored the first month of every succeeding quarter, beginning with the next quarter, until a leak is detected.

(2) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for two successive months,

(d)(1) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in Section R315-261-1059.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(e) First attempts at repair include, but are not limited to, the following best practices where practicable:

(1) Tightening of bonnet bolts.

(2) Replacement of bonnet bolts.

(3) Tightening of packing gland nuts.

(4) Injection of lubricant into lubricated packing.

(f) Any valve that is designated, as described in Subsection R315-261-1064(g)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of Subsection R315-261-1057(a) if the valve:

(1) Has no external actuating mechanism in contact with the hazardous secondary material stream.

(2) Is operated with emissions less than 500 ppm above background as determined by the method specified in Subsection R315-261-1063(c).

(3) Is tested for compliance with Subsection R315-261-1057(f)(2) initially upon designation, annually, and at other times as requested by the Director.

(g) Any valve that is designated, as described in Subsection R315-261-1064(h)(1), as an unsafe-to-monitor valve is exempt from the requirements of Subsection R315-261-1057(a) if:

(1) The remanufacturer or other person that stores or treats the hazardous secondary material determines that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with Subsection R315-261-1057(a).

(2) The remanufacturer or other person that stores or treats the hazardous secondary material adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times.

(h) Any valve that is designated, as described in Subsection R315-261-1064(h)(2), as a difficult-to-monitor valve is exempt from the requirements of Subsection R315-261-1057(a) if:

(1) The remanufacturer or other person that stores or treats the hazardous secondary material determines that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface.

(2) The hazardous secondary material management unit within which the valve is located was in operation before the effective date of Rule R315-261.

(3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year.

R315-261-1058. Air Emission Standards: Pumps and Valves in Heavy Liquid Service, Pressure Relief Devices in Light Liquid or Heavy Liquid Service, and Flanges and Other Connectors.

(a) Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and flanges and other connectors shall be monitored within five days by the method specified in subsection R315-261-1063(b) if evidence of a potential leak is found by visual, audible, olfactory, or any other detection method.

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section R315-261-1059.

(2) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(d) First attempts at repair include, but are not limited to, the best practices described under Subsection R315-261-1057(e).

(e) Any connector that is inaccessible or is ceramic or ceramic-lined, e.g., porcelain, glass, or glass-lined, is exempt from the monitoring requirements of Subsection R315-261-1058(a) and from the recordkeeping requirements of Section R315-261-1064.

R315-261-1059. Air Emission Standards: Delay of Repair.

(a) Delay of repair of equipment for which leaks have been detected shall be allowed if the repair is technically infeasible without a hazardous secondary material management unit shutdown. In such a case, repair of this equipment shall occur before the end of the next hazardous secondary material management unit shutdown.

(b) Delay of repair of equipment for which leaks have been detected shall be allowed for equipment that is isolated from the hazardous secondary material management unit and that does not continue to contain or contact hazardous secondary material with organic concentrations at least 10 percent by weight.

(c) Delay of repair for valves shall be allowed if:

(1) The remanufacturer or other person that stores or treats the hazardous secondary material determines that emissions of purged material resulting from immediate repair are greater than the emissions likely to result from delay of repair.

(2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with Section R315-261-1060.

(d) Delay of repair for pumps shall be allowed if:

(1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system.

(2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

(e) Delay of repair beyond a hazardous secondary material management unit shutdown shall be allowed for a valve if valve assembly replacement is necessary during the

hazardous secondary material management unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next hazardous secondary material management unit shutdown will not be allowed unless the next hazardous secondary material management unit shutdown occurs sooner than 6 months after the first hazardous secondary material management unit shutdown.

R315-261-1060. Air Emission Standards: Closed-Vent Systems and Control Devices.

(a) The remanufacturer or other person that stores or treats the hazardous secondary material in a hazardous secondary material management units using closed-vent systems and control devices subject to Sections R315-261-1050 through 1064 shall comply with the provisions of Section R315-261-1033.

(b)(1) The remanufacturer or other person that stores or treats the hazardous secondary material at an existing facility who cannot install a closed-vent system and control device to comply with the provisions of Sections R315-261-1050 through 1064 on the effective date that the facility becomes subject to the provisions of Sections R315-261-1050 through 1064 shall prepare an implementation schedule that includes dates by which the closed-vent system and control device shall be installed and in operation. The controls shall be installed as soon as possible, but the implementation schedule may allow up to 30 months after the effective date that the facility becomes subject to Sections R315-261-1050 through 1064 for installation and startup.

(2) Any unit that begins operation after the effective date of rule R315-261 and is subject to the provisions of Sections R315-261-1050 through 1064 when operation begins, shall comply with the rules immediately, i.e., shall have control devices installed and operating on startup of the affected unit; the 30-month implementation schedule does not apply.

(3) The remanufacturer or other person that stores or treats the hazardous secondary material at any facility in existence on the effective date of a statutory or regulatory amendment that renders the facility subject to Sections R315-261-1050 through 1064 shall comply with all requirements of Sections R315-261-1050 through 1064 as soon

as practicable but no later than 30 months after the amendment's effective date. When control equipment required by Sections R315-261-1050 through 1064 cannot be installed and begin operation by the effective date of the amendment, the facility owner or operator shall prepare an implementation schedule that includes the following information: Specific calendar dates for award of contracts or issuance of purchase orders for the control equipment, initiation of on-site installation of the control equipment, completion of the control equipment installation, and performance of any testing to demonstrate that the installed equipment meets the applicable standards of Sections R315-261-1050 through 1064. The remanufacturer or other person that stores or treats the hazardous secondary material shall keep a copy of the implementation schedule at the facility.

(4) Remanufacturers or other persons that store or treat the hazardous secondary materials at facilities and units that become newly subject to the requirements of Sections R315-261-1050 through 1064 after the effective date of Rule R315-261, due to an action other than those described in Subsection R315-261-1060(b)(3) shall comply with all applicable requirements immediately, i.e., shall have control devices installed and operating on the date the facility or unit becomes subject to Sections R315-261-1050 through 1064; the 30-month implementation schedule does not apply.

R315-261-1061. Air Emission Standards for Equipment Leaks - Alternative Standards for Valves in Gas/Vapor Service or in Light Liquid Service: Percentage of Valves Allowed to Leak.

(a) A remanufacturer or other person that stores or treats the hazardous secondary material subject to the requirements of Section R315-261-1057 may elect to have all valves within a hazardous secondary material management unit comply with an alternative standard that allows no greater than 2 percent of the valves to leak.

(b) The following requirements shall be met if a remanufacturer or other person that stores or treats the hazardous secondary material decides to comply with the alternative standard of allowing 2 percent of valves to leak:

(1) A performance test as specified in Subsection R315-261-1061(c) shall be conducted initially upon

designation, annually, and at other times requested by the Director.

(2) If a valve leak is detected, it shall be repaired in accordance with Subsections R315-261-1057(d) and (e).

(c) Performance tests shall be conducted in the following manner:

(1) All valves subject to the requirements in Section R315-261-1057 within the hazardous secondary material management unit shall be monitored within 1 week by the methods specified in Subsection R315-261-1063(b).

(2) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(3) The leak percentage shall be determined by dividing the number of valves subject to the requirements in Section R315-261-1057 for which leaks are detected by the total number of valves subject to the requirements in Section R315-261-1057 within the hazardous secondary material management unit.

R315-261-1062. Air Emission Standards for Equipment Leaks - Alternative Standards for Valves in Gas/Vapor Service or in Light Liquid Service: Skip Period Leak Detection and Repair.

(a) A remanufacturer or other person that stores or treats the hazardous secondary material subject to the requirements of Section R315-261-1057 may elect for all valves within a hazardous secondary material management unit to comply with one of the alternative work practices specified in Subsections R315-261-1062(b)(2) and (3).

(b)(1) A remanufacturer or other person that stores or treats the hazardous secondary material shall comply with the requirements for valves, as described in Section R315-261-1057, except as described in Subsections R315-261-1062(b)(2) and (3).

(2) After two consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than two percent, a remanufacturer or other person that stores or treats the hazardous secondary material may begin to skip one of the quarterly leak detection periods, i.e., monitor for leaks once every six months, for the valves subject to the requirements in Section R315-261-1057.

(3) After five consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than two percent, a remanufacturer or other person

that stores or treats the hazardous secondary material may begin to skip three of the quarterly leak detection periods, i.e., monitor for leaks once every year, for the valves subject to the requirements in Section R315-261-1057.

(4) If the percentage of valves leaking is greater than two percent, the remanufacturer or other person that stores or treats the hazardous secondary material shall monitor monthly in compliance with the requirements in Section R315-261-1057, but may again elect to use Section R315-261-1062 after meeting the requirements of Subsection R315-261-1057(c)(1).

R315-261-1063. Air Emission Standards for Equipment Leaks - Test Methods and Procedures.

(a) Each remanufacturer or other person that stores or treats the hazardous secondary material subject to the provisions of Sections R315-261-1050 through 1064 shall comply with the test methods and procedures requirements provided in Section R315-261-1063.

(b) Leak detection monitoring, as required in Sections R315-261-1052 through1062, shall comply with the following requirements:

(1) Monitoring shall comply with Reference Method 21 in 40 CFR part 60.

(2) The detection instrument shall meet the performance criteria of Reference Method 21.

(3) The instrument shall be calibrated before use on each day of its use by the procedures specified in Reference Method 21.

(4) Calibration gases shall be:

(i) Zero air, less than 10 ppm of hydrocarbon in air.

(ii) A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.

(5) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.

(c) When equipment is tested for compliance with no detectable emissions, as required in Subsections R315-261-1052(e), 1053(i), and 1057(f) and Sections R315-261-1054, the test shall comply with the following requirements:

(1) The requirements of Subsections R315-261-1063(b)(1) through (4) shall apply.

(2) The background level shall be determined as set forth in Reference Method 21.

(3) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.

(4) The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

(d) A remanufacturer or other person that stores or treats the hazardous secondary material shall determine, for each piece of equipment, whether the equipment contains or contacts a hazardous secondary material with organic concentration that equals or exceeds 10 percent by weight using the following:

(1) Methods described in ASTM Methods D 2267-88, E 169-87, E 168-88, E 260-85, incorporated by reference under Section R315-260-11;

(2) Method 9060A, incorporated by reference under Section R315-260-11, of “Test Methods for Evaluating Solid Waste,” EPA Publication SW-846, for computing total organic concentration of the sample, or analyzed for its individual organic constituents; or

(3) Application of the knowledge of the nature of the hazardous secondary material stream or the process by which it was produced. Documentation of a material determination by knowledge is required. Examples of documentation that shall be used to support a determination under this provision include production process information documenting that no organic compounds are used, information that the material is generated by a process that is identical to a process at the same or another facility that has previously been demonstrated by direct measurement to have a total organic content less than 10 percent, or prior speciation analysis results on the same material stream where it can also be documented that no process changes have occurred since that analysis that could affect the material total organic concentration.

(e) If a remanufacturer or other person that stores or treats the hazardous secondary material determines that a piece of equipment contains or contacts a hazardous secondary material with organic concentrations at least 10 percent by weight, the determination can be revised only after following the procedures in Subsection R315-261-1063(d)(1) or (2).

(f) When a remanufacturer or other person that stores or treats the hazardous secondary material and the Director do not agree on whether a piece of equipment contains or contacts a hazardous secondary material with organic concentrations at least 10 percent by weight, the procedures in Subsection R315-261-1063(d)(1) or (2) can be used to resolve the dispute.

(g) Samples used in determining the percent organic content shall be representative of the highest total organic content hazardous secondary material that is expected to be contained in or contact the equipment.

(h) To determine if pumps or valves are in light liquid service, the vapor pressures of constituents may be obtained from standard reference texts or may be determined by ASTM D-2879-86, incorporated by reference under Section R315-260-11.

(i) Performance tests to determine if a control device achieves 95 weight percent organic emission reduction shall comply with the procedures of Subsections R315-261-1034(c)(1) through (4).

R315-261-1064. Air Emission Standards for Equipment Leaks - Recordkeeping Requirements.

(a)(1) Each remanufacturer or other person that stores or treats the hazardous secondary material subject to the provisions of Sections R315-261-1050 through 1064 shall comply with the recordkeeping requirements of Section R315-261-1064.

(2) A remanufacturer or other person that stores or treats the hazardous secondary material in more than one hazardous secondary material management unit subject to the provisions of Sections R315-261-1050 through 1064 may comply with the recordkeeping requirements for these hazardous secondary material management units in one recordkeeping system if the system identifies each record by each hazardous secondary material management unit.

(b) Remanufacturer's and other person's that store or treat the hazardous secondary material shall record and keep the following information at the facility:

(1) For each piece of equipment to which Sections R315-261-1050 through 1064 applies:

(i) Equipment identification number and hazardous secondary material management unit identification.

(ii) Approximate locations within the facility, e.g., identify the hazardous secondary material management unit on a facility plot plan.

(iii) Type of equipment, e.g., a pump or pipeline valve.

(iv) Percent-by-weight total organics in the hazardous secondary material stream at the equipment.

(v) Hazardous secondary material state at the equipment, e.g., gas/vapor or liquid.

(vi) Method of compliance with the standard, e.g., “monthly leak detection and repair” or “equipped with dual mechanical seals”.

(2) For facilities that comply with the provisions of Subsection R315-261-1033(a)(2), an implementation schedule as specified in Subsection R315-261-1033(a)(2).

(3) Where a remanufacturer or other person that stores or treats the hazardous secondary material chooses to use test data to demonstrate the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan as specified in Subsection R315-261-1035(b)(3).

(4) Documentation of compliance with Section R315-261-1060, including the detailed design documentation or performance test results specified in Subsection R315-261-1035(b)(4).

(c) When each leak is detected as specified in Sections R315-261-1052, 1053, 1057, and 1058, the following requirements apply:

(1) A weatherproof and readily visible identification, marked with the equipment identification number, the date evidence of a potential leak was found in accordance with Subsection R315-261-1058(a), and the date the leak was detected, shall be attached to the leaking equipment.

(2) The identification on equipment, except on a valve, may be removed after it has been repaired.

(3) The identification on a valve may be removed after it has been monitored for two successive months as specified in Subsection R315-261-1057(c) and no leak has been detected during those two months.

(d) When each leak is detected as specified in Sections R315-261-1052, 1053, 1057, and 1058, the following information shall be recorded in an inspection log and shall be kept at the facility:

(1) The instrument and operator identification numbers and the equipment identification number.

(2) The date evidence of a potential leak was found in accordance with Subsection R315-261-1058(a).

(3) The date the leak was detected and the dates of each attempt to repair the leak.

(4) Repair methods applied in each attempt to repair the leak.

(5) “Above 10,000” if the maximum instrument reading measured by the methods specified in Subsection R315-261-1063(b) after each repair attempt is equal to or greater than 10,000 ppm.

(6) “Repair delayed” and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

(7) Documentation supporting the delay of repair of a valve in compliance with Subsection R315-261-1059(c).

(8) The signature of the remanufacturer or other person that stores or treats the hazardous secondary material, or designate, whose decision it was that repair could not be effected without a hazardous secondary material management unit shutdown.

(9) The expected date of successful repair of the leak if a leak is not repaired within 15 calendar days.

(10) The date of successful repair of the leak.

(e) Design documentation and monitoring, operating, and inspection information for each closed-vent system and control device required to comply with the provisions of Section R315-261-1060 shall be recorded and kept up-to-date at the facility as specified in Subsection R315-261-1035(c). Design documentation is specified in Subsections R315-261-1035(c)(1) and (2) and monitoring, operating, and inspection information in Subsections R315-261-1035(c)(3) through (8).

(f) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system, the Director shall specify the appropriate recordkeeping requirements.

(g) The following information pertaining to all equipment subject to the requirements in Sections R315-261-1052 through 1060 shall be recorded in a log that is kept at the facility:

(1) A list of identification numbers for equipment, except welded fittings, subject to the requirements of Sections R315-261-1050 through 1064.

(2)(i) A list of identification numbers for equipment that the remanufacturer or other person that stores or treats the hazardous secondary material elects to designate for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, under the provisions of Subsections R315-261-1052(e), 1053(i), and 1057(f).

(ii) The designation of this equipment as subject to the requirements of Subsection R315-261-1052(e), 1053(i), or 1057(f) shall be signed by the remanufacturer or other person that stores or treats the hazardous secondary material.

(3) A list of equipment identification numbers for pressure relief devices required to comply with Subsection R315-261-1054(a).

(4)(i) The dates of each compliance test required in Subsections R315-261-1052(e), 1053(i), 1054, and 1057(f).

(ii) The background level measured during each compliance test.

(iii) The maximum instrument reading measured at the equipment during each compliance test.

(5) A list of identification numbers for equipment in vacuum service.

(6) Identification, either by list or location, area or group, of equipment that contains or contacts hazardous secondary material with an organic concentration of at least 10 percent by weight for less than 300 hours per calendar year.

(h) The following information pertaining to all valves subject to the requirements of Subsections R315-261-1057(g) and (h) shall be recorded in a log that is kept at the facility:

(1) A list of identification numbers for valves that are designated as unsafe to monitor, an explanation for each valve stating why the valve is unsafe to monitor, and the plan for monitoring each valve.

(2) A list of identification numbers for valves that are designated as difficult to monitor, an explanation for each valve stating why the valve is difficult to monitor, and the planned schedule for monitoring each valve.

(i) The following information shall be recorded in a log that is kept at the facility for valves complying with Section R315-261-1062:

(1) A schedule of monitoring.

(2) The percent of valves found leaking during each monitoring period.

(j) The following information shall be recorded in a log that is kept at in the facility:

(1) Criteria required in Subsections R315-261-1052(d)(5)(ii) and 1053(e)(2) and an explanation of the design criteria.

(2) Any changes to these criteria and the reasons for the changes.

(k) The following information shall be recorded in a log that is kept at the facility for use in determining exemptions as provided in the applicability section of Sections R315-261-1050 and other Sections of Rule R315-261:

(1) An analysis determining the design capacity of the hazardous secondary material management unit.

(2) A statement listing the hazardous secondary material influent to and effluent from each hazardous secondary material management unit subject to the requirements in Sections R315-261-1052 through 1060 and an analysis determining whether these hazardous secondary materials are heavy liquids.

(3) An up-to-date analysis and the supporting information and data used to determine whether or not equipment is subject to the requirements in Sections R315-261-1052 through 1060. The record shall include supporting documentation as required by Subsection R315-261-1063(d)(3) when application of the knowledge of the nature of the hazardous secondary material stream or the process by which it was produced is used. If the remanufacturer or other person that stores or treats the hazardous secondary material takes any action, e.g., changing the process that produced the material, that could result in an increase in the total organic content of the material contained in or contacted by equipment determined not to be subject to the requirements in Sections R315-261-1052 through 1060, then a new determination is required.

(l) Records of the equipment leak information required by Subsection R315-261-1064(d) and the operating information required by Subsection R315-261-1064(e) need be kept only three years.

(m) The remanufacturer or other person that stores or treats the hazardous secondary material at a facility with equipment that is subject to Sections R315-261-1050 through 1064 and to regulations at 40 CFR part 60, part 61, or part 63 may elect to determine compliance with Sections R315-261-1050 through 1064 either by documentation pursuant to Section R315-261-1064, or by documentation of compliance with the regulations at 40 CFR part 60, part 61, or part 63 pursuant to the relevant provisions of the regulations at 40 part 60, part 61, or part 63. The documentation of compliance under regulations at 40 CFR part 60, part 61, or part 63 shall be kept with or made readily available at the facility.

R315-261-1080. Air Emission Standards for Tanks and Containers - Applicability.

(a) The regulations in Sections R315-261-1080 through 1089 apply to tanks and containers that contain hazardous secondary materials excluded under the remanufacturing exclusion at Subsection R315-261-4(a)(27), unless the tanks and containers are equipped with and operating air emission controls in accordance with the requirements of an applicable Clean Air Act regulations codified under 40 CFR part 60, part 61, or part 63.

R315-261-1081. Air Emission Standards for Tanks and Containers - Definitions.

(a) As used in Sections R315-261-1080 through 1089, all terms not defined herein shall have the meaning given to them in the Resource Conservation and Recovery Act, the Utah Solid and Hazardous Waste Act, and Rules R315-260 through 266.

(1) "Average volatile organic concentration or average VO concentration" means the mass-weighted average volatile organic concentration of a hazardous secondary material as determined in accordance with the requirements of Section R315-261-1084.

(2) "Closure device" means a cap, hatch, lid, plug, seal, valve, or other type of fitting that blocks an opening in a cover such that when the device is secured in the closed position it prevents or reduces air pollutant emissions to the atmosphere. Closure devices include devices that are detachable from the cover; e.g., a sampling port cap; manually operated, e.g., a hinged access

lid or hatch; or automatically operated, e.g., a spring-loaded pressure relief valve.

(3) "Continuous seal" means a seal that forms a continuous closure that completely covers the space between the edge of the floating roof and the wall of a tank. A continuous seal may be a vapor-mounted seal, liquid-mounted seal, or metallic shoe seal. A continuous seal may be constructed of fastened segments so as to form a continuous seal.

(4) "Cover" means a device that provides a continuous barrier over the hazardous secondary material managed in a unit to prevent or reduce air pollutant emissions to the atmosphere. A cover may have openings, such as access hatches, sampling ports, gauge wells, that are necessary for operation, inspection, maintenance, and repair of the unit on which the cover is used. A cover may be a separate piece of equipment which can be detached and removed from the unit or a cover may be formed by structural features permanently integrated into the design of the unit.

(5) "Empty hazardous secondary material container" means:

(a) A container from which all hazardous secondary materials have been removed that can be removed using the practices commonly employed to remove materials from that type of container, e.g., pouring, pumping, and aspirating, and no more than 2.5 centimeters, one inch, of residue remain on the bottom of the container or inner liner;

(b) A container that is less than or equal to 119 gallons in size and no more than 3 percent by weight of the total capacity of the container remains in the container or inner liner; or

(c) A container that is greater than 119 gallons in size and no more than 0.3 percent by weight of the total capacity of the container remains in the container or inner liner.

(6) "Enclosure" means a structure that surrounds a tank or container, captures organic vapors emitted from the tank or container, and vents the captured vapors through a closed-vent system to a control device.

(7) "External floating roof" means a pontoon-type or double-deck type cover that rests on the surface of the material managed in a tank with no fixed roof.

(8) "Fixed roof" means a cover that is mounted on a unit in a stationary position and does not move with

fluctuations in the level of the material managed in the unit.

(9) "Floating membrane cover" means a cover consisting of a synthetic flexible membrane material that rests upon and is supported by the hazardous secondary material being managed in a surface impoundment.

(10) "Floating roof" means a cover consisting of a double deck, pontoon single deck, or internal floating cover which rests upon and is supported by the material being contained, and is equipped with a continuous seal.

(11) "Hard-piping" means pipe or tubing that is manufactured and properly installed in accordance with relevant standards and good engineering practices.

(12) "In light material service" means the container is used to manage a material for which both of the following conditions apply: The vapor pressure of one or more of the organic constituents in the material is greater than 0.3 kilopascals (kPa) at 20 °C; and the total concentration of the pure organic constituents having a vapor pressure greater than 0.3 kPa at 20 °C is equal to or greater than 20 percent by weight.

(13) "Internal floating roof" means a cover that rests or floats on the material surface, but not necessarily in complete contact with it, inside a tank that has a fixed roof.

(14) "Liquid-mounted seal" means a foam or liquid-filled primary seal mounted in contact with the hazardous secondary material between the tank wall and the floating roof continuously around the circumference of the tank.

(15) "Malfunction" means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(16) "Material determination" means performing all applicable procedures in accordance with the requirements of Section R315-261-1084 to determine whether a hazardous secondary material meets standards specified in Sections R315-261-1080 through 1089. Examples of a material determination include performing the procedures in accordance with the requirements of Section R315-261-1084 to determine the average VO concentration of a hazardous secondary material at the point of material origination; the average VO concentration of a hazardous secondary

material at the point of material treatment and comparing the results to the exit concentration limit specified for the process used to treat the hazardous secondary material; the organic reduction efficiency and the organic biodegradation efficiency for a biological process used to treat a hazardous secondary material and comparing the results to the applicable standards; or the maximum volatile organic vapor pressure for a hazardous secondary material in a tank and comparing the results to the applicable standards.

(17) "Maximum organic vapor pressure" means the sum of the individual organic constituent partial pressures exerted by the material contained in a tank, at the maximum vapor pressure-causing conditions, *i.e.,* temperature, agitation, pH effects of combining materials, etc., reasonably expected to occur in the tank. For the purpose of Sections R315-261-1080 through 1089, maximum organic vapor pressure is determined using the procedures specified in Subsection R315-261-1084(c).

(18) "Metallic shoe seal" means a continuous seal that is constructed of metal sheets which are held vertically against the wall of the tank by springs, weighted levers, or other mechanisms and is connected to the floating roof by braces or other means. A flexible coated fabric, envelope, spans the annular space between the metal sheet and the floating roof.

(19) "No detectable organic emissions" means no escape of organics to the atmosphere as determined using the procedure specified in Subsection R315-261-1084(d).

(20) "Point of material origination" means as follows:

(a) When the remanufacturer or other person that stores or treats the hazardous secondary material is the generator of the hazardous secondary material, the point of material origination means the point where a material produced by a system, process, or material management unit is determined to be a hazardous secondary material excluded under Subsection R315-261-4(a)(27).

Note to paragraph (a) of the definition of "Point of material origination:" In this case, this term is being used in a manner similar to the use of the term “point of generation” in air standards established under authority of the Clean Air Act in 40 CFR parts 60, 61, and 63.

(b) When the remanufacturer or other person that stores or treats the hazardous secondary material is not

the generator of the hazardous secondary material, point of material origination means the point where the remanufacturer or other person that stores or treats the hazardous secondary material accepts delivery or takes possession of the hazardous secondary material.

(21) "Safety device" means a closure device such as a pressure relief valve, frangible disc, fusible plug, or any other type of device which functions exclusively to prevent physical damage or permanent deformation to a unit or its air emission control equipment by venting gases or vapors directly to the atmosphere during unsafe conditions resulting from an unplanned, accidental, or emergency event. For the purpose of Sections R315-261-1080 through 1089, a safety device is not used for routine venting of gases or vapors from the vapor headspace underneath a cover such as during filling of the unit or to adjust the pressure in this vapor headspace in response to normal daily diurnal ambient temperature fluctuations. A safety device is designed to remain in a closed position during normal operations and open only when the internal pressure, or another relevant parameter, exceeds the device threshold setting applicable to the air emission control equipment as determined by the remanufacturer or other person that stores or treats the hazardous secondary material based on manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials.

(22) "Single-seal system" means a floating roof having one continuous seal. This seal may be vapor-mounted, liquid-mounted, or a metallic shoe seal.

(23) "Vapor-mounted seal" means a continuous seal that is mounted such that there is a vapor space between the hazardous secondary material in the unit and the bottom of the seal.

(24) "Volatile organic concentration" or "VO concentration" means the fraction by weight of the volatile organic compounds contained in a hazardous secondary material expressed in terms of parts per million (ppmw) as determined by direct measurement or by knowledge of the material in accordance with the requirements of Section R315-261-1084. For the purpose of determining the VO concentration of a hazardous secondary material, organic compounds with a Henry's law constant value of at least 0.1

mole-fraction-in-the-gas-phase/mole-fraction-in the liquid-phase (0.1 Y/X), which can also be expressed as 1.8 × 10^{-6}atmospheres/gram-mole/m^3, at 25 degrees Celsius shall be included.

R315-261-1082. Air Emission Standards for Tanks and Containers - Standards: General.

(a) Section R315-261-1082 applies to the management of hazardous secondary material in tanks and containers subject to Sections R315-261-1080 through 1089.

(b) The remanufacturer or other person that stores or treats the hazardous secondary material shall control air pollutant emissions from each hazardous secondary material management unit in accordance with standards specified in Sections R315-261-1084 through 1087, as applicable to the hazardous secondary material management unit, except as provided for in Subsection R315-261-1082(c).

(c) A tank or container is exempt from standards specified in Sections R315-261-1084 through 1087, as applicable, provided that the hazardous secondary material management unit is a tank or container for which all hazardous secondary material entering the unit has an average VO concentration at the point of material origination of less than 500 parts per million by weight (ppmw). The average VO concentration shall be determined using the procedures specified in Subsection R315-261-1083(a). The remanufacturer or other person that stores or treats the hazardous secondary material shall review and update, as necessary, this determination at least once every 12 months following the date of the initial determination for the hazardous secondary material streams entering the unit.

R315-261-1083. Air Emission Standards for Tanks and Containers - Material Determination Procedures.

(a) Material determination procedure to determine average volatile organic (VO) concentration of a hazardous secondary material at the point of material origination.

(1) Determining average VO concentration at the point of material origination. A remanufacturer or other person that stores or treats the hazardous secondary material shall determine the average VO concentration at the point of material origination for each hazardous secondary material placed in a hazardous secondary material

management unit exempted under the provisions of Subsection R315-261-1082(c)(1) from using air emission controls in accordance with standards specified in Sections R315-261-1084 through 1087, as applicable to the hazardous secondary material management unit.

(i) An initial determination of the average VO concentration of the material stream shall be made before the first time any portion of the material in the hazardous secondary material stream is placed in a hazardous secondary material management unit exempted under the provisions of Subsection R315-261-1082(c)(1) from using air emission controls, and thereafter an initial determination of the average VO concentration of the material stream shall be made for each averaging period that a hazardous secondary material is managed in the unit; and

(ii) Perform a new material determination whenever changes to the source generating the material stream are reasonably likely to cause the average VO concentration of the hazardous secondary material to increase to a level that is equal to or greater than the applicable VO concentration limits specified in Section R315-261-1082.

(2) Determination of average VO concentration using direct measurement or knowledge. For a material determination that is required by Subsection R315-261-1083(a)(1), the average VO concentration of a hazardous secondary material at the point of material origination shall be determined using either direct measurement as specified in Subsection R315-261-1083(a)(3) or by knowledge as specified in Subsection R315-261-1083(a)(4).

(3) Direct measurement to determine average VO concentration of a hazardous secondary material at the point of material origination.

(i) Identification. The remanufacturer or other person that stores or treats the hazardous secondary material shall identify and record in a log that is kept at the facility the point of material origination for the hazardous secondary material.

(ii) Sampling. Samples of the hazardous secondary material stream shall be collected at the point of material origination in a manner such that volatilization of organics contained in the material and in the subsequent sample is minimized and an adequately representative sample is collected and maintained for analysis by the selected method.

(A) The averaging period to be used for determining the average VO concentration for the hazardous secondary material stream on a mass-weighted average basis shall be designated and recorded. The averaging period can represent any time interval that the remanufacturer or other person that stores or treats the hazardous secondary material determines is appropriate for the hazardous secondary material stream but shall not exceed 1 year.

(B) A sufficient number of samples, but no less than four samples, shall be collected and analyzed for a hazardous secondary material determination. All of the samples for a given material determination shall be collected within a one-hour period. The average of the four or more sample results constitutes a material determination for the material stream. One or more material determinations may be required to represent the complete range of material compositions and quantities that occur during the entire averaging period due to normal variations in the operating conditions for the source or process generating the hazardous secondary material stream. Examples of such normal variations are seasonal variations in material quantity or fluctuations in ambient temperature.

(C) All samples shall be collected and handled in accordance with written procedures prepared by the remanufacturer or other person that stores or treats the hazardous secondary material and documented in a site sampling plan. This plan shall describe the procedure by which representative samples of the hazardous secondary material stream are collected such that a minimum loss of organics occurs throughout the sample collection and handling process, and by which sample integrity is maintained. A copy of the written sampling plan shall be maintained at the facility. An example of acceptable sample collection and handling procedures for a total volatile organic constituent concentration may be found in Method 25D in 40 CFR part 60, appendix A.

(D) Sufficient information, as specified in the “site sampling plan” required under Subsection R315-261-1083(a)(3)(ii)(C), shall be prepared and recorded to document the material quantity represented by the samples and, as applicable, the operating conditions for the source or process generating the hazardous secondary material represented by the samples.

(iii) Analysis. Each collected sample shall be prepared and analyzed in accordance with Method 25D in 40 CFR part 60, appendix A for the total concentration of volatile organic constituents, or using one or more methods when the individual organic compound concentrations are identified and summed and the summed material concentration accounts for and reflects all organic compounds in the material with Henry's law constant values at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X), which can also be expressed as 1.8×10^{-6}atmospheres/gram-mole/m^3, at 25 degrees Celsius. At the discretion of the remanufacturer or other person that stores or treats the hazardous secondary material, the test data obtained may be adjusted by any appropriate method to discount any contribution to the total volatile organic concentration that is a result of including a compound with a Henry's law constant value of less than 0.1 Y/X at 25 degrees Celsius. To adjust these data, the measured concentration of each individual chemical constituent contained in the material is multiplied by the appropriate constituent-specific adjustment factor (f_{m25D}). If the remanufacturer or other person that stores or treats the hazardous secondary material elects to adjust the test data, the adjustment shall be made to all individual chemical constituents with a Henry's law constant value greater than or equal to 0.1 Y/X at 25 degrees Celsius contained in the material. Constituent-specific adjustment factors (f_{m25D}) can be obtained by contacting the Waste and Chemical Processes Group, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711. Other test methods may be used if they meet the requirements in Subsection R315-261-1083(a)(3)(iii)(A) or (B) and provided the requirement to reflect all organic compounds in the material with Henry's law constant values greater than or equal to 0.1 Y/X, which can also be expressed as 1.8×10^{-6}atmospheres/gram-mole/m^3, at 25 degrees Celsius, is met.

(A) Any EPA standard method that has been validated in accordance with “Alternative Validation Procedure for EPA Waste and Wastewater Methods,” 40 CFR part 63, appendix D.

(B) Any other analysis method that has been validated in accordance with the procedures specified in Section 5.1 or Section 5.3, and the corresponding calculations in Section 6.1 or Section 6.3, of Method 301 in 40 CFR part

63, appendix A. The data are acceptable if they meet the criteria specified in Section 6.1.5 or Section 6.3.3 of Method 301. If correction is required under section 6.3.3 of Method 301, the data are acceptable if the correction factor is within the range 0.7 to 1.30. Other sections of Method 301 are not required.

(iv) Calculations.

(A) The average VO concentration (C) on a mass-weighted basis shall be calculated by using the results for all material determinations conducted in accordance with Subsections R315-261-1083(a)(3)(ii) and (iii) and the following equation:

The equation found in 40 CFR 261.1083(a)(3)(iv)(A), 2015 ed. is adopted and incorporated by reference.

Where:

C = Average VO concentration of the hazardous secondary material at the point of material origination on a mass-weighted basis, ppmw.

i = Individual material determination “i” of the hazardous secondary material.

n = Total number of material determinations of the hazardous secondary material conducted for the averaging period (not to exceed 1 year).

Q_i = Mass quantity of hazardous secondary material stream represented by C_i, kg/hr.

Q_T = Total mass quantity of hazardous secondary material during the averaging period, kg/hr.

C_i = Measured VO concentration of material determination “i” as determined in accordance with the requirements of Subsection R315-261-1083(a)(3)(iii), i.e. the average of the four or more samples specified in Subsection R315-261-1083(a)(3)(ii)(B), ppmw.

(B) For the purpose of determining C_i, for individual material samples analyzed in accordance with Subsection R315-261-1083(a)(3)(iii), the remanufacturer or other person that stores or treats the hazardous secondary material shall account for VO concentrations determined to be below the limit of detection of the analytical method by using the following VO concentration:

(I) If Method 25D in 40 CFR part 60, appendix A is used for the analysis, one-half the blank value determined in the method at section 4.4 of Method 25D in 40 CFR part 60, appendix A.

(II) If any other analytical method is used, one-half the sum of the limits of detection established for each organic constituent in the material that has a Henry's law constant values at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X), which can also be expressed as 1.8×10^{-6}atmospheres/gram-mole/m^3, at 25 degrees Celsius.

(4) Use of knowledge by the remanufacturer or other person that stores or treats the hazardous secondary material to determine average VO concentration of a hazardous secondary material at the point of material origination.

(i) Documentation shall be prepared that presents the information used as the basis for the knowledge by the remanufacturer or other person that stores or treats the hazardous secondary material of the hazardous secondary material stream's average VO concentration. Examples of information that may be used as the basis for knowledge include: Material balances for the source or process generating the hazardous secondary material stream; constituent-specific chemical test data for the hazardous secondary material stream from previous testing that are still applicable to the current material stream; previous test data for other locations managing the same type of material stream; or other knowledge based on information included in shipping papers or material certification notices.

(ii) If test data are used as the basis for knowledge, then the remanufacturer or other person that stores or treats the hazardous secondary material shall document the test method, sampling protocol, and the means by which sampling variability and analytical variability are accounted for in the determination of the average VO concentration. For example, a remanufacturer or other person that stores or treats the hazardous secondary material may use organic concentration test data for the hazardous secondary material stream that are validated in accordance with Method 301 in 40 CFR part 63, appendix A as the basis for knowledge of the material.

(iii) A remanufacturer or other person that stores or treats the hazardous secondary material using chemical constituent-specific concentration test data as the basis for knowledge of the hazardous secondary material may adjust the test data to the corresponding average VO

concentration value which would have been obtained had the material samples been analyzed using Method 25D in 40 CFR part 60, appendix A. To adjust these data, the measured concentration for each individual chemical constituent contained in the material is multiplied by the appropriate constituent-specific adjustment factor (f_{m25D}).

(iv) In the event that the Director and the remanufacture or other person that stores or treats the hazardous secondary material disagree on a determination of the average VO concentration for a hazardous secondary material stream using knowledge, then the results from a determination of average VO concentration using direct measurement as specified in Subsection R315-261-1083(a)(3) shall be used to establish compliance with the applicable requirements of Sections R315-261-1080 through 1089. The Director may perform or request that the remanufacturer or other person that stores or treats the hazardous secondary material perform this determination using direct measurement. The remanufacturer or other person that stores or treats the hazardous secondary material may choose one or more appropriate methods to analyze each collected sample in accordance with the requirements of Subsection R315-261-1083(a)(3)(iii).

(b) Reserved

(c) Procedure to determine the maximum organic vapor pressure of a hazardous secondary material in a tank.

(1) A remanufacturer or other person that stores or treats the hazardous secondary material shall determine the maximum organic vapor pressure for each hazardous secondary material placed in a tank using Tank Level 1 controls in accordance with standards specified in Subsection R315-261-1084(c).

(2) A remanufacturer or other person that stores or treats the hazardous secondary material shall use either direct measurement as specified in Subsection R315-261-1083(c)(3) or knowledge of the waste as specified by Subsection R315-261-1083(c)(4) to determine the maximum organic vapor pressure which is representative of the hazardous secondary material composition stored or treated in the tank.

(3) Direct measurement to determine the maximum organic vapor pressure of a hazardous secondary material.

(i) Sampling. A sufficient number of samples shall be collected to be representative of the hazardous secondary material contained in the tank. All samples shall be

collected and handled in accordance with written procedures prepared by the remanufacturer or other person that stores or treats the hazardous secondary material and documented in a site sampling plan. This plan shall describe the procedure by which representative samples of the hazardous secondary material are collected such that a minimum loss of organics occurs throughout the sample collection and handling process and by which sample integrity is maintained. A copy of the written sampling plan shall be maintained at the facility. An example of acceptable sample collection and handling procedures may be found in Method 25D in 40 CFR part 60, appendix A.

(ii) Analysis. Any appropriate one of the following methods may be used to analyze the samples and compute the maximum organic vapor pressure of the hazardous secondary material:

(A) Method 25E in 40 CFR part 60 appendix A;

(B) Methods described in American Petroleum Institute Publication 2517, Third Edition, February 1989, “Evaporative Loss from External Floating-Roof Tanks,” incorporated by reference - refer to Section R315-260-11;

(C) Methods obtained from standard reference texts;

(D) ASTM Method 2879-92, incorporated by reference - refer to Section R315-260-11; and

(E) Any other method approved by the Director.

(4) Use of knowledge to determine the maximum organic vapor pressure of the hazardous secondary material. Documentation shall be prepared and recorded that presents the information used as the basis for the knowledge by the remanufacturer or other person that stores or treats the hazardous secondary material that the maximum organic vapor pressure of the hazardous secondary material is less than the maximum vapor pressure limit listed in Subsection R315-261-1085(b)(1)(i) for the applicable tank design capacity category. An example of information that may be used is documentation that the hazardous secondary material is generated by a process for which at other locations it previously has been determined by direct measurement that the hazardous secondary material's waste maximum organic vapor pressure is less than the maximum vapor pressure limit for the appropriate tank design capacity category.

(d) Procedure for determining no detectable organic emissions for the purpose of complying with Sections R315-261-1080 through 1089:

(1) The test shall be conducted in accordance with the procedures specified in Method 21 of 40 CFR part 60, appendix A. Each potential leak interface, i.e., a location where organic vapor leakage could occur, on the cover and associated closure devices shall be checked. Potential leak interfaces that are associated with covers and closure devices include, but are not limited to: The interface of the cover and its foundation mounting; the periphery of any opening on the cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure relief valve.

(2) The test shall be performed when the unit contains a hazardous secondary material having an organic concentration representative of the range of concentrations for the hazardous secondary material expected to be managed in the unit. During the test, the cover and closure devices shall be secured in the closed position.

(3) The detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, appendix A, except the instrument response factor criteria in section 3.1.2(a) of Method 21 shall be for the average composition of the organic constituents in the hazardous secondary material placed in the hazardous secondary management unit, not for each individual organic constituent.

(4) The detection instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR part 60, appendix A.

(5) Calibration gases shall be as follows:

(i) Zero air, less than 10 ppmv hydrocarbon in air, and

(ii) A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppmv methane or n-hexane.

(6) The background level shall be determined according to the procedures in Method 21 of 40 CFR part 60, appendix A.

(7) Each potential leak interface shall be checked by traversing the instrument probe around the potential leak interface as close to the interface as possible, as described in Method 21 of 40 CFR part 60, appendix A. In the case when the configuration of the cover or closure device prevents a complete traverse of the interface, all accessible portions of the interface shall be sampled. In the case when the configuration of the closure device

prevents any sampling at the interface and the device is equipped with an enclosed extension or horn, e.g., some pressure relief devices, the instrument probe inlet shall be placed at approximately the center of the exhaust area to the atmosphere.

(8) The arithmetic difference between the maximum organic concentration indicated by the instrument and the background level shall be compared with the value of 500 ppmv except when monitoring a seal around a rotating shaft that passes through a cover opening, in which case the comparison shall be as specified in Subsection R315-261-1083(d)(9). If the difference is less than 500 ppmv, then the potential leak interface is determined to operate with no detectable organic emissions.

(9) For the seals around a rotating shaft that passes through a cover opening, the arithmetic difference between the maximum organic concentration indicated by the instrument and the background level shall be compared with the value of 10,000 ppmw. If the difference is less than 10,000 ppmw, then the potential leak interface is determined to operate with no detectable organic emissions.

R315-261-1084. Air Emission Standards for Tanks and Containers - Standards: Tanks.

(a) The provisions of Section R315-261-1084 apply to the control of air pollutant emissions from tanks for which Subsection R315-261-1082(b) references the use of Section R315-261-1084 for such air emission control.

(b) The remanufacturer or other person that stores or treats the hazardous secondary material shall control air pollutant emissions from each tank subject to Section R315-261-1084 in accordance with the following requirements as applicable:

(1) For a tank that manages hazardous secondary material that meets all of the conditions specified in Subsections R315-261-1084(b)(1)(i) through (iii), the remanufacturer or other person that stores or treats the hazardous secondary material shall control air pollutant emissions from the tank in accordance with the Tank Level 1 controls specified in Subsection R315-261-1084(c) or the Tank Level 2 controls specified in Subsection R315-261-1084(d).

(i) The hazardous secondary material in the tank has a maximum organic vapor pressure which is less than the

maximum organic vapor pressure limit for the tank's design capacity category as follows:

(A) For a tank design capacity equal to or greater than 151 m^3, the maximum organic vapor pressure limit for the tank is 5.2 kPa.

(B) For a tank design capacity equal to or greater than 75 m^3 but less than 151 m^3, the maximum organic vapor pressure limit for the tank is 27.6 kPa.

(C) For a tank design capacity less than 75 m^3, the maximum organic vapor pressure limit for the tank is 76.6 kPa.

(ii) The hazardous secondary material in the tank is not heated by the remanufacturer or other person that stores or treats the hazardous secondary material to a temperature that is greater than the temperature at which the maximum organic vapor pressure of the hazardous secondary material is determined for the purpose of complying with Subsection R315-261-1084(b)(1)(i).

(2) For a tank that manages hazardous secondary material that does not meet all of the conditions specified in Subsections R315-261-1084(b)(1)(i) through (iii), the remanufacturer or other person that stores or treats the hazardous secondary material shall control air pollutant emissions from the tank by using Tank Level 2 controls in accordance with the requirements of Subsection R315-261-1084(d). An example of tanks required to use Tank Level 2 controls is a tank for which the hazardous secondary material in the tank has a maximum organic vapor pressure that is equal to or greater than the maximum organic vapor pressure limit for the tank's design capacity category as specified in Subsection R315-261-1084(b)(1)(i).

(c) Remanufacturers or other persons that store or treats the hazardous secondary material controlling air pollutant emissions from a tank using Tank Level 1 controls shall meet the requirements specified in Subsection R315-261-1084(c)(1) through (4):

(1) The remanufacturer or other person that stores or treats that hazardous secondary material shall determine the maximum organic vapor pressure for a hazardous secondary material to be managed in the tank using Tank Level 1 controls before the first time the hazardous secondary material is placed in the tank. The maximum organic vapor pressure shall be determined using the procedures specified in Subsection R315-261-1083(c). Thereafter, the remanufacturer or other person that stores

or treats the hazardous secondary material shall perform a new determination whenever changes to the hazardous secondary material managed in the tank could potentially cause the maximum organic vapor pressure to increase to a level that is equal to or greater than the maximum organic vapor pressure limit for the tank design capacity category specified in Subsection R315-261-1084(b)(1)(i), as applicable to the tank.

(2) The tank shall be equipped with a fixed roof designed to meet the following specifications:

(i) The fixed roof and its closure devices shall be designed to form a continuous barrier over the entire surface area of the hazardous secondary material in the tank. The fixed roof may be a separate cover installed on the tank, e.g., a removable cover mounted on an open-top tank, or may be an integral part of the tank structural design, e.g., a horizontal cylindrical tank equipped with a hatch.

(ii) The fixed roof shall be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between roof section joints or between the interface of the roof edge and the tank wall.

(iii) Each opening in the fixed roof, and any manifold system associated with the fixed roof, shall be either:

(A) Equipped with a closure device designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the opening and the closure device; or

(B) Connected by a closed-vent system that is vented to a control device. The control device shall remove or destroy organics in the vent stream, and shall be operating whenever hazardous secondary material is managed in the tank, except as provided for in Subsection R315-261-1084(c)(2)(iii)(B)(I) and (II).

(I) During periods when it is necessary to provide access to the tank for performing the activities of Subsection R315-261-1084(c)(2)(iii)(B)(*2*), venting of the vapor headspace underneath the fixed roof to the control device is not required, opening of closure devices is allowed, and removal of the fixed roof is allowed. Following completion of the activity, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure device in the

closed position or reinstall the cover, as applicable, and resume operation of the control device.

(II) During periods of routine inspection, maintenance, or other activities needed for normal operations, and for removal of accumulated sludge or other residues from the bottom of the tank.

(iv) The fixed roof and its closure devices shall be made of suitable materials that will minimize exposure of the hazardous secondary material to the atmosphere, to the extent practical, and will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices shall include: organic vapor permeability, the effects of any contact with the hazardous secondary material or its vapors managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.

(3) Whenever a hazardous secondary material is in the tank, the fixed roof shall be installed with each closure device secured in the closed position except as follows:

(i) Opening of closure devices or removal of the fixed roof is allowed at the following times:

(A) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.

(B) To remove accumulated sludge or other residues from the bottom of tank.

(ii) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the tank internal pressure in accordance with the tank design specifications. The device shall be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens shall be established

such that the device remains in the closed position whenever the tank internal pressure is within the internal pressure operating range determined by the remanufacturer or other person that stores or treats the hazardous secondary material based on the tank manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the tank internal pressure exceeds the internal pressure operating range for the tank as a result of loading operations or diurnal ambient temperature fluctuations.

(iii) Opening of a safety device, as defined in Section R315-261-1081, is allowed at any time conditions require doing so to avoid an unsafe condition.

(4) The remanufacturer or other person that stores or treats the hazardous secondary material shall inspect the air emission control equipment in accordance with the following requirements.

(i) The fixed roof and its closure devices shall be visually inspected by the remanufacturer or other person that stores or treats the hazardous secondary material to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(ii) The remanufacturer or other person that stores or treats the hazardous secondary material shall perform an initial inspection of the fixed roof and its closure devices on or before the date that the tank becomes subject to Section R315-261-1084. Thereafter, the remanufacturer or other person that stores or treats the hazardous secondary material shall perform the inspections at least once every year except under the special conditions provided for in Subsection R315-261-1084(l).

(iii) In the event that a defect is detected, the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect in accordance with the requirements of Subsection R315-261-1084(k).

(iv) The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain a record of the inspection in accordance with the requirements specified in Subsection R315-261-1089(b).

(d) Remanufacturers or other persons that store or treat the hazardous secondary material controlling air pollutant emissions from a tank using Tank Level 2 controls shall use one of the following tanks:

(1) A fixed-roof tank equipped with an internal floating roof in accordance with the requirements specified in Subsection R315-261-1084(e);

(2) A tank equipped with an external floating roof in accordance with the requirements specified in Subsection R315-261-1084(f);

(3) A tank vented through a closed-vent system to a control device in accordance with the requirements specified in Subsection R315-261-1084(g);

(4) A pressure tank designed and operated in accordance with the requirements specified in Subsection R315-261-1084(h); or

(5) A tank located inside an enclosure that is vented through a closed-vent system to an enclosed combustion control device in accordance with the requirements specified in Subsection R315-261-1084(i).

(e) The remanufacturer or other person that stores or treats the hazardous secondary material who controls air pollutant emissions from a tank using a fixed roof with an internal floating roof shall meet the requirements specified in Subsections R315-261-1084(e)(1) through (3).

(1) The tank shall be equipped with a fixed roof and an internal floating roof in accordance with the following requirements:

(i) The internal floating roof shall be designed to float on the liquid surface except when the floating roof shall be supported by the leg supports.

(ii) The internal floating roof shall be equipped with a continuous seal between the wall of the tank and the floating roof edge that meets either of the following requirements:

(A) A single continuous seal that is either a liquid-mounted seal or a metallic shoe seal, as defined in Section R315-261-1081; or

(B) Two continuous seals mounted one above the other. The lower seal may be a vapor-mounted seal.

(iii) The internal floating roof shall meet the following specifications:

(A) Each opening in a noncontact internal floating roof except for automatic bleeder vents, vacuum breaker vents, and the rim space vents is to provide a projection below the liquid surface.

(B) Each opening in the internal floating roof shall be equipped with a gasketed cover or a gasketed lid except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains.

(C) Each penetration of the internal floating roof for the purpose of sampling shall have a slit fabric cover that covers at least 90 percent of the opening.

(D) Each automatic bleeder vent and rim space vent shall be gasketed.

(E) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

(F) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

(2) The remanufacturer or other person that stores or treats the hazardous secondary material shall operate the tank in accordance with the following requirements:

(i) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be completed as soon as practical.

(ii) Automatic bleeder vents are to be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports.

(iii) Prior to filling the tank, each cover, access hatch, gauge float well or lid on any opening in the internal floating roof shall be bolted or fastened closed, i.e., no visible gaps. Rim space vents are to be set to open only when the internal floating roof is not floating or when the pressure beneath the rim exceeds the manufacturer's recommended setting.

(3) The remanufacturer or other person that stores or treats the hazardous secondary material shall inspect the internal floating roof in accordance with the procedures specified as follows:

(i) The floating roof and its closure devices shall be visually inspected by the remanufacture or other person that stores or treats the hazardous secondary material to check for defects that could result in air pollutant emissions. Defects include, but are not limited to: The internal floating roof is not floating on the surface of the liquid inside the tank; liquid has accumulated on top of the internal floating roof; any portion of the roof seals have detached from the roof rim; holes, tears, or other openings are visible in the seal fabric; the gaskets no longer close off the hazardous secondary material surface from the atmosphere; or the slotted membrane has more than 10 percent open area.

(ii) The remanufacturer or other person that stores or treats the hazardous secondary material shall inspect the internal floating roof components as follows except as provided in Subsection R315-261-1084(e)(3)(iii):

(A) Visually inspect the internal floating roof components through openings on the fixed-roof, *e.g.,* manholes and roof hatches, at least once every 12 months after initial fill, and

(B) Visually inspect the internal floating roof, primary seal, secondary seal, if one is in service, gaskets, slotted membranes, and sleeve seals, if any, each time the tank is emptied and degassed and at least every 10 years.

(iii) As an alternative to performing the inspections specified in Subsection R315-261-1084(e)(3)(ii) for an internal floating roof equipped with two continuous seals mounted one above the other, the remanufacturer or other person that stores or treats the hazardous secondary material may visually inspect the internal floating roof, primary and secondary seals, gaskets, slotted membranes, and sleeve seals, if any, each time the tank is emptied and degassed and at least every five years.

(iv) Prior to each inspection required by Subsection R315-261-1084(e)(3)(ii) or (iii), the remanufacturer or other person that stores or treats the hazardous secondary material shall notify the Director in advance of each inspection to provide the Director with the opportunity to have an observer present during the inspection. The remanufacturer or other person that stores or treats the hazardous secondary material shall notify the Director of the date and location of the inspection as follows:

(A) Prior to each visual inspection of an internal floating roof in a tank that has been emptied and degassed, written notification shall be prepared and sent by the remanufacturer or other person that stores or treats the hazardous secondary material so that it is received by the Director at least 30 calendar days before refilling the tank except when an inspection is not planned as provided for in Subsection R315-261-1084(e)(3)(iv)(B).

(B) When a visual inspection is not planned and the remanufacturer or other person that stores or treats the hazardous secondary material could not have known about the inspection 30 calendar days before refilling the tank, the remanufacturer or other person that stores or treats the hazardous secondary material shall notify the Director as soon as possible, but no later than seven calendar days before refilling of the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the Director at least seven calendar days before refilling the tank.

(v) In the event that a defect is detected, the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect in accordance with the requirements of Subsection R315-261-1084(k).

(vi) The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain a record of the inspection in accordance with the requirements specified in Subsection R315-261-1089(b).

(4) Safety devices, as defined in Section R315-261-1081, may be installed and operated as necessary on any tank complying with the requirements of Subsection R315-261-1084(e).

(f) The remanufacturer or other person that stores or treats the hazardous secondary material who controls air pollutant emissions from a tank using an external floating roof shall meet the requirements specified in Subsections R315-261-1084(f)(1) through (3).

(1) The remanufacturer or other person that stores or treats the hazardous secondary material shall design the external floating roof in accordance with the following requirements:

(i) The external floating roof shall be designed to float on the liquid surface except when the floating roof shall be supported by the leg supports.

(ii) The floating roof shall be equipped with two continuous seals, one above the other, between the wall of the tank and the roof edge. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.

(A) The primary seal shall be a liquid-mounted seal or a metallic shoe seal, as defined in 40 CFR 261.1081. The total area of the gaps between the tank wall and the primary seal shall not exceed 212 square centimeters per meter of tank diameter, and the width of any portion of these gaps shall not exceed 3.8 centimeters. If a metallic shoe seal is used for the primary seal, the metallic shoe seal shall be designed so that one end extends into the liquid in the tank and the other end extends a vertical distance of at least 61 centimeters above the liquid surface.

(B) The secondary seal shall be mounted above the primary seal and cover the annular space between the floating roof and the wall of the tank. The total area of the gaps between the tank wall and the secondary seal shall not exceed 21.2 square centimeters per meter of tank diameter, and the width of any portion of these gaps shall not exceed 1.3 centimeters.

(iii) The external floating roof shall meet the following specifications:

(A) Except for automatic bleeder vents, vacuum breaker vents, and rim space vents, each opening in a noncontact external floating roof shall provide a projection below the liquid surface.

(B) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof shall be equipped with a gasketed cover, seal, or lid.

(C) Each access hatch and each gauge float well shall be equipped with a cover designed to be bolted or fastened when the cover is secured in the closed position.

(D) Each automatic bleeder vent and each rim space vent shall be equipped with a gasket.

(E) Each roof drain that empties into the liquid managed in the tank shall be equipped with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.

(F) Each unslotted and slotted guide pole well shall be equipped with a gasketed sliding cover or a flexible fabric sleeve seal.

(G) Each unslotted guide pole shall be equipped with a gasketed cap on the end of the pole.

(H) Each slotted guide pole shall be equipped with a gasketed float or other device which closes off the liquid surface from the atmosphere.

(I) Each gauge hatch and each sample well shall be equipped with a gasketed cover.

(2) The remanufacturer or other person that stores or treats the hazardous secondary material shall operate the tank in accordance with the following requirements:

(i) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be completed as soon as practical.

(ii) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof shall be secured and maintained in a closed position at all times except when the closure device shall be open for access.

(iii) Covers on each access hatch and each gauge float well shall be bolted or fastened when secured in the closed position.

(iv) Automatic bleeder vents shall be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports.

(v) Rim space vents shall be set to open only at those times that the roof is being floated off the roof leg supports or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.

(vi) The cap on the end of each unslotted guide pole shall be secured in the closed position at all times except when measuring the level or collecting samples of the liquid in the tank.

(vii) The cover on each gauge hatch or sample well shall be secured in the closed position at all times except when the hatch or well shall be opened for access.

(viii) Both the primary seal and the secondary seal shall completely cover the annular space between the external floating roof and the wall of the tank in a continuous fashion except during inspections.

(3) The remanufacturer or other person that stores or treats the hazardous secondary material shall inspect the external floating roof in accordance with the procedures specified as follows:

(i) The remanufacturer or other person that stores or treats the hazardous secondary material shall measure the external floating roof seal gaps in accordance with the following requirements:

(A) The remanufacturer or other person that stores or treats the hazardous secondary material shall perform measurements of gaps between the tank wall and the primary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every 5 years.

(B) The remanufacturer or other person that stores or treats the hazardous secondary material shall perform measurements of gaps between the tank wall and the secondary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every year.

(C) If a tank ceases to hold hazardous secondary material for a period of 1 year or more, subsequent introduction of hazardous secondary material into the tank shall be considered an initial operation for the purposes of Subsections R315-261-1084(f)(3)(i)(A) and (B).

(D) The remanufacturer or other person that stores or treats the hazardous secondary material shall determine the total surface area of gaps in the primary seal and in the secondary seal individually using the following procedure:

(I) The seal gap measurements shall be performed at one or more floating roof levels when the roof is floating off the roof supports.

(II) Seal gaps, if any, shall be measured around the entire perimeter of the floating roof in each place where a 0.32-centimeter diameter uniform probe passes freely, without forcing or binding against the seal, between the seal and the wall of the tank and measure the circumferential distance of each such location.

(III) For a seal gap measured under Subsection R315-261-1084(f)(3), the gap surface area shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(IV) The total gap area shall be calculated by adding the gap surface areas determined for each identified gap location for the primary seal and the secondary seal individually, and then dividing the sum for each seal type by the nominal diameter of the tank. These total gap areas for the primary seal and secondary seal are then compared to the respective standards for the seal type as specified in Subsection R315-261-1084(f)(1)(ii).

(E) In the event that the seal gap measurements do not conform to the specifications in Subsection R315-261-1084(f)(1)(ii), the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect in accordance with the requirements of Subsection R315-261-1084(k).

(F) The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain a record of the inspection in accordance with the requirements specified in Subsection R315-261-1089(b).

(ii) The remanufacturer or other person that stores or treats the hazardous secondary material shall visually inspect the external floating roof in accordance with the following requirements:

(A) The floating roof and its closure devices shall be visually inspected by the remanufacturer or other person that stores or treats the hazardous secondary material to check for defects that could result in air pollutant emissions. Defects include, but are not limited to: Holes, tears, or other openings in the rim seal or seal fabric of the floating roof; a rim seal detached from the floating roof; all or a portion of the floating roof deck being submerged below the surface of the liquid in the tank; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(B) The remanufacturer or other person that stores or treats the hazardous secondary material shall perform an initial inspection of the external floating roof and its closure devices on or before the date that the tank becomes subject to Section R315-261-1084. Thereafter, the remanufacturer or other person that stores or treats the hazardous secondary material shall perform the inspections at least once every year except for the special conditions provided for in Subsection R315-261-1084(l).

(C) In the event that a defect is detected, the remanufacturer or other person that stores or treats the

hazardous secondary material shall repair the defect in accordance with the requirements of Subsection R315-261-1084(k).

(D) The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain a record of the inspection in accordance with the requirements specified in Subsection R315-261-1089(b).

(iii) Prior to each inspection required by Subsection R315-261-1084(f)(3)(i) or (ii), the remanufacturer or other person that stores or treats the hazardous secondary material shall notify the Director in advance of each inspection to provide the Director with the opportunity to have an observer present during the inspection. The remanufacturer or other person that stores or treats the hazardous secondary material shall notify the Director of the date and location of the inspection as follows:

(A) Prior to each inspection to measure external floating roof seal gaps as required under Subsection R315-261-1084(f)(3)(i), written notification shall be prepared and sent by the remanufacturer or other person that stores or treats the hazardous secondary material so that it is received by the Director at least 30 calendar days before the date the measurements are scheduled to be performed.

(B) Prior to each visual inspection of an external floating roof in a tank that has been emptied and degassed, written notification shall be prepared and sent by the remanufacturer or other person that stores or treats the hazardous secondary material so that it is received by the Director at least 30 calendar days before refilling the tank except when an inspection is not planned as provided for in Subsection R315-261-1084(f)(3)(iii)(C).

(C) When a visual inspection is not planned and the remanufacturer or other person that stores or treats the hazardous secondary material could not have known about the inspection 30 calendar days before refilling the tank, the owner or operator shall notify the Director as soon as possible, but no later than seven calendar days before refilling of the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the Director at least seven calendar days before refilling the tank.

(4) Safety devices, as defined in Section R315-261-1081, may be installed and operated as necessary on any tank complying with the requirements of Subsection R315-261-1084(f).

(g) The remanufacturer or other person that stores or treats the hazardous secondary material who controls air pollutant emissions from a tank by venting the tank to a control device shall meet the requirements specified in Subsections R315-261-1084(g)(1) through (3).

(1) The tank shall be covered by a fixed roof and vented directly through a closed-vent system to a control device in accordance with the following requirements:

(i) The fixed roof and its closure devices shall be designed to form a continuous barrier over the entire surface area of the liquid in the tank.

(ii) Each opening in the fixed roof not vented to the control device shall be equipped with a closure device. If the pressure in the vapor headspace underneath the fixed roof is less than atmospheric pressure when the control device is operating, the closure devices shall be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the fixed roof is equal to or greater than atmospheric pressure when the control device is operating, the closure device shall be designed to operate with no detectable organic emissions.

(iii) The fixed roof and its closure devices shall be made of suitable materials that will minimize exposure of the hazardous secondary material to the atmosphere, to the extent practical, and will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices shall include: Organic vapor permeability, the effects of any contact with the liquid and its vapor managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.

(iv) The closed-vent system and control device shall be designed and operated in accordance with the requirements of Section R315-261-1087.

(2) Whenever a hazardous secondary material is in the tank, the fixed roof shall be installed with each closure device secured in the closed position and the vapor headspace underneath the fixed roof vented to the control device except as follows:

(i) Venting to the control device is not required, and opening of closure devices or removal of the fixed roof is allowed at the following times:

(A) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.

(B) To remove accumulated sludge or other residues from the bottom of a tank.

(ii) Opening of a safety device, as defined in Section R315-261-1081, is allowed at any time conditions require doing so to avoid an unsafe condition.

(3) The remanufacturer or other person that stores or treats the hazardous secondary material shall inspect and monitor the air emission control equipment in accordance with the following procedures:

(i) The fixed roof and its closure devices shall be visually inspected by the remanufacturer or other person that stores or treats the hazardous secondary material to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(ii) The closed-vent system and control device shall be inspected and monitored by the remanufacturer or other person that stores or treats the hazardous secondary material in accordance with the procedures specified in Section R315-261-1087.

(iii) The remanufacturer or other person that stores or treats the hazardous secondary material shall perform an initial inspection of the air emission control equipment on

or before the date that the tank becomes subject to Section R315-261-1084. Thereafter, the remanufacturer or other person that stores or treats the hazardous secondary material shall perform the inspections at least once every year except for the special conditions provided for in Subsection R315-261-1084(l).

(iv) In the event that a defect is detected, the remanufacture or other person that stores or treats the hazardous secondary material shall repair the defect in accordance with the requirements of Subsection R315-261-1084(k).

(v) The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain a record of the inspection in accordance with the requirements specified in Subsection R315-261-1089(b).

(h) The remanufacturer or other person that stores or treats the hazardous secondary material who controls air pollutant emissions by using a pressure tank shall meet the following requirements.

(1) The tank shall be designed not to vent to the atmosphere as a result of compression of the vapor headspace in the tank during filling of the tank to its design capacity.

(2) All tank openings shall be equipped with closure devices designed to operate with no detectable organic emissions as determined using the procedure specified in Subsection R315-261-1083(d).

(3) Whenever a hazardous secondary material is in the tank, the tank shall be operated as a closed system that does not vent to the atmosphere except under either or the following conditions as specified in Subsection R315-261-1084(h)(3)(i) or (h)(3)(ii).

(i) At those times when opening of a safety device, as defined in Section R315-261-1081, is required to avoid an unsafe condition.

(ii) At those times when purging of inerts from the tank is required and the purge stream is routed to a closed-vent system and control device designed and operated in accordance with the requirements of Section R315-261-1087.

(i) The remanufacturer or other person that stores or treats the hazardous secondary material who controls air pollutant emissions by using an enclosure vented through a closed-vent system to an enclosed combustion control device

shall meet the requirements specified in Subsections R315-261-1084(i)(1) through (4).

(1) The tank shall be located inside an enclosure. The enclosure shall be designed and operated in accordance with the criteria for a permanent total enclosure as specified in “Procedure T - Criteria for and Verification of a Permanent or Temporary Total Enclosure” under 40 CFR 52.741, appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The remanufacturer or other person that stores or treats the hazardous secondary material shall perform the verification procedure for the enclosure as specified in Section 5.0 to “Procedure T - Criteria for and Verification of a Permanent or Temporary Total Enclosure” initially when the enclosure is first installed and, thereafter, annually.

(2) The enclosure shall be vented through a closed-vent system to an enclosed combustion control device that is designed and operated in accordance with the standards for either a vapor incinerator, boiler, or process heater specified in Section R315-261-1087.

(3) Safety devices, as defined in Section R315-261-1081, may be installed and operated as necessary on any enclosure, closed-vent system, or control device used to comply with the requirements of Subsections R315-261-1084(i)(1) and (2).

(4) The remanufacturer or other person that stores or treats the hazardous secondary material shall inspect and monitor the closed-vent system and control device as specified in Section R315-261-1087.

(j) The remanufacturer or other person that stores or treats the hazardous secondary material shall transfer hazardous secondary material to a tank subject to Section R315-261-1084 in accordance with the following requirements:

(1) Transfer of hazardous secondary material, except as provided in Subsection R315-261-1084(j)(2), to the tank from another tank subject to Section R315-261-1084 shall be conducted using continuous hard-piping or another closed system that does not allow exposure of the hazardous secondary material to the atmosphere. For the purpose of complying with this provision, an individual drain system

is considered to be a closed system when it meets the requirements of 40 CFR part 63, subpart RR - National Emission Standards for Individual Drain Systems.

(2) The requirements of Subsection R315-261-1084(j)(1) do not apply when transferring a hazardous secondary material to the tank under any of the following conditions:

(i) The hazardous secondary material meets the average VO concentration conditions specified in Subsection R315-261-1082(c)(1) at the point of material origination.

(ii) The hazardous secondary material has been treated by an organic destruction or removal process to meet the requirements in Subsection R315-261-1082(c)(2).

(iii) The hazardous secondary material meets the requirements of Subsection R315-261-1082(c)(4).

(k) The remanufacturer or other person that stores or treats the hazardous secondary material shall repair each defect detected during an inspection performed in accordance with the requirements of Subsection R315-261-1084(c)(4), (e)(3), (f)(3), or (g)(3) as follows:

(1) The remanufacturer or other person that stores or treats the hazardous secondary material shall make first efforts at repair of the defect no later than 5 calendar days after detection, and repair shall be completed as soon as possible but no later than 45 calendar days after detection except as provided in Subsection R315-261-1084(k)(2).

(2) Repair of a defect may be delayed beyond 45 calendar days if the remanufacturer or other person that stores or treats the hazardous secondary material determines that repair of the defect requires emptying or temporary removal from service of the tank and no alternative tank capacity is available at the site to accept the hazardous secondary material normally managed in the tank. In this case, the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect the next time the process or unit that is generating the hazardous secondary material managed in the tank stops operation. Repair of the defect shall be completed before the process or unit resumes operation.

(l) Following the initial inspection and monitoring of the cover as required by the applicable provisions of Sections R315-261-1080 through 1089, subsequent inspection and monitoring may be performed at intervals longer than 1 year under the following special conditions:

(1) In the case when inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions, then the remanufacturer or other person that stores or treats the hazardous secondary material may designate a cover as an “unsafe to inspect and monitor cover” and comply with all of the following requirements:

(i) Prepare a written explanation for the cover stating the reasons why the cover is unsafe to visually inspect or to monitor, if required.

(ii) Develop and implement a written plan and schedule to inspect and monitor the cover, using the procedures specified in the applicable section of Sections R315-261-1080 through 1089, as frequently as practicable during those times when a worker can safely access the cover.

(2) In the case when a tank is buried partially or entirely underground, a remanufacturer or other person that stores or treats the hazardous secondary material is required to inspect and monitor, as required by the applicable provisions of Section R315-261-1084, only those portions of the tank cover and those connections to the tank, e.g., fill ports, access hatches, gauge wells, etc., that are located on or above the ground surface.

R315-261-1086. Air Emission Standards for Tanks and Containers - Standards: Containers.

(a) Applicability. The provisions of Section R315-261-1086 apply to the control of air pollutant emissions from containers for which Subsection R315-261-1082(b) references the use Section R315-261-1086 for such air emission control.

(b) General requirements.

(1) The remanufacturer or other person that stores or treats the hazardous secondary material shall control air pollutant emissions from each container subject to Section R315-261-1086 in accordance with the following requirements, as applicable to the container.

(i) For a container having a design capacity greater than 0.1 m^3 and less than or equal to 0.46 m^3, the remanufacturer or other person that stores or treats the hazardous secondary material shall control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in Subsection R315-261-1086(c).

(ii) For a container having a design capacity greater than 0.46 m^3 that is not in light material service, the remanufacturer or other person that stores or treats the hazardous secondary material shall control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in Subsection R315-261-1086(c).

(iii) For a container having a design capacity greater than 0.46 m^3 that is in light material service, the remanufacturer or other person that stores or treats the hazardous secondary material shall control air pollutant emissions from the container in accordance with the Container Level 2 standards specified in Subsection R315-261-1086(d).

(c) Container Level 1 standards.

(1) A container using Container Level 1 controls is one of the following:

(i) A container that meets the applicable U.S. Department of Transportation regulations on packaging hazardous materials for transportation as specified in Subsection R315-261-1086(f).

(ii) A container equipped with a cover and closure devices that form a continuous barrier over the container openings such that when the cover and closure devices are secured in the closed position there are no visible holes, gaps, or other open spaces into the interior of the container. The cover may be a separate cover installed on the container, e.g., a lid on a drum or a suitably secured tarp on a roll-off box, or may be an integral part of the container structural design, e.g., a “portable tank” or bulk cargo container equipped with a screw-type cap.

(iii) An open-top container in which an organic-vapor suppressing barrier is placed on or over the hazardous secondary material in the container such that no hazardous secondary material is exposed to the atmosphere. One example of such a barrier is application of a suitable organic-vapor suppressing foam.

(2) A container used to meet the requirements of Subsection R315-261-1086(c)(1)(ii) or (iii) shall be equipped with covers and closure devices, as applicable to the container, that are composed of suitable materials to minimize exposure of the hazardous secondary material to the atmosphere and to maintain the equipment integrity, for as long as the container is in service. Factors to be considered in selecting the materials of construction and

designing the cover and closure devices shall include: Organic vapor permeability; the effects of contact with the hazardous secondary material or its vapor managed in the container; the effects of outdoor exposure of the closure device or cover material to wind, moisture, and sunlight; and the operating practices for which the container is intended to be used.

(3) Whenever a hazardous secondary material is in a container using Container Level 1 controls, the remanufacturer or other person that stores or treats the hazardous secondary material shall install all covers and closure devices for the container, as applicable to the container, and secure and maintain each closure device in the closed position except as follows:

(i) Opening of a closure device or cover is allowed for the purpose of adding hazardous secondary material or other material to the container as follows:

(A) In the case when the container is filled to the intended final level in one continuous operation, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.

(B) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the hazardous secondary material being added to the container, whichever condition occurs first.

(ii) Opening of a closure device or cover is allowed for the purpose of removing hazardous secondary material from the container as follows:

(A) For the purpose of meeting the requirements of Section R315-261-1086, an empty hazardous secondary material container may be open to the atmosphere at any

time, i.e., covers and closure devices on such a container are not required to be secured in the closed position.

(B) In the case when discrete quantities or batches of material are removed from the container, but the container is not an empty hazardous secondary material container, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

(iii) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous secondary material. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.

(iv) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications. The device shall be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the internal pressure of the container is within the internal pressure operating range determined by the remanufacturer or other persons that stores or treats the hazardous secondary material based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may

require these devices to open are during those times when the internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.

(v) Opening of a safety device, as defined in 40 CFR 261.1081, is allowed at any time conditions require doing so to avoid an unsafe condition.

(4) The remanufacturer or other person that stores or treats the hazardous secondary material using containers with Container Level 1 controls shall inspect the containers and their covers and closure devices as follows:

(i) In the case when a hazardous secondary material already is in the container at the time the remanufacturer or other person that stores or treats the hazardous secondary material first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility, i.e., is not an empty hazardous secondary material container, the remanufacturer or other person that stores or treats the hazardous secondary material shall visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The container visual inspection shall be conducted on or before the date that the container is accepted at the facility, i.e., the date the container becomes subject to the container standards of Section R315-261-1086.

(ii) In the case when a container used for managing hazardous secondary material remains at the facility for a period of 1 year or more, the remanufacturer or other person that stores or treats the hazardous secondary material shall visually inspect the container and its cover and closure devices initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect in accordance with the requirements of Subsection R315-261-1086(c)(4)(iii).

(iii) When a defect is detected for the container, cover, or closure devices, the remanufacturer or other person that stores or treats the hazardous secondary material shall make first efforts at repair of the defect no later than 24 hours after detection and repair shall be completed as soon as possible but no later than 5 calendar days after detection. If repair of a defect cannot be completed within 5 calendar days, then the hazardous secondary material shall be removed from the container and the container shall not be used to manage hazardous secondary material until the defect is repaired.

(5) The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain at the facility a copy of the procedure used to determine that containers with capacity of 0.46 m^3 or greater, which do not meet applicable U.S. Department of Transportation regulations as specified in Subsection R315-261-1086(f), are not managing hazardous secondary material in light material service.

(d) Container Level 2 standards.

(1) A container using Container Level 2 controls is one of the following:

(i) A container that meets the applicable U.S. Department of Transportation regulations on packaging hazardous materials for transportation as specified in Subsection R315-261-1086(f).

(ii) A container that operates with no detectable organic emissions as defined in Section R315-261-1081 and determined in accordance with the procedure specified in Subsection R315-261-1086(g).

(iii) A container that has been demonstrated within the preceding 12 months to be vapor-tight by using 40 CFR part 60, appendix A, Method 27 in accordance with the procedure specified in Subsection R315-261-1086(h).

(2) Transfer of hazardous secondary material in or out of a container using Container Level 2 controls shall be conducted in such a manner as to minimize exposure of the hazardous secondary material to the atmosphere, to the extent practical, considering the physical properties of the hazardous secondary material and good engineering and safety practices for handling flammable, ignitable, explosive, reactive, or other hazardous materials. Examples of container loading procedures that the Director considers to meet the requirements of Subsection R315-261-1086(d) include using any one of the following: a submerged-fill

pipe or other submerged-fill method to load liquids into the container; a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or a fitted opening in the top of a container through which the hazardous secondary material is filled and subsequently purging the transfer line before removing it from the container opening.

(3) Whenever a hazardous secondary material is in a container using Container Level 2 controls, the remanufacturer or other person that stores or treats the hazardous secondary material shall install all covers and closure devices for the container, and secure and maintain each closure device in the closed position except as follows:

(i) Opening of a closure device or cover is allowed for the purpose of adding hazardous secondary material or other material to the container as follows:

(A) In the case when the container is filled to the intended final level in one continuous operation, the remanufacture or other person that stores or treats the hazardous secondary material shall promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.

(B) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first.

(ii) Opening of a closure device or cover is allowed for the purpose of removing hazardous secondary material from the container as follows:

(A) For the purpose of meeting the requirements of Section R315-261-1086, an empty hazardous secondary material container may be open to the atmosphere at any

time, i.e., covers and closure devices are not required to be secured in the closed position on an empty container.

(B) In the case when discrete quantities or batches of material are removed from the container, but the container is not an empty hazardous secondary materials container, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

(iii) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous secondary material. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.

(iv) Opening of a spring-loaded, pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications. The device shall be designed to operate with no detectable organic emission when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the internal pressure of the container is within the internal pressure operating range determined by the remanufacturer or other person that stores or treats the hazardous secondary material based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may

require these devices to open are during those times when the internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.

(v) Opening of a safety device, as defined in Section R315-261-1081, is allowed at any time conditions require doing so to avoid an unsafe condition.

(4) The remanufacture or other person that stores or treats the hazardous secondary material using containers with Container Level 2 controls shall inspect the containers and their covers and closure devices as follows:

(i) In the case when a hazardous secondary material already is in the container at the time the remanufacturer or other person that stores or treats the hazardous secondary material first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility, i.e., is not an empty hazardous secondary material container, the remanufacturer or other person that stores or treats the hazardous secondary material shall visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The container visual inspection shall be conducted on or before the date that the container is accepted at the facility, i.e., the date the container becomes subject to the container standards of Section R315-261-1086.

(ii) In the case when a container used for managing hazardous secondary material remains at the facility for a period of 1 year or more, the remanufacturer or other person that stores or treats the hazardous secondary material shall visually inspect the container and its cover and closure devices initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect in accordance with the requirements of Subsection R315-261-1086(d)(4)(iii).

(iii) When a defect is detected for the container, cover, or closure devices, the remanufacturer or other person that stores or treats the hazardous secondary material shall make first efforts at repair of the defect no later than 24 hours after detection, and repair shall be completed as soon as possible but no later than 5 calendar days after detection. If repair of a defect cannot be completed within 5 calendar days, then the hazardous secondary material shall be removed from the container and the container shall not be used to manage hazardous secondary material until the defect is repaired.

(e) Container Level 3 standards.

(1) A container using Container Level 3 controls is one of the following:

(i) A container that is vented directly through a closed-vent system to a control device in accordance with the requirements of Subsection R315-261-1086(e)(2)(ii).

(ii) A container that is vented inside an enclosure which is exhausted through a closed-vent system to a control device in accordance with the requirements of Subsections R315-261-1086(e)(2)(i) and (ii).

(2) The remanufacturer or other person that stores or treats the hazardous secondary material shall meet the following requirements, as applicable to the type of air emission control equipment selected by the remanufacturer or other person that stores or treats the hazardous secondary material:

(i) The container enclosure shall be designed and operated in accordance with the criteria for a permanent total enclosure as specified in “Procedure T - Criteria for and Verification of a Permanent or Temporary Total Enclosure” under 40 CFR 52.741, appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of containers through the enclosure by conveyor or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The remanufacturer or other person that stores or treats the hazardous secondary material shall perform the verification procedure for the enclosure as specified in Section 5.0 to “Procedure T - Criteria for and Verification of a Permanent or Temporary Total Enclosure” initially when the enclosure is first installed and, thereafter, annually.

(ii) The closed-vent system and control device shall be designed and operated in accordance with the requirements of Section R315-261-1087.

(3) Safety devices, as defined in Section R315-261-1081, may be installed and operated as necessary on any container, enclosure, closed-vent system, or control device used to comply with the requirements of Subsection R315-261-1086(e)(1).

(4) Remanufacturers or other persons that store or treat the hazardous secondary material using Container Level 3 controls in accordance with the provisions of Sections R315-261-1080 through 1089 shall inspect and monitor the closed-vent systems and control devices as specified in Section R315-261-1087.

(5) Remanufacturers or other persons that store or treat the hazardous secondary material that use Container Level 3 controls in accordance with the provisions of Sections R315-261-1080 through 1089 shall prepare and maintain the records specified in Subsection R315-261-1089(d).

(6) Transfer of hazardous secondary material in or out of a container using Container Level 3 controls shall be conducted in such a manner as to minimize exposure of the hazardous secondary material to the atmosphere, to the extent practical, considering the physical properties of the hazardous secondary material and good engineering and safety practices for handling flammable, ignitable, explosive, reactive, or other hazardous materials. Examples of container loading procedures that the Director considers to meet the requirements of Subsection R315-261-1086(e) include using any one of the following: a submerged-fill pipe or other submerged-fill method to load liquids into the container; a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or a fitted opening in the top of a container through which the hazardous secondary material is filled and subsequently purging the transfer line before removing it from the container opening.

(f) For the purpose of compliance with Subsection R315-261-1086(c)(1)(i) or (d)(1)(i), containers shall be used that meet the applicable U.S. Department of Transportation regulations on packaging hazardous materials for transportation as follows:

(1) The container meets the applicable requirements specified in 49 CFR part 178 or part 179.

(2) Hazardous secondary material is managed in the container in accordance with the applicable requirements specified in 49 CFR part 107, subpart B and 49 CFR parts 172, 173, and 180.

(3) For the purpose of complying with Sections R315-261-1080 through 1089, no exceptions to the 49 CFR part 178 or part 179 regulations are allowed.

(g) To determine compliance with the no detectable organic emissions requirement of Subsection R315-261-1086(d)(1)(ii), the procedure specified in Subsection R315-261-1083(d) shall be used.

(1) Each potential leak interface, i.e., a location where organic vapor leakage could occur, on the container, its cover, and associated closure devices, as applicable to the container, shall be checked. Potential leak interfaces that are associated with containers include, but are not limited to: the interface of the cover rim and the container wall; the periphery of any opening on the container or container cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.

(2) The test shall be performed when the container is filled with a material having a volatile organic concentration representative of the range of volatile organic concentrations for the hazardous secondary materials expected to be managed in this type of container. During the test, the container cover and closure devices shall be secured in the closed position.

(h) Procedure for determining a container to be vapor-tight using Method 27 of 40 CFR part 60, appendix A for the purpose of complying with Subsection R315-261-1086(d)(1)(iii).

(1) The test shall be performed in accordance with Method 27 of 40 CFR part 60, appendix A.

(2) A pressure measurement device shall be used that has a precision of ±2.5 mm water and that is capable of measuring above the pressure at which the container is to be tested for vapor tightness.

(3) If the test results determined by Method 27 indicate that the container sustains a pressure change less than or equal to 750 Pascals within 5 minutes after it is pressurized to a minimum of 4,500 Pascals, then the container is determined to be vapor-tight.

R315-261-1087. Air Emission Standards for Tanks and Containers - Standards: Closed-Vent Systems and Control Devices.

(a) Section R315-261-1087 applies to each closed-vent system and control device installed and operated by the remanufacturer or other person who stores or treats the hazardous secondary material to control air emissions in accordance with standards of Sections R315-261-1080 through 1089.

(b) The closed-vent system shall meet the following requirements:

(1) The closed-vent system shall route the gases, vapors, and fumes emitted from the hazardous secondary material in the hazardous secondary material management unit to a control device that meets the requirements specified in Subsection R315-261-1087(c).

(2) The closed-vent system shall be designed and operated in accordance with the requirements specified in Subsection R315-261-1033(k).

(3) In the case when the closed-vent system includes bypass devices that could be used to divert the gas or vapor stream to the atmosphere before entering the control device, each bypass device shall be equipped with either a flow indicator as specified in Subsection R315-261-1087(b)(3)(i) or a seal or locking device as specified in Subsection R315-261-1087(b)(3)(ii). For the purpose of complying with Subsection R315-261-1087(b)(3), low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, spring loaded pressure relief valves, and other fittings used for safety purposes are not considered to be bypass devices.

(i) If a flow indicator is used to comply with Subsection R315-261-1087(b)(3), the indicator shall be installed at the inlet to the bypass line used to divert gases and vapors from the closed-vent system to the atmosphere at a point upstream of the control device inlet. For Subsection R315-261-1087(b), a flow indicator means a device which indicates the presence of either gas or vapor flow in the bypass line.

(ii) If a seal or locking device is used to comply with Subsection R315-261-1087(b)(3), the device shall be placed on the mechanism by which the bypass device position is controlled, e.g., valve handle, damper lever, when the bypass device is in the closed position such that the

bypass device cannot be opened without breaking the seal or removing the lock. Examples of such devices include, but are not limited to, a car-seal or a lock-and-key configuration valve. The remanufacturer or other person that stores or treats the hazardous secondary material shall visually inspect the seal or closure mechanism at least once every month to verify that the bypass mechanism is maintained in the closed position.

(4) The closed-vent system shall be inspected and monitored by the remanufacturer or other person that stores or treats the hazardous secondary material in accordance with the procedure specified in Subsection R315-261-1033(l).

(c) The control device shall meet the following requirements:

(1) The control device shall be one of the following devices:

(i) A control device designed and operated to reduce the total organic content of the inlet vapor stream vented to the control device by at least 95 percent by weight;

(ii) An enclosed combustion device designed and operated in accordance with the requirements of Subsection R315-261-1033(c); or

(iii) A flare designed and operated in accordance with the requirements of Subsection R315-261-1033(d).

(2) The remanufacturer or other person that stores or treats the hazardous secondary material who elects to use a closed-vent system and control device to comply with the requirements Section R315-261-1087 shall comply with the requirements specified in Subsections R315-261-1087(c)(2)(i) through (vi).

(i) Periods of planned routine maintenance of the control device, during which the control device does not meet the specifications of Subsection R315-261-1087(c)(1)(i), (ii), or (iii), as applicable, shall not exceed 240 hours per year.

(ii) The specifications and requirements in Subsections R315-261-1087(c)(1)(i) through (iii) for control devices do not apply during periods of planned routine maintenance.

(iii) The specifications and requirements in Subsections R315-261-1087(c)(1)(i) through (iii) for control devices do not apply during a control device system malfunction.

(iv) The remanufacturer or other person that stores or treats the hazardous secondary material shall demonstrate compliance with the requirements of Subsection R315-261-1087(c)(2)(i), i.e., planned routine maintenance of a control device, during which the control device does not meet the specifications of Subsection R315-261-1087(c)(1)(i), (ii), or (iii), as applicable, shall not exceed 240 hours per year, by recording the information specified in Subsection R315-261-1089(e)(1)(v).

(v) The remanufacturer or other person that stores or treats the hazardous secondary material shall correct control device system malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of air pollutants.

(vi) The remanufacturer or other person that stores or treats the hazardous secondary material shall operate the closed-vent system such that gases, vapors, or fumes are not actively vented to the control device during periods of planned maintenance or control device system malfunction, i.e., periods when the control device is not operating or not operating normally, except in cases when it is necessary to vent the gases, vapors, and/or fumes to avoid an unsafe condition or to implement malfunction corrective actions or planned maintenance actions.

(3) The remanufacturer or other person that stores or treats the hazardous secondary material using a carbon adsorption system to comply with Subsection R315-261-1087(c)(1) shall operate and maintain the control device in accordance with the following requirements:

(i) Following the initial startup of the control device, all activated carbon in the control device shall be replaced with fresh carbon on a regular basis in accordance with the requirements of Subsection R315-261-1033(g) or (h).

(ii) All carbon that is hazardous waste and that is removed from the control device shall be managed in accordance with the requirements of Subsection R315-261-1033(n), regardless of the average volatile organic concentration of the carbon.

(4) A remanufacturer or other person that stores or treats the hazardous secondary material using a control device other than a thermal vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system to comply with Subsection R315-261-1087(c)(1) shall

operate and maintain the control device in accordance with the requirements of Subsection R315-261-1033(j).

(5) The remanufacturer or other person that stores or treats the hazardous secondary material shall demonstrate that a control device achieves the performance requirements of Subsection R315-261-1087(c)(1) as follows:

(i) A remanufacturer or other person that stores or treats the hazardous secondary material shall demonstrate using either a performance test as specified in Subsection R315-261-1087(c)(5)(iii) or a design analysis as specified in Subsection R315-261-1087(c)(5)(iv) the performance of each control device except for the following:

(A) A flare;

(B) A boiler or process heater with a design heat input capacity of 44 megawatts or greater;

(C) A boiler or process heater into which the vent stream is introduced with the primary fuel;

(ii) A remanufacturer or other person that stores or treats the hazardous secondary material shall demonstrate the performance of each flare in accordance with the requirements specified in Subsection R315-261-1033(e).

(iii) For a performance test conducted to meet the requirements of Subsection R315-261-1087(c)(5)(i), the remanufacturer or other person that stores or treats the hazardous secondary material shall use the test methods and procedures specified in Subsections R315-261-1034(c)(1) through (4).

(iv) For a design analysis conducted to meet the requirements of Subsection R315-261-1087(c)(5)(i), the design analysis shall meet the requirements specified in Subsection R315-261-1035(b)(4)(iii).

(v) The remanufacturer or other person that stores or treats the hazardous secondary material shall demonstrate that a carbon adsorption system achieves the performance requirements of Subsection R315-261-1087(c)(1) based on the total quantity of organics vented to the atmosphere from all carbon adsorption system equipment that is used for organic adsorption, organic desorption or carbon regeneration, organic recovery, and carbon disposal.

(6) If the remanufacturer or other person that stores or treats the hazardous secondary material and the Director do not agree on a demonstration of control device performance using a design analysis then the disagreement shall be resolved using the results of a performance test performed by the remanufacturer or other person that stores

or treats the hazardous secondary material in accordance with the requirements of Subsection R315-261-1087(c)(5)(iii). The Director may choose to have an authorized representative observe the performance test.

(7) The closed-vent system and control device shall be inspected and monitored by the remanufacture or other person that stores or treats the hazardous secondary material in accordance with the procedures specified in Subsections R315-261-1033(f)(2) and (l). The readings from each monitoring device required by Subsection R315-261-1033(f)(2) shall be inspected at least once each operating day to check control device operation. Any necessary corrective measures shall be immediately implemented to ensure the control device is operated in compliance with the requirements Section R315-261-1087.

R315-261-1088. Air Emission Standards for Tanks and Containers - Inspection and Monitoring Requirements.

(a) The remanufacturer or other person that stores or treats the hazardous secondary material shall inspect and monitor air emission control equipment used to comply with Sections R315-261-1080 through 1089 in accordance with the applicable requirements specified in Sections R315-261-1084 through 1087.

(b) The remanufacture or other person that stores or treats the hazardous secondary material shall develop and implement a written plan and schedule to perform the inspections and monitoring required by Subsection R315-261-1088(a). The remanufacturer or other person that stores or treats the hazardous secondary material shall keep the plan and schedule at the facility.

R315-261-1089. Air Emission Standards for Tanks and Containers - Recordkeeping Requirements.

(a) Each remanufacturer or other person that stores or treats the hazardous secondary material subject to requirements of Sections R315-261-1080 through 1089 shall record and maintain the information specified in Subsections R315-261-1089(b) through (j), as applicable to the facility. Except for air emission control equipment design documentation and information required by Subsections R315-261-1089(i) and (j), records required by Section R315-261-1089 shall be maintained at the facility for a minimum of 3 years. Air emission control equipment design documentation shall be maintained at the facility

until the air emission control equipment is replaced or otherwise no longer in service. Information required by Subsections R315-261-1089(i) and (j) shall be maintained at the facility for as long as the hazardous secondary material management unit is not using air emission controls specified in Sections R315-261-1084 through 1087 in accordance with the conditions specified in Subsection R315-261-1080(b)(7) or (d), respectively.

(b) The remanufacturer or other person that stores or treats the hazardous secondary material using a tank with air emission controls in accordance with the requirements of Section R315-261-1084 shall prepare and maintain records for the tank that include the following information:

(1) For each tank using air emission controls in accordance with the requirements of Section R315-261-1084, the remanufacturer or other person that stores or treats the hazardous secondary material shall record:

(i) A tank identification number (or other unique identification description as selected by the remanufacturer or other person that stores or treats the hazardous secondary material).

(ii) A record for each inspection required by Section R315-261-1084 that includes the following information:

(A) Date inspection was conducted.

(B) For each defect detected during the inspection: The location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the requirements of Section R315-261-1084, the remanufacturer or other person that stores or treats the hazardous secondary material shall also record the reason for the delay and the date that completion of repair of the defect is expected.

(2) In addition to the information required by Subsection R315-261-1089(b)(1), the remanufacturer or other person that stores or treats the hazardous secondary material shall record the following information, as applicable to the tank:

(i) The remanufacturer or other person that stores or treats the hazardous secondary material using a fixed roof to comply with the Tank Level 1 control requirements specified in Subsection R315-261-1084(c) shall prepare and maintain records for each determination for the maximum organic vapor pressure of the hazardous secondary material in the tank performed in accordance with the requirements

of Subsection R315-261-1084(c). The records shall include the date and time the samples were collected, the analysis method used, and the analysis results.

(ii) The remanufacturer or other person that stores or treats the hazardous secondary material using an internal floating roof to comply with the Tank Level 2 control requirements specified in Subsection R315-261-1084(e) shall prepare and maintain documentation describing the floating roof design.

(iii) Remanufacturer or other persons that store or treat the hazardous secondary material using an external floating roof to comply with the Tank Level 2 control requirements specified in Subsection R315-261-1084(f) shall prepare and maintain the following records:

(A) Documentation describing the floating roof design and the dimensions of the tank.

(B) Records for each seal gap inspection required by Subsection R315-261-1084(f)(3) describing the results of the seal gap measurements. The records shall include the date that the measurements were performed, the raw data obtained for the measurements, and the calculations of the total gap surface area. In the event that the seal gap measurements do not conform to the specifications in Subsection R315-261-1084(f)(1), the records shall include a description of the repairs that were made, the date the repairs were made, and the date the tank was emptied, if necessary.

(iv) Each remanufacturer or other person that stores or treats the hazardous secondary material using an enclosure to comply with the Tank Level 2 control requirements specified in Subsection R315-261-1084(i) shall prepare and maintain the following records:

(A) Records for the most recent set of calculations and measurements performed by the remanufacturer or other person that stores or treats the hazardous secondary material to verify that the enclosure meets the criteria of a permanent total enclosure as specified in “Procedure T - Criteria for and Verification of a Permanent or Temporary Total Enclosure” under 40 CFR 52.741, appendix B.

(B) Records required for the closed-vent system and control device in accordance with the requirements of Subsection R315-261-1089(e).

(c) Reserved

(d) The remanufacturer or other person that stores or treats the hazardous secondary material using containers

with Container Level 3 air emission controls in accordance with the requirements of Subsection R315-261-1086 shall prepare and maintain records that include the following information:

(1) Records for the most recent set of calculations and measurements performed by the remanufacturer or other person that stores or treats the hazardous secondary material to verify that the enclosure meets the criteria of a permanent total enclosure as specified in “Procedure T - Criteria for and Verification of a Permanent or Temporary Total Enclosure” under 40 CFR 52.741, appendix B.

(2) Records required for the closed-vent system and control device in accordance with the requirements of Subsection R315-261-1089(e).

(e) The remanufacturer or other person that stores or treats the hazardous secondary material using a closed-vent system and control device in accordance with the requirements of Subsection R315-261-1087 shall prepare and maintain records that include the following information:

(1) Documentation for the closed-vent system and control device that includes:

(i) Certification that is signed and dated by the remanufacturer or other person that stores or treats the hazardous secondary material stating that the control device is designed to operate at the performance level documented by a design analysis as specified in Subsection R315-261-1089(e)(1)(ii) or by performance tests as specified in Subsection R315-261-1089(e)(1)(iii) when the tank or container is or would be operating at capacity or the highest level reasonably expected to occur.

(ii) If a design analysis is used, then design documentation as specified in Subsection R315-261-1035(b)(4). The documentation shall include information prepared by the remanufacturer or other person that stores or treats the hazardous secondary material or provided by the control device manufacturer or vendor that describes the control device design in accordance with Subsection R315-261-1035(b)(4)(iii) and certification by the remanufacturer or other person that stores or treats the hazardous secondary material that the control equipment meets the applicable specifications.

(iii) If performance tests are used, then a performance test plan as specified in Subsection R315-261-1035(b)(3) and all test results.

(iv) Information as required by Subsections R315-261-1035(c)(1) and 261.1035(c)(2), as applicable.

(v) A remanufacturer or other person that stores or treats the hazardous secondary material shall record, on a semiannual basis, the information specified in Subsections R315-261-1089(e)(1)(v)(A) and (B) for those planned routine maintenance operations that would require the control device not to meet the requirements of Subsection R315-261-1087(c)(1)(i), (ii), or (iii), as applicable.

(A) A description of the planned routine maintenance that is anticipated to be performed for the control device during the next 6-month period. This description shall include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods.

(B) A description of the planned routine maintenance that was performed for the control device during the previous 6-month period. This description shall include the type of maintenance performed and the total number of hours during those 6 months that the control device did not meet the requirements of Subsection R315-261-1087(c)(1)(i), (ii), or (iii), as applicable, due to planned routine maintenance.

(vi) A remanufacturer or other person that stores or treats the hazardous secondary material shall record the information specified in Subsections R315-261-1089(e)(1)(vi)(A) through (C) for those unexpected control device system malfunctions that would require the control device not to meet the requirements of Subsection R315-261-1087(c)(1)(i), (ii), or (iii), as applicable.

(A) The occurrence and duration of each malfunction of the control device system.

(B) The duration of each period during a malfunction when gases, vapors, or fumes are vented from the hazardous secondary material management unit through the closed-vent system to the control device while the control device is not properly functioning.

(C) Actions taken during periods of malfunction to restore a malfunctioning control device to its normal or usual manner of operation.

(vii) Records of the management of carbon removed from a carbon adsorption system conducted in accordance with Subsection R315-261-1087(c)(3)(ii).

(f) The remanufacturer or other person that stores or treats the hazardous secondary material using a tank or

container exempted under the hazardous secondary material organic concentration conditions specified in Subsections R315-261-1082(c)(1) or (c)(2)(i) through (vi), shall prepare and maintain at the facility records documenting the information used for each material determination, e.g., test results, measurements, calculations, and other documentation. If analysis results for material samples are used for the material determination, then the remanufacturer or other person that stores or treats the hazardous secondary material shall record the date, time, and location that each material sample is collected in accordance with applicable requirements of Section R315-261-1083.

(g) A remanufacturer or other person that stores or treats the hazardous secondary material designating a cover as “unsafe to inspect and monitor” pursuant to Subsection R315-261-1084(l) or Subsection R315-261-1085(g) shall record and keep at facility the following information: The identification numbers for hazardous secondary material management units with covers that are designated as “unsafe to inspect and monitor,” the explanation for each cover stating why the cover is unsafe to inspect and monitor, and the plan and schedule for inspecting and monitoring each cover.

(h) The remanufacturer or other person that stores or treats the hazardous secondary material that is subject to Sections R315-261-1080 through 1089 and to the control device standards in 40 CFR part 60, subpart VV, or 40 CFR part 61, subpart V, may elect to demonstrate compliance with the applicable sections of Sections R315-261-1080 through 1089 by documentation either pursuant to Sections R315-261-1080 through 1089, or pursuant to the provisions of 40 CFR part 60, subpart VV or 40 CFR part 61, subpart V, to the extent that the documentation required by 40 CFR parts 60 or 61 duplicates the documentation required by Section R315-261-1089.

Appendix I to Rule R315-261-Representative Sampling Methods

The methods and equipment used for sampling waste materials will vary with the form and consistency of the waste materials to be sampled. Samples collected using the sampling protocols listed below, for sampling waste with properties similar to the indicated materials, shall be considered by the Agency to be representative of the waste.

Extremely viscous liquid-ASTM Standard D140-70 Crushed or powdered material-ASTM Standard D346-75 Soil or rock-like material-ASTM Standard D420-69 Soil-like material-ASTM Standard D1452-65

Fly Ash-like material-ASTM Standard D2234-76, ASTM Standards are available from ASTM, 1916 Race St., Philadelphia, PA 19103

Containerized liquid waste-"COLIWASA."

Liquid waste in pits, ponds, lagoons, and similar reservoirs-"Pond Sampler."

This manual also contains additional information on application of these protocols.

Appendix VII to Rule R315-261-Basis for Listing Hazardous Waste

EPA hazardous waste No.	Hazardous constituents for which listed
F001	Tetrachloroethylene, methylene chloride trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chlorinated fluorocarbons.
F002	Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane.
F003	N.A.
F004	Cresols and cresylic acid, nitrobenzene.
F005	Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, 2-ethoxyethanol, benzene, 2-nitropropane.
F006	Cadmium, hexavalent chromium, nickel, cyanide (complexed).
F007	Cyanide (salts).
F008	Cyanide (salts).
F009	Cyanide (salts).
F010	Cyanide (salts).
F011	Cyanide (salts).
F012	Cyanide (complexed).
F019	Hexavalent chromium, cyanide (complexed).

F020	Tetra- and pentachlorodibenzo-p-dioxins; tetra and pentachlorodi-benzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.
F021	Penta- and hexachlorodibenzo-p- dioxins; penta- and hexachlorodibenzofurans; pentachlorophenol and its derivatives.
F022	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans.
F023	Tetra-, and pentachlorodibenzo-p-dioxins; tetra- and pentachlorodibenzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.
F024	Chloromethane, dichloromethane, trichloromethane, carbon tetrachloride, chloroethylene, 1,1-dichloroethane, 1,2-dichloroethane, trans-1-2-dichloroethylene, 1,1-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethylene, 1,1,1,2-tetra-chloroethane, 1,1,2,2-tetrachloroethane, tetrachloroethylene, pentachloroethane, hexachloroethane, allyl chloride (3-chloropropene), dichloropropane, dichloropropene, 2-chloro-1,3-butadiene, hexachloro-1,3-butadiene, hexachlorocyclopentadiene, hexachlorocyclohexane, benzene, chlorbenzene, dichlorobenzenes, 1,2,4-trichlorobenzene, tetrachlorobenzene, pentachlorobenzene, hexachlorobenzene, toluene, naphthalene.
F025	Chloromethane; Dichloromethane; Trichloromethane; Carbon tetrachloride; Chloroethylene; 1,1-Dichloroethane; 1,2-Dichloroethane; trans-1,2-Dichloroethylene; 1,1-Dichloroethylene; 1,1,1-Trichloroethane; 1,1,2-Trichloroethane; Trichloroethylene; 1,1,1,2-Tetrachloroethane; 1,1,2,2-Tetrachloroethane; Tetrachloroethylene; Pentachloroethane; Hexachloroethane; Allyl chloride (3-Chloropropene); Dichloropropane; Dichloropropene; 2-Chloro-1,3-butadiene; Hexachloro-1,3-butadiene; Hexachlorocyclopentadiene; Benzene;

	Chlorobenzene; Dichlorobenzene; 1,2,4-Trichlorobenzene; Tetrachlorobenzene; Pentachlorobenzene; Hexachlorobenzene; Toluene; Naphthalene.
F026	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans.
F027	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.
F028	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.
F032	Benz(a)anthracene, benzo(a)pyrene, dibenz(a,h)-anthracene, indeno(1,2,3-cd)pyrene, pentachlorophenol, arsenic, chromium, tetra-, penta-, hexa-, heptachlorodibenzo-p-dioxins, tetra-, penta-, hexa-, heptachlorodibenzofurans.
F034	Benz(a)anthracene, benzo(k)fluoranthene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, naphthalene, arsenic, chromium.
F035	Arsenic, chromium, lead.
F037	Benzene, benzo(a)pyrene, chrysene, lead, chromium.
F038	Benzene, benzo(a)pyrene, chrysene, lead, chromium.
F039	All constituents for which treatment standards are specified for multi-source leachate (wastewaters and nonwastewaters) under Section R315-268-43, Table CCW.
F999	CX, GA, GB, GD, H, HD, HL, HN-1, HN-2, HN-3, HT, L, T, and VX.
K001	Pentachlorophenol, phenol, 2-chlorophenol, p-chloro-m-cresol, 2,4-dimethylphenyl, 2,4-dinitrophenol, trichlorophenols, tetrachlorophenols, 2,4-dinitrophenol, creosote, chrysene, naphthalene, fluoranthene, benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, benz(a)anthracene,

	dibenz(a)anthracene, acenaphthalene.
K002	Hexavalent chromium, lead
K003	Hexavalent chromium, lead.
K004	Hexavalent chromium.
K005	Hexavalent chromium, lead.
K006	Hexavalent chromium.
K007	Cyanide (complexed), hexavalent chromium.
K008	Hexavalent chromium.
K009	Chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid.
K010	Chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid, chloroacetaldehyde.
K011	Acrylonitrile, acetonitrile, hydrocyanic acid.
K013	Hydrocyanic acid, acrylonitrile, acetonitrile.
K014	Acetonitrile, acrylamide.
K015	Benzyl chloride, chlorobenzene, toluene, benzotrichloride.
K016	Hexachlorobenzene, hexachlorobutadiene, carbon tetrachloride, hexachloroethane, perchloroethylene.
K017	Epichlorohydrin, chloroethers (bis(chloromethyl) ether and bis (2-chloroethyl) ethers), trichloropropane, dichloropropanols.
K018	1,2-dichloroethane, trichloroethylene, hexachlorobutadiene, hexachlorobenzene.
K019	Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloroethanes (1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride.
K020	Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloroethanes (1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride.
K021	Antimony, carbon tetrachloride, chloroform.
K022	Phenol, tars (polycyclic aromatic hydrocarbons).
K023	Phthalic anhydride, maleic anhydride.
K024	Phthalic anhydride, 1,4-naphthoquinone.
K025	Meta-dinitrobenzene, 2,4-dinitrotoluene.
K026	Paraldehyde, pyridines, 2-picoline.
K027	Toluene diisocyanate, toluene-2, 4-diamine.

K028	1,1,1-trichloroethane, vinyl chloride.
K029	1,2-dichloroethane, 1,1,1-trichloroethane, vinyl chloride, vinylidene chloride, chloroform.
K030	Hexachlorobenzene, hexachlorobutadiene, hexachloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, ethylene dichloride.
K031	Arsenic.
K032	Hexachlorocyclopentadiene.
K033	Hexachlorocyclopentadiene.
K034	Hexachlorocyclopentadiene.
K035	Creosote, chrysene, naphthalene, fluoranthene benzo(b) fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd) pyrene, benzo(a)anthracene, dibenzo(a)anthracene, acenaphthalene.
K036	Toluene, phosphorodithioic and phosphorothioic acid esters.
K037	Toluene, phosphorodithioic and phosphorothioic acid esters.
K038	Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters.
K039	Phosphorodithioic and phosphorothioic acid esters.
K040	Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters.
K041	Toxaphene.
K042	Hexachlorobenzene, ortho-dichlorobenzene.
K043	2,4-dichlorophenol, 2,6-dichlorophenol, 2,4,6-trichlorophenol.
K044	N.A.
K045	N.A.
K046	Lead.
K047	N.A.
K048	Hexavalent chromium, lead.
K049	Hexavalent chromium, lead.
K050	Hexavalent chromium.
K051	Hexavalent chromium, lead.
K052	Lead.
K060	Cyanide, napthalene, phenolic compounds, arsenic.
K061	Hexavalent chromium, lead, cadmium.
K062	Hexavalent chromium, lead.
K069	Hexavalent chromium, lead, cadmium.
K071	Mercury.
K073	Chloroform, carbon tetrachloride, hexachloroethane, trichloroethane,

	tetrachloroethylene, dichloroethylene, 1,1,2,2-tetrachloroethane.
K083	Aniline, diphenylamine, nitrobenzene, phenylenediamine.
K084	Arsenic.
K085	Benzene, dichlorobenzenes, trichlorobenzenes, tetrachlorobenzenes, pentachlorobenzene, hexachlorobenzene, benzyl chloride.
K086	Lead, hexavalent chromium.
K087	Phenol, naphthalene.
K088	Cyanide (complexes).
K093	Phthalic anhydride, maleic anhydride.
K094	Phthalic anhydride.
K095	1,1,2-trichloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane.
K096	1,2-dichloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane.
K097	Chlordane, heptachlor.
K098	Toxaphene.
K099	2,4-dichlorophenol, 2,4,6-trichlorophenol.
K100	Hexavalent chromium, lead, cadmium.
K101	Arsenic.
K102	Arsenic.
K103	Aniline, nitrobenzene, phenylenediamine.
K104	Aniline, benzene, diphenylamine, nitrobenzene, phenylenediamine.
K105	Benzene, monochlorobenzene, dichlorobenzenes, 2,4,6-trichlorophenol.
K106	Mercury.
K107	1,1-Dimethylhydrazine (UDMH).
K108	1,1-Dimethylhydrazine (UDMH).
K109	1,1-Dimethylhydrazine (UDMH).
K110	1,1-Dimethylhydrazine (UDMH).
K111	2,4-Dinitrotoluene.
K112	2,4-Toluenediamine, o-toluidine, p-toluidine, aniline.
K113	2,4-Toluenediamine, o-toluidine, p-toluidine, aniline.
K114	2,4-Toluenediamine, o-toluidine, p-toluidine.
K115	2,4-Toluenediamine.
K116	Carbon tetrachloride, tetrachloroethylene, chloroform, phosgene.
K117	Ethylene dibromide.
K118	Ethylene dibromide.
K123	Ethylene thiourea.

K124	Ethylene thiourea.
K125	Ethylene thiourea.
K126	Ethylene thiourea.
K131	Dimethyl sulfate, methyl bromide.
K132	Methyl bromide.
K136	Ethylene dibromide.
K141	Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene.
K142	Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene.
K143	Benzene, benz(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene.
K144	Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene.
K145	Benzene, benz(a)anthracene, benzo(a)pyrene, dibenz(a,h)anthracene, naphthalene.
K147	Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene.
K148	Benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene.
K149	Benzotrichloride, benzyl chloride, chloroform, chloromethane, chlorobenzene, 1,4-dichlorobenzene, hexachlorobenzene, pentachlorobenzene, 1,2,4,5-tetrachlorobenzene, toluene.
K150	Carbon tetrachloride, chloroform, chloromethane, 1,4-dichlorobenzene, hexachlorobenzene, pentachlorobenzene, 1,2,4,5-tetrachlorobenzene, 1,1,2,2-tetrachloroethane, tetrachloroethylene, 1,2,4-trichlorobenzene.
K151	Benzene, carbon tetrachloride, chloroform, hexachlorobenzene, pentachlorobenzene, toluene, 1,2,4,5-tetrachlorobenzene, tetrachloroethylene.
K156	Benomyl, carbaryl, carbendazim, carbofuran, carbosulfan, formaldehyde, methylene chloride, triethylamine.
K157	Carbon tetrachloride, formaldehyde, methyl chloride, methylene chloride, pyridine, triethylamine.
K158	Benomyl, carbendazim, carbofuran, carbosulfan,

	chloroform, methylene chloride.
K159	Benzene, butylate, eptc, molinate, pebulate, vernolate.
K161	Antimony, arsenic, metam-sodium, ziram.
K169	Benzene.
K170	Benzo(a)pyrene, dibenz(a,h)anthracene, benzo (a) anthracene, benzo (b)fluoranthene, benzo(k)fluoranthene, 3-methylcholanthrene, 7, 12-dimethylbenz(a)anthracene.
K171	Benzene, arsenic.
K172	Benzene, arsenic.
K174	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD), 1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF), 1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,6,7,8,9-HpCDF), HxCDDs (All Hexachlorodibenzo-p-dioxins), HxCDFs (All Hexachlorodibenzofurans), PeCDDs (All Pentachlorodibenzo-p-dioxins), OCDD (1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin, OCDF (1,2,3,4,6,7,8,9-Octachlorodibenzofuran), PeCDFs (All Pentachlorodibenzofurans), TCDDs (All tetrachlorodi-benzo-p-dioxins), TCDFs (All tetrachlorodibenzofurans).
K175	Mercury
K176	Arsenic, Lead.
K177	Antimony.
K178	Thallium.
K181	Aniline, o-anisidine, 4-chloroaniline, p-cresidine, 2,4-dimethylaniline, 1,2-phenylenediamine, 1,3-phenylenediamine.

N.A.-Waste is hazardous because it fails the test for the characteristic of ignitability, corrosivity, or reactivity.

Appendix VIII to Rule 315-261-Hazardous Constituents

Appendix VIII to 40 CFR Part 261, 2015 Ed., is adopted and incorporated by reference, with the following addition:

(a) P999 - CX, GA, GB, GD, H, HD, HL, HN-1, HN-2, HN-3, HT, L, T, and VX.

Appendix IX to Rule 315-261-Hazardous Constituents

Appendix IX to 40 CFR Part 261, 2015 Ed., is adopted and incorporated by reference

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.

Rule R315-262. Hazardous Waste Generator Requirements.

R315-262-10. Purpose, scope, and applicability.

(a) Rule R315-262 establish standards for generators of hazardous waste.

(b) Subsections R315-261-5(c) and (d) shall be used to determine the applicability of provisions of Rule R315-262 that are dependent on calculations of the quantity of hazardous waste generated per month.

(c) A generator who treats, stores, or disposes of hazardous waste on-site shall only comply with the following Subsections of Rule R315-262 with respect to that waste: Subsection R315-262-11 for determining whether or not he has a hazardous waste, Subsection R315-262-12 for obtaining an EPA identification number, Subsection R315-262-34 for accumulation of hazardous waste, Subsection R315-262-40 (c) and (d) for recordkeeping, Subsection R315-262-43 for additional reporting, and if applicable, Subsection R315-262-70 for farmers.

(d) Any person who exports or imports wastes that are considered hazardous under U.S. national procedures to or from the countries listed in Subsection R315-262.58(a)(1) for recovery shall comply with Sections R315-262-80 through 89. A waste is considered hazardous under U.S. national procedures if the waste meets the definition of hazardous waste in Section R315-261-3 and is subject to either the manifesting requirements at Sections R315-262-20 through 25 and 27, the universal waste management standards of Rule R315-273, the export requirements in the spent lead-acid battery management standards of Section R315-266-80.

(e) Any person who imports hazardous waste into the United States shall comply with the standards applicable to generators established in Rule R315-262.

(f) A farmer who generates waste pesticides which are hazardous waste and who complies with all of the requirements of Section R315-262-70 is not required to comply with other standards in Rule R315-262 or Rules R315-270, 264, 265, or 268 with respect to such pesticides.

(g) A person who generates a hazardous waste as defined Rule R315-261 is subject to the compliance requirements and penalties prescribed in The Utah Solid and Hazardous Waste Act if he does not comply with the requirements of Rule R315-262.

(h) An owner or operator who initiates a shipment of hazardous waste from a treatment, storage, or disposal facility shall comply with the generator standards established in Rule R315-262.

Note 1: The provisions of Section R315-262-34 are applicable to the on-site accumulation of hazardous waste by generators. Therefore, the provisions of Section R315-262-34 only apply to owners or operators who are shipping hazardous waste which they generated at that facility.

Note 2: A generator who treats, stores, or disposes of hazardous waste on-site shall comply with the applicable standards and permit requirements set forth in Rules R315-264, 265, 266, 268, and 270.

(i) Reserved

(j) Reserved

(k) Reserved

(l) Generators of lamps, as defined in Section R315-273-9, using a drum-top crusher, as defined in Section R315-273-9, shall meet the requirements of Subsection R315-273-13(d)(3), except for the registration requirement; and Subsections R315-273-13(d)(4) and (5).

R315-262-11. Hazardous waste determination.

A person who generates a solid waste, as defined in Section R315-261-2, shall determine if that waste is a hazardous waste using the following method:

(a) He should first determine if the waste is excluded from regulation under Section R315-261-4.

(b) He shall then determine if the waste is listed as a hazardous waste in Sections R315-261-30 through 35.

Note: Even if the waste is listed, the generator still has an opportunity under Section R315-260-22 to demonstrate to the Director that the waste from his particular facility or operation is not a hazardous waste.

(c) For purposes of compliance with Rule R315-268, or if the waste is not listed in Sections R315-261-30 through 35, the generator shall then determine whether the waste is identified in Sections R315-261-20 through 24 by either:

(1) Testing the waste according to the methods set forth in Sections R315-261-20 through 24, or according to an equivalent method approved by the Board under Section R315-260-21; or

(2) Applying knowledge of the hazard characteristic of the waste in light of the materials or the processes used.

(d) If the waste is determined to be hazardous, the generator shall refer to Rules R315-261, 264, 265, 266, 268, and 273 for possible exclusions or restrictions pertaining to management of the specific waste.

R315-262-12. EPA identification numbers.

(a) A generator shall not treat, store, dispose of, transport, or offer for transportation, hazardous waste without having received an EPA identification number from the Director.

(b) A generator who has not received an EPA identification number may obtain one by applying to the Director using EPA form 8700-12. Upon receiving the request the Director shall assign an EPA identification number to the generator.

(c) A generator shall not offer his hazardous waste to transporters or to treatment, storage, or disposal facilities that have not received an EPA identification number.

R315-262-20. General requirements.

(a)(1) A generator who transports, or offers for transport a hazardous waste for offsite treatment, storage, or disposal, or a treatment, storage, and disposal facility who offers for transport a rejected hazardous waste load, shall prepare a Manifest (OMB Control number 2050-0039) on EPA Form 8700-22, and, if necessary, EPA Form 8700-22A, according to the instructions included in the appendix to Rule R315-262.

(2) Reserved

(3) Electronic manifest. In lieu of using the manifest form specified in Subsection R315-262-20(a)(1), a person required to prepare a manifest under Subsection R315-262-20(a)(1) may prepare and use an electronic manifest, provided that the person:

(i) Complies with the requirements in Section R315-262-24 for use of electronic manifests, and

(ii) Complies with the requirements of 40 CFR 3.10 for the reporting of electronic documents to EPA.

(b) A generator shall designate on the manifest one facility which is permitted to handle the waste described on the manifest.

(c) A generator may also designate on the manifest one alternate facility which is permitted to handle his

waste in the event an emergency prevents delivery of the waste to the primary designated facility.

(d) If the transporter is unable to deliver the hazardous waste to the designated facility or the alternate facility, the generator shall either designate another facility or instruct the transporter to return the waste.

(e) The requirements of Section R315-262-20 through 27 do not apply to hazardous waste produced by generators of greater than 100 kg but less than 1000 kg in a calendar month where:

(1) The waste is reclaimed under a contractual agreement pursuant to which:

(i) The type of waste and frequency of shipments are specified in the agreement;

(ii) The vehicle used to transport the waste to the recycling facility and to deliver regenerated material back to the generator is owned and operated by the reclaimer of the waste; and

(2) The generator maintains a copy of the reclamation agreement in his files for a period of at least three years after termination or expiration of the agreement.

(f) The requirements of Sections R315-262-20 through 27 and Subsection R315-262-32(b) do not apply to the transport of hazardous wastes on a public or private right-of-way within or along the border of contiguous property under the control of the same person, even if such contiguous property is divided by a public or private right-of-way. Notwithstanding Subsection R315-263-10(a), the generator or transporter shall comply with the requirements for transporters set forth in Sections R315-263-30 and 31 in the event of a discharge of hazardous waste on a public or private right-of-way.

R315-262-21. Manifest tracking numbers, manifest printing, and obtaining manifests.

(a)(1) A registrant may not print, or have printed, the manifest for use of distribution unless it has received approval from the EPA Director of the Office of Resource Conservation and Recovery to do so under Subsection R315-262-21(c) and (e).

(2) The approved registrant is responsible for ensuring that the organizations identified in its application are in compliance with the procedures of its approved application and the requirements of Section R315-

262-21. The registrant is responsible for assigning manifest tracking numbers to its manifests.

(b) A registrant shall submit an initial application to the EPA Director of the Office of Resource Conservation and Recovery that contains the following information:

(1) Name and mailing address of registrant;

(2) Name, telephone number and email address of contact person;

(3) Brief description of registrant's government or business activity;

(4) EPA identification number of the registrant, if applicable;

(5) Description of the scope of the operations that the registrant plans to undertake in printing, distributing, and using its manifests, including:

(i) A description of the printing operation. The description should include an explanation of whether the registrant intends to print its manifests in-house, i.e., using its own printing establishments, or through a separate, i.e., unaffiliated, printing company. If the registrant intends to use a separate printing company to print the manifest on its behalf, the application shall identify this printing company and discuss how the registrant will oversee the company. If this includes the use of intermediaries, e.g., prime and subcontractor relationships, the role of each shall be discussed. The application shall provide the name and mailing address of each company. It also shall provide the name and telephone number of the contact person at each company.

(ii) A description of how the registrant will ensure that its organization and unaffiliated companies, if any, comply with the requirements of Section R315-262-21. The application shall discuss how the registrant will ensure that a unique manifest tracking number will be pre-printed on each manifest. The application shall describe the internal control procedures to be followed by the registrant and unaffiliated companies to ensure that numbers are tightly controlled and remain unique. In particular, the application shall describe how the registrant will assign manifest tracking numbers to its manifests. If computer systems or other infrastructure will be used to maintain, track, or assign numbers, these should be indicated. The application shall also indicate how the printer will pre-print a unique number on each form, e.g., crash or press numbering. The application also shall

explain the other quality procedures to be followed by each establishment and printing company to ensure that all required print specifications are consistently achieved and that printing violations are identified and corrected at the earliest practicable time.

(iii) An indication of whether the registrant intends to use the manifests for its own business operations or to distribute the manifests to a separate company or to the general public, e.g., for purchase.

(6) A brief description of the qualifications of the company that will print the manifest. The registrant may use readily available information to do so, e.g., corporate brochures, product samples, customer references, documentation of ISO certification, so long as such information pertains to the establishments or company being proposed to print the manifest.

(7) Proposed unique three-letter manifest tracking number suffix. If the registrant is approved to print the manifest, the registrant shall use this suffix to pre-print a unique manifest tracking number on each manifest.

(8) A signed certification by a duly authorized employee of the registrant that the organizations and companies in its application will comply with the procedures of its approved application and the requirements of Section R315-262-21 and that it will notify the EPA Director of the Office of Resource Conservation and Recovery of any duplicated manifest tracking numbers on manifests that have been used or distributed to other parties as soon as this becomes known.

(c) EPA shall review the application submitted under Subsection R315-262-21(b) and either approve it or request additional information or modification before approving it.

(d)(1) Upon EPA approval of the application under Subsection R315-262-21(c), EPA shall provide the registrant an electronic file of the manifest, continuation sheet, and manifest instructions and ask the registrant to submit three fully assembled manifests and continuation sheet samples, except as noted in Subsection R315-262-21(d)(3). The registrant's samples shall meet all of the specifications in Subsection R315-262-21(f) and be printed by the company that will print the manifest as identified in the application approved under Subsection R315-262-21(c).

(2) The registrant shall submit a description of the manifest samples as follows:

(i) Paper type, i.e., manufacturer and grade of the manifest paper;

(ii) Paper weight of each copy;

(iii) Ink color of the manifest's instructions. If screening of the ink was used, the registrant shall indicate the extent of the screening; and

(iv) Method of binding the copies.

(3) The registrant need not submit samples of the continuation sheet if it will print its continuation sheet using the same paper type, paper weight of each copy, ink color of the instructions, and binding method as its manifest form samples.

(e) EPA shall evaluate the forms and either approve the registrant to print them as proposed or request additional information or modification to them before approval. EPA shall notify the registrant of its decision by mail. The registrant cannot use or distribute its forms until EPA approves them. An approved registrant shall print the manifest and continuation sheet according to its application approved under Subsection R315-262-21(c) and the manifest specifications in Subsection R315-262-21(f). It also shall print the forms according to the paper type, paper weight, ink color of the manifest instructions and binding method of its approved forms.

(f) Paper manifests and continuation sheets shall be printed according to the following specifications:

(1) The manifest and continuation sheet shall be printed with the exact format and appearance as EPA Forms 8700-22 and 8700-22A, respectively. However, information required to complete the manifest may be pre-printed on the manifest form.

(2) A unique manifest tracking number assigned in accordance with a numbering system approved by EPA shall be pre-printed in Item 4 of the manifest. The tracking number shall consist of a unique three-letter suffix following nine digits.

(3) The manifest and continuation sheet shall be printed on 81/2 x 11-inch white paper, excluding common stubs, e.g., top- or side-bound stubs. The paper shall be durable enough to withstand normal use.

(4) The manifest and continuation sheet shall be printed in black ink that can be legibly photocopied, scanned, or faxed, except that the marginal words indicating copy distribution shall be printed with a distinct ink color or with another method; e.g., white text

against black background in text box, or, black text against grey background in text box; that clearly distinguishes the copy distribution notations from the other text and data entries on the form.

(5) The manifest and continuation sheet shall be printed as six-copy forms. Copy-to-copy registration shall be exact within 1/32 nd of an inch. Handwritten and typed impressions on the form shall be legible on all six copies. Copies shall be bound together by one or more common stubs that reasonably ensure that they will not become detached inadvertently during normal use.

(6) Each copy of the manifest and continuation sheet shall indicate how the copy shall be distributed, as follows:

(i) Page 1, top copy: “Designated facility to destination State, if required”.

(ii) Page 2: “Designated facility to generator State, if required”.

(iii) Page 3: “Designated facility to generator”.

(iv) Page 4: “Designated facility's copy”.

(v) Page 5: “Transporter's copy”.

(vi) Page 6 (bottom copy): “Generator's initial copy”.

(7) The instructions in the appendix to Rule R315-262 shall appear legibly on the back of the copies of the manifest and continuation sheet as provided in Subsection R315-262-21(f). The instructions shall not be visible through the front of the copies when photocopied or faxed.

(i) Manifest Form 8700-22.

(A) The “Instructions for Generators” on Copy 6;

(B) The “Instructions for International Shipment Block” and “Instructions for Transporters” on Copy 5; and

(C) The “Instructions for Treatment, Storage, and Disposal Facilities” on Copy 4.

(ii) Manifest Form 8700-22A.

(A) The “Instructions for Generators” on Copy 6;

(B) The “Instructions for Transporters” on Copy 5; and

(C) The “Instructions for Treatment, Storage, and Disposal Facilities” on Copy 4.

(g)(1) A generator may use manifests printed by any source so long as the source of the printed form has received approval from EPA to print the manifest under Subsections R315-262-21(c) and (e). A registered source may be a:

(i) State agency;
(ii) Commercial printer;
(iii) Hazardous waste generator, transporter or TSDF; or
(iv) Hazardous waste broker or other preparer who prepares or arranges shipments of hazardous waste for transportation.
(2) A generator shall determine whether the generator state or the consignment state for a shipment regulates any additional wastes, beyond those regulated Federally, as hazardous wastes under these states' authorized programs. Generators also shall determine whether the consignment state or generator state requires the generator to submit any copies of the manifest to these states. In cases where the generator shall supply copies to either the generator's state or the consignment state, the generator is responsible for supplying legible photocopies of the manifest to these states.
(h)(1) If an approved registrant would like to update any of the information provided in its application approved under Subsection R315-262-21(c), e.g., to update a company phone number or name of contact person, the registrant shall revise the application and submit it to the EPA Director of the Office of Resource Conservation and Recovery, along with an indication or explanation of the update, as soon as practicable after the change occurs. The Agency either shall approve or deny the revision. If the Agency denies the revision, it shall explain the reasons for the denial, and it shall contact the registrant and request further modification before approval.
(2) If the registrant would like a new tracking number suffix, the registrant shall submit a proposed suffix to the EPA Director of the Office of Resource Conservation and Recovery, along with the reason for requesting it. The Agency shall either approve the suffix or deny the suffix and provide an explanation why it is not acceptable.
(3) If a registrant would like to change the paper type, paper weight, ink color of the manifest instructions, or binding method of its manifest or continuation sheet subsequent to approval under Subsection R315-262-21(e), then the registrant shall submit three samples of the revised form for EPA review and approval. If the approved registrant would like to use a new printer, the registrant shall submit three manifest samples printed by the new

printer, along with a brief description of the printer's qualifications to print the manifest. EPA shall evaluate the manifests and either approve the registrant to print the forms as proposed or request additional information or modification to them before approval. EPA shall notify the registrant of its decision by mail. The registrant cannot use or distribute its revised forms until EPA approves them.

(i) If, subsequent to its approval under Subsection R315-262-21(e), a registrant typesets its manifest or continuation sheet instead of using the electronic file of the forms provided by EPA, it shall submit three samples of the manifest or continuation sheet to the registry for approval. EPA shall evaluate the manifests or continuation sheets and either approve the registrant to print them as proposed or request additional information or modification to them before approval. EPA shall notify the registrant of its decision by mail. The registrant cannot use or distribute its typeset forms until EPA approves them.

(j) EPA may exempt a registrant from the requirement to submit form samples under Subsection R315-262-21(d) or (h)(3) if the Agency is persuaded that a separate review of the registrant's forms would serve little purpose in informing an approval decision; e.g., a registrant certifies that it will print the manifest using the same paper type, paper weight, ink color of the instructions and binding method of the form samples approved for some other registrant. A registrant may request an exemption from EPA by indicating why an exemption is warranted.

(k) An approved registrant shall notify EPA by phone or email as soon as it becomes aware that it has duplicated tracking numbers on any manifests that have been used or distributed to other parties.

(l) If, subsequent to approval of a registrant under Subsection R315-262-21(e), EPA becomes aware that the approved paper type, paper weight, ink color of the instructions, or binding method of the registrant's form is unsatisfactory, EPA shall contact the registrant and require modifications to the form.

(m)(1) EPA may suspend and, if necessary, revoke printing privileges if we find that the registrant:

(i) Has used or distributed forms that deviate from its approved form samples in regard to paper weight, paper type, ink color of the instructions, or binding method; or

(ii) Exhibits a continuing pattern of behavior in using or distributing manifests that contain duplicate manifest tracking numbers.

(2) EPA shall send a warning letter to the registrant that specifies the date by which it shall come into compliance with the requirements. If the registrant does not come in compliance by the specified date, EPA shall send a second letter notifying the registrant that EPA has suspended or revoked its printing privileges. An approved registrant shall provide information on its printing activities to EPA if requested.

R315-262-22. Number of copies.

The manifest consists of at least the number of copies which will provide the generator, each transporter, and the owner or operator of the designated facility with one copy each for their records and another copy to be returned to the generator.

R315-262-23. Use of the manifest.

(a) The generator shall:

(1) Sign the manifest certification by hand; and

(2) Obtain the handwritten signature of the initial transporter and date of acceptance on the manifest; and

(3) Retain one copy, in accordance with Subsection R315-262-40(a).

(b) The generator shall give the transporter the remaining copies of the manifest.

(c) For shipments of hazardous waste within Utah solely by water, bulk shipments only, the generator shall send three copies of the manifest dated and signed in accordance with Section R315-262-23 to the owner or operator of the designated facility or the last water, bulk shipment, transporter to handle the waste in the United States if exported by water. Copies of the manifest are not required for each transporter.

(d) For rail shipments of hazardous waste within Utah which originate at the site of generation, the generator shall send at least three copies of the manifest dated and signed in accordance with Section R315-262-23 to:

(1) The next non-rail transporter, if any; or

(2) The designated facility if transported solely by rail; or

(3) The last rail transporter to handle the waste in the United States if exported by rail.

(e) For shipments of hazardous waste to a designated facility in an authorized State which has not yet obtained federal authorization to regulate that particular waste as hazardous, the generator shall assure that the designated facility agrees to sign and return the manifest to the generator, and that any out-of-state transporter signs and forwards the manifest to the designated facility.
Note: See Subsections R315-263-20(e) and (f) for special provisions for rail or water, bulk shipment, transporters.

(f) For rejected shipments of hazardous waste or container residues contained in non-empty containers that are returned to the generator by the designated facility, following the procedures of Subsections R315-264-72(f) or 40 CFR 265.72(f) , which is adopted by reference; the generator shall:

(1) Sign either:

(i) Item 20 of the new manifest if a new manifest is used for the returned shipment; or

(ii) Item 18c of the original manifest if the original manifest is used for the returned shipment;

(2) Provide the transporter a copy of the manifest;

(3) Within 30 days of delivery of the rejected shipment or container residues contained in non-empty containers, send a copy of the manifest to the designated facility that returned the shipment to the generator; and

(4) Retain at the generator's site a copy of each manifest for at least three years from the date of delivery.

R315-262-24. Use of the electronic manifest.

(a) Legal equivalence to paper manifests. Electronic manifests that are obtained, completed, and transmitted in accordance with Subsection R315-262-20(a)(3), and used in accordance with Section R315-262-24 in lieu of EPA Forms 8700-22 and 8700-22A are the legal equivalent of paper manifest forms bearing handwritten signatures, and satisfy for all purposes any requirement in these regulations to obtain, complete, sign, provide, use, or retain a manifest.

(1) Any requirement in these regulations to sign a manifest or manifest certification by hand, or to obtain a handwritten signature, is satisfied by signing with or obtaining a valid and enforceable electronic signature within the meaning of Section R315-262-25.

(2) Any requirement in these regulations to give, provide, send, forward, or return to another person a copy

of the manifest is satisfied when an electronic manifest is transmitted to the other person by submission to the system.

(3) Any requirement in these regulations for a generator to keep or retain a copy of each manifest is satisfied by retention of a signed electronic manifest in the generator's account on the national e-Manifest system, provided that such copies are readily available for viewing and production if requested by any EPA or Utah inspector.

(4) No generator may be held liable for the inability to produce an electronic manifest for inspection under Section R315-262-24 if the generator can demonstrate that the inability to produce the electronic manifest is due exclusively to a technical difficulty with the electronic manifest system for which the generator bears no responsibility.

(b) A generator may participate in the electronic manifest system either by accessing the electronic manifest system from its own electronic equipment, or by accessing the electronic manifest system from portable equipment brought to the generator's site by the transporter who accepts the hazardous waste shipment from the generator for off-site transportation.

(c) Restriction on use of electronic manifests. A generator may prepare an electronic manifest for the tracking of hazardous waste shipments involving any RCRA hazardous waste only if it is known at the time the manifest is originated that all waste handlers named on the manifest participate in the electronic manifest system.

(d) Requirement for one printed copy. To the extent the Hazardous Materials regulation on shipping papers for carriage by public highway requires shippers of hazardous materials to supply a paper document for compliance with 49 CFR 177.817, a generator originating an electronic manifest shall also provide the initial transporter with one printed copy of the electronic manifest.

(e) Special procedures when electronic manifest is unavailable. If a generator has prepared an electronic manifest for a hazardous waste shipment, but the electronic manifest system becomes unavailable for any reason prior to the time that the initial transporter has signed electronically to acknowledge the receipt of the hazardous waste from the generator, then the generator shall obtain and complete a paper manifest and if necessary, a continuation sheet (EPA Forms 8700-22 and 8700-22A) in

accordance with the manifest instructions in the appendix to Rule R315-262, and use these paper forms from this point forward in accordance with the requirements of Section R315-262-23.

(f) Special procedures for electronic signature methods undergoing tests. If a generator has prepared an electronic manifest for a hazardous waste shipment, and signs this manifest electronically using an electronic signature method which is undergoing pilot or demonstration tests aimed at demonstrating the practicality or legal dependability of the signature method, then the generator shall also sign with an ink signature the generator/offeror certification on the printed copy of the manifest provided under Subsection R315-262-24(d).

(g) Imposition of user fee. A generator who is a user of the electronic manifest may be assessed a user fee by EPA for the origination of each electronic manifest. EPA shall maintain and update from time-to-time the current schedule of electronic manifest user fees, which shall be determined based on current and projected system costs and level of use of the electronic manifest system. The current schedule of electronic manifest user fees shall be published as an appendix to Rule R315-262.

R315-262-25. Electronic manifest signatures.

Electronic signature methods for the e-Manifest system shall:

(a) Be a legally valid and enforceable signature under applicable EPA and other Federal requirements pertaining to electronic signatures; and

(b) Be a method that is designed and implemented in a manner that EPA considers to be as cost-effective and practical as possible for the users of the manifest.

R315-262-27. Waste minimization certification.

A generator who initiates a shipment of hazardous waste shall certify to one of the following statements in Item 15 of the uniform hazardous waste manifest:

(a) “I am a large quantity generator. I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment;” or

(b) “I am a small quantity generator. I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.”

R315-262-30. Packaging.
Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator shall package the waste in accordance with the applicable Department of Transportation regulations on packaging under 49 CFR parts 173, 178, and 179.

R315-262-31. Labeling.
Before transporting or offering hazardous waste for transportation off-site, a generator shall label each package in accordance with the applicable Department of Transportation regulations on hazardous materials under 49 CFR part 172.

R315-262-32. Marking.
(a) Before transporting or offering hazardous waste for transportation off-site, a generator shall mark each package of hazardous waste in accordance with the applicable Department of Transportation regulations on hazardous materials under 49 CFR part 172;
(b) Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator shall mark each container of 119 gallons or less used in such transportation with the following words and information in accordance with the requirements of 49 CFR 172.304:

HAZARDOUS WASTE-Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency.

Generator's Name and Address.

Generator's EPA Identification Number.

Manifest Tracking Number.

R315-262-33. Placarding.
Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator shall

placard or offer the initial transporter the appropriate placards according to Department of Transportation regulations for hazardous materials under 49 CFR part 172, subpart F.

R315-262-34. Accumulation time.

(a) Except as provided in Subsections R315-262-34(d), (e), and (f), a generator may accumulate hazardous waste on-site for 90 days or less without a permit or without having interim status, provided that:

(1) The waste is placed:

(i) In containers and the generator complies with the applicable requirements of 40 CFR 265.170 through 178, 1030 through 1049, 1050 through 1079,and 1080 through 1091, which are adopted by reference; and/or

(ii) In tanks and the generator complies with the applicable requirements of 40 CFR 265.190 through 201, 1030 through 1049, 1050 through 1079,and 1080 through 1091, which are adopted by reference, except 197(c) and 200; and/or

(iii) On drip pads and the generator complies with 40 CFR 265.440 through 445, which are adopted by reference, and maintains the following records at the facility:

(A) A description of procedures that shall be followed to ensure that all wastes are removed from the drip pad and associated collection system at least once every 90 days; and

(B) Documentation of each waste removal, including the quantity of waste removed from the drip pad and the sump or collection system and the date and time of removal; and/or

(iv) In containment buildings and the generator complies with 40 CFR 265.1100 Through 1102, which are adopted by reference; has placed its professional engineer certification that the building complies with the design standards specified in 40 CFR 265.1101, which is adopted by reference, in the facility's operating record no later than 60 days after the date of initial operation of the unit. After February 18, 1993, PE certification shall be required prior to operation of the unit. The owner or operator shall maintain the following records at the facility:

(A) A written description of procedures to ensure that each waste volume remains in the unit for no more than 90 days, a written description of the waste generation and management practices for the facility showing that they are

consistent with respecting the 90 day limit, and documentation that the procedures are complied with; or

(B) Documentation that the unit is emptied at least once every 90 days.

In addition, such a generator is exempt from all the requirements in Sections R315-262-110 through 121 and 140 through 150, except for 40 CFR 265.111 and 114, which are adopted by reference.

(2) The date upon which each period of accumulation begins is clearly marked and visible for inspection on each container;

(3) While being accumulated on-site, each container and tank is labeled or marked clearly with the words, “Hazardous Waste”; and

(4) The generator complies with the requirements for owners or operators in 40 CFR 265.16, 30 through 37, and 50 through 56, which are adopted by reference; and with all applicable requirements under Rule R315-268.

(b) A generator of 1,000 kilograms or greater of hazardous waste in a calendar month, or greater than 1 kg of acute hazardous waste listed in Section R315-261-31 or Subsection R315-261-33(e) in a calendar month, who accumulates hazardous waste or acute hazardous waste for more than 90 days is an operator of a storage facility and is subject to the requirements of Rules R315-264 and 265 and the permit requirements of Rule R315-270 unless he has been granted an extension to the 90-day period. Such extension may be granted by the Director if hazardous wastes shall remain on-site for longer than 90 days due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to 30 days may be granted at the discretion of the Director on a case-by-case basis.

(c)(1) A generator may accumulate as much as 55 gallons of hazardous waste or one quart of acutely hazardous waste listed in Section R315-261-31 or Subsection R315-261-33(e) in containers at or near any point of generation where wastes initially accumulate which is under the control of the operator of the process generating the waste, without a permit or interim status and without complying with Subsections R315-262-34(a) or (d) provided he:

(i) Complies with 40 CFR 265.171, 172, and 173(a) , which are adopted by reference; and

(ii) Marks his containers either with the words "Hazardous Waste" or with other words that identify the contents of the containers.

(2) A generator who accumulates either hazardous waste or acutely hazardous waste listed in Section R315-261-31 or Subsection R315-261-33(e) in excess of the amounts listed in Subsection R315-262-34(c)(1) at or near any point of generation shall, with respect to that amount of excess waste, comply within three days with Subsection R315-262-34(a) or other applicable provisions of the rules adopted by the Waste Management and Radiation Control Board. During the three day period the generator shall continue to comply with Subsections R315-262-34(c)(1)(i) and (ii). The generator shall mark the container holding the excess accumulation of hazardous waste with the date the excess amount began accumulating.

(d) A generator who generates greater than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month may accumulate hazardous waste on-site for 180 days or less without a permit or without having interim status provided that:

(1) The quantity of waste accumulated on-site never exceeds 6000 kilograms;

(2) The generator complies with the requirements of 40 CFR 265.170 through 178, which are adopted by reference; except for 176 and 178;

(3) The generator complies with the requirements of 40 CFR 265.201, which is adopted by reference;

(4) The generator complies with the requirements of Subsections R315-262-34(a)(2) and (a)(3), the requirements of 40 CFR 265.30 through 35 and 37, which are adopted by reference; with all applicable requirements under Rule R315-268; and

(5) The generator complies with the following requirements:

(i) At all times there shall be at least one employee either on the premises or on call, i.e., available to respond to an emergency by reaching the facility within a short period of time, with the responsibility for coordinating all emergency response measures specified in Subsection R315-262-34(d)(5)(iv). This employee is the emergency coordinator.

(ii) The generator shall post the following information next to the telephone:

(A) The name and telephone number of the emergency coordinator;

(B) Location of fire extinguishers and spill control material, and, if present, fire alarm; and

(C) The telephone number of the fire department, unless the facility has a direct alarm.

(iii) The generator shall ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies;

(iv) The emergency coordinator or his designee shall respond to any emergencies that arise. The applicable responses are as follows:

(A) In the event of a fire, call the fire department or attempt to extinguish it using a fire extinguisher;

(B) In the event of a spill, contain the flow of hazardous waste to the extent possible, and as soon as is practicable, clean up the hazardous waste and any contaminated materials or soil;

(C) In the event of a fire, explosion, or other release which could threaten human health outside the facility or when the generator has knowledge that a spill has reached surface water, the generator shall immediately notify the National Response Center (using their 24-hour toll free number 800/424-8802) and the Director or the 24-hour answering service at 801-536-4123. The report shall include the following information:

(1) The name, address, and U.S. EPA Identification Number of the generator;

(2) Date, time, and type of incident (e.g., spill or fire);

(3) Quantity and type of hazardous waste involved in the incident;

(4) Extent of injuries, if any; and

(5) Estimated quantity and disposition of recovered materials, if any.

(e) A generator who generates greater than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month and who shall transport his waste, or offer his waste for transportation, over a distance of 200 miles or more for off-site treatment, storage or disposal may accumulate hazardous waste on-site for 270 days or less without a permit or without having interim status provided that he complies with the requirements of Subsection R315-262-34(d).

(f) A generator who generates greater than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month and who accumulates hazardous waste in quantities exceeding 6000 kg or accumulates hazardous waste for more than 180 days; or for more than 270 days if he shall transport his waste, or offer his waste for transportation, over a distance of 200 miles or more; is an operator of a storage facility and is subject to the requirements of Rules R315-264 and 265, and the permit requirements of Rule R315-270 unless he has been granted an extension to the 180-day, or 270-day if applicable, period. Such extension may be granted by the Director if hazardous wastes shall remain on-site for longer than 180 days, or 270 days if applicable, due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to 30 days may be granted at the discretion of the Director on a case-by-case basis.

(g) A generator who generates 1,000 kilograms or greater of hazardous waste per calendar month who also generates wastewater treatment sludges from electroplating operations that meet the listing description for the RCRA hazardous waste code F006, may accumulate F006 waste on-site for more than 90 days, but not more than 180 days without a permit or without having interim status provided that:

(1) The generator has implemented pollution prevention practices that reduce the amount of any hazardous substances, pollutants or contaminants entering F006 or otherwise released to the environment prior to its recycling;

(2) The F006 waste is legitimately recycled through metals recovery;

(3) No more than 20,000 kilograms of F006 waste is accumulated on-site at any one time; and

(4) The F006 waste is managed in accordance with the following:

(i) The F006 waste is placed:

(A) In containers and the generator complies with the applicable requirements of 40 CFR 265.170 through 178, 1030 through 1035, 1050 through 1064, and 1080 through 1090, which are adopted by reference; and/or

(B) In tanks and the generator complies with the applicable requirements of 40 CFR 265.190 through 202, 1030 through 1035, 1050 through 1064, and 1080 through 1090,

which are adopted by reference; except 197(c) and 200; and/or

(C) In containment buildings and the generator complies with 40 CFR 265.1100 through 1102, which are adopted by reference; and has placed its professional engineer certification that the building complies with the design standards specified in 40 CFR 265.1101, which is adopted by reference, in the facility's operating record prior to operation of the unit. The owner or operator shall maintain the following records at the facility:

(1) A written description of procedures to ensure that the F006 waste remains in the unit for no more than 180 days, a written description of the waste generation and management practices for the facility showing that they are consistent with the 180-day limit, and documentation that the generator is complying with the procedures; or

(2) Documentation that the unit is emptied at least once every 180 days.

(ii) In addition, such a generator is exempt from all the requirements in 40 CFR 265.110 through 121 and 140 through 150, which are adopted by reference; except for 111 and 114.

(iii) The date upon which each period of accumulation begins is clearly marked and visible for inspection on each container;

(iv) While being accumulated on-site, each container and tank is labeled or marked clearly with the words, “Hazardous Waste;” and

(v) The generator complies with the requirements for owners or operators in 40 CFR 265.16, 30 through 35, 37, and 50 through 56, which are adopted by reference; and Subsection R315-268-7(a)(5).

(h) A generator who generates 1,000 kilograms or greater of hazardous waste per calendar month who also generates wastewater treatment sludges from electroplating operations that meet the listing description for the RCRA hazardous waste code F006, and who shall transport this waste, or offer this waste for transportation, over a distance of 200 miles or more for off-site metals recovery, may accumulate F006 waste on-site for more than 90 days, but not more than 270 days without a permit or without having interim status if the generator complies with the requirements of Subsections R315-262-34(g)(1) through (g)(4).

(i) A generator accumulating F006 in accordance with Subsection R315-262-34(g) and (h) who accumulates F006 waste on-site for more than 180 days; or for more than 270 days if the generator shall transport this waste, or offer this waste for transportation, over a distance of 200 miles or more; or who accumulates more than 20,000 kilograms of F006 waste on-site is an operator of a storage facility and is subject to the requirements of Rules R315-264 and 265, and the permit requirements of Rule R315-270 unless the generator has been granted an extension to the 180-day, or 270-day if applicable, period or an exception to the 20,000 kilogram accumulation limit. Such extensions and exceptions may be granted by the Director if F006 waste shall remain on-site for longer than 180 days, or 270 days if applicable, or if more than 20,000 kilograms of F006 waste shall remain on-site due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to 30 days or an exception to the accumulation limit may be granted at the discretion of the Director on a case-by-case basis.

(j) Reserved

(k) Reserved

(l) Reserved

(m) A generator who sends a shipment of hazardous waste to a designated facility with the understanding that the designated facility can accept and manage the waste and later receives that shipment back as a rejected load or residue in accordance with the manifest discrepancy provisions of Sections R315-264-72 or 40 CFR 265.72, which is adopted by reference, may accumulate the returned waste on-site in accordance with Subsections R315-262-34(a) and (b) or (d), (e) and (f), depending on the amount of hazardous waste on-site in that calendar month. Upon receipt of the returned shipment, the generator shall:

(1) Sign Item 18c of the manifest, if the transporter returned the shipment using the original manifest; or

(2) Sign Item 20 of the manifest, if the transporter returned the shipment using a new manifest.

R315-262-40. Recordkeeping.

(a) A generator shall keep a copy of each manifest signed in accordance with Subsection R315-262-23(a) for three years or until he receives a signed copy from the designated facility which received the waste. This signed copy shall be retained as a record for at least three years

from the date the waste was accepted by the initial transporter.

(b) A generator shall keep a copy of each Biennial Report and Exception Report for a period of at least three years from the due date of the report.

(c) A generator shall keep records of any test results, waste analyses, or other determinations made in accordance with Section R315-262-11 for at least three years from the date that the waste was last sent to on-site or off-site treatment, storage, or disposal.

(d) The periods or retention referred to in Section R315-262-40 are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Director.

(e) Records maintained in accordance with Section R315-262-40 and any other records which the Director deems necessary to determine quantities and disposition of hazardous waste or other determinations, test results, or waste analyses made in accordance with R315-262-11 shall be available for inspection by any duly authorized officer, employee or representative of the Department or the Director as provided in R315-260-5 for a period of at least three years from the date the waste was last sent to on-site or off-site treatment, storage, or disposal facilities.

R315-262-41. Biennial report.

(a) A generator who ships any hazardous waste off-site to a treatment, storage or disposal facility within the United States shall prepare and submit a single copy of a Biennial Report to the Regional Administrator by March 1 of each even numbered year. The Biennial Report shall be submitted on EPA Form 8700-13A, shall cover generator activities during the previous year, and shall include the following information:

(1) The EPA identification number, name, and address of the generator;

(2) The calendar year covered by the report;

(3) The EPA identification number, name, and address for each off-site treatment, storage, or disposal facility in the United States to which waste was shipped during the year;

(4) The name and EPA identification number of each transporter used during the reporting year for shipments to

a treatment, storage or disposal facility within the United States;

(5) A description, EPA hazardous waste number, from Sections R315-261-21 through 24 or 30 through 35, DOT hazard class, and quantity of each hazardous waste shipped off-site for shipments to a treatment, storage or disposal facility within the United States. This information shall be listed by EPA identification number of each such off-site facility to which waste was shipped.

(6) A description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated.

(7) A description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent such information is available for years prior to 1984.

(8) The certification signed by the generator or authorized representative.

(b) Any generator who treats, stores, or disposes of hazardous waste on-site shall submit a biennial report covering those wastes in accordance with the provisions of Rules R315-270, 264, 265, and 266. Reporting for exports of hazardous waste is not required on the Biennial Report form. A separate annual report requirement is set forth at Section R315-262-56.

R315-262-42. Exception reporting.

(a)(1) A generator of 1,000 kilograms or greater of hazardous waste in a calendar month, or greater than 1 kg of acute hazardous waste listed in Section R315-261-31 or Subsection R315-261-33(e) in a calendar month, who does not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 35 days of the date the waste was accepted by the initial transporter shall contact the transporter and/or the owner or operator of the designated facility to determine the status of the hazardous waste.

(2) A generator of 1,000 kilograms or greater of hazardous waste in a calendar month, or greater than 1 kg of acute hazardous waste listed in Section R315-261-31 or Subsection R315-261-33(e) in a calendar month, shall submit an Exception Report to the Director if he has not received a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 45

days of the date the waste was accepted by the initial transporter. The Exception Report shall include:

(i) A legible copy of the manifest for which the generator does not have confirmation of delivery;

(ii) A cover letter signed by the generator or his authorized representative explaining the efforts taken to locate the hazardous waste and the results of those efforts.

(b) A generator of greater than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month who does not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 60 days of the date the waste was accepted by the initial transporter shall submit a legible copy of the manifest, with some indication that the generator has not received confirmation of delivery, to the Director.

Note: The submission to the Director need only be a handwritten or typed note on the manifest itself, or on an attached sheet of paper, stating that the return copy was not received.

(c) For rejected shipments of hazardous waste or container residues contained in non-empty containers that are forwarded to an alternate facility by a designated facility using a new manifest, following the procedures of Subsections R315-264-72(e)(1) through (6) or 40 CFR 265.72(e)(1) through (6) , which are adopted by reference; the generator shall comply with the requirements of Subsections R315-262-42(a) or (b), as applicable, for the shipment forwarding the material from the designated facility to the alternate facility instead of for the shipment from the generator to the designated facility. For purposes of Subsection R315-262-42(a) or (b) for a shipment forwarding such waste to an alternate facility by a designated facility:

(1) The copy of the manifest received by the generator shall have the handwritten signature of the owner or operator of the alternate facility in place of the signature of the owner or operator of the designated facility, and

(2) The 35/45/60-day timeframes begin the date the waste was accepted by the initial transporter forwarding the hazardous waste shipment from the designated facility to the alternate facility.

R315-262-43. Additional reporting.
The Director, as he deems necessary, may require generators to furnish additional reports concerning the quantities and disposition of wastes identified or listed in Rule R315-261.

R315-262-44. Special requirements for generators of between 100 and 1000 kg/mo.
A generator of greater than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month is subject only to the following requirements in Sections R315-262-40 through 43:

(a) Subsection R315-262-40(a), (c), and (d), recordkeeping;

(b) Subsection R315-262-42(b), exception reporting; and

(c) Section R315-262-43, additional reporting.

R315-262-50. Applicability.
Sections R315-262-50 through 58 establish requirements applicable to exports of hazardous waste. Except to the extent Section R315-262-58 provides otherwise, a primary exporter of hazardous waste shall comply with the special requirements of Sections R315-262-50 through 58 and a transporter transporting hazardous waste for export shall comply with applicable requirements of Rule R315-263. Section R315-262-58 sets forth the requirements of international agreements between the United States and receiving countries which establish different notice, export, and enforcement procedures for the transportation, treatment, storage and disposal of hazardous waste for shipments between the United States and those countries.

R315-262-51. Definitions.
In addition to the definitions set forth at Section R315-260-10, the following definitions apply to Sections R315-262-50 through 58:
Consignee means the ultimate treatment, storage or disposal facility in a receiving country to which the hazardous waste will be sent.
EPA Acknowledgement of Consent means the cable sent to EPA from the U.S. Embassy in a receiving country that acknowledges the written consent of the receiving country

to accept the hazardous waste and describes the terms and conditions of the receiving country's consent to the shipment.
Primary Exporter means any person who is required to originate the manifest for a shipment of hazardous waste in accordance with Sections R315-262-20 through 25 and 27 which specifies a treatment, storage, or disposal facility in a receiving country as the facility to which the hazardous waste will be sent and any intermediary arranging for the export.
Receiving country means a foreign country to which a hazardous waste is sent for the purpose of treatment, storage or disposal,except short-term storage incidental to transportation.
Transit country means any foreign country, other than a receiving country, through which a hazardous waste is transported.

R315-262-52. General requirements.
Exports of hazardous waste are prohibited except in compliance with the applicable requirements of Sections R315-262-50 through 58 and Rule R315-263. Exports of hazardous waste are prohibited unless:
(a) Notification in accordance with Section R315-262-53 has been provided;
(b) The receiving country has consented to accept the hazardous waste;
(c) A copy of the EPA Acknowledgment of Consent to the shipment accompanies the hazardous waste shipment and, unless exported by rail, is attached to the manifest; or shipping paper for exports by water, bulk shipment.
(d) The hazardous waste shipment conforms to the terms of the receiving country's written consent as reflected in the EPA Acknowledgment of Consent.

R315-262-53. Notification of intent to export.
(a) A primary exporter of hazardous waste shall notify EPA of an intended export before such waste is scheduled to leave the United States. A complete notification should be submitted sixty days before the initial shipment is intended to be shipped off site. This notification may cover export activities extending over a twelve month or lesser period. The notification shall be in writing, signed by the primary exporter, and include the following information:

(1) Name, mailing address, telephone number and EPA ID number of the primary exporter;

(2) By consignee, for each hazardous waste type:

(i) A description of the hazardous waste and the EPA hazardous waste number, from Sections R315-261-20 through 24, and R315-261-30 through 35, U.S. DOT proper shipping name, hazard class and ID number (UN/NA) for each hazardous waste as identified in 49 CFR parts 171 through 177;

(ii) The estimated frequency or rate at which such waste is to be exported and the period of time over which such waste is to be exported.

(iii) The estimated total quantity of the hazardous waste in units as specified in the instructions to the Uniform Hazardous Waste Manifest Form (8700-22);

(iv) All points of entry to and departure from each foreign country through which the hazardous waste will pass;

(v) A description of the means by which each shipment of the hazardous waste will be transported; e.g., mode of transportation vehicle, air, highway, rail, water, etc.; type(s) of container, drums, boxes, tanks, etc.;

(vi) A description of the manner in which the hazardous waste will be treated, stored or disposed of in the receiving country, e.g., land or ocean incineration, other land disposal, ocean dumping, recycling;

(vii) The name and site address of the consignee and any alternate consignee; and

(viii) The name of any transit countries through which the hazardous waste will be sent and a description of the approximate length of time the hazardous waste will remain in such country and the nature of its handling while there;

(b) Notifications submitted by mail should be sent to the following mailing address: Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division (2254A), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460. Hand-delivered notifications should be sent to: Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division, Environmental Protection Agency, Ariel Rios Bldg., Room 6144, 12th St. and Pennsylvania Ave., NW., Washington, DC 20004. In both cases, the following shall be prominently displayed on the

front of the envelope: “Attention: Notification of Intent to Export.”.

(c) Except for changes to the telephone number in Subsection R315-262-53(a)(1), changes to Subsection R315-262-53(a)(2)(v) and decreases in the quantity indicated pursuant to Subsection R315-262-53(a)(2)(iii) when the conditions specified on the original notification change, including any exceedance of the estimate of the quantity of hazardous waste specified in the original notification, the primary exporter shall provide EPA with a written renotification of the change. The shipment cannot take place until consent of the receiving country to the changes, except for changes to Subsection R315-262-53(a)(2)(viii) and in the ports of entry to and departure from transit countries pursuant to Subsection R315-262-53(a)(2)(iv), has been obtained and the primary exporter receives an EPA Acknowledgment of Consent reflecting the receiving country's consent to the changes.

(d) Upon request by EPA, a primary exporter shall furnish to EPA any additional information which a receiving country requests in order to respond to a notification.

(e) In conjunction with the Department of State, EPA shall provide a complete notification to the receiving country and any transit countries. A notification is complete when EPA receives a notification which EPA determines satisfies the requirements of Subsection R315-262-53(a). Where a claim of confidentiality is asserted with respect to any notification information required by Subsection R315-262-53(a), EPA may find the notification not complete until any such claim is resolved in accordance with Section R315-260-2.

(f) Where the receiving country consents to the receipt of the hazardous waste, EPA shall forward an EPA Acknowledgment of Consent to the primary exporter for purposes of Subsection R315-262-54(h). Where the receiving country objects to receipt of the hazardous waste or withdraws a prior consent, EPA shall notify the primary exporter in writing. EPA shall also notify the primary exporter of any responses from transit countries.

R315-262-54. Special manifest requirements.

A primary exporter shall comply with the manifest requirements of Sections R315-262-20 through 25 and 27 except that:

(a) In lieu of the name, site address and EPA ID number of the designated permitted facility, the primary exporter shall enter the name and site address of the consignee;

(b) In lieu of the name, site address and EPA ID number of a permitted alternate facility, the primary exporter may enter the name and site address of any alternate consignee.

(c) In the International Shipments block, the primary exporter shall check the export box and enter the point of exit, city and State, from the United States.

(d) The following statement shall be added to the end of the first sentence of the certification set forth in Item 16 of the Uniform Hazardous Waste Manifest Form: “and conforms to the terms of the attached EPA Acknowledgment of Consent”;

(e) The primary exporter may obtain the manifest from any source that is registered with the U.S. EPA as a supplier of manifests (e.g., states, waste handlers, and/or commercial forms printers).

(f) The primary exporter shall require the consignee to confirm in writing the delivery of the hazardous waste to that facility and to describe any significant discrepancies, as defined in Subsection R315-264-72(a), between the manifest and the shipment. A copy of the manifest signed by such facility may be used to confirm delivery of the hazardous waste.

(g) In lieu of the requirements of Subsection R315-262-20(d), where a shipment cannot be delivered for any reason to the designated or alternate consignee, the primary exporter shall:

(1) Renotify EPA of a change in the conditions of the original notification to allow shipment to a new consignee in accordance with Subsection R315-262-53(c) and obtain an EPA Acknowledgment of Consent prior to delivery; or

(2) Instruct the transporter to return the waste to the primary exporter in the United States or designate another facility within the United States; and

(3) Instruct the transporter to revise the manifest in accordance with the primary exporter's instructions.

(h) The primary exporter shall attach a copy of the EPA Acknowledgment of Consent to the shipment to the manifest which shall accompany the hazardous waste shipment. For exports by rail or water (bulk shipment), the primary exporter shall provide the transporter with an EPA

Acknowledgment of Consent which shall accompany the hazardous waste but which need not be attached to the manifest except that for exports by water (bulk shipment) the primary exporter shall attach the copy of the EPA Acknowledgment of Consent to the shipping paper.

(i) The primary exporter shall provide the transporter with an additional copy of the manifest for delivery to the U.S. Customs official at the point the hazardous waste leaves the United States in accordance with Subsection R315-263-20(g)(4).

R315-262-55. Exception reports.

In lieu of the requirements of Section R315-262-42, a primary exporter shall file an exception report with the Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division (2254A), Environmental Protection Agency, 1200 Pennsylvania Avenue, NW., Washington, DC 20460, if any of the following occurs:

(a) He has not received a copy of the manifest signed by the transporter stating the date and place of departure from the United States within forty-five days from the date it was accepted by the initial transporter;

(b) Within ninety days from the date the waste was accepted by the initial transporter, the primary exporter has not received written confirmation from the consignee that the hazardous waste was received;

(c) The waste is returned to the United States.

R315-262-56. Annual reports.

(a) Primary exporters of hazardous waste shall file with the Administrator no later than March 1 of each year, a report summarizing the types, quantities, frequency, and ultimate destination of all hazardous waste exported during the previous calendar year. Such reports shall include the following:

(1) The EPA identification number, name, and mailing and site address of the exporter;

(2) The calendar year covered by the report;

(3) The name and site address of each consignee;

(4) By consignee, for each hazardous waste exported, a description of the hazardous waste, the EPA hazardous waste number, from Sections R315-261-20 through 24 and R315-261-30 through 35, DOT hazard class, the name and US EPA ID number, where applicable, for each transporter used,

the total amount of waste shipped and number of shipments pursuant to each notification;

(5) Except for hazardous waste produced by exporters of greater than 100 kg but less than 1000 kg in a calendar month, unless provided pursuant to Section R315-262-41, in even numbered years:

(i) A description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated; and

(ii) A description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent such information is available for years prior to 1984.

(6) A certification signed by the primary exporter which states: I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

(b) Annual reports submitted by mail should be sent to the following mailing address: Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division (2254A), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460. Hand-delivered reports should be sent to: Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division, Environmental Protection Agency, Ariel Rios Bldg., Room 6144, 12th St. and Pennsylvania Ave., NW., Washington, DC 20004.

R315-262-57. Recordkeeping.

(a) For all exports a primary exporter shall:

(1) Keep a copy of each notification of intent to export for a period of at least three years from the date the hazardous waste was accepted by the initial transporter;

(2) Keep a copy of each EPA Acknowledgment of Consent for a period of at least three years from the date the hazardous waste was accepted by the initial transporter;

(3) Keep a copy of each confirmation of delivery of the hazardous waste from the consignee for at least three years from the date the hazardous waste was accepted by the initial transporter; and

(4) Keep a copy of each annual report for a period of at least three years from the due date of the report.

(b) The periods of retention referred to in Section R315-262-57 are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Administrator.

R315-262-58. International agreements.

(a) Any person who exports or imports wastes that are considered hazardous under U.S. national procedures to or from designated Member countries of the Organization for Economic Cooperation and Development (OECD) as defined in Subsection R315-262-58(a)(1) for purposes of recovery is subject to Sections R315-262-80 through 89. The requirements of Sections R315-262-50 through 58 and R315-262-60 do not apply to such exports and imports. A waste is considered hazardous under U.S. national procedures if the waste meets the Federal definition of hazardous waste in Section R315-261-3 and is subject to either the manifesting requirements Sections R315-262-20 through 25 and 27, the universal waste management standards of Rule R315-273, the export requirements in the spent lead-acid battery management standards of Section R315-266-80.

(1) For the purposes of Sections R315-262-80 through 89, the designated OECD Member countries consist of Australia, Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Poland, Portugal, the Republic of Korea, the Slovak Republic, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States.

(2) For the purposes of Sections R315-262-80 through 89, Canada and Mexico are considered OECD Member countries only for the purpose of transit.

(b) Any person who exports hazardous waste to or imports hazardous waste from: A designated OECD Member country for purposes other than recovery; e.g., incineration, disposal; Mexico, for any purpose; or Canada, for any purpose, remains subject to the requirements of Sections R315-262-50 through 58 and 60, and is not subject to the requirements of Sections R315-262-80 through 89.

R315-262-60. Imports of hazardous waste.

(a) Any person who imports hazardous waste from a foreign country into the United States shall comply with the requirements of Rule R315-262.

(b) When importing hazardous waste, a person shall meet all the requirements of Section R315-262-20 for the manifest except that:

(1) In place of the generator's name, address and EPA identification number, the name and address of the foreign generator and the importer's name, address and EPA identification number shall be used.

(2) In place of the generator's signature on the certification statement, the U.S. importer or his agent shall sign and date the certification and obtain the signature of the initial transporter.

(c) A person who imports hazardous waste may obtain the manifest form from any source that is registered with the U.S. EPA as a supplier of manifests; e.g., states, waste handlers, and/or commercial forms printers.

(d) In the International Shipments block, the importer shall check the import box and enter the point of entry, city and State, into the United States.

(e) The importer shall provide the transporter with an additional copy of the manifest to be submitted by the receiving facility to U.S. EPA in accordance with Subsections R315-264-71(a)(3) and 40 CFR 265.71(a)(3), which is adopted by reference.

R315-262-70. Farmers.

A farmer disposing of waste pesticides from his own use which are hazardous wastes is not required to comply with the standards in Rule R315-262 or other standards Rules R315-264, R315-265, R315-268, or R315-270 for those wastes provided he triple rinses each emptied pesticide container in accordance with Subsection R315-261-7(b)(3) and disposes of the pesticide residues on his own farm in a manner consistent with the disposal instructions on the pesticide label.

R315-262-80. Applicability.

(a) The requirements of Sections R315-262-80 through 89 apply to imports and exports of wastes that are considered hazardous under U.S. national procedures and are destined for recovery operations in the countries listed in

Subsection R315-262-58(a)(1). A waste is considered hazardous under U.S. national procedures if the waste:

(1) Meets the Federal definition of hazardous waste in Section R315-261-3; and

(2) Is subject to either the manifesting requirements Sections R315-262-20 through 25 and 27, the universal waste management standards of Rule R315-273, the export requirements in the spent lead-acid battery management standards of Section R315-266-80.

(b) Any person; exporter, importer, or recovery facility operator; who mixes two or more wastes,including hazardous and non-hazardous wastes, or otherwise subjects two or more wastes, including hazardous and non-hazardous wastes, to physical or chemical transformation operations, and thereby creates a new hazardous waste, becomes a generator and assumes all subsequent generator duties under RCRA and any exporter duties, if applicable, under Sections R315-262-80 through 89.

R315-262-81. Definitions.

The following definitions apply to Sections R315-262-80 through 89.

Competent authority means the regulatory authority or authorities of concerned countries having jurisdiction over transboundary movements of wastes destined for recovery operations.

Countries concerned means the OECD Member countries of export or import and any OECD Member countries of transit.

Country of export means any designated OECD Member country listed in Subsection R315-262-58(a)(1) from which a transboundary movement of hazardous wastes is planned to be initiated or is initiated.

Country of import means any designated OECD Member country listed in Subsection R315-262-58(a)(1) to which a transboundary movement of hazardous wastes is planned or takes place for the purpose of submitting the wastes to recovery operations therein.

Country of transit means any designated OECD Member country listed in Subsections R315-262-58(a)(1) and (a)(2) other than the country of export or country of import across

which a transboundary movement of hazardous wastes is planned or takes place.

Exporter means the person under the jurisdiction of the country of export who has, or will have at the time the planned transboundary movement commences, possession or other forms of legal control of the wastes and who proposes transboundary movement of the hazardous wastes for the ultimate purpose of submitting them to recovery operations. When the United States (U.S.) is the country of export, exporter is interpreted to mean a person domiciled in the United States.

Importer means the person to whom possession or other form of legal control of the waste is assigned at the time the waste is received in the country of import.

OECD area means all land or marine areas under the national jurisdiction of any OECD Member country listed in Section R315-262-58. When the regulations refer to shipments to or from an OECD Member country, this means OECD area.

OECD means the Organization for Economic Cooperation and Development.

Recognized trader means a person who, with appropriate authorization of countries concerned, acts in the role of principal to purchase and subsequently sell wastes; this person has legal control of such wastes from time of purchase to time of sale; such a person may act to arrange and facilitate transboundary movements of wastes destined for recovery operations.

Recovery facility means a facility which, under applicable domestic law, is operating or is authorized to operate in the country of import to receive wastes and to perform recovery operations on them.

Recovery operations means activities leading to resource recovery, recycling, reclamation, direct re-use or alternative uses, which include:

R1 Use as a fuel (other than in direct incineration) or other means to generate energy.

R2 Solvent reclamation/regeneration.

R3 Recycling/reclamation of organic substances which are not used as solvents.

R4 Recycling/reclamation of metals and metal compounds.

R5 Recycling/reclamation of other inorganic materials.

R6 Regeneration of acids or bases.

R7 Recovery of components used for pollution abatement.

R8 Recovery of components used from catalysts.

R9 Used oil re-refining or other reuses of previously used oil.

R10 Land treatment resulting in benefit to agriculture or ecological improvement.

R11 Uses of residual materials obtained from any of the operations numbered R1-R10.

R12 Exchange of wastes for submission to any of the operations numbered R1-R11.

R13 Accumulation of material intended for any operation numbered R1-R12.

Transboundary movement means any movement of wastes from an area under the national jurisdiction of one OECD Member country to an area under the national jurisdiction of another OECD Member country.

R315-262-82. General conditions.

(a) Scope. The level of control for exports and imports of waste is indicated by assignment of the waste to either a list of wastes subject to the Green control procedures or a list of wastes subject to the Amber control procedures and by the national procedures of the United States, as defined in Subsection R315-262-80(a). The OECD Green and Amber lists are incorporated by reference in Subsection R315-262-89(d).

(1) Listed wastes subject to the Green control procedures.

(i) Green wastes that are not considered hazardous under U.S. national procedures as defined in Subsection R315-262-80(a) are subject to existing controls normally applied to commercial transactions.

(ii) Green wastes that are considered hazardous under U.S. national procedures as defined in Section R315-262-80(a) are subject to the Amber control procedures set forth in Sections R315-262-80 through 89.

(2) Listed wastes subject to the Amber control procedures.

(i) Amber wastes that are considered hazardous under U.S. national procedures as defined in Subsection R315-262-80(a) are subject to the Amber control procedures set forth in Sections R315-262-80 through 89.

(ii) Amber wastes that are considered hazardous under U.S. national procedures as defined in Subsection R315-262-80(a), are subject to the Amber control procedures in the United States, even if they are imported to or exported from a designated OECD Member country listed in Subsection R315-262-58(a)(1) that does not consider the waste to be hazardous. In such an event, the responsibilities of the Amber control procedures shift as provided:

(A) For U.S. exports, the United States shall issue an acknowledgement of receipt and assume other responsibilities of the competent authority of the country of import.

(B) For U.S. imports, the U.S. recovery facility/importer and the United States shall assume the obligations associated with the Amber control procedures that normally apply to the exporter and country of export, respectively.

(iii) Amber wastes that are not considered hazardous under U.S. national procedures as defined in Subsection R315-262-80(a), but are considered hazardous by an OECD Member country are subject to the Amber control procedures in the OECD Member country that considers the waste hazardous. All responsibilities of the U.S. importer/exporter shift to the importer/exporter of the OECD Member country that considers the waste hazardous unless the parties make other arrangements through contracts.

Note to Subsection R315-262-82(a)(2): Some wastes subject to the Amber control procedures are not listed or otherwise

identified as hazardous under RCRA, and therefore are not subject to the Amber control procedures of Sections R315-262-80 through 89. Regardless of the status of the waste under RCRA, however, other Federal environmental statutes, e.g., the Toxic Substances Control Act, restrict certain waste imports or exports. Such restrictions continue to apply with regard to Sections R315-262-80 through 89.

(3) Procedures for mixtures of wastes.

(i) A Green waste that is mixed with one or more other Green wastes such that the resulting mixture is not considered hazardous under U.S. national procedures as defined in Subsection R315-262-80(a) shall be subject to the Green control procedures, provided the composition of this mixture does not impair its environmentally sound recovery.

Note to Subsection R315-262-82(a)(3)(i): The regulated community should note that some OECD Member countries may require, by domestic law, that mixtures of different Green wastes be subject to the Amber control procedures.

(ii) A Green waste that is mixed with one or more Amber wastes, in any amount, de minimis or otherwise, or a mixture of two or more Amber wastes, such that the resulting waste mixture is considered hazardous under U.S. national procedures as defined in Subsection R315-262-80(a) are subject to the Amber control procedures, provided the composition of this mixture does not impair its environmentally sound recovery.

Note to Subsection R315-262-82(a)(3)(ii): The regulated community should note that some OECD Member countries may require, by domestic law, that a mixture of a Green waste and more than a de minimis amount of an Amber waste or a mixture of two or more Amber wastes be subject to the Amber control procedures.

(4) Wastes not yet assigned to an OECD waste list are eligible for transboundary movements, as follows:

(i) If such wastes are considered hazardous under U.S. national procedures as defined in Subsection R315-262-80(a), such wastes are subject to the Amber control procedures.

(ii) If such wastes are not considered hazardous under U.S. national procedures as defined in Subsection R315-262-80(a), such wastes are subject to the Green control procedures.

(b) General conditions applicable to transboundary movements of hazardous waste:

(1) The waste shall be destined for recovery operations at a facility that, under applicable domestic law, is operating or is authorized to operate in the importing country;

(2) The transboundary movement shall be in compliance with applicable international transport agreements; and Note to Subsection R315-262-82(b)(2): These international agreements include, but are not limited to, the Chicago Convention (1944), ADR (1957), ADNR (1970), MARPOL Convention (1973/1978), SOLAS Convention (1974), IMDG Code (1985), COTIF (1985), and RID (1985).

(3) Any transit of waste through a non-OECD Member country shall be conducted in compliance with all applicable international and national laws and regulations.

(c) Provisions relating to re-export for recovery to a third country:

(1) Re-export of wastes subject to the Amber control procedures from the United States, as the country of import, to a third country listed in Subsection R315-262-58(a)(1) may occur only after an exporter in the United States provides notification to and obtains consent from the competent authorities in the third country, the original country of export, and any transit countries. The notification shall comply with the notice and consent procedures in Section R315-262-83 for all countries concerned and the original country of export. The competent authorities of the original country of export, as well as the competent authorities of all other countries concerned have thirty days to object to the proposed movement.

(i) The thirty day period begins once the competent authorities of both the initial country of export and new country of import issue Acknowledgements of Receipt of the notification.

(ii) The transboundary movement may commence if no objection has been lodged after the thirty day period has passed or immediately after written consent is received from all relevant OECD importing and transit countries.

(2) In the case of re-export of Amber wastes to a country other than those listed in Subsection R315-262-58(a)(1), notification to and consent of the competent authorities of the original OECD Member country of export and any OECD Member countries of transit is required as specified in Subsection R315-262-82(c)(1), in addition to compliance with all international agreements and arrangements to which the first importing OECD Member

country is a party and all applicable regulatory requirements for exports from the first country of import.

(d) Duty to return or re-export wastes subject to the Amber control procedures. When a transboundary movement of wastes subject to the Amber control procedures cannot be completed in accordance with the terms of the contract or the consent(s) and alternative arrangements cannot be made to recover the waste in an environmentally sound manner in the country of import, the waste shall be returned to the country of export or re-exported to a third country. The provisions of Subsection R315-262-82(c) apply to any shipments to be re-exported to a third country. The following provisions apply to shipments to be returned to the country of export as appropriate:

(1) Return from the United States to the country of export: The U.S. importer shall inform EPA at the specified address in Subsection R315-262-83(b)(1)(i) of the need to return the shipment. EPA shall then inform the competent authorities of the countries of export and transit, citing the reason(s) for returning the waste. The U.S. importer shall complete the return within ninety days from the time EPA informs the country of export of the need to return the waste, unless informed in writing by EPA of another timeframe agreed to by the concerned Member countries. If the return shipment will cross any transit country, the return shipment may only occur after EPA provides notification to and obtains consent from the competent authority of the country of transit, and provides a copy of that consent to the U.S. importer.

(2) Return from the country of import to the United States: The U.S. exporter shall provide for the return of the hazardous waste shipment within ninety days from the time the country of import informs EPA of the need to return the waste or such other period of time as the concerned Member countries agree. The U.S. exporter shall submit an exception report to EPA in accordance with Subsection R315-262-87(b).

(e) Duty to return wastes subject to the Amber control procedures from a country of transit. When a transboundary movement of wastes subject to the Amber control procedures does not comply with the requirements of the notification and movement documents or otherwise constitutes illegal shipment, and if alternative arrangements cannot be made to recover these wastes in an environmentally sound manner, the waste shall be returned

to the country of export. The following provisions apply as appropriate:

(1) Return from the United States, as country of transit, to the country of export: The U.S. transporter shall inform EPA at the specified address in Subsection R315-262-83(b)(1)(i) of the need to return the shipment. EPA shall then inform the competent authority of the country of export, citing the reason(s) for returning the waste. The U.S. transporter shall complete the return within ninety days from the time EPA informs the country of export of the need to return the waste, unless informed in writing by EPA of another timeframe agreed to by the concerned Member countries.

(2) Return from the country of transit to the United States, as country of export: The U.S. exporter shall provide for the return of the hazardous waste shipment within ninety days from the time the competent authority of the country of transit informs EPA of the need to return the waste or such other period of time as the concerned Member countries agree. The U.S. exporter shall submit an exception report to EPA in accordance with Subsection R315-262-87(b).

(f) Requirements for wastes destined for and received by R12 and R13 facilities. The transboundary movement of wastes destined for R12 and R13 operations shall comply with all Amber control procedures for notification and consent as set forth in Section R315-262-83 and for the movement document as set forth in Section R315-262-84. Additional responsibilities of R12/R13 facilities include:

(1) Indicating in the notification document the foreseen recovery facility or facilities where the subsequent R1-R11 recovery operation takes place or may take place.

(2) Within three days of the receipt of the wastes by the R12/R13 recovery facility or facilities, the facility(ies) shall return a signed copy of the movement document to the exporter and to the competent authorities of the countries of export and import. The facility(ies) shall retain the original of the movement document for three years.

(3) As soon as possible, but no later than thirty (30) days after the completion of the R12/R13 recovery operation and no later than one calendar year following the receipt of the waste, the R12 or R13 facility(ies) shall send a certificate of recovery to the foreign exporter and

to the competent authority of the country of export and to the Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division (2254A), Environmental Protection Agency, 1200 Pennsylvania Avenue, NW. Washington, DC 20460, by mail, e-mail without digital signature followed by mail, or fax followed by mail.

(4) When an R12/R13 recovery facility delivers wastes for recovery to an R1-R11 recovery facility located in the country of import, it shall obtain as soon as possible, but no later than one calendar year following delivery of the waste, a certification from the R1-R11 facility that recovery of the wastes at that facility has been completed. The R12/R13 facility shall promptly transmit the applicable certification to the competent authorities of the countries of import and export, identifying the transboundary movements to which the certification pertain.

(5) When an R12/R13 recovery facility delivers wastes for recovery to an R1-R11 recovery facility located:

(i) In the initial country of export, Amber control procedures apply, including a new notification;

(ii) In a third country other than the initial country of export, Amber control procedures apply, with the additional provision that the competent authority of the initial country of export shall also be notified of the transboundary movement.

(g) Laboratory analysis exemption. The transboundary movement of an Amber waste is exempt from the Amber control procedures if it is in certain quantities and destined for laboratory analysis to assess its physical or chemical characteristics, or to determine its suitability for recovery operations. The quantity of such waste shall be determined by the minimum quantity reasonably needed to perform the analysis in each particular case adequately, but in no case exceed twenty-five kilograms. Waste destined for laboratory analysis shall still be appropriately packaged and labeled.

R315-262-83. Notification and consent.

(a) Applicability. Consent shall be obtained from the competent authorities of the relevant OECD countries of import and transit prior to exporting hazardous waste destined for recovery operations subject to Sections R315-262-80 through 89. Hazardous wastes subject to the Amber control procedures are subject to the requirements of

Subsection R315-262-83(b); and wastes not identified on any list are subject to the requirements of Subsection R315-262-83(c).

(b) Amber wastes. Exports of hazardous wastes from the United States as described in Subsection R315-262-80(a) that are subject to the Amber control procedures are prohibited unless the notification and consent requirements of Subsections R315-262-83(b)(1) or (b)(2) are met.

(1) Transactions requiring specific consent:

(i) Notification. At least forty-five days prior to commencement of each transboundary movement, the exporter shall provide written notification in English of the proposed transboundary movement to the Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division (2254A), Environmental Protection Agency, 1200 Pennsylvania Avenue, NW., Washington, DC 20460, with the words "Attention: OECD Export Notification" prominently displayed on the envelope. This notification shall include all of the information identified in Subsection R315-262-83(d). In cases where wastes having similar physical and chemical characteristics, the same United Nations classification, the same RCRA waste codes, and are to be sent periodically to the same recovery facility by the same exporter, the exporter may submit one general notification of intent to export these wastes in multiple shipments during a period of up to one year. Even when a general notification is used for multiple shipments, each shipment still shall be accompanied by its own movement document pursuant to Section R315-262-84.

(ii) Tacit consent. If no objection has been lodged by any countries concerned; i.e., exporting, importing, or transit; to a notification provided pursuant to Subsection R315-262-83(b)(1)(i) within thirty days after the date of issuance of the Acknowledgement of Receipt of notification by the competent authority of the country of import, the transboundary movement may commence. Tacit consent expires one calendar year after the close of the thirty day period; renotification and renewal of all consents is required for exports after that date.

(iii) Written consent. If the competent authorities of all the relevant OECD importing and transit countries provide written consent in a period less than thirty days, the transboundary movement may commence immediately after all necessary consents are received. Written consent

expires for each relevant OECD importing and transit country one calendar year after the date of that country's consent unless otherwise specified; renotification and renewal of each expired consent is required for exports after that date.

(2) Transboundary movements to facilities pre-approved by the competent authorities of the importing countries to accept specific wastes for recovery:

(i) Notification. The exporter shall provide EPA a notification that contains all the information identified in Subsection R315-262-83(d) in English, at least ten days in advance of commencing shipment to a pre-approved facility. The notification shall indicate that the recovery facility is pre-approved, and may apply to a single specific shipment or to multiple shipments as described in Subsection R315-262-83(b)(1)(i). This information shall be sent to the Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division (2254A), Environmental Protection Agency, 1200 Pennsylvania Avenue, NW., Washington, DC 20460, with the words “OECD Export Notification-Pre-approved Facility” prominently displayed on the envelope. General notifications that cover multiple shipments as described in Subsection R315-262-83(b)(1)(i) may cover a period of up to three years. Even when a general notification is used for multiple shipments, each shipment still shall be accompanied by its own movement document pursuant to Section R315-262-84.

(ii) Exports to pre-approved facilities may take place after the elapse of seven working days from the issuance of an Acknowledgement of Receipt of the notification by the competent authority of the country of import unless the exporter has received information indicating that the competent authority of any countries concerned objects to the shipment.

(c) Wastes not covered in the OECD Green and Amber lists. Wastes destined for recovery operations, that have not been assigned to the OECD Green and Amber lists, incorporated by reference in Subsection R315-262-89(d), but which are considered hazardous under U.S. national procedures as defined in Subsection R315-262-80(a), are subject to the notification and consent requirements established for the Amber control procedures in accordance with Subsection R315-262-83(b). Wastes destined for recovery operations, that have not been assigned to the

OECD Green and Amber lists incorporated by reference in Subsection R315-262-89(d), and are not considered hazardous under U.S. national procedures as defined by Subsection R315-262-80(a) are subject to the Green control procedures.

(d) Notifications submitted under Section R315-262-83 shall include the information specified in Subsections R315-262-83(d)(1) through (d)(14):

(1) Serial number or other accepted identifier of the notification document;

(2) Exporter name and EPA identification number, if applicable, address, telephone, fax numbers, and e-mail address;

(3) Importing recovery facility name, address, telephone, fax numbers, e-mail address, and technologies employed;

(4) Importer name, if not the owner or operator of the recovery facility, address, telephone, fax numbers, and e-mail address; whether the importer will engage in waste exchange recovery operation R12 or waste accumulation recovery operation R13 prior to delivering the waste to the final recovery facility and identification of recovery operations to be employed at the final recovery facility;

(5) Intended transporter(s) and/or their agent(s); address, telephone, fax, and e-mail address;

(6) Country of export and relevant competent authority, and point of departure;

(7) Countries of transit and relevant competent authorities and points of entry and departure;

(8) Country of import and relevant competent authority, and point of entry;

(9) Statement of whether the notification is a single notification or a general notification. If general, include period of validity requested;

(10) Date(s) foreseen for commencement of transboundary movement(s);

(11) Means of transport envisaged;

(12) Designation of waste type(s) from the appropriate OECD list incorporated by reference in Subsection R315-262-89(d), description(s) of each waste type, estimated total quantity of each, RCRA waste code, and the United Nations number for each waste type;

(13) Specification of the recovery operation(s) as defined in Section R315-262-81.

(14) Certification/Declaration signed by the exporter that states:

I certify that the above information is complete and correct to the best of my knowledge. I also certify that legally-enforceable written contractual obligations have been entered into, and that any applicable insurance or other financial guarantees are or shall be in force covering the transboundary movement.

Name:
Signature:
Date:

Note to Subsection R315-262-83(d)(14): The United States does not currently require financial assurance for these waste shipments. However, U.S. exporters may be asked by other governments to provide and certify to such assurance as a condition of obtaining consent to a proposed movement.

(e) Certificate of Recovery. As soon as possible, but no later than thirty days after the completion of recovery and no later than one calendar year following receipt of the waste, the U.S. recovery facility shall send a certificate of recovery to the exporter and to the competent authorities of the countries of export and import by mail, e-mail without a digital signature followed by mail, or fax followed by mail. The certificate of recovery shall include a signed, written and dated statement that affirms that the waste materials were recovered in the manner agreed to by the parties to the contract required under Section R315-262-85.

R315-262-84. Movement document.

(a) All U.S. parties subject to the contract provisions of Section R315-262-85 shall ensure that a movement document meeting the conditions of Subsection R315-262-84(b) accompanies each transboundary movement of wastes subject to the Amber control procedures from the initiation of the shipment until it reaches the final recovery facility, including cases in which the waste is stored and/or sorted by the importer prior to shipment to the final recovery facility, except as provided in Subsections R315-262-84(b)(a)(1) and (2).

(1) For shipments of hazardous waste within the United States solely by water, bulk shipments only, the generator shall forward the movement document with the manifest to the last water, bulk shipment, transporter to

handle the waste in the United States if exported by water, in accordance with the manifest routing procedures at Subsection R315-262-23(c).

(2) For rail shipments of hazardous waste within the United States which originate at the site of generation, the generator shall forward the movement document with the manifest, in accordance with the routing procedures for the manifest in Subsection R315-262-23(d), to the next non-rail transporter, if any, or the last rail transporter to handle the waste in the United States if exported by rail.

(b) The movement document shall include all information required under Section R315-262-83, for notification, as well as the following Subsection R315-262-84(b)(1) through (b)(7):

(1) Date movement commenced;

(2) Name; if not exporter, address; telephone; fax numbers; and e-mail of primary exporter;

(3) Company name and EPA ID number of all transporters;

(4) Identification; license, registered name or registration number; of means of transport, including types of packaging envisaged;

(5) Any special precautions to be taken by transporter(s);

(6) Certification/declaration signed by the exporter that no objection to the shipment has been lodged, as follows:

I certify that the above information is complete and correct to the best of my knowledge. I also certify that legally-enforceable written contractual obligations have been entered into, that any applicable insurance or other financial guarantees are or shall be in force covering the transboundary movement, and that:

1. All necessary consents have been received; OR

2. The shipment is directed to a recovery facility within the OECD area and no objection has been received from any of the countries concerned within the thirty day tacit consent period; OR

3. The shipment is directed to a recovery facility pre-approved for that type of waste within the OECD area; such

an authorization has not been revoked, and no objection has been received from any of the countries concerned.

Delete sentences that are not applicable

Name:
Signature:
Date:

(7) Appropriate signatures for each custody transfer, e.g., transporter, importer, and owner or operator of the recovery facility.

(c) Exporters also shall comply with the special manifest requirements of Subsections R315-262-.54(a), (b), (c), (e), and (i) and importers shall comply with the import requirements of Section R315-262-60.

(d) Each U.S. person that has physical custody of the waste from the time the movement commences until it arrives at the recovery facility shall sign the movement document; e.g., transporter, importer, and owner or operator of the recovery facility.

(e) Within three working days of the receipt of imports subject to Sections R315-262-80 through 89, the owner or operator of the U.S. recovery facility shall send signed copies of the movement document to the exporter, to the Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division (2254A), Environmental Protection Agency, 1200 Pennsylvania Avenue, NW., Washington, DC 20460, and to the competent authorities of the countries of export and transit. If the concerned U.S. recovery facility is a R12/R13 recovery facility as defined under Section R315-262-81, the facility shall retain the original of the movement document for three years.

R315-262-85. Contracts.

(a) Transboundary movements of hazardous wastes subject to the Amber control procedures are prohibited unless they occur under the terms of a valid written contract, chain of contracts, or equivalent arrangements, when the movement occurs between parties controlled by the same corporate or legal entity. Such contracts or equivalent arrangements shall be executed by the exporter and the owner or operator of the recovery facility, and shall specify responsibilities for each. Contracts or

equivalent arrangements are valid for the purposes of Section R315-262-85 only if persons assuming obligations under the contracts or equivalent arrangements have appropriate legal status to conduct the operations specified in the contract or equivalent arrangements.

(b) Contracts or equivalent arrangements shall specify the name and EPA ID number, where available, of Subsections R315-262-85(b)(1) through (b)(4):

(1) The generator of each type of waste;

(2) Each person who will have physical custody of the wastes;

(3) Each person who will have legal control of the wastes; and

(4) The recovery facility.

(c) Contracts or equivalent arrangements shall specify which party to the contract will assume responsibility for alternate management of the wastes if their disposition cannot be carried out as described in the notification of intent to export. In such cases, contracts shall specify that:

(1) The person having actual possession or physical control over the wastes will immediately inform the exporter and the competent authorities of the countries of export and import and, if the wastes are located in a country of transit, the competent authorities of that country; and

(2) The person specified in the contract will assume responsibility for the adequate management of the wastes in compliance with applicable laws and regulations including, if necessary, arranging the return of wastes and, as the case may be, shall provide the notification for re-export.

(d) Contracts shall specify that the importer will provide the notification required in Subsection R315-262-82(c) prior to the re-export of controlled wastes to a third country.

(e) Contracts or equivalent arrangements shall include provisions for financial guarantees, if required by the competent authorities of any countries concerned, in accordance with applicable national or international law requirements.

Note to Subsection R315-262-85(e): Financial guarantees so required are intended to provide for alternate recycling, disposal or other means of sound management of the wastes in cases where arrangements for the shipment and the recovery operations cannot be carried

out as foreseen. The United States does not require such financial guarantees at this time; however, some OECD Member countries do. It is the responsibility of the exporter to ascertain and comply with such requirements; in some cases, transporters or importers may refuse to enter into the necessary contracts absent specific references or certifications to financial guarantees.

(f) Contracts or equivalent arrangements shall contain provisions requiring each contracting party to comply with all applicable requirements of Sections R315-262-80 through 89.

(g) Upon request by EPA, U.S. exporters, importers, or recovery facilities shall submit to EPA copies of contracts, chain of contracts, or equivalent arrangements, when the movement occurs between parties controlled by the same corporate or legal entity. Information contained in the contracts or equivalent arrangements for which a claim of confidentiality is asserted in accordance with 40 CFR 2.203(b) shall be treated as confidential and shall be disclosed by EPA only as provided in 40 CFR 260.2.

Note to Subsection R315-262-85(g): Although the United States does not require routine submission of contracts at this time, the OECD Decision allows Member countries to impose such requirements. When other OECD Member countries require submission of partial or complete copies of the contract as a condition to granting consent to proposed movements, EPA shall request the required information; absent submission of such information, some OECD Member countries may deny consent for the proposed movement.

R315-262-86. Provisions relating to recognized traders.

(a) A recognized trader who takes physical custody of a waste and conducts recovery operations, including storage prior to recovery, is acting as the owner or operator of a recovery facility and shall be so authorized in accordance with all applicable Federal laws.

(b) A recognized trader acting as an exporter or importer for transboundary shipments of waste shall comply with all the requirements of Sections R315-262-80 through 89 associated with being an exporter or importer.

R315-262-87. Reporting and recordkeeping.

(a) Annual reports. For all waste movements subject to Sections R315-262-80 through 89, persons, e.g., exporters, recognized traders, who meet the definition of

primary exporter in Section R315-262-51 or who initiate the movement documentation under Section R315-262-84 shall file an annual report with the Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division (2254A), Environmental Protection Agency, 1200 Pennsylvania Avenue, NW., Washington, DC 20460, no later than March 1 of each year summarizing the types, quantities, frequency, and ultimate destination of all such hazardous waste exported during the previous calendar year. If the primary exporter or the person who initiates the movement document under Section R315-262-84 is required to file an annual report for waste exports that are not covered under Sections R315-262-80 through 89, he may include all export information in one report provided the following information on exports of waste destined for recovery within the designated OECD Member countries is contained in a separate section. Such reports shall include all of the following Sections R315-262-87(a)(1) through (a)(6) specified as follows:

(1) The EPA identification number, name, and mailing and site address of the exporter filing the report;

(2) The calendar year covered by the report;

(3) The name and site address of each final recovery facility;

(4) By final recovery facility, for each hazardous waste exported, a description of the hazardous waste, the EPA hazardous waste number, from Sections R315-261-20 through 24 or R315-262-30 through 35, designation of waste type(s) and applicable waste code(s) from the appropriate OECD waste list incorporated by reference in Subsection R315-262-89(d), DOT hazard class, the name and U.S. EPA identification number, where applicable, for each transporter used, the total amount of hazardous waste shipped pursuant to Sections R315-262-80 through 89, and number of shipments pursuant to each notification;

(5) In even numbered years, for each hazardous waste exported, except for hazardous waste produced by exporters of greater than 100kg but less than 1,000kg in a calendar month, and except for hazardous waste for which information was already provided pursuant to Section R315-262-41:

(i) A description of the efforts undertaken during the year to reduce the volume and toxicity of the waste generated; and

(ii) A description of the changes in volume and toxicity of the waste actually achieved during the year in

comparison to previous years to the extent such information is available for years prior to 1984; and

(6) A certification signed by the person acting as primary exporter or initiator of the movement document under Section R315-262-84 that states:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

(b) Exception reports. Any person who meets the definition of primary exporter in Section R315-262-51 or who initiates the movement document under Section R315-262-84 shall file an exception report in lieu of the requirements of Section R315-262-42, if applicable, with the Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division (2254A), Environmental Protection Agency, 1200 Pennsylvania Avenue, NW., Washington, DC 20460, if any of the following occurs:

(1) He has not received a copy of the RCRA hazardous waste manifest, if applicable, signed by the transporter identifying the point of departure of the waste from the United States, within forty-five days from the date it was accepted by the initial transporter;

(2) Within ninety days from the date the waste was accepted by the initial transporter, the exporter has not received written confirmation from the recovery facility that the hazardous waste was received;

(3) The waste is returned to the United States.

(c) Recordkeeping.

(1) Persons who meet the definition of primary exporter in Section R315-262-51 or who initiate the movement document under Section R315-262-84 shall keep the following records in Subsections R315-262-87(c)(1)(i) through (c)(1)(iv):

(i) A copy of each notification of intent to export and all written consents obtained from the competent authorities of countries concerned for a period of at least

three years from the date the hazardous waste was accepted by the initial transporter;

(ii) A copy of each annual report for a period of at least three years from the due date of the report;

(iii) A copy of any exception reports and a copy of each confirmation of delivery, i.e., movement document, sent by the recovery facility to the exporter for at least three years from the date the hazardous waste was accepted by the initial transporter or received by the recovery facility, whichever is applicable; and

(iv) A copy of each certificate of recovery sent by the recovery facility to the exporter for at least three years from the date that the recovery facility completed processing the waste shipment.

(2) The periods of retention referred to in Section R315-262-87 are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Administrator.

R315-262-89. OECD waste lists.

(a) General. For the purposes of Sections R315-262-80 through 89, a waste is considered hazardous under U.S. national procedures, and hence subject to Sections R315-262-80 through 89, if the waste:

(1) Meets the Federal definition of hazardous waste in Section R315-261-3; and

(2) Is subject to either Sections R315-262-20 through 25 and 27, the universal waste management standards of Rule R315-273, the export requirements in the spent lead-acid battery management standards of Section R315-266-80.

(b) If a waste is hazardous under Subsection R315-262-89(a), it is subject to the Amber control procedures, regardless of whether it appears in Appendix 4 of the OECD Decision, as defined in Section R315-262-81.

(c) The appropriate control procedures for hazardous wastes and hazardous waste mixtures are addressed in Section R315-262-82.

(d) The OECD waste lists, as set forth in Annex B (“Green List”) and Annex C (“Amber List”) (collectively “OECD waste lists”) of the 2009 “Guidance Manual for the Implementation of Council Decision C(2001)107/FINAL, as Amended, on the Control of Transboundary Movements of Wastes Destined for Recovery Operations,” are incorporated by reference. This incorporation by reference was approved by the Director of the Federal Register in accordance with

5 U.S.C. 552(a) and 1 CFR part 51. This material is incorporated as it exists on the date of the approval and a notice of any change in these materials shall be published in the Federal Register. The materials are available for inspection at: the U.S. Environmental Protection Agency, Docket Center Public Reading Room, EPA West, Room 3334, 1301 Constitution Avenue NW., Washington, DC 20004 (Docket # EPA-HQ-RCRA-2005-0018) or at the National Archives and Records Administration (NARA), and may be obtained from the Organization for Economic Cooperation and Development, Environment Directorate, 2 rue André Pascal, F-75775 Paris Cedex 16, France. For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html. To contact the EPA Docket Center Public Reading Room, call (202) 566-1744. To contact the OECD, call +33 (0) 1 45 24 81 67.

R315-262-200. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities - Definitions for Sections R315-262-200 through 216.

(a) The following definitions apply to Sections R315-262-200 through 216:

(1) "Central accumulation area" means an on-site hazardous waste accumulation area subject to either Subsections R315-262-34(a) through (b),large quantity generators, or Subsections R315-262-34(d) through (f), small quantity generators. A central accumulation area at an eligible academic entity that chooses to be subject to Section R315-262-200 through 216 shall also comply with Section R315-262-211 when accumulating unwanted material and/or hazardous waste.

(2) "College/University" means a private or public, post-secondary, degree-granting, academic institution, that is accredited by an accrediting agency listed annually by the U.S. Department of Education.

(3) "Eligible academic entity" means a college or university, or a non-profit research institute that is owned by or has a formal written affiliation agreement with a college or university, or a teaching hospital that is owned by or has a formal written affiliation agreement with a college or university.

(4) "Formal written affiliation agreement for a non-profit research institute" means a written document that

establishes a relationship between institutions for the purposes of research and/or education and is signed by authorized representatives, as defined by Section R315-260-10, from each institution. A relationship on a project-by-project or grant-by-grant basis is not considered a formal written affiliation agreement. A formal written affiliation agreement for a teaching hospital means a master affiliation agreement and program letter of agreement, as defined by the Accreditation Council for Graduate Medical Education, with an accredited medical program or medical school.

(5) Laboratory means an area owned by an eligible academic entity where relatively small quantities of chemicals and other substances are used on a non-production basis for teaching or research, or diagnostic purposes at a teaching hospital, and are stored and used in containers that are easily manipulated by one person. Photo laboratories, art studios, and field laboratories are considered laboratories. Areas such as chemical stockrooms and preparatory laboratories that provide a support function to teaching or research laboratories, or diagnostic laboratories at teaching hospitals, are also considered laboratories.

(6) "Laboratory clean-out" means an evaluation of the inventory of chemicals and other materials in a laboratory that are no longer needed or that have expired and the subsequent removal of those chemicals or other unwanted materials from the laboratory. A clean-out may occur for several reasons. It may be on a routine basis, e.g., at the end of a semester or academic year, or as a result of a renovation, relocation, or change in laboratory supervisor/occupant. A regularly scheduled removal of unwanted material as required by Section R315-262-208 does not qualify as a laboratory clean-out.

(7) "Laboratory worker" means a person who handles chemicals and/or unwanted material in a laboratory and may include, but is not limited to, faculty, staff, post-doctoral fellows, interns, researchers, technicians, supervisors/managers, and principal investigators. A person does not need to be paid or otherwise compensated for his/her work in the laboratory to be considered a laboratory worker. Undergraduate and graduate students in a supervised classroom setting are not laboratory workers.

(8) "Non-profit research institute" means an organization that conducts research as its primary function

and files as a non-profit organization under the tax code of 26 U.S.C. 501(c)(3).

(9) "Reactive acutely hazardous unwanted material" means an unwanted material that is one of the acutely hazardous commercial chemical products listed in Subsection R315-261-33(e) for reactivity.

(10) "Teaching hospital" means a hospital that trains students to become physicians, nurses or other health or laboratory personnel.

(11) "Trained professional" means a person who has completed the applicable RCRA training requirements of Section R315-265-16 for large quantity generators, or is knowledgeable about normal operations and emergencies in accordance with Subsection R315-262-34(d)(5)(iii) for small quantity generators and conditionally exempt small quantity generators. A trained professional may be an employee of the eligible academic entity or may be a contractor or vendor who meets the requisite training requirements.

(12) "Unwanted material" means any chemical, mixtures of chemicals, products of experiments or other material from a laboratory that is no longer needed, wanted or usable in the laboratory and that is destined for hazardous waste determination by a trained professional. Unwanted materials include reactive acutely hazardous unwanted materials and materials that may eventually be determined not to be solid waste pursuant to Section R315-261-2, or a hazardous waste pursuant to Section R315-261-3. If an eligible academic entity elects to use another equally effective term in lieu of “unwanted material,” as allowed by Subsection R315-262-206(a)(1)(i), the equally effective term has the same meaning and is subject to the same requirements as “unwanted material” under Section R315-262-200 through 216.

(13) "Working container" means a small container, i.e., two gallons or less, that is in use at a laboratory bench, hood, or other work station, to collect unwanted material from a laboratory experiment or procedure.

R315-262-201. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities - Applicability of Sections R315-262-200 through 216.

(a) Large quantity generators and small quantity generators. Sections R315-262-200 through 216 provides alternative requirements to the requirements in Section

R315-262-11 and Subsection R315-262-34(c) for the hazardous waste determination and accumulation of hazardous waste in laboratories owned by eligible academic entities that choose to be subject to Sections R315-262-200 through 216, provided that they complete the notification requirements of Section R315-262-203.

(b) Conditionally exempt small quantity generators. Sections R315-262-200 through 216 provides alternative requirements to the conditional exemption in Subsection R315-261-5(b) for the accumulation of hazardous waste in laboratories owned by eligible academic entities that choose to be subject to Sections R315-262-200 through 216, provided that they complete the notification requirements of Section R315-262-203.

R315-262-202. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities - Sections R315-262-200 through 216 are Optional.

(a) Large quantity generators and small quantity generators. Eligible academic entities have the option of complying with Sections R315-262-200 through 216 with respect to its laboratories, as an alternative to complying with the requirements of Section R315-262-11 and Subsection R315- 262-34(c).

(b) Conditionally exempt small quantity generators. Eligible academic entities have the option of complying with Sections R315-262-200 through 216 with respect to its laboratories, as an alternative to complying with the conditional exemption of Subsection R315-261-5(b).

R315-262-203. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities - How an Eligible Academic Entity Indicates it will be Subject to the Requirements of Sections R315-262-200 through 216.

(a) An eligible academic entity shall notify the Director in writing, using the RCRA Subtitle C Site Identification Form, EPA Form 8700-12, that it is electing to be subject to the requirements of Sections R315-262-200 through 216 for all the laboratories owned by the eligible academic entity under the same EPA Identification Number. An eligible academic entity that is a conditionally exempt small quantity generator and does not have an EPA Identification Number shall notify that it is electing to

be subject to the requirements of Sections R315-262-200 through 216 for all the laboratories owned by the eligible academic entity that are on-site, as defined by Section R315-260-10. An eligible academic entity shall submit a separate notification, Site Identification Form, for each EPA Identification Number, or site, for conditionally exempt small quantity generators, that is electing to be subject to the requirements of Sections R315-262-200 through 216, and shall submit the Site Identification Form before it begins operating under Sections R315-262-200 through 216.

(b) When submitting the Site Identification Form, the eligible academic entity shall, at a minimum, fill out the following fields on the form:

(1) Reason for Submittal.

(2) Site EPA Identification Number, except for conditionally exempt small quantity generators.

(3) Site Name.

(4) Site Location Information.

(5) Site Land Type.

(6) North American Industry Classification System (NAICS) Code(s) for the Site.

(7) Site Mailing Address.

(8) Site Contact Person.

(9) Operator and Legal Owner of the Site.

(10) Type of Regulated Waste Activity.

(11) Certification.

(c) An eligible academic entity shall keep a copy of the notification on file at the eligible academic entity for as long as its laboratories are subject to Sections R315-262-200 through 216.

(d) A teaching hospital that is not owned by a college or university shall keep a copy of its formal written affiliation agreement with a college or university on file at the teaching hospital for as long as its laboratories are subject to Sections R315-262-200 through 216.

(e) A non-profit research institute that is not owned by a college or university shall keep a copy of its formal written affiliation agreement with a college or university on file at the non-profit research institute for as long as its laboratories are subject to Sections R315-262-200 through 216.

R315-262-204. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities - How an Eligible Academic Entity Indicates it will Withdraw from the Requirements of Sections R315-262-200 through 216.

(a) An eligible academic entity shall notify the appropriate EPA Regional Administrator in writing, using the RCRA Subtitle C Site Identification Form (EPA Form 8700-12), that it is electing to no longer be subject to the requirements of Sections R315-262-200 through 216 for all the laboratories owned by the eligible academic entity under the same EPA Identification Number and that it will comply with the requirements of Section R315-262-11 and Subsection R315-262-34(c) for small quantity generators and large quantity generators. An eligible academic entity that is a conditionally exempt small quantity generator and does not have an EPA Identification Number shall notify that it is withdrawing from the requirements of Sections R315-262-200 through 216 for all the laboratories owned by the eligible academic entity that are on-site and that it will comply with the conditional exemption in Subsection R315-261-5(b). An eligible academic entity shall submit a separate notification, Site Identification Form, for each EPA Identification Number, or site, for conditionally exempt small quantity generators, that is withdrawing from the requirements of Sections R315-262-200 through 216 and shall submit the Site Identification Form before it begins operating under the requirements of Section R315-262-11 and Subsection R315-262-34(c) for small quantity generators and large quantity generators, or Subsection R315-261-5(b) for conditionally exempt small quantity generators.

(b) When submitting the Site Identification Form, the eligible academic entity shall, at a minimum, fill out the following fields on the form:

(1) Reason for Submittal.

(2) Site EPA Identification Number, except for conditionally exempt small quantity generators.

(3) Site Name.

(4) Site Location Information.

(5) Site Land Type.

(6) North American Industry Classification System (NAICS) Code(s) for the Site.

(7) Site Mailing Address.

(8) Site Contact Person.

(9) Operator and Legal Owner of the Site.

(10) Type of Regulated Waste Activity.

(11) Certification.

(c) An eligible academic entity shall keep a copy of the withdrawal notice on file at the eligible academic entity for three years from the date of the notification.

R315-262-205. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities Summary of the Requirements of Sections R315-262-200 through 216.

An eligible academic entity that chooses to be subject to Sections R315-262-200 through 216 is not required to have interim status or a RCRA Part B permit for the accumulation of unwanted material and hazardous waste in its laboratories, provided the laboratories comply with the provisions of Sections R315-262-200 through 216 and the eligible academic entity has a Laboratory Management Plan (LMP) in accordance with Section R315-262-214 that describes how the laboratories owned by the eligible academic entity will comply with the requirements of Sections R315-262-200 through 216.

R315-262-206. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities - Labeling and Management Standards for Containers of Unwanted Material in the Laboratory.

An eligible academic entity shall manage containers of unwanted material while in the laboratory in accordance with the requirements in Section R315-262-206.

(a) Labeling: Label unwanted material as follows:

(1) The following information shall be affixed or attached to the container:

(i) The words “unwanted material” or another equally effective term that is to be used consistently by the eligible academic entity and that is identified in Part I of the Laboratory Management Plan, and

(ii) Sufficient information to alert emergency responders to the contents of the container. Examples of information that would be sufficient to alert emergency responders to the contents of the container include, but are not limited to:

(A) The name of the chemical(s),

(B) The type or class of chemical, such as organic solvents or halogenated organic solvents.

(2) The following information may be affixed or attached to the container, but shall at a minimum be associated with the container:

(i) The date that the unwanted material first began accumulating in the container, and

(ii) Information sufficient to allow a trained professional to properly identify whether an unwanted material is a solid and hazardous waste and to assign the proper hazardous waste code(s), pursuant to Section R315-262-11. Examples of information that would allow a trained professional to properly identify whether an unwanted material is a solid or hazardous waste include, but are not limited to:

(A) The name and/or description of the chemical contents or composition of the unwanted material, or, if known, the product of the chemical reaction,

(B) Whether the unwanted material has been used or is unused,

(C) A description of the manner in which the chemical was produced or processed, if applicable.

(b) Management of Containers in the Laboratory. An eligible academic entity shall properly manage containers of unwanted material in the laboratory to assure safe storage of the unwanted material, to prevent leaks, spills, emissions to the air, adverse chemical reactions, and dangerous situations that may result in harm to human health or the environment. Proper container management shall include the following:

(1) Containers are maintained and kept in good condition and damaged containers are replaced, overpacked, or repaired, and

(2) Containers are compatible with their contents to avoid reactions between the contents and the container; and are made of, or lined with, material that is compatible with the unwanted material so that the container's integrity is not impaired, and

(3) Containers shall be kept closed at all times, except:

(i) When adding, removing or bulking unwanted material, or

(ii) A working container may be open until the end of the procedure or work shift, or until it is full, whichever comes first, at which time the working container shall either be closed or the contents emptied into a separate container that is then closed, or

(iii) When venting of a container is necessary.

(A) For the proper operation of laboratory equipment, such as with in-line collection of unwanted materials from high performance liquid chromatographs, or

(B) To prevent dangerous situations, such as build-up of extreme pressure.

R315-262-207. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities - Training.

An eligible academic entity shall provide training to all individuals working in a laboratory at the eligible academic entity, as follows:

(a) Training for laboratory workers and students shall be commensurate with their duties so they understand the requirements in Sections R315-262-200 through 216 and can implement them.

(b) An eligible academic entity can provide training for laboratory workers and students in a variety of ways, including, but not limited to:

(1) Instruction by the professor or laboratory manager before or during an experiment; or

(2) Formal classroom training; or

(3) Electronic/written training; or

(4) On-the-job training; or

(5) Written or oral exams.

(c) An eligible academic entity that is a large quantity generator shall maintain documentation for the durations specified in 40 CFR 265.16(e), which is incorporated by reference in R315-265, demonstrating training for all laboratory workers that is sufficient to determine whether laboratory workers have been trained. Examples of documentation demonstrating training can include, but are not limited to, the following:

(1) Sign-in/attendance sheet(s) for training session(s); or

(2) Syllabus for training session; or

(3) Certificate of training completion; or

(4) Test results.

(d) A trained professional shall:

(1) Accompany the transfer of unwanted material and hazardous waste when the unwanted material and hazardous waste is removed from the laboratory, and

(2) Make the hazardous waste determination, pursuant to Section R315-262-11, for unwanted material.

R315-262-208. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities - Removing Containers of Unwanted Material from the Laboratory.

(a) Removing containers of unwanted material on a regular schedule. An eligible academic entity shall either:

(1) Remove all containers of unwanted material from each laboratory on a regular interval, not to exceed 6 months; or

(2) Remove containers of unwanted material from each laboratory within 6 months of each container's accumulation start date.

(b) The eligible academic entity shall specify in Part I of its Laboratory Management Plan whether it will comply with Subsection R315-262-208(a)(1) or (a)(2) for the regular removal of unwanted material from its laboratories.

(c) The eligible academic entity shall specify in Part II of its Laboratory Management Plan how it will comply with Subsection R315-262-208(a)(1) or (a)(2) and develop a schedule for regular removals of unwanted material from its laboratories.

(d) Removing containers of unwanted material when volumes are exceeded.

(1) If a laboratory accumulates a total volume of unwanted material, including reactive acutely hazardous unwanted material, in excess of 55 gallons before the regularly scheduled removal, the eligible academic entity shall ensure that all containers of unwanted material in the laboratory, including reactive acutely hazardous unwanted material:

(i) Are marked on the label that is associated with the container, or on the label that is affixed or attached to the container, if that is preferred, with the date that 55 gallons is exceeded; and

(ii) Are removed from the laboratory within 10 calendar days of the date that 55 gallons was exceeded, or at the next regularly scheduled removal, whichever comes first.

(2) If a laboratory accumulates more than 1 quart of reactive acutely hazardous unwanted material before the regularly scheduled removal, then the eligible academic

entity shall ensure that all containers of reactive acutely hazardous unwanted material:

(i) Are marked on the label that is associated with the container, or on the label that is affixed or attached to the container, if that is preferred, with the date that 1 quart is exceeded; and

(ii) Are removed from the laboratory within 10 calendar days of the date that 1 quart was exceeded, or at the next regularly scheduled removal, whichever comes first.

R315-262-209. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities - Where and When to Make the Hazardous Waste Determination and Where to Send Containers of Unwanted Material Upon Removal from the Laboratory.

(a) Large quantity generators and small quantity generators-an eligible academic entity shall ensure that a trained professional makes a hazardous waste determination, pursuant to Section R315-262-11, for unwanted material in any of the following areas:

(1) In the laboratory before the unwanted material is removed from the laboratory, in accordance with Section R315-262-210;

(2) Within 4 calendar days of arriving at an on-site central accumulation area, in accordance with Section R315-262-211; and

(3) Within 4 calendar days of arriving at an on-site interim status or permitted treatment, storage or disposal facility, in accordance with Section R315-262-212.

(b) Conditionally exempt small quantity generators—an eligible academic entity shall ensure that a trained professional makes a hazardous waste determination, pursuant to Section R315-262-11, for unwanted material in the laboratory before the unwanted material is removed from the laboratory, in accordance with Section R315-262-210.

R315-262-210. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities - Making the Hazardous Waste Determination in the Laboratory Before the Unwanted Material is Removed from the Laboratory.

If an eligible academic entity makes the hazardous waste determination, pursuant to Section R315-262-11, for

unwanted material in the laboratory, it shall comply with the following:

(a) A trained professional shall make the hazardous waste determination, pursuant to Section R315-262-11, before the unwanted material is removed from the laboratory.

(b) If an unwanted material is a hazardous waste, the eligible academic entity shall:

(1) Write the words “hazardous waste” on the container label that is affixed or attached to the container, before the hazardous waste may be removed from the laboratory; and

(2) Write the appropriate hazardous waste code(s) on the label that is associated with the container, or on the label that is affixed or attached to the container, if that is preferred, before the hazardous waste is transported off-site.

(3) Count the hazardous waste toward the eligible academic entity's generator status, pursuant to Subsections R315-261-5(c) and (d), in the calendar month that the hazardous waste determination was made.

(c) A trained professional shall accompany all hazardous waste that is transferred from the laboratory(ies) to an on-site central accumulation area or on-site interim status or permitted treatment, storage or disposal facility.

(d) When hazardous waste is removed from the laboratory:

(1) Large quantity generators and small quantity generators shall ensure it is taken directly from the laboratory(ies) to an on-site central accumulation area, or on-site interim status or permitted treatment, storage or disposal facility, or transported off-site.

(2) Conditionally exempt small quantity generators shall ensure it is taken directly from the laboratory(ies) to any of the types of facilities listed in Subsection R315-261-5(f)(3) for acute hazardous waste, or Subsection R315-261-5(g)(3) for hazardous waste.

(e) An unwanted material that is a hazardous waste is subject to all applicable hazardous waste regulations when it is removed from the laboratory.

R315-262-211. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities - Making

The Hazardous Waste Determination at an On-Site Central Accumulation Area.

If an eligible academic entity makes the hazardous waste determination, pursuant to Section R315-262-11, for unwanted material at an on-site central accumulation area, it shall comply with the following:

(a) A trained professional shall accompany all unwanted material that is transferred from the laboratory(ies) to an on-site central accumulation area.

(b) All unwanted material removed from the laboratory(ies) shall be taken directly from the laboratory(ies) to the on-site central accumulation area.

(c) The unwanted material becomes subject to the generator accumulation regulations of Subsection R315-262-34(a) for large quantity generators or Subsections R315-262-34(d)-(f) for small quantity generators as soon as it arrives in the central accumulation area, except for the "hazardous waste" labeling requirements of Subsection R315-262-34(a)(3).

(d) A trained professional shall determine, pursuant to Section R315-262-11, if the unwanted material is a hazardous waste within 4 calendar days of the unwanted materials' arrival at the on-site central accumulation area.

(e) If the unwanted material is a hazardous waste, the eligible academic entity shall:

(1) Write the words "hazardous waste" on the container label that is affixed or attached to the container, within 4 calendar days of arriving at the on-site central accumulation area and before the hazardous waste may be removed from the on-site central accumulation area, and

(2) Write the appropriate hazardous waste code(s) on the container label that is associated with the container, or on the label that is affixed or attached to the container, if that is preferred, before the hazardous waste may be treated or disposed of on-site or transported off-site, and

(3) Count the hazardous waste toward the eligible academic entity's generator status, pursuant to Subsection R315-261-5(c) and (d) in the calendar month that the hazardous waste determination was made, and

(4) Manage the hazardous waste according to all applicable hazardous waste regulations.

R315-262-212. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities - Making the Hazardous Waste Determination at an On-Site Interim Status or Permitted Treatment, Storage or Disposal Facility.

If an eligible academic entity makes the hazardous waste determination, pursuant to Section R315-262-11, for unwanted material at an on-site interim status or permitted treatment, storage or disposal facility, it shall comply with the following:

(a) A trained professional shall accompany all unwanted material that is transferred from the laboratory(ies) to an on-site interim status or permitted treatment, storage or disposal facility.

(b) All unwanted material removed from the laboratory(ies) shall be taken directly from the laboratory(ies) to the on-site interim status or permitted treatment, storage or disposal facility.

(c) The unwanted material becomes subject to the terms of the eligible academic entity's hazardous waste permit or interim status as soon as it arrives in the on-site treatment, storage or disposal facility.

(d) A trained professional shall determine, pursuant to Section R315-262-11, if the unwanted material is a hazardous waste within 4 calendar days of the unwanted materials' arrival at an on-site interim status or permitted treatment, storage or disposal facility.

(e) If the unwanted material is a hazardous waste, the eligible academic entity shall:

(1) Write the words “hazardous waste” on the container label that is affixed or attached to the container within 4 calendar days of arriving at the on-site interim status or permitted treatment, storage or disposal facility and before the hazardous waste may be removed from the on-site interim status or permitted treatment, storage or disposal facility, and

(2) Write the appropriate hazardous waste code(s) on the container label that is associated with the container, or on the label that is affixed or attached to the container, if that is preferred, before the hazardous waste may be treated or disposed on-site or transported off-site, and

(3) Count the hazardous waste toward the eligible academic entity's generator status, pursuant to Subsections

R315-261-5(c) and (d) in the calendar month that the hazardous waste determination was made, and

(4) Manage the hazardous waste according to all applicable hazardous waste regulations.

R315-262-213. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities - Laboratory Clean-outs.

(a) One time per 12 month period for each laboratory, an eligible academic entity may opt to conduct a laboratory clean-out that is subject to all the applicable requirements of Sections R315-262-200 through 216, except that:

(1) If the volume of unwanted material in the laboratory exceeds 55 gallons, or 1 quart of reactive acutely hazardous unwanted material, the eligible academic entity is not required to remove all unwanted materials from the laboratory within 10 calendar days of exceeding 55 gallons, or 1 quart of reactive acutely hazardous unwanted material, as required by Section R315-262-208. Instead, the eligible academic entity shall remove all unwanted materials from the laboratory within 30 calendar days from the start of the laboratory clean-out; and

(2) For the purposes of on-site accumulation, an eligible academic entity is not required to count a hazardous waste that is an unused commercial chemical product, listed in Sections R315-261-30 through 35 or exhibiting one or more characteristics in Sections R315-261-20 through 24, generated solely during the laboratory clean-out toward its hazardous waste generator status, pursuant to Subsections R315-261-5(c) and (d). An unwanted material that is generated prior to the beginning of the laboratory clean-out and is still in the laboratory at the time the laboratory clean-out commences shall be counted toward hazardous waste generator status, pursuant to Subsections R315-261-5(c) and (d), if it is determined to be hazardous waste; and

(3) For the purposes of off-site management, an eligible academic entity shall count all its hazardous waste, regardless of whether the hazardous waste was counted toward generator status under Subsection R315-262-213(a)(2), and if it generates more than 1 kg/month of acute hazardous waste or more than 100 kg/month of hazardous waste, i.e., the conditionally exempt small

quantity generator limits of Section R315-261-5, the hazardous waste is subject to all applicable hazardous waste regulations when it is transported off-site; and

(4) An eligible academic entity shall document the activities of the laboratory clean-out. The documentation shall, at a minimum, identify the laboratory being cleaned out, the date the laboratory clean-out begins and ends, and the volume of hazardous waste generated during the laboratory clean-out. The eligible academic entity shall maintain the records for a period of three years from the date the clean-out ends; and

(b) For all other laboratory clean-outs conducted during the same 12-month period, an eligible academic entity is subject to all the applicable requirements of Sections R315-262-200 through 216, including, but not limited to:

(1) The requirement to remove all unwanted materials from the laboratory within 10 calendar days of exceeding 55 gallons, or 1 quart of reactive acutely hazardous unwanted material, as required by Section R315-262-208; and

(2) The requirement to count all hazardous waste, including unused hazardous waste, generated during the laboratory clean-out toward its hazardous waste generator status, pursuant to Subsections R315-261-5(c) and (d).

R315-262-214. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities Laboratory Management Plan.

An eligible academic entity shall develop and retain a written Laboratory Management Plan, or revise an existing written plan. The Laboratory Management Plan is a site-specific document that describes how the eligible academic entity will manage unwanted materials in compliance with Sections R315-262-200 through 216. An eligible academic entity may write one Laboratory Management Plan for all the laboratories owned by the eligible academic entity that have opted into Sections R315-262-200 through 216, even if the laboratories are located at sites with different EPA Identification Numbers. The Laboratory Management Plan shall contain two parts with a total of nine elements identified in Subsections R315-262-214(a) and (b). In Part I of its Laboratory Management Plan, an eligible academic entity shall describe its procedures for each of the elements listed in Subsection R315-262-214(a). An eligible

academic entity shall implement and comply with the specific provisions that it develops to address the elements in Part I of the Laboratory Management Plan. In Part II of its Laboratory Management Plan, an eligible academic entity shall describe its best management practices for each of the elements listed in Subsection R315-262-214(b). The specific actions taken by an eligible academic entity to implement each element in Part II of its Laboratory Management Plan may vary from the procedures described in the eligible academic entity's Laboratory Management Plan, without constituting a violation of Sections R315-262-200 through 216. An eligible academic entity may include additional elements and best management practices in Part II of its Laboratory Management Plan if it chooses.

(a) The eligible academic entity shall implement and comply with the specific provisions of Part I of its Laboratory Management Plan. In Part I of its Laboratory Management Plan, an eligible academic entity shall:

(1) Describe procedures for container labeling in accordance with Subsection R315-262-206(a), as follows:

(i) Identifying whether the eligible academic entity will use the term “unwanted material” on the containers in the laboratory. If not, identify an equally effective term that will be used in lieu of “unwanted material” and consistently by the eligible academic entity. The equally effective term, if used, has the same meaning and is subject to the same requirements as “unwanted material.”

(ii) Identifying the manner in which information that is “associated with the container” will be imparted.

(2) Identify whether the eligible academic entity will comply with Subsection R315-262-208(a)(1) or (a)(2) for regularly scheduled removals of unwanted material from the laboratory.

(b) In Part II of its Laboratory Management Plan, an eligible academic entity shall:

(1) Describe its intended best practices for container labeling and management, see the required standards at Section R315-262-206.

(2) Describe its intended best practices for providing training for laboratory workers and students commensurate with their duties, see the required standards at Subsection R315-262-207(a).

(3) Describe its intended best practices for providing training to ensure safe on-site transfers of

unwanted material and hazardous waste by trained professionals, see the required standards at Subsection R315-262-207(d)(1).

(4) Describe its intended best practices for removing unwanted material from the laboratory, including:

(i) For regularly scheduled removals-Develop a regular schedule for identifying and removing unwanted materials from its laboratories, see the required standards at Subsections R315-262-208(a)(1) and (a)(2).

(ii) For removals when maximum volumes are exceeded:

(A) Describe its intended best practices for removing unwanted materials from the laboratory within 10 calendar days when unwanted materials have exceeded their maximum volumes, see the required standards at Subsection R315-262-208(d).

(B) Describe its intended best practices for communicating that unwanted materials have exceeded their maximum volumes.

(5) Describe its intended best practices for making hazardous waste determinations, including specifying the duties of the individuals involved in the process, see the required standards at Section R315-262-11 and Sections R315-262-209 through 212.

(6) Describe its intended best practices for laboratory clean-outs, if the eligible academic entity plans to use the incentives for laboratory clean-outs provided in Section R315-262-213, including:

(i) Procedures for conducting laboratory clean-outs, see the required standards at Subsections R315-262-213(a)(1) through (3); and

(ii) Procedures for documenting laboratory clean-outs, see the required standards at Subsection R315-262-213(a)(4).

(7) Describe its intended best practices for emergency prevention, including:

(i) Procedures for emergency prevention, notification, and response, appropriate to the hazards in the laboratory; and

(ii) A list of chemicals that the eligible academic entity has, or is likely to have, that become more dangerous when they exceed their expiration date and/or as they degrade; and

(iii) Procedures to safely dispose of chemicals that become more dangerous when they exceed their expiration date and/or as they degrade; and

(iv) Procedures for the timely characterization of unknown chemicals.

(c) An eligible academic entity shall make its Laboratory Management Plan available to laboratory workers, students, or any others at the eligible academic entity who request it.

(d) An eligible academic entity shall review and revise its Laboratory Management Plan, as needed.

R315-262-215. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities - Unwanted Material that is not Solid or Hazardous Waste.

(a) If an unwanted material does not meet the definition of solid waste in Section R315-261-2, it is no longer subject to Sections R315-262-200 through 216 or to Rules R315-260 through 266, 268, or 270.

(b) If an unwanted material does not meet the definition of hazardous waste in Section R315-261-3, it is no longer subject to Sections R315-262-200 through 216 or to Rules R315-260 through 266, 268, or 270, but shall be managed in compliance with any other applicable regulations and/or conditions.

R315-262-216. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities - Non-Laboratory Hazardous Waste Generated at an Eligible Academic Entity.

An eligible academic entity that generates hazardous waste outside of a laboratory is not eligible to manage that hazardous waste under Sections R315-262-200 through 216; and

(a) Remains subject to the generator requirements of Section R315-262-11 and Subsection R315-262-34(c) for large quantity generators and small quantity generators, if the hazardous waste is managed in a satellite accumulation area, and all other applicable generator requirements of Rule R315-262, with respect to that hazardous waste; or

(b) Remains subject to the conditional exemption of Subsection R315-261-5(b) for conditionally exempt small quantity generators, with respect to that hazardous waste.

Appendix

Appendix to 40 CFR 262, 2015 edition, is adopted and incorporated by reference.

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.

Rule R315-263. Standards Applicable to Transporters of Hazardous Waste and Standards Applicable to Emergency Control of Spills for All Hazardous Waste Handlers.

R315-263-10. Scope.

(a) Sections R315-263-11, 12, 20, 21, 22, 25, and 34 establish standards which apply to persons transporting hazardous waste within Utah if the transportation requires a manifest under Rule R315-262.

(b) Sections R315-263-11, 12, 20, 21, 22, 25, and 34 do not apply to on-site transportation of hazardous waste by generators or by owners or operators of permitted hazardous waste management facilities.

(c) A transporter of hazardous waste shall also comply with Rule R315-262 if he:

(1) Transports hazardous waste into Utah; or

(2) Mixes hazardous wastes of different DOT shipping descriptions by placing them into a single container.

(d) A transporter of hazardous waste subject to the manifesting requirements of Rule R315-262, or subject to the waste management standards of Rule R315-273, that is being imported from or exported to any of the countries listed in Subsection R315-262-58(a)(1) for purposes of recovery is subject to Sections R315-263-10 through 12 and to all other relevant requirements of Sections R315-262-80 through 89, including, but not limited to, Section R315-262-84 for movement documents.

(e) Reserved

(f) Reserved

(g) Sections R315-263-30, 31, 32, and 33 apply to all handlers of hazardous waste or material that when spilled may become a hazardous waste.

R315-263-11. EPA identification number.

(a) A transporter shall not transport hazardous wastes without having received an EPA identification number from the Director.

(b) A transporter who has not received an EPA identification number may obtain one by applying to the Director using EPA Form 8700-12. Upon receiving the request, the Director shall assign an EPA identification number to the transporter.

R315-263-12. Transfer facility requirements.

A transporter who stores manifested shipments of hazardous waste in containers meeting the requirements of Section R315-262-30 at a transfer facility for a period of ten days or less is not subject to regulation under Rules R315-270, 264, 265, and 268 with respect to the storage of those wastes.

R315-263-20. The manifest system.

(a)(1) Manifest requirement. A transporter may not accept hazardous waste from a generator unless the transporter is also provided with a manifest form; EPA Form 8700-22, and if necessary, EPA Form 8700-22A; signed in accordance with the requirement of Section R315-262-23, or is provided with an electronic manifest that is obtained, completed, and transmitted in accordance with Subsection R315-262-20(a)(3), and signed with a valid and enforceable electronic signature as described in Section R315-262-25.

(2) Exports. In the case of exports other than those subject to Sections R315-262-80 through 89, a transporter may not accept such waste from a primary exporter or other person if he knows the shipment does not conform to the EPA Acknowledgment of Consent; and unless, in addition to a manifest signed by the generator in accordance with Section R315-263-20, the transporter shall also be provided with an EPA Acknowledgment of Consent which, except for shipments by rail, is attached to the manifest; or shipping paper for exports by water, bulk shipment. For exports of hazardous waste subject to the requirements of Sections R315-262-80 through 89, a transporter may not accept hazardous waste without a tracking document that includes all information required by Section R315-262-84.

(3) Compliance date for form revisions. The revised Manifest form and procedures in Sections R315-260-10, 261-7, 263-20, and 263-21, had an effective date of September 5, 2006.

(4) Use of electronic manifest-legal equivalence to paper forms for participating transporters. Electronic manifests that are obtained, completed, and transmitted in accordance with Subsection R315-262-20(a)(3), and used in accordance with Section R315-263-20 in lieu of EPA Forms 8700-22 and 8700-22A, are the legal equivalent of paper manifest forms bearing handwritten signatures, and satisfy for all purposes any requirement in these regulations to obtain, complete, sign, carry, provide, give, use, or retain a manifest.

(i) Any requirement in these regulations to sign a manifest or manifest certification by hand, or to obtain a handwritten signature, is satisfied by signing with or obtaining a valid and enforceable electronic signature within the meaning of Section R315-262-25.

(ii) Any requirement in these regulations to give, provide, send, forward, or return to another person a copy of the manifest is satisfied when a copy of an electronic manifest is transmitted to the other person by submission to the system.

(iii) Any requirement in these regulations for a manifest to accompany a hazardous waste shipment is satisfied when a copy of an electronic manifest is accessible during transportation and forwarded to the person or persons who are scheduled to receive delivery of the waste shipment, except that to the extent that the Hazardous Materials regulation on shipping papers for carriage by public highway requires transporters of hazardous materials to carry a paper document to comply with 49 CFR 177.817, a hazardous waste transporter shall carry one printed copy of the electronic manifest on the transport vehicle.

(iv) Any requirement in these regulations for a transporter to keep or retain a copy of a manifest is satisfied by the retention of an electronic manifest in the transporter's account on the e-Manifest system, provided that such copies are readily available for viewing and production if requested by any EPA or Utah inspector.

(v) No transporter may be held liable for the inability to produce an electronic manifest for inspection under Section R315-263-20 if that transporter can demonstrate that the inability to produce the electronic manifest is exclusively due to a technical difficulty with the EPA system for which the transporter bears no responsibility.

(5) A transporter may participate in the electronic manifest system either by accessing the electronic manifest system from the transporter's own electronic equipment, or by accessing the electronic manifest system from the equipment provided by a participating generator, by another transporter, or by a designated facility.

(6) Special procedures when electronic manifest is not available. If after a manifest has been originated electronically and signed electronically by the initial

transporter, and the electronic manifest system should become unavailable for any reason, then:

(i) The transporter in possession of the hazardous waste when the electronic manifest becomes unavailable shall reproduce sufficient copies of the printed manifest that is carried on the transport vehicle pursuant to Subsection R315-263-20(a)(4)(iii)(A), or obtain and complete another paper manifest for this purpose. The transporter shall reproduce sufficient copies to provide the transporter and all subsequent waste handlers with a copy for their files, plus two additional copies that will be delivered to the designated facility with the hazardous waste.

(ii) On each printed copy, the transporter shall include a notation in the Special Handling and Additional Description space, Item 14, that the paper manifest is a replacement manifest for a manifest originated in the electronic manifest system, shall include, if not pre-printed on the replacement manifest, the manifest tracking number of the electronic manifest that is replaced by the paper manifest, and shall also include a brief explanation why the electronic manifest was not available for completing the tracking of the shipment electronically.

(iii) A transporter signing a replacement manifest to acknowledge receipt of the hazardous waste shall ensure that each paper copy is individually signed and that a legible handwritten signature appears on each copy.

(iv) From the point at which the electronic manifest is no longer available for tracking the waste shipment, the paper replacement manifest copies shall be carried, signed, retained as records, and given to a subsequent transporter or to the designated facility, following the instructions, procedures, and requirements that apply to the use of all other paper manifests.

(7) Special procedures for electronic signature methods undergoing tests. If a transporter using an electronic manifest signs this manifest electronically using an electronic signature method which is undergoing pilot or demonstration tests aimed at demonstrating the practicality or legal dependability of the signature method, then the transporter shall sign the electronic manifest electronically and also sign with an ink signature the transporter acknowledgement of receipt of materials on the printed copy of the manifest that is carried on the vehicle in accordance with Subsection R315-263-

20(a)(4)(iii)(A). This printed copy bearing the generator's and transporter's ink signatures shall also be presented by the transporter to the designated facility to sign in ink to indicate the receipt of the waste materials or to indicate discrepancies. After the owner/operator of the designated facility has signed this printed manifest copy with its ink signature, the printed manifest copy shall be delivered to the designated facility with the waste materials.

(8) Imposition of user fee for electronic manifest use. A transporter who is a user of the electronic manifest may be assessed a user fee by EPA for the origination or processing of each electronic manifest. EPA shall maintain and update from time-to-time the current schedule of electronic manifest user fees, which shall be determined based on current and projected system costs and level of use of the electronic manifest system. The current schedule of electronic manifest user fees shall be published as an appendix to 40 CFR part 262.

(b) Before transporting the hazardous waste, the transporter shall sign and date the manifest acknowledging acceptance of the hazardous waste from the generator. The transporter shall return a signed copy to the generator before leaving the generator's property.

(c) The transporter shall ensure that the manifest accompanies the hazardous waste. In the case of exports, the transporter shall ensure that a copy of the EPA Acknowledgment of Consent also accompanies the hazardous waste.

(d) A transporter who delivers a hazardous waste to another transporter or to the designated facility shall:

(1) Obtain the date of delivery and the handwritten signature of that transporter or of the owner or operator of the designated facility on the manifest; and

(2) Retain one copy of the manifest in accordance with Section R315-263-22; and

(3) Give the remaining copies of the manifest to the accepting transporter or designated facility.

(e) The requirements of Subsections R315-263-20(c), (d) and (f) do not apply to water,bulk shipment, transporters if:

(1) The hazardous waste is delivered by water, bulk shipment, to the designated facility; and

(2) A shipping paper containing all the information required on the manifest; excluding the EPA identification

numbers, generator certification, and signatures; and, for exports, an EPA Acknowledgment of Consent accompanies the hazardous waste; and

(3) The delivering transporter obtains the date of delivery and handwritten signature of the owner or operator of the designated facility on either the manifest or the shipping paper; and

(4) The person delivering the hazardous waste to the initial water, bulk shipment, transporter obtains the date of delivery and signature of the water, bulk shipment, transporter on the manifest and forwards it to the designated facility; and

(5) A copy of the shipping paper or manifest is retained by each water, bulk shipment, transporter in accordance with Section R315-263-22.

(f) For shipments involving rail transportation, the requirements of Subsections R315-263-20(c), (d) and (e) do not apply and the following requirements do apply:

(1) When accepting hazardous waste from a non-rail transporter, the initial rail transporter shall:

(i) Sign and date the manifest acknowledging acceptance of the hazardous waste;

(ii) Return a signed copy of the manifest to the non-rail transporter;

(iii) Forward at least three copies of the manifest to:

(A) The next non-rail transporter, if any; or,

(B) The designated facility, if the shipment is delivered to that facility by rail; or

(C) The last rail transporter designated to handle the waste in the United States;

(iv) Retain one copy of the manifest and rail shipping paper in accordance with Section R315-263-22.

(2) Rail transporters shall ensure that a shipping paper containing all the information required on the manifest; excluding the EPA identification numbers, generator certification, and signatures; and, for exports an EPA Acknowledgment of Consent accompanies the hazardous waste at all times.

Note: Intermediate rail transporters are not required to sign either the manifest or shipping paper.

(3) When delivering hazardous waste to the designated facility, a rail transporter shall:

(i) Obtain the date of delivery and handwritten signature of the owner or operator of the designated

facility on the manifest or the shipping paper, if the manifest has not been received by the facility; and

(ii) Retain a copy of the manifest or signed shipping paper in accordance with Section R315-263-22.

(4) When delivering hazardous waste to a non-rail transporter a rail transporter shall:

(i) Obtain the date of delivery and the handwritten signature of the next non-rail transporter on the manifest; and

(ii) Retain a copy of the manifest in accordance with Section R315-263-22.

(5) Before accepting hazardous waste from a rail transporter, a non-rail transporter shall sign and date the manifest and provide a copy to the rail transporter.

(g) Transporters who transport hazardous waste out of the United States shall:

(1) Sign and date the manifest in the International Shipments block to indicate the date that the shipment left the United States;

(2) Retain one copy in accordance with Subsection R315-263-22(d);

(3) Return a signed copy of the manifest to the generator; and

(4) Give a copy of the manifest to a U.S. Customs official at the point of departure from the United States.

(h) A transporter transporting hazardous waste from a generator who generates greater than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month need not comply with the requirements of Section 315-263-20 or those of Section R315-263-22 provided that:

(1) The waste is being transported pursuant to a reclamation agreement as provided for in Subsection R315-262-20(e);

(2) The transporter records, on a log or shipping paper, the following information for each shipment:

(i) The name, address, and U.S. EPA Identification Number of the generator of the waste;

(ii) The quantity of waste accepted;

(iii) All DOT-required shipping information;

(iv) The date the waste is accepted; and

(3) The transporter carries this record when transporting waste to the reclamation facility; and

(4) The transporter retains these records for a period of at least three years after termination or expiration of the agreement.

R315-263-21. Compliance with the manifest.

(a) The transporter shall deliver the entire quantity of hazardous waste which he has accepted from a generator or a transporter to:

(1) The designated facility listed on the manifest; or

(2) The alternate designated facility, if the hazardous waste cannot be delivered to the designated facility because an emergency prevents delivery; or

(3) The next designated transporter; or

(4) The place outside the United States designated by the generator.

(b)(1) If the hazardous waste cannot be delivered in accordance with Subsection R315-263-21(a) because of an emergency condition other than rejection of the waste by the designated facility, then the transporter shall contact the generator for further directions and shall revise the manifest according to the generator's instructions.

(2) If hazardous waste is rejected by the designated facility while the transporter is on the facility's premises, then the transporter shall obtain the following:

(i) For a partial load rejection or for regulated quantities of container residues, a copy of the original manifest that includes the facility's date and signature, and the Manifest Tracking Number of the new manifest that shall accompany the shipment, and a description of the partial rejection or container residue in the discrepancy block of the original manifest. The transporter shall retain a copy of this manifest in accordance with Section R315-263-22, and give the remaining copies of the original manifest to the rejecting designated facility. If the transporter is forwarding the rejected part of the shipment or a regulated container residue to an alternate facility or returning it to the generator, the transporter shall obtain a new manifest to accompany the shipment, and the new manifest shall include all of the information required in Subsections R315-264-72(e)(1) through (6) or (f)(1) through (6) or 40 CFR 265.72(e)(1) through (6) or (f)(1) through (6), which are adopted by reference.

(ii) For a full load rejection that will be taken back by the transporter, a copy of the original manifest that includes the rejecting facility's signature and date attesting to the rejection, the description of the rejection in the discrepancy block of the manifest, and the

name, address, phone number, and Identification Number for the alternate facility or generator to whom the shipment shall be delivered. The transporter shall retain a copy of the manifest in accordance with Section R315-263-22, and give a copy of the manifest containing this information to the rejecting designated facility. If the original manifest is not used, then the transporter shall obtain a new manifest for the shipment and comply with Subsection R3315-264-72(e)(1) through (6) or 40 CFR 265.72(e)(1) through (6), which are adopted by reference,.

R315-263-22. Recordkeeping.

(a) A transporter of hazardous waste shall keep a copy of the manifest signed by the generator, himself, and the next designated transporter or the owner or operator of the designated facility for a period of three years from the date the hazardous waste was accepted by the initial transporter.

(b) For shipments delivered to the designated facility by water, bulk shipment, each water, bulk shipment, transporter shall retain a copy of the shipping paper containing all the information required in Subsection R315-263-20(e)(2) for a period of three years from the date the hazardous waste was accepted by the initial transporter.

(c) For shipments of hazardous waste by rail within the United States:

(1) The initial rail transporter shall keep a copy of the manifest and shipping paper with all the information required in Subsection R315-263-20(f)(2) for a period of three years from the date the hazardous waste was accepted by the initial transporter; and

(2) The final rail transporter shall keep a copy of the signed manifest, or the shipping paper if signed by the designated facility in lieu of the manifest, for a period of three years from the date the hazardous waste was accepted by the initial transporter.

Note: Intermediate rail transporters are not required to keep records pursuant to these regulations.

(d) A transporter who transports hazardous waste out of the United States shall keep a copy of the manifest indicating that the hazardous waste left the United States for a period of three years from the date the hazardous waste was accepted by the initial transporter.

(e) The periods of retention referred to in Section R315-263-22 are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Director.

R315-263-25. Electronic manifest signatures.

(a) Electronic manifest signatures shall meet the criteria described in Section R315-262-25.

R315-263-30. Immediate Action.

In the event of a spill of hazardous waste or material which, when spilled, becomes hazardous waste, the person responsible for the material at the time of the spill shall immediately:

(a) Take appropriate action to minimize the threat to human health and the environment.

(b) Notify the Utah State Department of Environmental Quality, 24-hour Answering Service, 801-536- 4123 if the following spill quantities are exceeded:

(1) One kilogram (2.2 pounds) of material listed in R315-261-31, and which is an acute hazardous waste identified with a hazard code of (H), or an acute hazardous Waste identified in R315-261-33(e). Notify for a spill of a lesser quantity if there is a potential threat to human health or the environment; or

(2) One hundred kilograms (220 pounds) of hazardous waste or material which, when spilled, becomes hazardous waste, other than a spill of wastes identified in Subsection R315-263-30(a)(1). Notify for a spill of a lesser quantity if there is a potential threat to human health or the environment.

(c) Provide the following information when reporting the spill:

(1) Name, phone number, and address of person responsible for the spill.

(2) Name, title, and phone number of individual reporting.

(3) Time and date of spill.

(4) Location of spill - as specific as possible including nearest town, city, highway or waterway.

(5) Description contained on the manifest and the amount of material spilled.

(6) Cause of spill.

(7) Emergency action taken to minimize the threat to human health and the environment.

(d) An air, rail, highway, or water transporter who has discharged hazardous waste shall:

(1) Give notice, if required by 49 CFR 171.15 to the National Response Center, 800-424-8802 or 202- 426-2675; and

(2) Report in writing as required by 49 CFR 171.16 to the Director, Office of Hazardous Materials Regulations, Materials Transportation Bureau, Department of Transportation, Washington, D.C. 20590.

(e) A water, bulk shipment, transporter who has discharged hazardous waste shall give the same notice as required by 33 CFR 153.203 for oil and hazardous substances.

R315-263-31. Spill Clean-up.

The person responsible for the material at the time of the spill shall clean up all the spilled material and any residue or contaminated media or other material resulting from the spill or take action as may be required by the Director so that the spilled material, residue, or contaminated media no longer presents a hazard to human health or the environment as defined in Rule R315-101. The cleanup or other required actions shall be at the expense of the person responsible for the spill. If the person responsible for the spill fails to take the required action, the Department may take action and bill the responsible person.

R315-263-32. Emergency Control Variance.

If a spill of hazardous waste requires immediate removal to protect human health or the environment, as determined by the Director, a variance may be granted by the Director to the manifest and recordkeeping requirements of these rules until the spilled material and any residue or contaminated soil, water or other material resulting from the spill no longer presents an immediate hazard to human health or the environment, as determined by the Director.

R315-263-33. Reporting.

Within 15 days after any spill of hazardous waste or material which, when spilled, becomes hazardous waste, and is reported under Subsection R315-263-30(b), the person responsible for the material at the time of the spill shall submit to the Director a written report which contains the following information:

(a) The person's name, address, and telephone number;
(b) Date, time, location, and nature of the incident;
(c) Name and quantity of material(s) involved;
(d) The extent of injuries, if any;
(e) An assessment of actual or potential hazards to human health or the environment, where this is applicable; and
(f) The estimated quantity and disposition of recovered material that resulted from the incident.

R315-263-34. Compliance with Department of Transportation Regulations.

Transporters of hazardous waste shall comply with the following pertinent regulations of the U.S. Department of Transportation governing the transportation of hazardous materials for both interstate and intrastate shipments:
(a) 49 CFR 171, General Information Regulations and Definitions;
(b) 49 CFR 172, Hazardous Materials Table and Hazardous Material Communications Regulations;
(c) 49 CFR 173, Shippers - General Requirements for Shipments and Packaging;
(d) 49 CFR 174, Carriage by Rail;
(e) 49 CFR 175, Carriage by Aircraft;
(f) 49 CFR 176, Carriage by Vessel;
(g) 49 CFR 177, Carriage by Public Highway;
(h) 49 CFR 178, Shipping Container Specification; and
(i) 49 CFR 179, Specifications for Tank Cars.

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.

Rule R315-264. Standards For Owners And Operators Of Hazardous Waste Treatment, Storage, And Disposal Facilities.

R315-264-1. Purpose, scope and applicability.

(a) The purpose of Rule R315-264 is to establish minimum State of Utah standards which define the acceptable management of hazardous waste.

(b) The standards in Rule R315-264 apply to owners and operators of all facilities which treat, store, or dispose of hazardous waste, except as specifically provided otherwise in Rules R315-264 or 261.

(c) Reserved.

(d) The requirements of Rule R315-264 apply to a person disposing of hazardous waste by means of underground injection subject to a permit issued under an Underground Injection Control (UIC) program approved or promulgated under the Safe Drinking Water Act only to the extent they are required by 40 CFR 144.14. Rule R315-264 applies to the above-ground treatment or storage of hazardous waste before it is injected underground.

(e) The requirements of Rule R315-264 apply to the owner or operator of a POTW which treats, stores, or disposes of hazardous waste only to the extent they are included in a RCRA permit by rule granted to such a person under Rule R315-270.

(f) Reserved

(g) The requirements of Rule R315-264 do not apply to:

(1) The owner or operator of a facility permitted under Rules R315-301 through 320 to manage municipal or industrial solid waste, if the only hazardous waste the facility treats, stores, or disposes of is excluded from regulation under Section R315-261-5;

(2) The owner or operator of a facility managing recyclable materials described in Subsections R315-261-6(a)(2), (3), and (4), except to the extent they are referred to in Rule R315-15 or Sections R315-266-20 through 23, 70, 80, or 100 through 112.

(3) A generator accumulating waste on-site in compliance with Section R315-262-34;

(4) A farmer disposing of waste pesticides from his own use in compliance with Section R315-262-7; or

(5) The owner or operator of a totally enclosed treatment facility, as defined in Section R315-260-10.

(6) The owner or operator of an elementary neutralization unit or a wastewater treatment unit as defined in Section R315-260-10, provided that if the owner or operator is diluting hazardous ignitable (D001) wastes, other than the D001 High TOC Subcategory defined in Section R315-268-40, or reactive (D003) waste, to remove the characteristic before land disposal, the owner/operator shall comply with the requirements set out in Subsection R315-264-17(b).

(7) Reserved

(8)(i) Except as provided in Subsection R315-264-1(g)(8)(ii), a person engaged in treatment or containment activities during immediate response to any of the following situations:

(A) A discharge of a hazardous waste;

(B) An imminent and substantial threat of a discharge of hazardous waste;

(C) A discharge of a material which, when discharged, becomes a hazardous waste.

(ii) An owner or operator of a facility otherwise regulated by Rule R315-264 shall comply with all applicable requirements of Sections R315-264-30 through 35, 37 and 50 through 56.

(iii) Any person who is covered by Subsection R315-264-1(g)(8)(i) and who continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to all applicable requirements of Rule R315-264 and 40 CFR 122 and 123 and Rule R315-124 for those activities.

(iv) In the case of an explosives or munitions emergency response, if a Federal, State, Tribal or local official acting within the scope of his or her official responsibilities, or an explosives or munitions emergency response specialist, determines that immediate removal of the material or waste is necessary to protect human health or the environment, that official or specialist may authorize the removal of the material or waste by transporters who do not have EPA identification numbers and without the preparation of a manifest. In the case of emergencies involving military munitions, the responding military emergency response specialist's organizational unit shall retain records for three years identifying the dates of the response, the responsible persons responding,

the type and description of material addressed, and its disposition.

(9) A transporter storing manifested shipments of hazardous waste in containers meeting the requirements of Section R315-262-30 at a transfer facility for a period of ten days or less.

(10) The addition of absorbent material to waste in a container, as defined in Section R315-260-10, or the addition of waste to absorbent material in a container, provided that these actions occur at the time waste is first placed in the container; and Subsections R315-264-17(b), 264-171, and 264-172 are complied with.

(11) Universal waste handlers and universal waste transporters, as defined in Section R315-260-10, handling the wastes listed below. These handlers are subject to regulation under Rule R315-273, when handling the below listed universal wastes.

(i) Batteries as described in Section R315-273-2;

(ii) Pesticides as described in Section R315-273-3;

(iii) Mercury-containing equipment as described in Section R315-273-4; and

(iv) Lamps as described in Section R315-273-5.

(h) The requirements of Rule R315-264 apply to owners or operators of all facilities which treat, store, or dispose of hazardous wastes referred to in Rule R315-268.

(i) Reserved

(j) The requirements of Sections R315-264-10 through 19, 30 through 37, 50 through 56, and 101 do not apply to remediation waste management sites. However, some remediation waste management sites may be a part of a facility that is subject to a traditional hazardous waste permit because the facility is also treating, storing or disposing of hazardous wastes that are not remediation wastes. In these cases, Sections R315-264-10 through 19, 30 through 37, 50 through 56, and 101 do apply to the facility subject to the traditional hazardous waste permit. Instead of the requirements of Sections R315-264-10 through 19, 30 through 37, and 50 through 56, owners or operators of remediation waste management sites shall:

(1) Obtain an EPA identification number by applying to the Administrator using EPA Form 8700-12;

(2) Obtain a detailed chemical and physical analysis of a representative sample of the hazardous remediation wastes to be managed at the site. At a minimum, the analysis shall contain all of the information which shall

be known to treat, store or dispose of the waste according to Rules R315-264 and 268, and shall be kept accurate and up to date;

(3) Prevent people who are unaware of the danger from entering, and minimize the possibility for unauthorized people or livestock to enter onto the active portion of the remediation waste management site, unless the owner or operator can demonstrate to the Director that:

(i) Physical contact with the waste, structures, or equipment within the active portion of the remediation waste management site shall not injure people or livestock who may enter the active portion of the remediation waste management site; and

(ii) Disturbance of the waste or equipment by people or livestock who enter onto the active portion of the remediation waste management site, shall not cause a violation of the requirements of Rule R315-264;

(4) Inspect the remediation waste management site for malfunctions, deterioration, operator errors, and discharges that may be causing, or may lead to, a release of hazardous waste constituents to the environment, or a threat to human health. The owner or operator shall conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment, and shall remedy the problem before it leads to a human health or environmental hazard. Where a hazard is imminent or has already occurred, the owner/operator shall take remedial action immediately;

(5) Provide personnel with classroom or on-the-job training on how to perform their duties in a way that ensures the remediation waste management site complies with the requirements of Rule R315-264, and on how to respond effectively to emergencies;

(6) Take precautions to prevent accidental ignition or reaction of ignitable or reactive waste, and prevent threats to human health and the environment from ignitable, reactive and incompatible waste;

(7) For remediation waste management sites subject to regulation under Sections R315-264-170 through 179,190 through 200, 220 through 232, 250 through 259, 270 Through 283, 300 through 317, 340 through 351, and 600 through 603, the owner/operator shall design, construct, operate, and maintain a unit within a 100-year floodplain to prevent washout of any hazardous waste by a 100-year flood, unless

the owner/operator can meet the demonstration of Subsection R315-264-18(b);

(8) Not place any non-containerized or bulk liquid hazardous waste in any salt dome formation, salt bed formation, underground mine or cave;

(9) Develop and maintain a construction quality assurance program for all surface impoundments, waste piles and landfill units that are required to comply with Subsections R315-264-221(c) and (d), 264-251(c) and (d), and 264-301(c) and (d) at the remediation waste management site, according to the requirements of Section R315-264-19;

(10) Develop and maintain procedures to prevent accidents and a contingency and emergency plan to control accidents that occur. These procedures shall address proper design, construction, maintenance, and operation of remediation waste management units at the site. The goal of the plan shall be to minimize the possibility of, and the hazards from a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water that could threaten human health or the environment. The plan shall explain specifically how to treat, store and dispose of the hazardous remediation waste in question, and shall be implemented immediately whenever a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment;

(11) Designate at least one employee, either on the facility premises or on call (that is, available to respond to an emergency by reaching the facility quickly), to coordinate all emergency response measures. This emergency coordinator shall be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person shall have the authority to commit the resources needed to carry out the contingency plan;

(12) Develop, maintain and implement a plan to meet the requirements in Subsections R315-264-1(j)(2) through (j)(6) and (j)(9) through (j)(10); and

(13) Maintain records documenting compliance with Subsections R315-264-1(j)(1) through (j)(12).

R315-264-3. Relationship to interim status standards.

A facility owner or operator who has fully complied with the requirements for interim status-as defined in section 3005(e) of RCRA and regulations under Section R315-270-70-shall comply with the regulations specified in Rule 265 in lieu of the regulations in Rule R315-264, until final administrative disposition of his permit application is made, except as provided under Sections R315-264-550 through 555.

R315-264-4. Imminent hazard action.
Notwithstanding any other provisions of these regulations, enforcement actions may be brought pursuant to Section 19-5-115.

R315-264-10. Applicability.
(a) The regulations in Sections R315-264-10 through 19 apply to owners and operators of all hazardous waste facilities, except as provided in Section R315-264-1 and in Subsection R315-264-10(b).

(b) Subsection R315-264-18(b) applies only to facilities subject to regulation under Sections R315-264-170 through 179, 190 through 200, 220 through 232, 250 through 259, 270 through 283, 300 through 317, 340 through 351, and 600 through 603.

R315-264-11. Identification number.
Every facility owner or operator shall apply to Director for an EPA identification number using EPA form 8700-12. Information on obtaining this number can be acquired by contacting the Utah Division of Waste Management and Radiation Control.

R315-264-12. Required notices.

(a)(1) The owner or operator of a facility that has arranged to receive hazardous waste from a foreign source shall notify the Director in writing at least four weeks in advance of the date the waste is expected to arrive at the facility. Notice of subsequent shipments of the same waste from the same foreign source is not required.

(2) The owner or operator of a recovery facility that has arranged to receive hazardous waste subject to Sections R315-262-80 through 89 shall provide a copy of the movement document bearing all required signatures to the foreign exporter; to the Office of Enforcement and Compliance Assurance, Office of Federal Activities, International

Compliance Assurance Division (2254A), Environmental Protection Agency, 1200 Pennsylvania Avenue, NW., Washington, DC 20460; and to the competent authorities of all other countries concerned within three working days of receipt of the shipment. The original of the signed movement document shall be maintained at the facility for at least three years. In addition, such owner or operator shall, as soon as possible, but no later than thirty (30) days after the completion of recovery and no later than one (1) calendar year following the receipt of the hazardous waste, send a certificate of recovery to the foreign exporter and to the competent authority of the country of export and to EPA's Office of Enforcement and Compliance Assurance at the above address by mail, e-mail without a digital signature followed by mail, or fax followed by mail.

(b) The owner or operator of a facility that receives hazardous waste from an off-site source, except where the owner or operator is also the generator, shall inform the generator in writing that he has the appropriate permit(s) for, and will accept, the waste the generator is shipping. The owner or operator shall keep a copy of this written notice as part of the operating record.

(c) Before transferring ownership or operation of a facility during its operating life, or of a disposal facility during the post-closure care period, the owner or operator shall notify the new owner or operator in writing of the requirements of Rule R315-264 and Rule R315-270. An owner's or operator's failure to notify the new owner or operator of the requirements of Rule R315-264 in no way relieves the new owner or operator of his obligation to comply with all applicable requirements.

R315-264-13. General waste analysis.

(a)(1) Before an owner or operator treats, stores, or disposes of any hazardous wastes, or nonhazardous wastes if applicable under Subsection R315-264-113(d), he shall obtain a detailed chemical and physical analysis of a representative sample of the wastes. At a minimum, the analysis shall contain all the information which shall be known to treat, store, or dispose of the waste in accordance with Rules R315-264 and 268.

(2) The analysis may include data developed under Rule R315-261, and existing published or documented data on the hazardous waste or on hazardous waste generated from

similar processes. For example, the facility's records of analyses performed on the waste before the effective date of these regulations, or studies conducted on hazardous waste generated from processes similar to that which generated the waste to be managed at the facility, may be included in the data base required to comply with Subsection R315-264-13(a)(1). The owner or operator of an off-site facility may arrange for the generator of the hazardous waste to supply part of the information required by Subsection R315-264-13(a)(1), except as otherwise specified in Subsections R315-268-7 (b) and (c). If the generator does not supply the information, and the owner or operator chooses to accept a hazardous waste, the owner or operator is responsible for obtaining the information required to comply with Section R315-264-13.

(3) The analysis shall be repeated as necessary to ensure that it is accurate and up to date. At a minimum, the analysis shall be repeated:

(i) When the owner or operator is notified, or has reason to believe, that the process or operation generating the hazardous wastes, or non-hazardous wastes if applicable under Subsection R315-264-113(d), has changed; and

(ii) For off-site facilities, when the results of the inspection required in Subsection R315-264-13(a)(4) indicate that the hazardous waste received at the facility does not match the waste designated on the accompanying manifest or shipping paper.

(4) The owner or operator of an off-site facility shall inspect and, if necessary, analyze each hazardous waste movement received at the facility to determine whether it matches the identity of the waste specified on the accompanying manifest or shipping paper.

(b) The owner or operator shall develop and follow a written waste analysis plan which describes the procedures which he will carry out to comply with Subsection R315-264-13(a). He shall keep this plan at the facility. At a minimum, the plan shall specify:

(1) The parameters for which each hazardous waste, or non-hazardous waste if applicable under Subsection R315-264-113(d), will be analyzed and the rationale for the selection of these parameters, i.e., how analysis for these parameters will provide sufficient information on the waste's properties to comply with Subsection R315-264-13(a);

(2) The test methods which will be used to test for these parameters;

(3) The sampling method which will be used to obtain a representative sample of the waste to be analyzed. A representative sample may be obtained using either:

(i) One of the sampling methods described in appendix I of Rule R315-261; or

(ii) An equivalent sampling method. See Section R315-260-21 for related discussion.

(4) The frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up to date; and

(5) For off-site facilities, the waste analyses that hazardous waste generators have agreed to supply.

(6) Where applicable, the methods that will be used to meet the additional waste analysis requirements for specific waste management methods as specified in Sections R315-264-17, 264-314, 264-341, 264-1083, and 268-7 and Subsections R315-264-1034(d) and 264-1063(d).

(7) For surface impoundments exempted from land disposal restrictions under Subsection R315-268-4(a), the procedures and schedules for:

(i) The sampling of impoundment contents;

(ii) The analysis of test data; and,

(iii) The annual removal of residues which are not delisted under Section R315-260-22 or which exhibit a characteristic of hazardous waste and either:

(A) Do not meet applicable treatment standards of Sections R315-268-40 through 49; or

(B) Where no treatment standards have been established:

(I) Such residues are prohibited from land disposal under Section R315-268-32 or RCRA section 3004(d); or

(II) Such residues are prohibited from land disposal under Subsection R315-268-33(f).

(8) For owners and operators seeking an exemption to the air emission standards of Sections R315-264-1080 through 1091 in accordance with Section R315-264-1082-

(i) If direct measurement is used for the waste determination, the procedures and schedules for waste sampling and analysis, and the results of the analysis of test data to verify the exemption.

(ii) If knowledge of the waste is used for the waste determination, any information prepared by the facility owner or operator or by the generator of the hazardous

waste, if the waste is received from off-site, that is used as the basis for knowledge of the waste.

(c) For off-site facilities, the waste analysis plan required in Subsection R315-264-13(b) shall also specify the procedures which will be used to inspect and, if necessary, analyze each movement of hazardous waste received at the facility to ensure that it matches the identity of the waste designated on the accompanying manifest or shipping paper. At a minimum, the plan shall describe:

(1) The procedures which will be used to determine the identity of each movement of waste managed at the facility; and

(2) The sampling method which will be used to obtain a representative sample of the waste to be identified, if the identification method includes sampling.

(3) The procedures that the owner or operator of an off-site landfill receiving containerized hazardous waste will use to determine whether a hazardous waste generator or treater has added a biodegradable sorbent to the waste in the container.

R315-264-14. Security.

(a) The owner or operator shall prevent the unknowing entry, and minimize the possibility for the unauthorized entry, of persons or livestock onto the active portion of his facility, unless he can demonstrate to the Director that:

(1) Physical contact with the waste, structures, or equipment within the active portion of the facility will not injure unknowing or unauthorized persons or livestock which may enter the active portion of a facility; and

(2) Disturbance of the waste or equipment, by the unknowing or unauthorized entry of persons or livestock onto the active portion of a facility, will not cause a violation of the requirements of Rule R315-264.

An owner or operator who wishes to make the demonstration referred to above shall do so with part B of the permit application.

(b) Unless the owner or operator has made a successful demonstration under Subsection R315-264-14(a)(1) and (2), a facility shall have:

(1) A 24-hour surveillance system, e.g., television monitoring or surveillance by guards or facility personnel,

which continuously monitors and controls entry onto the active portion of the facility; or

(2)(i) An artificial or natural barrier, e.g., a fence in good repair or a fence combined with a cliff, which completely surrounds the active portion of the facility; and

(ii) A means to control entry, at all times, through the gates or other entrances to the active portion of the facility, e.g., an attendant, television monitors, locked entrance, or controlled roadway access to the facility. The requirements of Subsection R315-264-14(b) are satisfied if the facility or plant within which the active portion is located itself has a surveillance system, or a barrier and a means to control entry, which complies with the requirements of Subsection R315-264-14(b)(1) or (2).

(c) Unless the owner or operator has made a successful demonstration under Subsection R315-264-14(a)(1) and (2), a sign with the legend, “Danger-Unauthorized Personnel Keep Out”, shall be posted at each entrance to the active portion of a facility, and at other locations, in sufficient numbers to be seen from any approach to this active portion. The legend shall be written in English and in any other language predominant in the area surrounding the facility, e.g., facilities in counties bordering the Canadian province of Quebec shall post signs in French; facilities in counties bordering Mexico shall post signs in Spanish, and shall be legible from a distance of at least 25 feet. Existing signs with a legend other than “Danger-Unauthorized Personnel Keep Out” may be used if the legend on the sign indicates that only authorized personnel are allowed to enter the active portion, and that entry onto the active portion can be dangerous. See Subsection R315-264-117(b) for discussion of security requirements at disposal facilities during the post-closure care period.

R315-264-15. General inspection requirements.

(a) The owner or operator shall inspect his facility for malfunctions and deterioration, operator errors, and discharges which may be causing-or may lead to-release of hazardous waste constituents to the environment or a threat to human health. The owner or operator shall conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment.

(b)(1) The owner or operator shall develop and follow a written schedule for inspecting monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment, such as dikes and sump pumps, that are important to preventing, detecting, or responding to environmental or human health hazards.

(2) He shall keep this schedule at the facility.

(3) The schedule shall identify the types of problems, e.g., malfunctions or deterioration, which are to be looked for during the inspection, e.g., inoperative sump pump, leaking fitting, eroding dike, etc.

(4) The frequency of inspection may vary for the items on the schedule. However, the frequency should be based on the rate of deterioration of the equipment and the probability of an environmental or human health incident if the deterioration, malfunction, or operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, shall be inspected daily when in use. At a minimum, the inspection schedule shall include the items and frequencies called for in Sections R315-264-174, 193, 195, 226, 254, 278, 303, 347, 602, 1033, 1052, 1053, 1058, and 1083 through 1089. Rule R315-270 requires the inspection schedule to be submitted with part B of the permit application. The Director shall evaluate the schedule along with the rest of the application to ensure that it adequately protects human health and the environment. As part of this review, The Director may modify or amend the schedule as may be necessary.

(c) The owner or operator shall remedy any deterioration or malfunction of equipment or structures which the inspection reveals on a schedule which ensures that the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, remedial action shall be taken immediately.

(d) The owner or operator shall record inspections in an inspection log or summary. He shall keep these records for at least three years from the date of inspection. At a minimum, these records shall include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

R315-264-16. Personnel training.

(a)(1) Facility personnel shall successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of Rule R315-264. The owner or operator shall ensure that this program includes all the elements described in the document required under Subsection R315-264-16(d)(3). Rule R315-270 requires that owners and operators submit with part B of the RCRA permit application, an outline of the training program used, or to be used, at the facility and a brief description of how the training program is designed to meet actual job tasks.

(2) This program shall be directed by a person trained in hazardous waste management procedures, and shall include instruction which teaches facility personnel hazardous waste management procedures, including contingency plan implementation, relevant to the positions in which they are employed.

(3) At a minimum, the training program shall be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including, where applicable:

(i) Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;

(ii) Key parameters for automatic waste feed cut-off systems;

(iii) Communications or alarm systems;

(iv) Response to fires or explosions;

(v) Response to ground-water contamination incidents; and

(vi) Shutdown of operations.

(4) For facility employees that receive emergency response training pursuant to Occupational Safety and Health Administration (OSHA) regulations 29 CFR 1910.120(p)(8) and 1910.120(q), the facility is not required to provide separate emergency response training pursuant to Section R315-264-16, provided that the overall facility training meets all the requirements Section R315-264-16.

(b) Facility personnel shall successfully complete the program required in Subsection R315-264-16(a) within six months after the effective date of these regulations or six months after the date of their employment or assignment to a facility, or to a new position at a facility,

whichever is later. Employees hired after the effective date of these regulations shall not work in unsupervised positions until they have completed the training requirements of Subsection R315-264-16(a).

(c) Facility personnel shall take part in an annual review of the initial training required in Subsection R315-264-16(a).

(d) The owner or operator shall maintain the following documents and records at the facility:

(1) The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job;

(2) A written job description for each position listed under Subsection R315-264-16(d)(1). This description may be consistent in its degree of specificity with descriptions for other similar positions in the same company location or bargaining unit, but shall include the requisite skill, education, or other qualifications, and duties of employees assigned to each position;

(3) A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under Subsection R315-264-16(d)(1);

(4) Records that document that the training or job experience required under Subsections R315-264-16(a), (b), and (c) has been given to, and completed by, facility personnel.

(e) Training records on current personnel shall be kept until closure of the facility; training records on former employees shall be kept for at least three years from the date the employee last worked at the facility. Personnel training records may accompany personnel transferred within the same company.

R315-264-17. General requirements for ignitable, reactive, or incompatible wastes.

(a) The owner or operator shall take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. This waste shall be separated and protected from sources of ignition or reaction including but not limited to: open flames; smoking; cutting and welding; hot surfaces; frictional heat; sparks, static, electrical, or mechanical; spontaneous ignition, e.g., from heat-producing chemical reactions; and radiant heat. While ignitable or reactive waste is being handled, the owner or operator

shall confine smoking and open flame to specially designated locations. “No Smoking” signs shall be conspicuously placed wherever there is a hazard from ignitable or reactive waste.

(b) Where specifically required by other sections of Rule R315-264, the owner or operator of a facility that treats, stores or disposes ignitable or reactive waste, or mixes incompatible waste or incompatible wastes and other materials, shall take precautions to prevent reactions which:

(1) Generate extreme heat or pressure, fire or explosions, or violent reactions;

(2) Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment;

(3) Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;

(4) Damage the structural integrity of the device or facility;

(5) Through other like means threaten human health or the environment.

(c) When required to comply with Subsections R315-264-17(a) or (b), the owner or operator shall document that compliance. This documentation may be based on references to published scientific or engineering literature, data from trial tests,e.g., bench scale or pilot scale tests, waste analyses, as specified in Section R315-264-264-13, or the results of the treatment of similar wastes by similar treatment processes and under similar operating conditions.

R315-264-18. Location standards.

(a) Seismic considerations.

(1) Portions of new facilities where treatment, storage, or disposal of hazardous waste will be conducted shall not be located within 61 meters (200 feet) of a fault which has had displacement in Holocene time. Procedures for demonstrating compliance with this standard in part B of the permit application are specified in Subsection R315-270-14(b)(11). Facilities which are located in political jurisdictions other than those listed in appendix VI of Rule R315-264, are assumed to be in compliance with this requirement.

(2) As used in Subsection R315-264-18(a)(1):

(i) “Fault” means a fracture along which rocks on one side have been displaced with respect to those on the other side.

(ii) “Displacement” means the relative movement of any two sides of a fault measured in any direction.

(iii) “Holocene” means the most recent epoch of the Quaternary period, extending from the end of the Pleistocene to the present.

(b) Floodplains.

(1) A facility located in a 100-year floodplain shall be designed, constructed, operated, and maintained to prevent washout of any hazardous waste by a 100-year flood, unless the owner or operator can demonstrate to the Director's satisfaction that:

(i) Procedures are in effect which will cause the waste to be removed safely, before flood waters can reach the facility, to a location where the wastes will not be vulnerable to flood waters, provided that the facility where the waste is moved is a permitted hazardous waste disposal facility or a facility in interim status; or

(ii) For existing surface impoundments, waste piles, land treatment units, landfills, and miscellaneous units, no adverse effects on human health or the environment will result if washout occurs, considering:

(A) The volume and physical and chemical characteristics of the waste in the facility;

(B) The concentration of hazardous constituents that would potentially affect surface waters as a result of washout;

(C) The impact of such concentrations on the current or potential uses of and water quality standards established for the affected surface waters; and

(D) The impact of hazardous constituents on the sediments of affected surface waters or the soils of the 100-year floodplain that could result from washout.

(2) As used in Subsection R315-264-18(b)(1):

(i) “100-year floodplain” means any land area which is subject to a one percent or greater chance of flooding in any given year from any source.

(ii) “Washout” means the movement of hazardous waste from the active portion of the facility as a result of flooding.

(iii) “100-year flood” means a flood that has a one percent chance of being equalled or exceeded in any given year.

(c) Salt dome formations, salt bed formations, underground mines and caves. The placement of any noncontainerized or bulk liquid hazardous waste in any salt dome formation, salt bed formation, underground mine or cave is prohibited, except for the Department of Energy Waste Isolation Pilot Project in New Mexico.

R315-264-19. Construction quality assurance program.

(a) CQA program.

(1) A construction quality assurance (CQA) program is required for all surface impoundment, waste pile, and landfill units that are required to comply with Subsections R315-264-221 (c) and (d), 264-251 (c) and (d), and 264-301 (c) and (d). The program shall ensure that the constructed unit meets or exceeds all design criteria and specifications in the permit. The program shall be developed and implemented under the direction of a CQA officer who is a registered professional engineer.

(2) The CQA program shall address the following physical components, where applicable:

(i) Foundations;

(ii) Dikes;

(iii) Low-permeability soil liners;

(iv) Geomembranes, flexible membrane liners;

(v) Leachate collection and removal systems and leak detection systems; and

(vi) Final cover systems.

(b) Written CQA plan. The owner or operator of units subject to the CQA program under Subsection R315-264-19(a) shall develop and implement a written CQA plan. The plan shall identify steps that will be used to monitor and document the quality of materials and the condition and manner of their installation. The CQA plan shall include:

(1) Identification of applicable units, and a description of how they will be constructed.

(2) Identification of key personnel in the development and implementation of the CQA plan, and CQA officer qualifications.

(3) A description of inspection and sampling activities for all unit components identified in Subsection R315-264-19(a)(2), including observations and tests that will be used before, during, and after construction to ensure that the construction materials and the installed unit components meet the design specifications. The description shall cover: Sampling size and locations;

frequency of testing; data evaluation procedures; acceptance and rejection criteria for construction materials; plans for implementing corrective measures; and data or other information to be recorded and retained in the operating record under Sections R315-264-73.

(c) Contents of program.

(1) The CQA program shall include observations, inspections, tests, and measurements sufficient to ensure:

(i) Structural stability and integrity of all components of the unit identified in Subsection R315-264-19(a)(2);

(ii) Proper construction of all components of the liners, leachate collection and removal system, leak detection system, and final cover system, according to permit specifications and good engineering practices, and proper installation of all components, e.g., pipes, according to design specifications;

(iii) Conformity of all materials used with design and other material specifications under Sections R315-264-221, 264-251, and 264-301.

(2) The CQA program shall include test fills for compacted soil liners, using the same compaction methods as in the full scale unit, to ensure that the liners are constructed to meet the hydraulic conductivity requirements of Subsections R315-264-221(c)(1)(i)(B), 264-251(c)(1)(i)(B), and 264-301(c)(1)(i)(B) in the field. Compliance with the hydraulic conductivity requirements shall be verified by using in-situ testing on the constructed test fill. The Director may accept an alternative demonstration, in lieu of a test fill, where data are sufficient to show that a constructed soil liner will meet the hydraulic conductivity requirements of Subsections R315-264-221(c)(1)(i)(B), 264-251(c)(1)(i)(B), and 264-301(c)(1)(i)(B) in the field.

(d) Certification. Waste shall not be received in a unit subject to Section R315-26419 until the owner or operator has submitted to the Director by certified mail or hand delivery a certification signed by the CQA officer that the approved CQA plan has been successfully carried out and that the unit meets the requirements of Subsections R315-264-221 (c) or (d), 264-251 (c) or (d), or 264-301 (c) or (d); and the procedure in Subsection R315-270-30(l)(2)(ii) has been completed. Documentation supporting the CQA officer's certification shall be furnished to the Director upon request.

R315-264-30. Applicability.
The regulations in Sections R316-264-30 through 37 apply to owners and operators of all hazardous waste facilities, except as Section R315-264-1 provides otherwise.

R315-264-31. Design and operation of facility.
Facilities shall be designed, constructed, maintained, and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

R315-264-32. Required equipment.
All facilities shall be equipped with the following, unless it can be demonstrated to the Director that none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified below:

(a) An internal communications or alarm system capable of providing immediate emergency instruction, voice or signal, to facility personnel;

(b) A device, such as a telephone, immediately available at the scene of operations, or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams;

(c) Portable fire extinguishers, fire control equipment; including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals; spill control equipment; and decontamination equipment; and

(d) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

Rule R315-270 requires that an owner or operator who wishes to make the demonstration referred to above shall do so with part B of the permit application.

R315-264-33. Testing and maintenance of equipment.
All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, shall be tested and maintained as necessary to assure its proper operation in time of emergency.

R315-264-34. Access to communications or alarm system.

(a) Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation shall have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless the Director has ruled that such a device is not required under Section R315-264-32.

(b) If there is ever just one employee on the premises while the facility is operating, he shall have immediate access to a device, such as a telephone, immediately available at the scene of operation, or a hand-held two-way radio, capable of summoning external emergency assistance, unless the Director has ruled that such a device is not required under Section R315-264-32.

R315-264-35. Required aisle space.

The owner or operator shall maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless it can be demonstrated to the Director that aisle space is not needed for any of these purposes. This demonstration shall be made with the part B permit application.

R315-264-37. Arrangements with local authorities.

(a) The owner or operator shall attempt to make the following arrangements, as appropriate for the type of waste handled at his facility and the potential need for the services of these organizations:

(1) Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and possible evacuation routes;

(2) Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority;

(3) Agreements with State emergency response teams, emergency response contractors, and equipment suppliers; and

(4) Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

(b) Where State or local authorities decline to enter into such arrangements, the owner or operator shall document the refusal in the operating record.

R315-264-50. Contingency Plan and Emergency Procedures - Applicability.

The regulations in Sections R315-264-50 through 56 apply to owners and operators of all hazardous waste facilities, except as Section R315-264-1 provides otherwise.

R315-264-51. Purpose and implementation of contingency plan.

(a) Each owner or operator shall have a contingency plan for his facility. The contingency plan shall be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.

(b) The provisions of the plan shall be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

R315-264-52. Content of contingency plan.

(a) The contingency plan shall describe the actions facility personnel shall take to comply with Sections R315-264-51 and 56 in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.

(b) If the owner or operator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with 40 CFR 112, or some other emergency or contingency plan, he need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of Rule R315-264. The owner or operator may develop one contingency plan which meets all regulatory requirements. EPA recommends

that the plan be based on the National Response Team's Integrated Contingency Plan Guidance ("One Plan"). When modifications are made to non-RCRA provisions in an integrated contingency plan, the changes do not trigger the need for a RCRA permit modification.

(c) The plan shall describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services, pursuant to Section R315-264-37.

(d) The plan shall list names, addresses, and phone numbers, office and home, of all persons qualified to act as emergency coordinator, see Section R315-264-55, and this list shall be kept up to date. Where more than one person is listed, one shall be named as primary emergency coordinator and others shall be listed in the order in which they will assume responsibility as alternates. For new facilities, this information shall be supplied to the Director at the time of certification, rather than at the time of permit application.

(e) The plan shall include a list of all emergency equipment at the facility; such as fire extinguishing systems, spill control equipment, communications and alarm systems, internal and external, and decontamination equipment; where this equipment is required. This list shall be kept up to date. In addition, the plan shall include the location and a physical description of each item on the list, and a brief outline of its capabilities.

(f) The plan shall include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan shall describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes, in cases where the primary routes could be blocked by releases of hazardous waste or fires.

R315-264-53. Copies of contingency plan.

A copy of the contingency plan and all revisions to the plan shall be:

(a) Maintained at the facility;

(b) Submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services; and

(c) Made available upon request.

The contingency plan shall be submitted to the Director with Part B of the permit application under Rule R315-270 and, after modification or approval, will become a condition of any permit issued.

R315-264-54. Amendment of contingency plan.

The contingency plan shall be reviewed, and immediately amended, if necessary, whenever:

(a) The facility permit is revised;

(b) The plan fails in an emergency;

(c) The facility changes-in its design, construction, operation, maintenance, or other circumstances-in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;

(d) The list of emergency coordinators changes; or

(e) The list of emergency equipment changes.

R315-264-55. Emergency coordinator.

At all times, there shall be at least one employee either on the facility premises or on call, i.e., available to respond to an emergency by reaching the facility within a short period of time, with the responsibility for coordinating all emergency response measures. This emergency coordinator shall be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person shall have the authority to commit the resources needed to carry out the contingency plan. The emergency coordinator's responsibilities are more fully spelled out in Section R315-264-56. Applicable responsibilities for the emergency coordinator vary, depending on factors such as type and variety of waste(s) handled by the facility, and type and complexity of the facility.

R315-264-56. Emergency procedures.

(a) Whenever there is an imminent or actual emergency situation, the emergency coordinator, or his designee when the emergency coordinator is on call, shall immediately:

(1) Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and

(2) Notify appropriate State or local agencies with designated response roles if their help is needed.

(b) Whenever there is a release, fire, or explosion, the emergency coordinator shall immediately identify the character, exact source, amount, and areal extent of any released materials. He may do this by observation or review of facility records or manifests, and, if necessary, by chemical analysis.

(c) Concurrently, the emergency coordinator shall assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment shall consider both direct and indirect effects of the release, fire, or explosion, e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-off from water or chemical agents used to control fire and heat-induced explosions.

(d) If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment, outside the facility, he shall report his findings as follows:

(1) If his assessment indicates that evacuation of local areas may be advisable, he shall immediately notify appropriate local authorities. He shall be available to help appropriate officials decide whether local areas should be evacuated; and

(2) He shall immediately notify Utah Department of Environmental Quality as specified in Section R315-263-33 and either the government official designated as the on-scene coordinator for that geographical area, or the National Response Center (using their 24-hour toll free number 800/424-8802). The report shall include:

(i) Name and telephone number of reporter;

(ii) Name and address of facility;

(iii) Time and type of incident (e.g., release, fire);

(iv) Name and quantity of material(s) involved, to the extent known;

(v) The extent of injuries, if any; and

(vi) The possible hazards to human health, or the environment, outside the facility.

(e) During an emergency, the emergency coordinator shall take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the facility. These measures shall include, where applicable, stopping processes and operations, collecting and containing release waste, and removing or isolating containers.

(f) If the facility stops operations in response to a fire, explosion, or release, the emergency coordinator shall monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

(g) Immediately after an emergency, the emergency coordinator shall provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility. Unless the owner or operator can demonstrate, in accordance with Subsection R315-261-3(c) or (d), that the recovered material is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and shall manage it in accordance with all applicable requirements of Rules R315-262, 263, and 264.

(h) The emergency coordinator shall ensure that, in the affected area(s) of the facility:

(1) No waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed; and

(2) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

(i) The owner or operator shall note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, he shall submit a written report on the incident to the Director. The report shall include:

(1) Name, address, and telephone number of the owner or operator;

(2) Name, address, and telephone number of the facility;

(3) Date, time, and type of incident (e.g., fire, explosion);

(4) Name and quantity of material(s) involved;

(5) The extent of injuries, if any;

(6) An assessment of actual or potential hazards to human health or the environment, where this is applicable; and

(7) Estimated quantity and disposition of recovered material that resulted from the incident.

(j) The facility owner or operator shall notify the Director and other appropriate federal, State, and local authorities, that the facility is in compliance with R315-264-56(h) before operations are resumed in the affected area(s) of the facility.

R315-264-70. Manifest System, Recordkeeping, and Reporting - Applicability.

(a) The regulations in Sections R315-264-70 through 77 apply to owners and operators of both on-site and off-site facilities, except as Section R315-264-1 provides otherwise. Sections R315-264-71, 72, and 76 do not apply to owners and operators of on-site facilities that do not receive any hazardous waste from off-site sources. Subsection R315-264-73(b) only applies to permittees who treat, store, or dispose of hazardous wastes on-site where such wastes were generated.

R315-264-71. Use of manifest system.

(a)(1) If a facility receives hazardous waste accompanied by a manifest, the owner, operator or his/her agent shall sign and date the manifest as indicated in Subsection R315-264-71(a)(2) to certify that the hazardous waste covered by the manifest was received, that the hazardous waste was received except as noted in the discrepancy space of the manifest, or that the hazardous waste was rejected as noted in the manifest discrepancy space.

(2) If the facility receives a hazardous waste shipment accompanied by a manifest, the owner, operator, or his agent shall:

(i) Sign and date, by hand, each copy of the manifest;

(ii) Note any discrepancies, as defined in Subsection R315-264-72(a), on each copy of the manifest;

(iii) Immediately give the transporter at least one copy of the manifest;

(iv) Within 30 days of delivery, send a copy, Page 3, of the manifest to the generator,

(v) Within 30 days of delivery, send the top copy, Page 1, of the Manifest to the e-Manifest system for purposes of data entry and processing. In lieu of mailing this paper copy to EPA, the owner or operator may transmit to the EPA system an image file of Page 1 of the manifest, or both a data string file and the image file corresponding to Page 1 of the manifest. Any data or image files transmitted to EPA under Subsection R315-264-71(a) shall be submitted in data file and image file formats that are acceptable to EPA and that are supported by EPA's electronic reporting requirements and by the electronic manifest system.

(vi) Retain at the facility a copy of each manifest for at least three years from the date of delivery.

(3) If a facility receives hazardous waste imported from a foreign source, the receiving facility shall mail a copy of the manifest and documentation confirming EPA's consent to the import of hazardous waste to the following address within thirty days of delivery: Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division (2254A), Environmental Protection Agency, 1200 Pennsylvania Avenue, NW., Washington, DC 20460 and Utah Division of Waste Management and Radiation Control, P O Box 144880, Salt Lake City, Utah 84114-4880.

(b) If a facility receives, from a rail or water (bulk shipment) transporter, hazardous waste which is accompanied by a shipping paper containing all the information required on the manifest; excluding the EPA identification numbers, generator's certification, and signatures; the owner or operator, or his agent, shall:

(1) Sign and date each copy of the manifest or shipping paper, if the manifest has not been received, to certify that the hazardous waste covered by the manifest or shipping paper was received;

(2) Note any significant discrepancies, as defined in Subsection R315-264-72(a), in the manifest or shipping paper, if the manifest has not been received, on each copy of the manifest or shipping paper. The Director does not intend that the owner or operator of a facility whose procedures under R315-264-13(c) include waste analysis shall perform that analysis before signing the shipping paper and giving it to the transporter. Subsection R315-264-72(b), however, requires reporting an unreconciled discrepancy discovered during later analysis.

(3) Immediately give the rail or water (bulk shipment) transporter at least one copy of the manifest or shipping paper, if the manifest has not been received;

(4) Within 30 days after the delivery, send a copy of the signed and dated manifest or a signed and dated copy of the shipping paper, if the manifest has not been received within 30 days after delivery, to the generator; and

Comment: Subsection R315-262-23(c) requires the generator to send three copies of the manifest to the facility when hazardous waste is sent by rail or water (bulk shipment).

(5) Retain at the facility a copy of the manifest and shipping paper, if signed in lieu of the manifest at the time of delivery, for at least three years from the date of delivery.

(c) Whenever a shipment of hazardous waste is initiated from a facility, the owner or operator of that facility shall comply with the requirements of Rule R315-262. The provisions of Section R315-262-34 are applicable to the on-site accumulation of hazardous wastes by generators. Therefore, the provisions of Section R315-262-34 only apply to owners or operators who are shipping hazardous waste which they generated at that facility.

(d) Within three working days of the receipt of a shipment subject to Sections R315-262-80 through 89 the owner or operator of a facility shall provide a copy of the movement document bearing all required signatures to the exporter, to the Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division (2254A), Environmental Protection Agency, 1200 Pennsylvania Avenue, NW., Washington, DC 20460, and to competent authorities of all other concerned countries. The original copy of the movement document shall be maintained at the facility for at least three years from the date of signature.

(e) A facility shall determine whether the consignment state for a shipment regulates any additional wastes, beyond those regulated Federally, as hazardous wastes under its state hazardous waste program. Facilities shall also determine whether the consignment state or generator state requires the facility to submit any copies of the manifest to these states.

(f) Legal equivalence to paper manifests. Electronic manifests that are obtained, completed, and transmitted in accordance with Subsection R315-262-20(a)(3), and used in

accordance with Section R315-264-71 in lieu of the paper manifest form are the legal equivalent of paper manifest forms bearing handwritten signatures, and satisfy for all purposes any requirement in these regulations to obtain, complete, sign, provide, use, or retain a manifest.

(1) Any requirement in these regulations for the owner or operator of a facility to sign a manifest or manifest certification by hand, or to obtain a handwritten signature, is satisfied by signing with or obtaining a valid and enforceable electronic signature within the meaning of Section R315-262-25.

(2) Any requirement in these regulations to give, provide, send, forward, or to return to another person a copy of the manifest is satisfied when a copy of an electronic manifest is transmitted to the other person.

(3) Any requirement in these regulations for a manifest to accompany a hazardous waste shipment is satisfied when a copy of an electronic manifest is accessible during transportation and forwarded to the person or persons who are scheduled to receive delivery of the waste shipment.

(4) Any requirement in these regulations for an owner or operator to keep or retain a copy of each manifest is satisfied by the retention of the facility's electronic manifest copies in its account on the e-Manifest system, provided that such copies are readily available for viewing and production if requested by any EPA or Division of Waste Management and Radiation Control inspector.

(5) No owner or operator may be held liable for the inability to produce an electronic manifest for inspection under Section R315-264-71 if the owner or operator can demonstrate that the inability to produce the electronic manifest is due exclusively to a technical difficulty with the electronic manifest system for which the owner or operator bears no responsibility.

(g) An owner or operator may participate in the electronic manifest system either by accessing the electronic manifest system from the owner's or operator's electronic equipment, or by accessing the electronic manifest system from portable equipment brought to the owner's or operator's site by the transporter who delivers the waste shipment to the facility.

(h) Special procedures applicable to replacement manifests. If a facility receives hazardous waste that is accompanied by a paper replacement manifest for a manifest

that was originated electronically, the following procedures apply to the delivery of the hazardous waste by the final transporter:

(1) Upon delivery of the hazardous waste to the designated facility, the owner or operator shall sign and date each copy of the paper replacement manifest by hand in Item 20, Designated Facility Certification of Receipt, and note any discrepancies in Item 18, Discrepancy Indication Space, of the paper replacement manifest,

(2) The owner or operator of the facility shall give back to the final transporter one copy of the paper replacement manifest,

(3) Within 30 days of delivery of the waste to the designated facility, the owner or operator of the facility shall send one signed and dated copy of the paper replacement manifest to the generator, and send an additional signed and dated copy of the paper replacement manifest to the electronic manifest system, and

(4) The owner or operator of the facility shall retain at the facility one copy of the paper replacement manifest for at least three years from the date of delivery.

(i) Special procedures applicable to electronic signature methods undergoing tests. If an owner or operator using an electronic manifest signs this manifest electronically using an electronic signature method which is undergoing pilot or demonstration tests aimed at demonstrating the practicality or legal dependability of the signature method, then the owner or operator shall also sign with an ink signature the facility's certification of receipt or discrepancies on the printed copy of the manifest provided by the transporter. Upon executing its ink signature on this printed copy, the owner or operator shall retain this original copy among its records for at least 3 years from the date of delivery of the waste.

(j) Imposition of user fee for electronic manifest use. An owner or operator who is a user of the electronic manifest format may be assessed a user fee by EPA for the origination or processing of each electronic manifest. An owner or operator may also be assessed a user fee by EPA for the collection and processing of paper manifest copies that owners or operators shall submit to the electronic manifest system operator under Subsection R315-264-71(a)(2)(v). EPA shall maintain and update from time-to-time the current schedule of electronic manifest system

user fees, which shall be determined based on current and projected system costs and level of use of the electronic manifest system. The current schedule of electronic manifest user fees shall be published as an appendix to 40 CFR 262.

(k) Electronic manifest signatures. Electronic manifest signatures shall meet the criteria described in Section R315-262-25.

R315-264-72. Manifest discrepancies.

(a) Manifest discrepancies are:

(1) Significant differences, as defined by Subsection R315-264-72(b), between the quantity or type of hazardous waste designated on the manifest or shipping paper, and the quantity and type of hazardous waste a facility actually receives;

(2) Rejected wastes, which may be a full or partial shipment of hazardous waste that the treatment, storage, or disposal facility cannot accept; or

(3) Container residues, which are residues that exceed the quantity limits for “empty” containers set forth in Subsection R315-261-7(b).

(b) Significant differences in quantity are: For bulk waste, variations greater than 10 percent in weight; for batch waste, any variation in piece count, such as a discrepancy of one drum in a truckload. Significant differences in type are obvious differences which can be discovered by inspection or waste analysis, such as waste solvent substituted for waste acid, or toxic constituents not reported on the manifest or shipping paper.

(c) Upon discovering a significant difference in quantity or type, the owner or operator shall attempt to reconcile the discrepancy with the waste generator or transporter, e.g., with telephone conversations. If the discrepancy is not resolved within 15 days after receiving the waste, the owner or operator shall immediately submit to the Director a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest or shipping paper at issue.

(d)(1) Upon rejecting waste or identifying a container residue that exceeds the quantity limits for “empty” containers set forth in Subsection R315-261-7(b), the facility shall consult with the generator prior to forwarding the waste to another facility that can manage the waste. If it is impossible to locate an alternative

facility that can receive the waste, the facility may return the rejected waste or residue to the generator. The facility shall send the waste to the alternative facility or to the generator within 60 days of the rejection or the container residue identification.

(2) While the facility is making arrangements for forwarding rejected wastes or residues to another facility under Section R315-264-72, it shall ensure that either the delivering transporter retains custody of the waste, or, the facility shall provide for secure, temporary custody of the waste, pending delivery of the waste to the first transporter designated on the manifest prepared under Subsections R315-264-72(e) or (f).

(e) Except as provided in Subsections R315-264-72(e)(7), for full or partial load rejections and residues that are to be sent off-site to an alternate facility, the facility is required to prepare a new manifest in accordance with Subsection R315-262-20(a) and the following instructions:

(1) Write the generator's U.S. EPA ID number in Item 1 of the new manifest. Write the generator's name and mailing address in Item 5 of the new manifest. If the mailing address is different from the generator's site address, then write the generator's site address in the designated space for Item 5.

(2) Write the name of the alternate designated facility and the facility's U.S. EPA ID number in the designated facility block, Item 8, of the new manifest.

(3) Copy the manifest tracking number found in Item 4 of the old manifest to the Special Handling and Additional Information Block of the new manifest, and indicate that the shipment is a residue or rejected waste from the previous shipment.

(4) Copy the manifest tracking number found in Item 4 of the new manifest to the manifest reference number line in the Discrepancy Block of the old manifest, Item 18a.

(5) Write the DOT description for the rejected load or the residue in Item 9, U.S. DOT Description, of the new manifest and write the container types, quantity, and volume(s) of waste.

(6) Sign the Generator's/Offeror's Certification to certify, as the offeror of the shipment, that the waste has been properly packaged, marked and labeled and is in proper condition for transportation, and mail a signed copy of the

manifest to the generator identified in Item 5 of the new manifest.

(7) For full load rejections that are made while the transporter remains present at the facility, the facility may forward the rejected shipment to the alternate facility by completing Item 18b of the original manifest and supplying the information on the next destination facility in the Alternate Facility space. The facility shall retain a copy of this manifest for its records, and then give the remaining copies of the manifest to the transporter to accompany the shipment. If the original manifest is not used, then the facility shall use a new manifest and comply with Subsections R315-264-72(e)(1), (2), (3), (4), (5), and (6).

(f) Except as provided in Subsection R315-264-72(f)(7), for rejected wastes and residues that shall be sent back to the generator, the facility is required to prepare a new manifest in accordance with Subsection R315-262-20(a) and the following instructions:

(1) Write the facility's U.S. EPA ID number in Item 1 of the new manifest. Write the facility's name and mailing address in Item 5 of the new manifest. If the mailing address is different from the facility's site address, then write the facility's site address in the designated space for Item 5 of the new manifest.

(2) Write the name of the initial generator and the generator's U.S. EPA ID number in the designated facility block, Item 8, of the new manifest.

(3) Copy the manifest tracking number found in Item 4 of the old manifest to the Special Handling and Additional Information Block of the new manifest, and indicate that the shipment is a residue or rejected waste from the previous shipment.

(4) Copy the manifest tracking number found in Item 4 of the new manifest to the manifest reference number line in the Discrepancy Block of the old manifest, Item 18a.

(5) Write the DOT description for the rejected load or the residue in Item 9, U.S. DOT Description, of the new manifest and write the container types, quantity, and volume(s) of waste.

(6) Sign the Generator's/Offeror's Certification to certify, as offeror of the shipment, that the waste has been properly packaged, marked and labeled and is in proper condition for transportation.

(7) For full load rejections that are made while the transporter remains at the facility, the facility may return the shipment to the generator with the original manifest by completing Item 18a and 18b of the manifest and supplying the generator's information in the Alternate Facility space. The facility shall retain a copy for its records and then give the remaining copies of the manifest to the transporter to accompany the shipment. If the original manifest is not used, then the facility shall use a new manifest and comply with Subsections R315-264-72(f)(1), (2), (3), (4), (5), (6), and (8).

(8) For full or partial load rejections and container residues contained in non-empty containers that are returned to the generator, the facility shall also comply with the exception reporting requirements in Subsection R315-262-42(a).

(g) If a facility rejects a waste or identifies a container residue that exceeds the quantity limits for "empty" containers set forth in Subsection R315-261-7(b) after it has signed, dated, and returned a copy of the manifest to the delivering transporter or to the generator, the facility shall amend its copy of the manifest to indicate the rejected wastes or residues in the discrepancy space of the amended manifest. The facility shall also copy the manifest tracking number from Item 4 of the new manifest to the Discrepancy space of the amended manifest, and shall re-sign and date the manifest to certify to the information as amended. The facility shall retain the amended manifest for at least three years from the date of amendment, and shall within 30 days, send a copy of the amended manifest to the transporter and generator that received copies prior to their being amended.

R315-264-73. Operating record.

(a) The owner or operator shall keep a written operating record at his facility.

(b) The following information shall be recorded, as it becomes available, and maintained in the operating record for three years unless noted as follows:

(1) A description and the quantity of each hazardous waste received, and the method(s) and date(s) of its treatment, storage, or disposal at the facility as required by appendix I of Rule R316-264. This information shall be maintained in the operating record until closure of the facility;

(2) The location of each hazardous waste within the facility and the quantity at each location. For disposal facilities, the location and quantity of each hazardous waste shall be recorded on a map or diagram that shows each cell or disposal area. For all facilities, this information shall include cross-references to manifest document numbers if the waste was accompanied by a manifest. This information shall be maintained in the operating record until closure of the facility. See Section R315-264-119 for related requirements.

(3) Records and results of waste analyses and waste determinations performed as specified in Sections R315-264-13, 17, 314, 341, 1034, 1063, 1083, and 268-7, and Subsection R315-268-4(a).

(4) Summary reports and details of all incidents that require implementing the contingency plan as specified in Subsection R315-264-56(j);

(5) Records and results of inspections as required by Subsection R315-264-15(d), except these data need be kept only three years;

(6) Monitoring, testing or analytical data, and corrective action where required by Sections R315-264-90 through 101, and Sections R315-264-19, 191, 193, 195, 222, 223, 226, 252, 254, 276, 278, 280, 302, 304, 309, 602, 1035, 1064, and 1082 through 1090 and Subsections R315-264-1034(c), 1034(f), 1063(d), and 1063(i). Maintain in the operating record for three years, except for records and results pertaining to ground-water monitoring and cleanup which shall be maintained in the operating record until closure of the facility.

(7) For off-site facilities, notices to generators as specified in Subsection R315-264-12(b); and

(8) All closure cost estimates under Section R315-264-142, and for disposal facilities, all post-closure cost estimates under Section R315-264-144. This information shall be maintained in the operating record until closure of the facility.

(9) A certification by the permittee no less often than annually, that the permittee has a program in place to reduce the volume and toxicity of hazardous waste that he generates to the degree determined by the permittee to be economically practicable; and the proposed method of treatment, storage or disposal is that practicable method currently available to the permittee which minimizes the

present and future threat to human health and the environment.

(10) Records of the quantities and date of placement for each shipment of hazardous waste placed in land disposal units under an extension to the effective date of any land disposal restriction granted pursuant to Section R315-268-5, a petition pursuant to Section R315-268-6, or a certification under R315-268-8, and the applicable notice required by a generator under Subsection R315-268-7(a). This information shall be maintained in the operating record until closure of the facility.

(11) For an off-site treatment facility, a copy of the notice, and the certification and demonstration, if applicable, required by the generator or the owner or operator under Sections R315-268-7 or 8;

(12) For an on-site treatment facility, the information contained in the notice, except the manifest number, and the certification and demonstration if applicable, required by the generator or the owner or operator under Sections R315-268-7 or 8;

(13) For an off-site land disposal facility, a copy of the notice, and the certification and demonstration if applicable, required by the generator or the owner or operator of a treatment facility under Sections R315-268-7 or 8, whichever is applicable; and

(14) For an on-site land disposal facility, the information contained in the notice required by the generator or owner or operator of a treatment facility under Section R315-268-7, except for the manifest number, and the certification and demonstration if applicable, required under Section R315-268-8, whichever is applicable.

(15) For an off-site storage facility, a copy of the notice, and the certification and demonstration if applicable, required by the generator or the owner or operator under Sections R315-268-7 or 8; and

(16) For an on-site storage facility, the information contained in the notice, except the manifest number, and the certification and demonstration if applicable, required by the generator or the owner or operator under Sections R315-268-7 or 8.

(17) Any records required under Subsection R315-264-1(j)(13).

(18) Monitoring, testing or analytical data where required by Section R315-264-347 shall be maintained in the operating record for five years.

(19) Certifications as required by Subsection R315-264-196(f) shall be maintained in the operating record until closure of the facility.

R315-264-74. Availability, retention, and disposition of records.

(a) All records, including plans, required under Rule R315-264 shall be furnished upon request, and made available at all reasonable times for inspection, by any officer, employee, or representative of EPA who is duly designated by the Administrator, or any designated representative of the Director.

(b) The retention period for all records required under Rule R315-264 is extended automatically during the course of any unresolved enforcement action regarding the facility or as requested by the Director.

(c) A copy of records of waste disposal locations and quantities under Subsection R315-264-73(b)(2) shall be submitted to the Director and local land authority upon closure of the facility.

R315-264-75. Biennial report.

The owner or operator shall prepare and submit a single copy of a biennial report to the Director by March 1 of each even numbered year. The biennial report shall be submitted on EPA form 8700-13B. The report shall cover facility activities during the previous calendar year and shall include:

(a) The EPA identification number, name, and address of the facility;

(b) The calendar year covered by the report;

(c) For off-site facilities, the EPA identification number of each hazardous waste generator from which the facility received a hazardous waste during the year; for imported shipments, the report shall give the name and address of the foreign generator;

(d) A description and the quantity of each hazardous waste the facility received during the year. For off-site facilities, this information shall be listed by EPA identification number of each generator;

(e) The method of treatment, storage, or disposal for each hazardous waste;

(f) Reserved

(g) The most recent closure cost estimate under Sections R315-264-142, and, for disposal facilities, the

most recent post-closure cost estimate under Section R315-264-144; and

(h) For generators who treat, store, or dispose of hazardous waste on-site, a description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated.

(i) For generators who treat, store, or dispose of hazardous waste on-site, a description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent such information is available for the years prior to 1984.

(j) The certification signed by the owner or operator of the facility or his authorized representative.

R315-264-76. Unmanifested waste report.

(a) If a facility accepts for treatment, storage, or disposal any hazardous waste from an off-site source without an accompanying manifest, or without an accompanying shipping paper as described by Subsection R315-263-20(e), and if the waste is not excluded from the manifest requirement by Rules R315-260, through 266, 268, 270, and 273 then the owner or operator shall prepare and submit a letter to the Director within 15 days after receiving the waste. The unmanifested waste report shall contain the following information:

(1) The EPA identification number, name and address of the facility;

(2) The date the facility received the waste;

(3) The EPA identification number, name and address of the generator and the transporter, if available;

(4) A description and the quantity of each unmanifested hazardous waste the facility received;

(5) The method of treatment, storage, or disposal for each hazardous waste;

(6) The certification signed by the owner or operator of the facility or his authorized representative; and,

(7) A brief explanation of why the waste was unmanifested, if known.

R315-264-77. Additional reports.

In addition to submitting the biennial reports and unmanifested waste reports described in Sections R315-264-75 and 76, the owner or operator shall also report to the Director:

(a) Releases, fires, and explosions as specified in Subsection R315-264-56(j);

(b) Facility closures specified in Section R315-264-115; and

(c) As otherwise required by Sections R315-264-90 through 101, 220 through 232, 250 through 259, 270 through 283, 300 through 317, 1030 through 1049, 1050 through 1079, and 1080 through 1091.

R315-264-90. Releases From Solid Waste Management Units - Applicability.

(a)(1) Except as provided in Subsection R315-264-90 (b), the regulations in Sections R315-264-90 through 101 apply to owners or operators of facilities that treat, store or dispose of hazardous waste. The owner or operator shall satisfy the requirements identified in Subsection R315-264-90(a)(2) for all wastes, or constituents thereof, contained in solid waste management units at the facility, regardless of the time at which waste was placed in such units.

(2) All solid waste management units shall comply with the requirements in Section R315-264-101. A surface impoundment, waste pile, and land treatment unit or landfill that receives hazardous waste after July 26, 1982, hereinafter referred to as a “regulated unit”, shall comply with the requirements of Sections R315-264-91 through 100 in lieu of Section R315-264-101 for purposes of detecting, characterizing and responding to releases to the uppermost aquifer. The financial responsibility requirements of Section R315-264-101 apply to regulated units.

(3) Groundwater monitoring shall be required at non-land disposal facilities as determined to be necessary and appropriate by the Director.

(b) The owner or operator's regulated unit or units are not subject to regulation for releases into the uppermost aquifer under Sections R315-264-90 through 101 if:

(1) The owner or operator is exempted under Section R315-264-1; or

(2) He operates a unit which the Director finds:

(i) Is an engineered structure,

(ii) Does not receive or contain liquid waste or waste containing free liquids,

(iii) Is designed and operated to exclude liquid, precipitation, and other run-on and run-off,

(iv) Has both inner and outer layers of containment enclosing the waste,

(v) Has a leak detection system built into each containment layer,

(vi) The owner or operator shall provide continuing operation and maintenance of these leak detection systems during the active life of the unit and the closure and post-closure care periods, and

(vii) To a reasonable degree of certainty, will not allow hazardous constituents to migrate beyond the outer containment layer prior to the end of the post-closure care period.

(3) The Director finds, pursuant to Section R315-264-280(d), that the treatment zone of a land treatment unit that qualifies as a regulated unit does not contain levels of hazardous constituents that are above background levels of those constituents by an amount that is statistically significant, and if an unsaturated zone monitoring program meeting the requirements of Section R35-264-278 has not shown a statistically significant increase in hazardous constituents below the treatment zone during the operating life of the unit. An exemption under Subsection R315-264-90(b) can only relieve an owner or operator of responsibility to meet the requirements of Sections R315-264-90 through 101 during the post-closure care period; or

(4) The Director finds that there is no potential for migration of liquid from a regulated unit to the uppermost aquifer during the active life of the regulated unit, including the closure period, and the post-closure care period specified under Section R315-264-117. This demonstration shall be certified by a qualified geologist or geotechnical engineer. In order to provide an adequate margin of safety in the prediction of potential migration of liquid, the owner or operator shall base any predictions made under Subsection R315-264-90(b) on assumptions that maximize the rate of liquid migration.

(5) He designs and operates a pile in compliance with Section R315-264-250(c).

(c) The regulations under Sections R315-264-90 through 101 apply during the active life of the regulated unit, including the closure period. After closure of the regulated unit, the regulations in Sections R315-264-90 through 101:

(1) Do not apply if all waste, waste residues, contaminated containment system components, and

contaminated subsoils are removed or decontaminated at closure;

(2) Apply during the post-closure care period under Section R315-264-117 if the owner or operator is conducting a detection monitoring program under Section R315-264-98; or

(3) Apply during the compliance period under Section R315-264-96 if the owner or operator is conducting a compliance monitoring program under Section R315-264-99 or a corrective action program under Section R315-264-100.

(d) Regulations in Sections R315-264-90 through 101 may apply to miscellaneous units when necessary to comply with Sections R315-264-601 through 603.

(e) The regulations of Sections R315-264-90 through 101 apply to all owners and operators subject to the requirements of Subsection R315-270-1(c)(7), when the Agency issues either a post-closure permit or an enforceable document, as defined in Subsection R315-270-1(c)(7) at the facility. When the Director issues an enforceable document, references in Sections R315-264-90 through 101 to “in the permit” mean “in the enforceable document.”

(f) The Director may replace all or part of the requirements of Sections R315-264-91 through 100 applying to a regulated unit with alternative requirements for groundwater monitoring and corrective action for releases to groundwater set out in the permit, or in an enforceable document, as defined in Subsection R315-270-1(c)(7), where the Director determines that:

(1) The regulated unit is situated among solid waste management units, or areas of concern, a release has occurred, and both the regulated unit and one or more solid waste management unit(s), or areas of concern, are likely to have contributed to the release; and

(2) It is not necessary to apply the groundwater monitoring and corrective action requirements of Sections R315-264-91 through 100 because alternative requirements will protect human health and the environment.

R315-264-91. Required programs.

(a) Owners and operators subject to Sections R315-264-90 through 101 shall conduct a monitoring and response program as follows:

(1) Whenever hazardous constituents under Section R315-264-93 from a regulated unit are detected at a

compliance point under Section R315-264-95, the owner or operator shall institute a compliance monitoring program under Section R315-264-99. Detected is defined as statistically significant evidence of contamination as described in Subsection R315-264-98(f);

(2) Whenever the ground-water protection standard under Section R315-264-92 is exceeded, the owner or operator shall institute a corrective action program under Section R315-264-100. Exceeded is defined as statistically significant evidence of increased contamination as described in Subsection R315-264-99(d);

(3) Whenever hazardous constituents under Section R315-264-93 from a regulated unit exceed concentration limits under Section R315-264-94 in ground water between the compliance point under Section R315-264-95 and the downgradient facility property boundary, the owner or operator shall institute a corrective action program under Section R315-264-100; or

(4) In all other cases, the owner or operator shall institute a detection monitoring program under Section R315-264-98.

(b) The Director shall specify in the facility permit the specific elements of the monitoring and response program. The Director may include one or more of the programs identified in Subsection R315-264-91(a) in the facility permit as may be necessary to protect human health and the environment and will specify the circumstances under which each of the programs will be required. In deciding whether to require the owner or operator to be prepared to institute a particular program, the Director shall consider the potential adverse effects on human health and the environment that might occur before final administrative action on a permit modification application to incorporate such a program could be taken.

R315-264-92. Ground-water protection standard.

The owner or operator shall comply with conditions specified in the facility permit that are designed to ensure that hazardous constituents under Section R315-264-93 detected in the ground water from a regulated unit do not exceed the concentration limits under Section R315-264-94 in the uppermost aquifer underlying the waste management area beyond the point of compliance under Section R315-264-95 during the compliance period under Section R315-264-96. The Director shall establish this ground-water protection

standard in the facility permit when hazardous constituents have been detected in the ground water.

R315-264-93. Hazardous constituents.

(a) The Director shall specify in the facility permit the hazardous constituents to which the ground-water protection standard of Section R315-264-92 applies. Hazardous constituents are constituents identified in appendix VIII of Rule R315-261 that have been detected in ground water in the uppermost aquifer underlying a regulated unit and that are reasonably expected to be in or derived from waste contained in a regulated unit, unless the Director has excluded them under Subsection R315-264-93(b).

(b) The Director shall exclude a Rule R315-261 appendix VIII constituent from the list of hazardous constituents specified in the facility permit if he finds that the constituent is not capable of posing a substantial present or potential hazard to human health or the environment. In deciding whether to grant an exemption, the Director shall consider the following:

(1) Potential adverse effects on ground-water quality, considering:

(i) The physical and chemical characteristics of the waste in the regulated unit, including its potential for migration;

(ii) The hydrogeological characteristics of the facility and surrounding land;

(iii) The quantity of ground water and the direction of ground-water flow;

(iv) The proximity and withdrawal rates of ground-water users;

(v) The current and future uses of ground water in the area;

(vi) The existing quality of ground water, including other sources of contamination and their cumulative impact on the ground-water quality;

(vii) The potential for health risks caused by human exposure to waste constituents;

(viii) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents;

(ix) The persistence and permanence of the potential adverse effects; and

(2) Potential adverse effects on hydraulically-connected surface water quality, considering:

(i) The volume and physical and chemical characteristics of the waste in the regulated unit;

(ii) The hydrogeological characteristics of the facility and surrounding land;

(iii) The quantity and quality of ground water, and the direction of ground-water flow;

(iv) The patterns of rainfall in the region;

(v) The proximity of the regulated unit to surface waters;

(vi) The current and future uses of surface waters in the area and any water quality standards established for those surface waters;

(vii) The existing quality of surface water, including other sources of contamination and the cumulative impact on surface-water quality;

(viii) The potential for health risks caused by human exposure to waste constituents;

(ix) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents; and

(x) The persistence and permanence of the potential adverse effects.

(c) In making any determination under Subsection R315-264-93(b) about the use of ground water in the area around the facility, the Director shall consider any identification of underground sources of drinking water and exempted aquifers made under 40 CFR 144.8.

R315-264-94. Concentration limits.

(a) The Director shall specify in the facility permit concentration limits in the ground water for hazardous constituents established under Section R315-264-93. The concentration of a hazardous constituent:

(1) Shall not exceed the background level of that constituent in the ground water at the time that limit is specified in the permit; or

(2) For any of the constituents listed in Table 1, shall not exceed the respective value given in that table if the background level of the constituent is below the value given in Table 1; or

Table 1

Maximum Concentration of Constituents for Ground-water

Protection Constituent	Maximum concentration[1]
Arsenic	0.05
Barium	1.0
Cadmium	0.01
Chromium	0.05
Lead	0.05
Mercury	0.002
Selenium	0.01
Silver	0.05
Endrin (1,2,3,4,10,10-hexachloro-1,7-epoxy 1,4,4a,5,6,7,8,9a-octahydro-1, 4-endo, endo-5,8-dimethano naphthalene)	0.0002
Lindane (1,2,3,4,5,6-hexachlorocyclohexane, gamma isomer)	0.004
Methoxychlor (1,1,1-Trichloro-2,2-bis (p-methoxyphenylethane)	0.1
Toxaphene (C10H10Cl6, Technical chlorinated camphene, 67-69 percent chlorine)	0.005
2,4-D (2,4-Dichlorophenoxyacetic acid)	0.1
2,4,5-TP Silvex (2,4,5-Trichlorophenoxypropionic acid)	0.01

[1]Milligrams per liter.

(3) Shall not exceed an alternate limit established by the Director under Subsection R315-264-94(b).

(b) The Director shall establish an alternate concentration limit for a hazardous constituent if he finds that the constituent will not pose a substantial present or potential hazard to human health or the environment as long as the alternate concentration limit is not exceeded. In establishing alternate concentration limits, the Director shall consider the following factors:

(1) Potential adverse effects on ground-water quality, considering:

(i) The physical and chemical characteristics of the waste in the regulated unit, including its potential for migration;

(ii) The hydrogeological characteristics of the facility and surrounding land;

(iii) The quantity of ground water and the direction of ground-water flow;

(iv) The proximity and withdrawal rates of ground-water users;

(v) The current and future uses of ground water in the area;

(vi) The existing quality of ground water, including other sources of contamination and their cumulative impact on the ground-water quality;

(vii) The potential for health risks caused by human exposure to waste constituents;

(viii) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents;

(ix) The persistence and permanence of the potential adverse effects; and

(2) Potential adverse effects on hydraulically-connected surface-water quality, considering:

(i) The volume and physical and chemical characteristics of the waste in the regulated unit;

(ii) The hydrogeological characteristics of the facility and surrounding land;

(iii) The quantity and quality of ground water, and the direction of ground-water flow;

(iv) The patterns of rainfall in the region;

(v) The proximity of the regulated unit to surface waters;

(vi) The current and future uses of surface waters in the area and any water quality standards established for those surface waters;

(vii) The existing quality of surface water, including other sources of contamination and the cumulative impact on surface water quality;

(viii) The potential for health risks caused by human exposure to waste constituents;

(ix) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents; and

(x) The persistence and permanence of the potential adverse effects.

(c) In making any determination under Subsection R315-264-94(b) about the use of ground water in the area around the facility the Director shall consider any identification of underground sources of drinking water and exempted aquifers made under 40 CFR 144.7.

R315-264-95. Point of compliance.

(a) The Director shall specify in the facility permit the point of compliance at which the ground-water

protection standard of Section R315-264-92 applies and at which monitoring shall be conducted. The point of compliance is a vertical surface located at the hydraulically downgradient limit of the waste management area that extends down into the uppermost aquifer underlying the regulated units.

(b) The waste management area is the limit projected in the horizontal plane of the area on which waste will be placed during the active life of a regulated unit.

(1) The waste management area includes horizontal space taken up by any liner, dike, or other barrier designed to contain waste in a regulated unit.

(2) If the facility contains more than one regulated unit, the waste management area is described by an imaginary line circumscribing the several regulated units.

R315-264-96. Compliance period.

(a) The Director shall specify in the facility permit the compliance period during which the ground-water protection standard of Section R315-264-92 applies. The compliance period is the number of years equal to the active life of the waste management area, including any waste management activity prior to permitting, and the closure period.

(b) The compliance period begins when the owner or operator initiates a compliance monitoring program meeting the requirements of Section R315-264-99.

(c) If the owner or operator is engaged in a corrective action program at the end of the compliance period specified in Subsection R316-264-96(a), the compliance period is extended until the owner or operator can demonstrate that the ground-water protection standard of Section R315-264-92 has not been exceeded for a period of three consecutive years.

R315-264-97. General ground-water monitoring requirements.

The owner or operator shall comply with the following requirements for any ground-water monitoring program developed to satisfy Sections R315-264-98 through 100:

(a) The ground-water monitoring system shall consist of a sufficient number of wells, installed at appropriate locations and depths to yield ground-water samples from the uppermost aquifer that:

(1) Represent the quality of background ground water that has not been affected by leakage from a regulated unit;

(i) A determination of background ground-water quality may include sampling of wells that are not hydraulically upgradient of the waste management area where:

(A) Hydrogeologic conditions do not allow the owner or operator to determine what wells are hydraulically upgradient; and

(B) Sampling at other wells will provide an indication of background ground-water quality that is representative or more representative than that provided by the upgradient wells; and

(2) Represent the quality of ground water passing the point of compliance.

(3) Allow for the detection of contamination when hazardous waste or hazardous constituents have migrated from the waste management area to the uppermost aquifer.

(b) If a facility contains more than one regulated unit, separate ground-water monitoring systems are not required for each regulated unit provided that provisions for sampling the ground water in the uppermost aquifer will enable detection and measurement at the compliance point of hazardous constituents from the regulated units that have entered the ground water in the uppermost aquifer.

(c) All monitoring wells shall be cased in a manner that maintains the integrity of the monitoring-well bore hole. This casing shall be screened or perforated and packed with gravel or sand, where necessary, to enable collection of ground-water samples. The annular space, i.e., the space between the bore hole and well casing, above the sampling depth shall be sealed to prevent contamination of samples and the ground water.

(d) The ground-water monitoring program shall include consistent sampling and analysis procedures that are designed to ensure monitoring results that provide a reliable indication of ground-water quality below the waste management area. At a minimum the program shall include procedures and techniques for:

(1) Sample collection;

(2) Sample preservation and shipment;

(3) Analytical procedures; and

(4) Chain of custody control.

(e) The ground-water monitoring program shall include sampling and analytical methods that are appropriate for ground-water sampling and that accurately measure hazardous constituents in ground-water samples.

(f) The ground-water monitoring program shall include a determination of the ground-water surface elevation each time ground water is sampled.

(g) In detection monitoring or where appropriate in compliance monitoring, data on each hazardous constituent specified in the permit will be collected from background wells and wells at the compliance point(s). The number and kinds of samples collected to establish background shall be appropriate for the form of statistical test employed, following generally accepted statistical principles. The sample size shall be as large as necessary to ensure with reasonable confidence that a contaminant release to ground water from a facility will be detected. The owner or operator shall determine an appropriate sampling procedure and interval for each hazardous constituent listed in the facility permit which shall be specified in the unit permit upon approval by the Director. This sampling procedure shall be:

(1) A sequence of at least four samples, taken at an interval that assures, to the greatest extent technically feasible, that an independent sample is obtained, by reference to the uppermost aquifer's effective porosity, hydraulic conductivity, and hydraulic gradient, and the fate and transport characteristics of the potential contaminants, or

(2) an alternate sampling procedure proposed by the owner or operator and approved by the Director.

(h) The owner or operator shall specify one of the following statistical methods to be used in evaluating ground-water monitoring data for each hazardous constituent which, upon approval by the Director, shall be specified in the unit permit. The statistical test chosen shall be conducted separately for each hazardous constituent in each well. Where practical quantification limits (pql's) are used in any of the following statistical procedures to comply with Subsection R315-26497(i)(5), the pql shall be proposed by the owner or operator and approved by the Director. Use of any of the following statistical methods shall be protective of human health and the environment and shall comply with the performance standards outlined in Subsection R315-264-97(i).

(1) A parametric analysis of variance, ANOVA, followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method shall include estimation and testing of the contrasts between each compliance well's mean and the background mean levels for each constituent.

(2) An analysis of variance, ANOVA, based on ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method shall include estimation and testing of the contrasts between each compliance well's median and the background median levels for each constituent.

(3) A tolerance or prediction interval procedure in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit.

(4) A control chart approach that gives control limits for each constituent.

(5) Another statistical test method submitted by the owner or operator and approved by the Director.

(i) Any statistical method chosen under Subsection R315-264-97(h) for specification in the unit permit shall comply with the following performance standards, as appropriate:

(1) The statistical method used to evaluate ground-water monitoring data shall be appropriate for the distribution of chemical parameters or hazardous constituents. If the distribution of the chemical parameters or hazardous constituents is shown by the owner or operator to be inappropriate for a normal theory test, then the data should be transformed or a distribution-free theory test should be used. If the distributions for the constituents differ, more than one statistical method may be needed.

(2) If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background constituent concentrations or a ground-water protection standard, the test shall be done at a Type I error level no less than 0.01 for each testing period. If a multiple comparisons procedure is used, the Type I experimentwise error rate for each testing period shall be no less than 0.05; however, the Type I error of no less than 0.01 for individual well comparisons shall be maintained. This performance standard does not apply to

tolerance intervals, prediction intervals or control charts.

(3) If a control chart approach is used to evaluate ground-water monitoring data, the specific type of control chart and its associated parameter values shall be proposed by the owner or operator and approved by the Director if he or she finds it to be protective of human health and the environment.

(4) If a tolerance interval or a prediction interval is used to evaluate groundwater monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval shall contain, shall be proposed by the owner or operator and approved by the Director if he or she finds these parameters to be protective of human health and the environment. These parameters shall be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

(5) The statistical method shall account for data below the limit of detection with one or more statistical procedures that are protective of human health and the environment. Any practical quantification limit (pql) approved by the Director under Subsection R315-264-97(h) that is used in the statistical method shall be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility.

(6) If necessary, the statistical method shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

(j) Ground-water monitoring data collected in accordance with Subsection R315-264-97(g) including actual levels of constituents shall be maintained in the facility operating record. The Director shall specify in the permit when the data shall be submitted for review.

R315-264-98. Detection monitoring program.

An owner or operator required to establish a detection monitoring program under Sections R315-264-90 through 101 shall, at a minimum, discharge the following responsibilities:

(a) The owner or operator shall monitor for indicator parameters, e.g., specific conductance, total organic carbon, or total organic halogen, waste constituents, or reaction products that provide a reliable indication of the presence of hazardous constituents in ground water. The Director shall specify the parameters or constituents to be monitored in the facility permit, after considering the following factors:

(1) The types, quantities, and concentrations of constituents in wastes managed at the regulated unit;

(2) The mobility, stability, and persistence of waste constituents or their reaction products in the unsaturated zone beneath the waste management area;

(3) The detectability of indicator parameters, waste constituents, and reaction products in ground water; and

(4) The concentrations or values and coefficients of variation of proposed monitoring parameters or constituents in the ground-water background.

(b) The owner or operator shall install a ground-water monitoring system at the compliance point as specified under Section R315-264-95. The ground-water monitoring system shall comply with Subsections R315-264-97(a)(2), (b), and (c).

(c) The owner or operator shall conduct a ground-water monitoring program for each chemical parameter and hazardous constituent specified in the permit pursuant to Subsection R315-264-98(a) in accordance with Section R315-264-97(g). The owner or operator shall maintain a record of ground-water analytical data as measured and in a form necessary for the determination of statistical significance under Subsection R315-264-97(h).

(d) The Director shall specify the frequencies for collecting samples and conducting statistical tests to determine whether there is statistically significant evidence of contamination for any parameter or hazardous constituent specified in the permit conditions under Subsection R315-264-98(a) in accordance with Subsection R315-264-97(g).

(e) The owner or operator shall determine the ground-water flow rate and direction in the uppermost aquifer at least annually.

(f) The owner or operator shall determine whether there is statistically significant evidence of contamination for any chemical parameter of hazardous constituent specified in the permit pursuant to Subsection

R315-264-98(a) at a frequency specified under Subsection R315-264-98(d).

(1) In determining whether statistically significant evidence of contamination exists, the owner or operator shall use the method(s) specified in the permit under Subsection R315-264-97(h). These method(s) shall compare data collected at the compliance point(s) to the background ground-water quality data.

(2) The owner or operator shall determine whether there is statistically significant evidence of contamination at each monitoring well as the compliance point within a reasonable period of time after completion of sampling. The Director shall specify in the facility permit what period of time is reasonable, after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of ground-water samples.

(g) If the owner or operator determines pursuant to Subsection R315-264-98(f) that there is statistically significant evidence of contamination for chemical parameters or hazardous constituents specified pursuant to Subsection R315-264-98(a) at any monitoring well at the compliance point, he or she shall:

(1) Notify the Director of this finding in writing within seven days. The notification shall indicate what chemical parameters or hazardous constituents have shown statistically significant evidence of contamination;

(2) Immediately sample the ground water in all monitoring wells and determine whether constituents in the list of appendix IX of Rule R315-264 are present, and if so, in what concentration. However, the Director, on a discretionary basis, may allow sampling for a site-specific subset of constituents from the appendix IX list of Rule R315-264 and other representative/related waste constituents.

(3) For any appendix IX compounds found in the analysis pursuant to Subsection R315-264-98(g)(2), the owner or operator may resample within one month or at an alternative site-specific schedule approved by the Director and repeat the analysis for those compounds detected. If the results of the second analysis confirm the initial results, then these constituents shall form the basis for compliance monitoring. If the owner or operator does not resample for the compounds in Subsection R315-264-98(g)(2), the hazardous constituents found during this initial

appendix IX analysis shall form the basis for compliance monitoring.

(4) Within 90 days, submit to the Director an application for a permit modification to establish a compliance monitoring program meeting the requirements of Section R315-264-99. The application shall include the following information:

(i) An identification of the concentration of any appendix IX constituent detected in the ground water at each monitoring well at the compliance point;

(ii) Any proposed changes to the ground-water monitoring system at the facility necessary to meet the requirements of Section R315-264-99;

(iii) Any proposed additions or changes to the monitoring frequency, sampling and analysis procedures or methods, or statistical methods used at the facility necessary to meet the requirements of Section R315-264-99;

(iv) For each hazardous constituent detected at the compliance point, a proposed concentration limit under Subsections R315-264-94(a)(1) or (2), or a notice of intent to seek an alternate concentration limit under Subsection R315-264-94(b); and

(5) Within 180 days, submit to the Director:

(i) All data necessary to justify an alternate concentration limit sought under Subsection R315-264-94(b); and

(ii) An engineering feasibility plan for a corrective action program necessary to meet the requirement of Section R315-264-100, unless:

(A) All hazardous constituents identified under Subsection R315-264-98(g)(2) are listed in Table 1 of Section R315-264-94 and their concentrations do not exceed the respective values given in that Table; or

(B) The owner or operator has sought an alternate concentration limit under Subsection R315-264-94(b) for every hazardous constituent identified under Subsection R315-264-98(g)(2).

(6) If the owner or operator determines, pursuant to Subsection R315-264-98(f), that there is a statistically significant difference for chemical parameters or hazardous constituents specified pursuant to Subsection R315-264-98(a) at any monitoring well at the compliance point, he or she may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis, or

statistical evaluation or natural variation in the ground water. The owner operator may make a demonstration under Subsection R315-264-98(g)(6) in addition to, or in lieu of, submitting a permit modification application under Subsection R315-264-98(g)(4); however, the owner or operator is not relieved of the requirement to submit a permit modification application within the time specified in Subsection R315-264-98(g)(4) unless the demonstration made under Subsection R315-264-98(g)(6) successfully shows that a source other than a regulated unit caused the increase, or that the increase resulted from error in sampling, analysis, or evaluation. In making a demonstration under Subsection R315-264-98(g)(6), the owner or operator shall:

(i) Notify the Director in writing within seven days of determining statistically significant evidence of contamination at the compliance point that he intends to make a demonstration under Subsection R315-264-98(g)(6);

(ii) Within 90 days, submit a report to the Director which demonstrates that a source other than a regulated unit caused the contamination or that the contamination resulted from error in sampling, analysis, or evaluation;

(iii) Within 90 days, submit to the Director an application for a permit modification to make any appropriate changes to the detection monitoring program facility; and

(iv) Continue to monitor in accordance with the detection monitoring program established under Section R315-264-98.

(h) If the owner or operator determines that the detection monitoring program no longer satisfies the requirements of Section R315-264-98, he or she shall, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

R315-264-99. Compliance monitoring program.

An owner or operator required to establish a compliance monitoring program under Sections R315-264-90 through 101 shall, at a minimum, discharge the following responsibilities:

(a) The owner or operator shall monitor the ground water to determine whether regulated units are in compliance with the ground-water protection standard under Section R315-264-92. The Director shall specify the ground-

water protection standard in the facility permit, including:

(1) A list of the hazardous constituents identified under Section R315-264-93;

(2) Concentration limits under Section R315-264-94 for each of those hazardous constituents;

(3) The compliance point under Section R315-264-95; and

(4) The compliance period under Section R315-264-96.

(b) The owner or operator shall install a ground-water monitoring system at the compliance point as specified under Section R315-264-95. The ground-water monitoring system shall comply with Subsections R315-264-97(a)(2), (b), and (c).

(c) The Director shall specify the sampling procedures and statistical methods appropriate for the constituents and the facility, consistent with Subsections R315-264-97(g) and (h).

(1) The owner or operator shall conduct a sampling program for each chemical parameter or hazardous constituent in accordance with Subsection R315-264-97(g).

(2) The owner or operator shall record ground-water analytical data as measured and in form necessary for the determination of statistical significance under Subsection R315-264-97(h) for the compliance period of the facility.

(d) The owner or operator shall determine whether there is statistically significant evidence of increased contamination for any chemical parameter or hazardous constituent specified in the permit, pursuant to Subsection R315-264-99(a), at a frequency specified under Subsection R315-264-99(f).

(1) In determining whether statistically significant evidence of increased contamination exists, the owner or operator shall use the method(s) specified in the permit under Subsection R315-264-97(h). The methods(s) shall compare data collected at the compliance point(s) to a concentration limit developed in accordance with Section R315-264-94.

(2) The owner or operator shall determine whether there is statistically significant evidence of increased contamination at each monitoring well at the compliance point within a reasonable time period after completion of sampling. The Director shall specify that time period in the facility permit, after considering the complexity of

the statistical test and the availability of laboratory facilities to perform the analysis of ground-water samples.

(e) The owner or operator shall determine the ground-water flow rate and direction in the uppermost aquifer at least annually.

(f) The Director shall specify the frequencies for collecting samples and conducting statistical tests to determine statistically significant evidence of increased contamination in accordance with Subsection R315-264-97(g).

(g) Annually, the owner or operator shall determine whether additional hazardous constituents from appendix IX of Rule R315-264, which could possibly be present but are not on the detection monitoring list in the permit, are actually present in the uppermost aquifer and, if so, at what concentration, pursuant to procedures in Subsection R315-264-98(f). To accomplish this, the owner or operator shall consult with the Director to determine on a case-by-case basis: which sample collection event during the year will involve enhanced sampling; the number of monitoring wells at the compliance point to undergo enhanced sampling; the number of samples to be collected from each of these monitoring wells; and, the specific constituents from appendix IX of Rule R315-264 for which these samples shall be analyzed. If the enhanced sampling event indicates that appendix IX constituents are present in the ground water that are not already identified in the permit as monitoring constituents, the owner or operator may resample within one month or at an alternative site-specific schedule approved by the Director, and repeat the analysis. If the second analysis confirms the presence of new constituents, the owner or operator shall report the concentration of these additional constituents to the Director within seven days after the completion of the second analysis and add them to the monitoring list. If the owner or operator chooses not to resample, then he or she shall report the concentrations of these additional constituents to the Director within seven days after completion of the initial analysis, and add them to the monitoring list.

(h) If the owner or operator determines pursuant to Subsection R315-264-99(d) that any concentration limits under Section R315-264-94 are being exceeded at any monitoring well at the point of compliance he or she shall:

(1) Notify the Director of this finding in writing within seven days. The notification shall indicate what concentration limits have been exceeded.

(2) Submit to the Director an application for a permit modification to establish a corrective action program meeting the requirements of Section R315-264-100 within 180 days, or within 90 days if an engineering feasibility study has been previously submitted to the Director under Subsection R315-264-98(g)(5). The application shall at a minimum include the following information:

(i) A detailed description of corrective actions that will achieve compliance with the ground-water protection standard specified in the permit under Subsection R315-264-99(a); and

(ii) A plan for a ground-water monitoring program that will demonstrate the effectiveness of the corrective action. Such a ground-water monitoring program may be based on a compliance monitoring program developed to meet the requirements of Section R315-264-99.

(i) If the owner or operator determines, pursuant to Subsection R315-264-99(d), that the ground-water concentration limits under Section R315-264-99 are being exceeded at any monitoring well at the point of compliance, he or she may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis, or statistical evaluation or natural variation in the ground water. In making a demonstration under Subsection R315-264-99(h), the owner or operator shall:

(1) Notify the Director in writing within seven days that he intends to make a demonstration under Subsection R315-264-99(h);

(2) Within 90 days, submit a report to the Director which demonstrates that a source other than a regulated unit caused the standard to be exceeded or that the apparent noncompliance with the standards resulted from error in sampling, analysis, or evaluation;

(3) Within 90 days, submit to the Director an application for a permit modification to make any appropriate changes to the compliance monitoring program at the facility; and

(4) Continue to monitor in accord with the compliance monitoring program established under Section R315-264-99.

(j) If the owner or operator determines that the compliance monitoring program no longer satisfies the requirements of Section R315-264-99, he shall, within 90

days, submit an application for a permit modification to make any appropriate changes to the program.

R315-264-100. Corrective action program.
An owner or operator required to establish a corrective action program under Sections R315-264-90 through 101 shall, at a minimum, discharge the following responsibilities:

(a) The owner or operator shall take corrective action to ensure that regulated units are in compliance with the ground-water protection standard under Section R315-264-92. The Director shall specify the ground-water protection standard in the facility permit, including:

(1) A list of the hazardous constituents identified under Section R315-264-93;

(2) Concentration limits under Section R315-264-94 for each of those hazardous constituents;

(3) The compliance point under Section R315-264-95; and

(4) The compliance period under Section R315-264-96.

(b) The owner or operator shall implement a corrective action program that prevents hazardous constituents from exceeding their respective concentration limits at the compliance point by removing the hazardous waste constituents or treating them in place. The permit shall specify the specific measures that will be taken.

(c) The owner or operator shall begin corrective action within a reasonable time period after the ground-water protection standard is exceeded. The Director shall specify that time period in the facility permit. If a facility permit includes a corrective action program in addition to a compliance monitoring program, the permit shall specify when the corrective action will begin and such a requirement will operate in lieu of Subsection R315-264-99(i)(2).

(d) In conjunction with a corrective action program, the owner or operator shall establish and implement a ground-water monitoring program to demonstrate the effectiveness of the corrective action program. Such a monitoring program may be based on the requirements for a compliance monitoring program under Section R315-264-99 and shall be as effective as that program in determining compliance with the ground-water protection standard under Section R315-264-92 and in determining the success of a

corrective action program under Subsection R315-264-100(e), where appropriate.

(e) In addition to the other requirements of Section R315-264-100, the owner or operator shall conduct a corrective action program to remove or treat in place any hazardous constituents under Section R315-264-93 that exceed concentration limits under Section R315-264-94 in groundwater:

(1) Between the compliance point under Section R315-264-95 and the downgradient property boundary; and

(2) Beyond the facility boundary, where necessary to protect human health and the environment, unless the owner or operator demonstrates to the satisfaction of the Director that, despite the owner's or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such action. The owner/operator is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis.

(3) Corrective action measures under Subsection R315-264-100(e) shall be initiated and completed within a reasonable period of time considering the extent of contamination.

(4) Corrective action measures under Subsection R315-264-100(e) may be terminated once the concentration of hazardous constituents under Section R315-264-93 is reduced to levels below their respective concentration limits under Section R315-264-94.

(f) The owner or operator shall continue corrective action measures during the compliance period to the extent necessary to ensure that the ground-water protection standard is not exceeded. If the owner or operator is conducting corrective action at the end of the compliance period, he shall continue that corrective action for as long as necessary to achieve compliance with the ground-water protection standard. The owner or operator may terminate corrective action measures taken beyond the period equal to the active life of the waste management area, including the closure period, if he can demonstrate, based on data from the ground-water monitoring program under Subsection R315-264-100 (d), that the ground-water protection standard of Section R315-264-92 has not been exceeded for a period of three consecutive years.

(g) The owner or operator shall report in writing to the Director on the effectiveness of the corrective action program. The owner or operator shall submit these reports annually.

(h) If the owner or operator determines that the corrective action program no longer satisfies the requirements Section R315-264-100, he shall, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

R315-264-101. Corrective action for solid waste management units.

(a) The owner or operator of a facility seeking a permit for the treatment, storage or disposal of hazardous waste shall institute corrective action as necessary to protect human health and the environment for all releases of hazardous waste or constituents from any solid waste management unit at the facility, regardless of the time at which waste was placed in such unit.

(b) Corrective action shall be specified in the permit in accordance with Section R315-264-101 and Sections R315-264-550 through 555. The permit shall contain schedules of compliance for such corrective action, where such corrective action cannot be completed prior to issuance of the permit, and assurances of financial responsibility for completing such corrective action.

(c) The owner or operator shall implement corrective actions beyond the facility property boundary, where necessary to protect human health and the environment, unless the owner or operator demonstrates to the satisfaction of the Director that, despite the owner's or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such actions. The owner/operator is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases shall be determined on a case-by-case basis. Assurances of financial responsibility for such corrective action shall be provided.

(d) Section R315-264-101 does not apply to remediation waste management sites unless they are part of a facility subject to a permit for treating, storing or disposing of hazardous wastes that are not remediation wastes.

R315-264-110. Closure and Post-Closure - Applicability.
Except as Section R315-264-1 provides otherwise:

(a) Sections R315-264-111 through 115, which concern closure, apply to the owners and operators of all hazardous waste management facilities; and

(b) Sections R315-264-116 through 120, which concern post-closure care, apply to the owners and operators of:

(1) All hazardous waste disposal facilities;

(2) Waste piles and surface impoundments from which the owner or operator intends to remove the wastes at closure to the extent that these sections are made applicable to such facilities in Sections R315-264-228 or 258;

(3) Tank systems that are required under Section R315-264-197 to meet the requirements for landfills; and

(4) Containment buildings that are required under Section R315-264-1102 to meet the requirement for landfills.

(c) The Director may replace all or part of the requirements of Sections R315-264-110 through 120, including the unit-specific standards referenced in Subsection R315-264-111(c) applying to a regulated unit, with alternative requirements set out in a permit or in an enforceable document, as defined in Subsection R315-270-1(c)(7), where the Director determines that:

(1) The regulated unit is situated among solid waste management units, or areas of concern, a release has occurred, and both the regulated unit and one or more solid waste management unit(s), or areas of concern, are likely to have contributed to the release; and

(2) It is not necessary to apply the closure requirements of Sections R315-264-110 through 120, and those referenced herein, because the alternative requirements will protect human health and the environment and will satisfy the closure performance standard of Subsections R315-264-111(a) and (b).

R315-264-111. Closure performance standard.
The owner or operator shall close the facility in a manner that:

(a) Minimizes the need for further maintenance; and

(b) Controls, minimizes or eliminates, to the extent necessary to protect human health and the environment,

post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the ground or surface waters or to the atmosphere; and

(c) Complies with the closure requirements of Rule R315-264, including, but not limited to, the requirements of Sections R315-264-178, 197, 228, 258, 280, 310, 351, 601 through 603, and 1102.

R315-264-112. Closure plan; amendment of plan.

(a) Written plan.

(1) The owner or operator of a hazardous waste management facility shall have a written closure plan. In addition, certain surface impoundments and waste piles from which the owner or operator intends to remove or decontaminate the hazardous waste at partial or final closure are required by Subsections R315-264-228(c)(1)(i) and 258(c)(1)(i) to have contingent closure plans. The plan shall be submitted with the permit application, in accordance with Subsection R315-270-14(b)(13), and approved by the Director as part of the permit issuance procedures under Rule R315-124. In accordance with Section R315-270-32, the approved closure plan shall become a condition of any permit.

(2) Plans shall be consistent with Sections R315-264-111 through 115 and the applicable requirements of Sections R315-264-90 through 101, Sections R315-264-178, 197, 228, 258, 280, 310, 351, 601, and 1102. Until final closure is completed and certified in accordance with Section R315-264-115, a copy of the approved plan and all approved revisions shall be furnished to the Director upon request, including requests by mail.

(b) Content of plan. The plan shall identify steps necessary to perform partial and/or final closure of the facility at any point during its active life. The closure plan shall include, at least:

(1) A description of how each hazardous waste management unit at the facility will be closed in accordance with Section R315-264-111;

(2) A description of how final closure of the facility will be conducted in accordance with Section R315-264-111. The description shall identify the maximum extent of the operations which will be unclosed during the active life of the facility; and

(3) An estimate of the maximum inventory of hazardous wastes ever on-site over the active life of the facility and a detailed description of the methods to be used during partial closures and final closure, including, but not limited to, methods for removing, transporting, treating, storing, or disposing of all hazardous wastes, and identification of the type(s) of the off-site hazardous waste management units to be used, if applicable; and

(4) A detailed description of the steps needed to remove or decontaminate all hazardous waste residues and contaminated containment system components, equipment, structures, and soils during partial and final closure, including, but not limited to, procedures for cleaning equipment and removing contaminated soils, methods for sampling and testing surrounding soils, and criteria for determining the extent of decontamination required to satisfy the closure performance standard; and

(5) A detailed description of other activities necessary during the closure period to ensure that all partial closures and final closure satisfy the closure performance standards, including, but not limited to, ground-water monitoring, leachate collection, and run-on and run-off control; and

(6) A schedule for closure of each hazardous waste management unit and for final closure of the facility. The schedule shall include, at a minimum, the total time required to close each hazardous waste management unit and the time required for intervening closure activities which will allow tracking of the progress of partial and final closure. For example, in the case of a landfill unit, estimates of the time required to treat or dispose of all hazardous waste inventory and of the time required to place a final cover shall be included.

(7) For facilities that use trust funds to establish financial assurance under Section R315-264-143 or Section R315-264-145 and that are expected to close prior to the expiration of the permit, an estimate of the expected year of final closure.

(8) For facilities where the Director has applied alternative requirements at a regulated unit under Subsections R315-264-90(f), 264-110(c), and/or Subsection R315-264-140(d), either the alternative requirements applying to the regulated unit, or a reference to the enforceable document containing those alternative requirements.

(c) Amendment of plan. The owner or operator shall submit a written notification of or request for a permit modification to authorize a change in operating plans, facility design, or the approved closure plan in accordance with the applicable procedures in Rules R315-124 and 270. The written notification or request shall include a copy of the amended closure plan for review or approval by the Director.

(1) The owner or operator may submit a written notification or request to the Director for a permit modification to amend the closure plan at any time prior to the notification of partial or final closure of the facility.

(2) The owner or operator shall submit a written notification of or request for a permit modification to authorize a change in the approved closure plan whenever:

(i) Changes in operating plans or facility design affect the closure plan, or

(ii) There is a change in the expected year of closure, if applicable, or

(iii) In conducting partial or final closure activities, unexpected events require a modification of the approved closure plan.

(iv) The owner or operator requests the Director to apply alternative requirements to a regulated unit under Subsections R315-264-90(f), 264-110(c), and/or Subsection R315-264-140(d).

(3) The owner or operator shall submit a written request for a permit modification including a copy of the amended closure plan for approval at least 60 days prior to the proposed change in facility design or operation, or no later than 60 days after an unexpected event has occurred which has affected the closure plan. If an unexpected event occurs during the partial or final closure period, the owner or operator shall request a permit modification no later than 30 days after the unexpected event. An owner or operator of a surface impoundment or waste pile that intends to remove all hazardous waste at closure and is not otherwise required to prepare a contingent closure plan under Subsection R315-264-228(c)(1)(i) or Subsection R315-264-258(c)(1)(i), shall submit an amended closure plan to the Director no later than 60 days from the date that the owner or operator or Director determines that the hazardous waste management unit shall be closed as a landfill, subject to the requirements of Section R315-264-310, or no

later than 30 days from that date if the determination is made during partial or final closure. The Director shall approve, disapprove, or modify this amended plan in accordance with the procedures in Rules R315-124 and 270. In accordance with Section R315-270-32, the approved closure plan shall become a condition of any permit issued.

(4) The Director may request modifications to the plan under the conditions described in Subsection R315-264-112(c)(2). The owner or operator shall submit the modified plan within 60 days of the Director's request, or within 30 days if the change in facility conditions occurs during partial or final closure. Any modifications requested by the Director shall be approved in accordance with the procedures in Rules R315-124 and 270.

(d) Notification of partial closure and final closure.

(1) The owner or operator shall notify the Director in writing at least 60 days prior to the date on which he expects to begin closure of a surface impoundment, waste pile, land treatment or landfill unit, or final closure of a facility with such a unit. The owner or operator shall notify the Director in writing at least 45 days prior to the date on which he expects to begin final closure of a facility with only treatment or storage tanks, container storage, or incinerator units to be closed. The owner or operator shall notify the Director in writing at least 45 days prior to the date on which he expects to begin partial or final closure of a boiler or industrial furnace, whichever is earlier.

(2) The date when he “expects to begin closure” shall be either:

(i) No later than 30 days after the date on which any hazardous waste management unit receives the known final volume of hazardous wastes, or if there is a reasonable possibility that the hazardous waste management unit will receive additional hazardous wastes, no later than one year after the date on which the unit received the most recent volume of hazardous wastes. If the owner or operator of a hazardous waste management unit can demonstrate to the Director that the hazardous waste management unit or facility has the capacity to receive additional hazardous wastes and he has taken all steps to prevent threats to human health and the environment, including compliance with all applicable permit requirements, the Director may approve an extension to this one-year limit; or

(ii) For units meeting the requirements of Subsection R315-264-113(d), no later than 30 days after the date on which the hazardous waste management unit receives the known final volume of non-hazardous wastes, or if there is a reasonable possibility that the hazardous waste management unit will receive additional non-hazardous wastes, no later than one year after the date on which the unit received the most recent volume of non-hazardous wastes. If the owner or operator can demonstrate to the Director that the hazardous waste management unit has the capacity to receive additional non-hazardous wastes and he has taken, and will continue to take, all steps to prevent threats to human health and the environment, including compliance with all applicable permit requirements, the Director may approve an extension to this one-year limit.

(3) If the facility's permit is terminated, or if the facility is otherwise ordered, by judicial decree or final administrative order, to cease receiving hazardous wastes or to close, then the requirements of Subsection R315-264-112(d) do not apply. However, the owner or operator shall close the facility in accordance with the deadlines established in Section R315-264-113.

(e) Removal of wastes and decontamination or dismantling of equipment. Nothing in Section R315-264-112 shall preclude the owner or operator from removing hazardous wastes and decontaminating or dismantling equipment in accordance with the approved partial or final closure plan at any time before or after notification of partial or final closure.

R315-264-113. Closure; time allowed for closure.

(a) Within 90 days after receiving the final volume of hazardous wastes, or the final volume of non-hazardous wastes if the owner or operator complies with all applicable requirements in Subsections R315-264-113(d) and (e), at a hazardous waste management unit or facility, the owner or operator shall treat, remove from the unit or facility, or dispose of on-site, all hazardous wastes in accordance with the approved closure plan. The Director may approve a longer period if the owner or operator complies with all applicable requirements for requesting a modification to the permit and demonstrates that:

(1)(i) The activities required to comply with R315-264-113 will, of necessity, take longer than 90 days to complete; or

(ii)(A) The hazardous waste management unit or facility has the capacity to receive additional hazardous wastes, or has the capacity to receive non-hazardous wastes if the owner or operator complies with Subsections R315-264-113(d) and (e); and

(B) There is a reasonable likelihood that he or another person will recommence operation of the hazardous waste management unit or the facility within one year; and

(C) Closure of the hazardous waste management unit or facility would be incompatible with continued operation of the site; and

(2) He has taken and will continue to take all steps to prevent threats to human health and the environment, including compliance with all applicable permit requirements.

(b) The owner or operator shall complete partial and final closure activities in accordance with the approved closure plan and within 180 days after receiving the final volume of hazardous wastes, or the final volume of non-hazardous wastes if the owner or operator complies with all applicable requirements in Subsections R315-264-113(d) and (e), at the hazardous waste management unit or facility. The Director may approve an extension to the closure period if the owner or operator complies with all applicable requirements for requesting a modification to the permit and demonstrates that:

(1)(i) The partial or final closure activities will, of necessity, take longer than 180 days to complete; or

(ii)(A) The hazardous waste management unit or facility has the capacity to receive additional hazardous wastes, or has the capacity to receive non-hazardous wastes if the owner or operator complies with Subsections R315-264-113(d) and (e); and

(B) There is reasonable likelihood that he or another person will recommence operation of the hazardous waste management unit or the facility within one year; and

(C) Closure of the hazardous waste management unit or facility would be incompatible with continued operation of the site; and

(2) He has taken and will continue to take all steps to prevent threats to human health and the environment from the unclosed but not operating hazardous waste management unit or facility, including compliance with all applicable permit requirements.

(c) The demonstrations referred to in Subsections R315-264-113(a)(1) and (b)(1) shall be made as follows:

(1) The demonstrations in Subsection R315-264-113(a)(1) shall be made at least 30 days prior to the expiration of the 90-day period in Subsection R315-264-113(a); and

(2) The demonstration in Subsection R315-264-113(b)(1) shall be made at least 30 days prior to the expiration of the 180-day period in Subsection R315-264-113(b), unless the owner or operator is otherwise subject to the deadlines in Subsection R315-264-113(d).

(d) The Director may allow an owner or operator to receive only non-hazardous wastes in a landfill, land treatment, or surface impoundment unit after the final receipt of hazardous wastes at that unit if:

(1) The owner or operator requests a permit modification in compliance with all applicable requirements in Rules R315-270 and 124 and in the permit modification request demonstrates that:

(i) The unit has the existing design capacity as indicated on the part A application to receive non-hazardous wastes; and

(ii) There is a reasonable likelihood that the owner or operator or another person will receive non-hazardous wastes in the unit within one year after the final receipt of hazardous wastes; and

(iii) The non-hazardous wastes will not be incompatible with any remaining wastes in the unit, or with the facility design and operating requirements of the unit or facility under Rule R315-264; and

(iv) Closure of the hazardous waste management unit would be incompatible with continued operation of the unit or facility; and

(v) The owner or operator is operating and will continue to operate in compliance with all applicable permit requirements; and

(2) The request to modify the permit includes an amended waste analysis plan, ground-water monitoring and response program, human exposure assessment required under RCRA section 3019, and closure and post-closure plans, and updated cost estimates and demonstrations of financial assurance for closure and post-closure care as necessary and appropriate, to reflect any changes due to the presence of hazardous constituents in the non-hazardous wastes, and changes in closure activities, including the expected year

of closure if applicable under Subsection R315-264-112(b)(7), as a result of the receipt of non-hazardous wastes following the final receipt of hazardous wastes; and

(3) The request to modify the permit includes revisions, as necessary and appropriate, to affected conditions of the permit to account for the receipt of non-hazardous wastes following receipt of the final volume of hazardous wastes; and

(4) The request to modify the permit and the demonstrations referred to in Subsections R315-264-113(d)(1) and (d)(2) are submitted to the Director no later than 120 days prior to the date on which the owner or operator of the facility receives the known final volume of hazardous wastes at the unit, or no later than 90 days after the effective date of this rule in the state in which the unit is located, whichever is later.

(e) In addition to the requirements in Subsection R315-264-113(d), an owner or operator of a hazardous waste surface impoundment that is not in compliance with the liner and leachate collection system requirements in Subsection R315-264-221(c) or (d) shall:

(1) Submit with the request to modify the permit:

(i) A contingent corrective measures plan, unless a corrective action plan has already been submitted under Section R315-264-99; and

(ii) A plan for removing hazardous wastes in compliance with Subsection R315-264-113(e)(2); and

(2) Remove all hazardous wastes from the unit by removing all hazardous liquids, and removing all hazardous sludges to the extent practicable without impairing the integrity of the liner(s), if any.

(3) Removal of hazardous wastes shall be completed no later than 90 days after the final receipt of hazardous wastes. The Director may approve an extension to this deadline if the owner or operator demonstrates that the removal of hazardous wastes will, of necessity, take longer than the allotted period to complete and that an extension will not pose a threat to human health and the environment.

(4) If a release that is a statistically significant increase, or decrease in the case of pH, over background values for detection monitoring parameters or constituents specified in the permit or that exceeds the facility's ground-water protection standard at the point of compliance, if applicable, is detected in accordance with

the requirements in Sections R315-264-90 through 101, the owner or operator of the unit:

(i) Shall implement corrective measures in accordance with the approved contingent corrective measures plan required by Subsection R315-264-113(e)(1) no later than one year after detection of the release, or approval of the contingent corrective measures plan, whichever is later;

(ii) May continue to receive wastes at the unit following detection of the release only if the approved corrective measures plan includes a demonstration that continued receipt of wastes will not impede corrective action; and

(iii) May be required by the Director to implement corrective measures in less than one year or to cease the receipt of wastes until corrective measures have been implemented if necessary to protect human health and the environment.

(5) During the period of corrective action, the owner or operator shall provide annual reports to the Director describing the progress of the corrective action program, compile all ground-water monitoring data, and evaluate the effect of the continued receipt of non-hazardous wastes on the effectiveness of the corrective action.

(6) The Director may require the owner or operator to commence closure of the unit if the owner or operator fails to implement corrective action measures in accordance with the approved contingent corrective measures plan within one year as required in Subsection R315-264-113(e)(4), or fails to make substantial progress in implementing corrective action and achieving the facility's ground-water protection standard or background levels if the facility has not yet established a ground-water protection standard.

(7) If the owner or operator fails to implement corrective measures as required in Subsection R315-264-113(e)(4), or if the Director determines that substantial progress has not been made pursuant to Subsection R315-264-113(e)(6) he shall:

(i) Notify the owner or operator in writing that the owner or operator shall begin closure in accordance with the deadlines in Subsections R315-264-113(a) and (b) and provide a detailed statement of reasons for this determination, and

(ii) Provide the owner or operator and the public, through a newspaper notice, the opportunity to submit

written comments on the decision no later than 20 days after the date of the notice.

(iii) If the Director receives no written comments, the decision shall become final five days after the close of the comment period. The Director shall notify the owner or operator that the decision is final, and that a revised closure plan, if necessary, shall be submitted within 15 days of the final notice and that closure shall begin in accordance with the deadlines in Subsections R315-264-113 (a) and (b).

(iv) If the Director receives written comments on the decision, he shall make a final decision within 30 days after the end of the comment period, and provide the owner or operator in writing and the public through a newspaper notice, a detailed statement of reasons for the final decision. If the Director determines that substantial progress has not been made, closure shall be initiated in accordance with the deadlines in Subsections R315-264-113(a) and (b).

(v) The final determinations made by the Director under Subsections R315-264-113(e)(7) (iii) and (iv) are not subject to administrative appeal.

R315-264-114. Disposal or decontamination of equipment, structures and soils.

During the partial and final closure periods, all contaminated equipment, structures and soils shall be properly disposed of or decontaminated unless otherwise specified in Sections R315-264-197, 228, 258, 280 or 310. By removing any hazardous wastes or hazardous constituents during partial and final closure, the owner or operator may become a generator of hazardous waste and shall handle that waste in accordance with all applicable requirements of Rule R315-262.

R315-264-115. Certification of closure.

Within 60 days of completion of closure of each hazardous waste surface impoundment, waste pile, land treatment, and landfill unit, and within 60 days of the completion of final closure, the owner or operator shall submit to the Director, by registered mail, a certification that the hazardous waste management unit or facility, as applicable, has been closed in accordance with the specifications in the approved closure plan. The certification shall be signed by the owner or operator and by a qualified

Professional Engineer. Documentation supporting the Professional Engineer's certification shall be furnished to the Director upon request until he releases the owner or operator from the financial assurance requirements for closure under Subsection R315-264-143(i).

R315-264-116. Survey plat.

No later than the submission of the certification of closure of each hazardous waste disposal unit, the owner or operator shall submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the Director, a survey plat indicating the location and dimensions of landfill cells or other hazardous waste disposal units with respect to permanently surveyed benchmarks. This plat shall be prepared and certified by a professional land surveyor. The plat filed with the local zoning authority, or the authority with jurisdiction over local land use, shall contain a note, prominently displayed, which states the owner's or operator's obligation to restrict disturbance of the hazardous waste disposal unit in accordance with the applicable Sections of R315-264-110 through 120.

R315-264-117. Post-closure care and use of property.

(a)(1) Post-closure care for each hazardous waste management unit subject to the requirements of Sections R315-264-117 through 120 shall begin after completion of closure of the unit and continue for 30 years after that date and shall consist of at least the following:

(i) Monitoring and reporting in accordance with the requirements of Sections R315-264-90 through 101, 220 through 232, 250 through 254, 256 through 259, 270 through 283, 300 through 317, and 600 through 603; and

(ii) Maintenance and monitoring of waste containment systems in accordance with the requirements of Sections R315-264-90 through 101, 220 through 232, 250 through 254, 256 through 259, 270 through 283, 300 through 317, and 600 through 603.

(2) Any time preceding partial closure of a hazardous waste management unit subject to post-closure care requirements or final closure, or any time during the post-closure period for a particular unit, the Director may, in accordance with the permit modification procedures in Rules R315-124 and 270:

(i) Shorten the post-closure care period applicable to the hazardous waste management unit, or facility, if all disposal units have been closed, if he finds that the reduced period is sufficient to protect human health and the environment, e.g., leachate or ground-water monitoring results, characteristics of the hazardous wastes, application of advanced technology, or alternative disposal, treatment, or re-use techniques indicate that the hazardous waste management unit or facility is secure; or

(ii) Extend the post-closure care period applicable to the hazardous waste management unit or facility if he finds that the extended period is necessary to protect human health and the environment, e.g., leachate or ground-water monitoring results indicate a potential for migration of hazardous wastes at levels which may be harmful to human health and the environment.

(b) The Director may require, at partial and final closure, continuation of any of the security requirements of Section R315-264-14 during part or all of the post-closure period when:

(1) Hazardous wastes may remain exposed after completion of partial or final closure; or

(2) Access by the public or domestic livestock may pose a hazard to human health.

(c) Post-closure use of property on or in which hazardous wastes remain after partial or final closure shall never be allowed to disturb the integrity of the final cover, liner(s), or any other components of the containment system, or the function of the facility's monitoring systems, unless the Director finds that the disturbance:

(1) Is necessary to the proposed use of the property, and will not increase the potential hazard to human health or the environment; or

(2) Is necessary to reduce a threat to human health or the environment.

(d) All post-closure care activities shall be in accordance with the provisions of the approved post-closure plan as specified in Section R315-264-118.

R315-264-118. Post-closure plan; amendment of plan.

(a) Written Plan. The owner or operator of a hazardous waste disposal unit shall have a written post-closure plan. In addition, certain surface impoundments and waste piles from which the owner or operator intends to

remove or decontaminate the hazardous wastes at partial or final closure are required by Subsections R315-264-228(c)(1)(ii) and 264-258(c)(1)(ii) to have contingent post-closure plans. Owners or operators of surface impoundments and waste piles not otherwise required to prepare contingent post-closure plans under Subsections R315-264-228(c)(1)(ii) and 264-258(c)(1)(ii) shall submit a post-closure plan to the Director within 90 days from the date that the owner or operator or Director determines that the hazardous waste management unit shall be closed as a landfill, subject to the requirements of Sections R315-264-117 through 120. The plan shall be submitted with the permit application, in accordance with Subsection R315-270-14(b)(13), and approved by the Director as part of the permit issuance procedures under Rule R315-124. In accordance with Section R315-270-32, the approved post-closure plan shall become a condition of any RCRA permit issued.

(b) For each hazardous waste management unit subject to the requirements Section R315-264-118, the post-closure plan shall identify the activities that will be carried on after closure of each disposal unit and the frequency of these activities, and include at least:

(1) A description of the planned monitoring activities and frequencies at which they will be performed to comply with Sections R315-264-90 through 101, 220 through 232, 250 through 259, 270 through 283, 300 through 317, and 600 through 603 during the post-closure care period; and

(2) A description of the planned maintenance activities, and frequencies at which they will be performed, to ensure:

(i) The integrity of the cap and final cover or other containment systems in accordance with the requirements of Sections R315-264-90 through 101, 220 through 232, 250 through 259, 270 through 283, 300 through 317, and 600 through 603; and

(ii) The function of the monitoring equipment in accordance with the requirements of Sections R315-264-90 through 101, 220 through 232, 250 through 259, 270 through 283, 300 through 317, and 600 through 603; and

(3) The name, address, and phone number of the person or office to contact about the hazardous waste disposal unit or facility during the post-closure care period.

(4) For facilities where the Director has applied alternative requirements at a regulated unit under Subsections R315-264-90(f), 264-110(c), and/or 264-140(d), either the alternative requirements that apply to the regulated unit, or a reference to the enforceable document containing those requirements.

(c) Until final closure of the facility, a copy of the approved post-closure plan shall be furnished to the Director upon request, including request by mail. After final closure has been certified, the person or office specified in Subsection R315-264-118(b)(3) shall keep the approved post-closure plan during the remainder of the post-closure period.

(d) Amendment of plan. The owner or operator shall submit a written notification of or request for a permit modification to authorize a change in the approved post-closure plan in accordance with the applicable requirements in Rules R315-124 and 270. The written notification or request shall include a copy of the amended post-closure plan for review or approval by the Director.

(1) The owner or operator may submit a written notification or request to the Director for a permit modification to amend the post-closure plan at any time during the active life of the facility or during the post-closure care period.

(2) The owner or operator shall submit a written notification of or request for a permit modification to authorize a change in the approved post-closure plan whenever:

(i) Changes in operating plans or facility design affect the approved post-closure plan, or

(ii) There is a change in the expected year of final closure, if applicable, or

(iii) Events which occur during the active life of the facility, including partial and final closures, affect the approved post-closure plan.

(iv) The owner or operator requests the Director to apply alternative requirements to a regulated unit under Subsections R315-264-90(f), 264-110(c), and/or 264-140(d).

(3) The owner or operator shall submit a written request for a permit modification at least 60 days prior to the proposed change in facility design or operation, or no later than 60 days after an unexpected event has occurred which has affected the post-closure plan. An owner or operator of a surface impoundment or waste pile that

intends to remove all hazardous waste at closure and is not otherwise required to submit a contingent post-closure plan under Subsections R315-264-228(c)(1)(ii) 258(c)(1)(ii) shall submit a post-closure plan to the Director no later than 90 days after the date that the owner or operator or Director determines that the hazardous waste management unit shall be closed as a landfill, subject to the requirements of Section R315-264-310. The Director shall approve, disapprove or modify this plan in accordance with the procedures in Rules R315-124 and 270. In accordance with Section R315-270-32, the approved post-closure plan shall become a permit condition.

(4) The Director may request modifications to the plan under the conditions described in Subsection R315-264-118(d)(2). The owner or operator shall submit the modified plan no later than 60 days after the Director's request, or no later than 90 days if the unit is a surface impoundment or waste pile not previously required to prepare a contingent post-closure plan. Any modifications requested by the Director shall be approved, disapproved, or modified in accordance with the procedures in Rules R315-124 and 270.

R315-264-119. Post-closure notices.

(a) No later than 60 days after certification of closure of each hazardous waste disposal unit, the owner or operator shall submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the Director a record of the type, location, and quantity of hazardous wastes disposed of within each cell or other disposal unit of the facility. For hazardous wastes disposed of before January 12, 1981, the owner or operator shall identify the type, location, and quantity of the hazardous wastes to the best of his knowledge and in accordance with any records he has kept.

(b) Within 60 days of certification of closure of the first hazardous waste disposal unit and within 60 days of certification of closure of the last hazardous waste disposal unit, the owner or operator shall:

(1) Record, in accordance with State law, a notation on the deed to the facility property-or on some other instrument which is normally examined during title search-that will in perpetuity notify any potential purchaser of the property that:

(i) The land has been used to manage hazardous wastes; and

(ii) Its use is restricted under Sections R315-264-110 through 120; and

(iii) The survey plat and record of the type, location, and quantity of hazardous wastes disposed of within each cell or other hazardous waste disposal unit of the facility required by Section R315-264-116 and Subsection R315-264-119(a) have been filed with the local zoning authority or the authority with jurisdiction over local land use and with the Director; and

(2) Submit a certification, signed by the owner or operator, that he has recorded the notation specified in Subsection R315-264-119(b)(1), including a copy of the document in which the notation has been placed, to the Director.

(c) If the owner or operator or any subsequent owner or operator of the land upon which a hazardous waste disposal unit is located wishes to remove hazardous wastes and hazardous waste residues, the liner, if any, or contaminated soils, he shall request a modification to the post-closure permit in accordance with the applicable requirements in Rules R315-124 and 270. The owner or operator shall demonstrate that the removal of hazardous wastes will satisfy the criteria of Subsection R315-264-117(c). By removing hazardous waste, the owner or operator may become a generator of hazardous waste and shall manage it in accordance with all applicable requirements of Rules R315-260 through 266, 268, 270, and 273. If he is granted a permit modification or otherwise granted approval to conduct such removal activities, the owner or operator may request that the Director approve either:

(1) The removal of the notation on the deed to the facility property or other instrument normally examined during title search; or

(2) The addition of a notation to the deed or instrument indicating the removal of the hazardous waste.

R315-264-120. Certification of completion of post-closure care.

No later than 60 days after completion of the established post-closure care period for each hazardous waste disposal unit, the owner or operator shall submit to the Director, by registered mail, a certification that the post-closure care period for the hazardous waste disposal unit was

performed in accordance with the specifications in the approved post-closure plan. The certification shall be signed by the owner or operator and a qualified Professional Engineer. Documentation supporting the Professional Engineer's certification shall be furnished to the Director upon request until he releases the owner or operator from the financial assurance requirements for post-closure care under Subsection R315-264-145(i).

R315-264-140. Financial Requirements - Applicability.

(a) The requirements of Sections R315-264-142, 143, 147 through 151 apply to owners and operators of all hazardous waste facilities, except as provided otherwise in Section R315-264-140 or in Section R315-264-1.

(b) The requirements of Sections R315-264-144 and 145 apply only to owners and operators of:

(1) Disposal facilities;

(2) Piles, and surface impoundments from which the owner or operator intends to remove the wastes at closure, to the extent that these sections are made applicable to such facilities in Sections R315-264-228 and 258;

(3) Tank systems that are required under Section R315-264-197 to meet the requirements for landfills; and

(4) Containment buildings that are required under Section R315-264-1102 to meet the requirements for landfills.

(c) States and the Federal government are exempt from the requirements of Sections R315-264-140 through 151.

(d) The Director may replace all or part of the requirements of Sections R315-264-140 through 151 applying to a regulated unit with alternative requirements for financial assurance set out in the permit or in an enforceable document, as defined in Subsection R315-270-1(c)(7), where the Director:

(1) Prescribes alternative requirements for the regulated unit under Subsection R315-264-90(f) and/or Subsection R315-264-110(c); and

(2) Determines that it is not necessary to apply the requirements of Sections R315-264-140 through 151 because the alternative financial assurance requirements will protect human health and the environment.

R315-264-141. Definitions of terms as used in Sections R315-264-140 through 151.

(a) Closure plan means the plan for closure prepared in accordance with the requirements of Section R315-264-112.

(b) Current closure cost estimate means the most recent of the estimates prepared in accordance with Subsections R315-264-142(a), (b), and (c).

(c) Current post-closure cost estimate means the most recent of the estimates prepared in accordance with Subsection R315-264-144(a), (b), and (c).

(d) Parent corporation means a corporation which directly owns at least 50 percent of the voting stock of the corporation which is the facility owner or operator; the latter corporation is deemed a “subsidiary” of the parent corporation.

(e) Post-closure plan means the plan for post-closure care prepared in accordance with the requirements of Sections R315-264-117 through 120.

(f) The following terms are used in the specifications for the financial tests for closure, post-closure care, and liability coverage. The definitions are intended to assist in the understanding of these regulations and are not intended to limit the meanings of terms in a way that conflicts with generally accepted accounting practices.

Assets means all existing and all probable future economic benefits obtained or controlled by a particular entity. Current assets means cash or other assets or resources commonly identified as those which are reasonably expected to be realized in cash or sold or consumed during the normal operating cycle of the business.

Current liabilities means obligations whose liquidation is reasonably expected to require the use of existing resources properly classifiable as current assets or the creation of other current liabilities.

Current plugging and abandonment cost estimate means the most recent of the estimates prepared in accordance with 40 CFR 144.62(a), (b), and (c).

Independently audited refers to an audit performed by an independent certified public accountant in accordance with generally accepted auditing standards.

Liabilities means probable future sacrifices of economic benefits arising from present obligations to transfer assets or provide services to other entities in the future as a result of past transactions or events.

Net working capital means current assets minus current liabilities.

Net worth means total assets minus total liabilities and is equivalent to owner's equity.

Tangible net worth means the tangible assets that remain after deducting liabilities; such assets would not include intangibles such as goodwill and rights to patents or royalties.

(g) In the liability insurance requirements the terms bodily injury and property damage shall have the meanings given these terms by applicable State law. However, these terms do not include those liabilities which, consistent with standard industry practices, are excluded from coverage in liability policies for bodily injury and property damage. The Director intends the meanings of other terms used in the liability insurance requirements to be consistent with their common meanings within the insurance industry. The definitions given below of several of the terms are intended to assist in the understanding of these regulations and are not intended to limit their meanings in a way that conflicts with general insurance industry usage.

Accidental occurrence means an accident, including continuous or repeated exposure to conditions, which results in bodily injury or property damage neither expected nor intended from the standpoint of the insured.

Legal defense costs means any expenses that an insurer incurs in defending against claims of third parties brought under the terms and conditions of an insurance policy.

Nonsudden accidental occurrence means an occurrence which takes place over time and involves continuous or repeated exposure.

Sudden accidental occurrence means an occurrence which is not continuous or repeated in nature.

(h) Substantial business relationship means the extent of a business relationship necessary under applicable State law to make a guarantee contract issued incident to that relationship valid and enforceable. A "substantial business relationship" shall arise from a pattern of recent or ongoing business transactions, in addition to the guarantee itself, such that a currently existing business relationship between the guarantor and the owner or operator is demonstrated to the satisfaction of the Director.

R315-264-142. Cost estimate for closure.

(a) The owner or operator shall have a detailed written estimate, in current dollars, of the cost of closing the facility in accordance with the requirements in Sections R315-264-111 through 115 and applicable closure requirements in Sections R315-264-178, 197, 228, 258, 280, 310, 351, 601 through 603, and 1102.

(1) The estimate shall equal the cost of final closure at the point in the facility's active life when the extent and manner of its operation would make closure the most expensive, as indicated by its closure plan, see Subsection R315-264-112(b); and

(2) The closure cost estimate shall be based on the costs to the owner or operator of hiring a third party to close the facility. A third party is a party who is neither a parent nor a subsidiary of the owner or operator. See definition of parent corporation in Subsection R315-264-141(d). The owner or operator may use costs for on-site disposal if he can demonstrate that on-site disposal capacity will exist at all times over the life of the facility.

(3) The closure cost estimate may not incorporate any salvage value that may be realized with the sale of hazardous wastes, or non-hazardous wastes if applicable under Subsection R315-264-113(d), facility structures or equipment, land, or other assets associated with the facility at the time of partial or final closure.

(4) The owner or operator may not incorporate a zero cost for hazardous wastes, or non-hazardous wastes if applicable under Subsection R315-264-113(d), that might have economic value.

(b) During the active life of the facility, the owner or operator shall adjust the closure cost estimate for inflation within 60 days prior to the anniversary date of

the establishment of the financial instrument(s) used to comply with Section R315-264-143. For owners and operators using the financial test or corporate guarantee, the closure cost estimate shall be updated for inflation within 30 days after the close of the firm's fiscal year and before submission of updated information to the Director as specified in Subsection R315-264-143(f)(3). The adjustment may be made by recalculating the maximum costs of closure in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its Survey of Current Business, as specified in Subsections R315-264-142(b)(1) and (2). The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

(1) The first adjustment is made by multiplying the closure cost estimate by the inflation factor. The result is the adjusted closure cost estimate.

(2) Subsequent adjustments are made by multiplying the latest adjusted closure cost estimate by the latest inflation factor.

(c) During the active life of the facility, the owner or operator shall revise the closure cost estimate no later than 30 days after the Director has approved the request to modify the closure plan, if the change in the closure plan increases the cost of closure. The revised closure cost estimate shall be adjusted for inflation as specified in Subsection R315-264-142(b).

(d) The owner or operator shall keep the following at the facility during the operating life of the facility: The latest closure cost estimate prepared in accordance with Subsection R315-264-142(a) and (c) and, when this estimate has been adjusted in accordance with Subsection R315-264-142(b), the latest adjusted closure cost estimate

R315-264-143. Financial assurance for closure.

An owner or operator of each facility shall establish financial assurance for closure of the facility. He shall choose from the options as specified in Subsections R315-264-143(a) through (f).

(a) Closure trust fund.

(1) An owner or operator may satisfy the requirements of Section R315-264-143 by establishing a closure trust fund which conforms to the requirements of Subsection R315-264-143(a) and submitting an originally signed duplicate of

the trust agreement to the Director. An owner or operator of a new facility shall submit the originally signed duplicate of the trust agreement to the Director at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The trustee shall be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

(2) The wording of the trust agreement shall be identical to the wording specified in Subsection R315-264-151(a)(1), and the trust agreement shall be accompanied by a formal certification of acknowledgment, for example, see Subsection R315-264-151(a)(2). Schedule A of the trust agreement shall be updated within 60 days after a change in the amount of the current closure cost estimate covered by the agreement.

(3) Payments into the trust fund shall be made annually by the owner or operator over the term of the initial RCRA permit or over the remaining operating life of the facility as estimated in the closure plan, whichever period is shorter; this period is hereafter referred to as the “pay-in period.” The payments into the closure trust fund shall be made as follows:

(i) For a new facility, the first payment shall be made before the initial receipt of hazardous waste for treatment, storage, or disposal. A receipt from the trustee for this payment shall be submitted by the owner or operator to the Director before this initial receipt of hazardous waste. The first payment shall be at least equal to the current closure cost estimate, except as provided in Subsection R315-264-143(g), divided by the number of years in the pay-in period. Subsequent payments shall be made no later than 30 days after each anniversary date of the first payment. The amount of each subsequent payment shall be determined by this formula:

Next Payment= (CE-CV)/Y

where CE is the current closure cost estimate, CV is the current value of the trust fund, and Y is the number of years remaining in the pay-in period.

(ii) If an owner or operator establishes a trust fund as specified in 40 CFR 265.143(a), which is adopted by reference; and the value of that trust fund is less than the current closure cost estimate when a permit is awarded

for the facility, the amount of the current closure cost estimate still to be paid into the trust fund shall be paid in over the pay-in period as defined in Subsection R315-264-143(a)(3). Payments shall continue to be made no later than 30 days after each anniversary date of the first payment made pursuant to Rule R315-265. The amount of each payment shall be determined by this formula:

Next Payment= (CE-CV)/Y

where CE is the current closure cost estimate, CV is the current value of the trust fund, and Y is the number of years remaining in the pay-in period.

(4) The owner or operator may accelerate payments into the trust fund or he may deposit the full amount of the current closure cost estimate at the time the fund is established. However, he shall maintain the value of the fund at no less than the value that the fund would have if annual payments were made as specified in Subsection R315-264-143(a)(3).

(5) If the owner or operator establishes a closure trust fund after having used one or more alternate mechanisms specified in Section R315-264-143 or in 40 CFR 265.143, which is adopted by reference, his first payment shall be in at least the amount that the fund would contain if the trust fund were established initially and annual payments made according to specifications of Section R315-264-143 and 40 CFR 265.143(a), which is adopted by reference; as applicable.

(6) After the pay-in period is completed, whenever the current closure cost estimate changes, the owner or operator shall compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, shall either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current closure cost estimate, or obtain other financial assurance as specified in Section R315-264-143 to cover the difference.

(7) If the value of the trust fund is greater than the total amount of the current closure cost estimate, the owner or operator may submit a written request to the Director for release of the amount in excess of the current closure cost estimate.

(8) If an owner or operator substitutes other financial assurance as specified in Section R315-264-143 for all or part of the trust fund, he may submit a written request to the Director for release of the amount in excess of the current closure cost estimate covered by the trust fund.

(9) Within 60 days after receiving a request from the owner or operator for release of funds as specified in Subsection R315-264-143(a)(7) or (8), the Director shall instruct the trustee to release to the owner or operator such funds as the Director specifies in writing.

(10) After beginning partial or final closure, an owner or operator or another person authorized to conduct partial or final closure may request reimbursements for partial or final closure expenditures by submitting itemized bills to the Director. The owner or operator may request reimbursements for partial closure only if sufficient funds are remaining in the trust fund to cover the maximum costs of closing the facility over its remaining operating life. Within 60 days after receiving bills for partial or final closure activities, the Director shall instruct the trustee to make reimbursements in those amounts as the Director specifies in writing, if the Director determines that the partial or final closure expenditures are in accordance with the approved closure plan, or otherwise justified. If the Director has reason to believe that the maximum cost of closure over the remaining life of the facility will be significantly greater than the value of the trust fund, he may withhold reimbursements of such amounts as he deems prudent until he determines, in accordance with Subsection R315-264-143(i) that the owner or operator is no longer required to maintain financial assurance for final closure of the facility. If the Director does not instruct the trustee to make such reimbursements, he shall provide the owner or operator with a detailed written statement of reasons.

(11) The Director shall agree to termination of the trust when:

(i) An owner or operator substitutes alternate financial assurance as specified in Section R315-264-143; or

(ii) The Director releases the owner or operator from the requirements of Section R315-264-143 in accordance with Subsection R315-264-143(i).

(b) Surety bond guaranteeing payment into a closure trust fund.

(1) An owner or operator may satisfy the requirements of Section R315-264-143 by obtaining a surety bond which conforms to the requirements of Subsection R315-264-143(b) and submitting the bond to the Director. An owner or operator of a new facility shall submit the bond to the Director at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The bond shall be effective before this initial receipt of hazardous waste. The surety company issuing the bond shall, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

(2) The wording of the surety bond shall be identical to the wording specified in Subsection R315-264-151(b).

(3) The owner or operator who uses a surety bond to satisfy the requirements Section R315-264-143 shall also establish a standby trust fund. Under the terms of the bond, all payments made thereunder shall be deposited by the surety directly into the standby trust fund in accordance with instructions from the Director. This standby trust fund shall meet the requirements specified in Subsection R315-264-143(a), except that:

(i) An originally signed duplicate of the trust agreement shall be submitted to the Director with the surety bond; and

(ii) Until the standby trust fund is funded pursuant to the requirements of Section R315-264-143, the following are not required by these regulations:

(A) Payments into the trust fund as specified in Subsection R315-264-143(a);

(B) Updating of Schedule A of the trust agreement, see Subsection R315-264-151(a), to show current closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The bond shall guarantee that the owner or operator shall:

(i) Fund the standby trust fund in an amount equal to the penal sum of the bond before the beginning of final closure of the facility; or

(ii) Fund the standby trust fund in an amount equal to the penal sum within 15 days after an administrative order to begin final closure issued by the Director becomes final, or within 15 days after an order to begin final closure is issued by a U.S. district court or other court of competent jurisdiction; or

(iii) Provide alternate financial assurance as specified in Section R315-264-143, and obtain the Director's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Director of a notice of cancellation of the bond from the surety.

(5) Under the terms of the bond, the surety shall become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

(6) The penal sum of the bond shall be in an amount at least equal to the current closure cost estimate, except as provided in Subsection R315-264-143(g).

(7) Whenever the current closure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, shall either cause the penal sum to be increased to an amount at least equal to the current closure cost estimate and submit evidence of such increase to the Director, or obtain other financial assurance as specified in Section R315-264-143 to cover the increase. Whenever the current closure cost estimate decreases, the penal sum may be reduced to the amount of the current closure cost estimate following written approval by the Director.

(8) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Director. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Director, as evidenced by the return receipts.

(9) The owner or operator may cancel the bond if the Director has given prior written consent based on his receipt of evidence of alternate financial assurance as specified in Section R315-264-143.

(c) Surety bond guaranteeing performance of closure.

(1) An owner or operator may satisfy the requirements of Section R315-264-143 by obtaining a surety bond which conforms to the requirements of Subsection R315-264-143(c) and submitting the bond to the Director. An owner or

operator of a new facility shall submit the bond to the Director at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The bond shall be effective before this initial receipt of hazardous waste. The surety company issuing the bond shall, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

(2) The wording of the surety bond shall be identical to the wording specified in Subsection R315-264-151(c).

(3) The owner or operator who uses a surety bond to satisfy the requirements Section R315-264-143 shall also establish a standby trust fund. Under the terms of the bond, all payments made thereunder shall be deposited by the surety directly into the standby trust fund in accordance with instructions from the Director. This standby trust shall meet the requirements specified in Subsection R315-264-143(a), except that:

(i) An originally signed duplicate of the trust agreement shall be submitted to the Director with the surety bond; and

(ii) Unless the standby trust fund is funded pursuant to the requirements of Section R315-264-143, the following are not required by Section R315-264-143:

(A) Payments into the trust fund as specified in Subsection R315-264-143(a);

(B) Updating of Schedule A of the trust agreement, see Subsection R315-264-151(a), to show current closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The bond shall guarantee that the owner or operator shall:

(i) Perform final closure in accordance with the closure plan and other requirements of the permit for the facility whenever required to do so; or

(ii) Provide alternate financial assurance as specified in Section R315-264-143, and obtain the Director's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Director of a notice of cancellation of the bond from the surety.

(5) Under the terms of the bond, the surety shall become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond. Following a final administrative determination pursuant to section 3008 of RCRA that the owner or operator has failed to perform final closure in accordance with the approved closure plan and other permit requirements when required to do so, under the terms of the bond the surety shall perform final closure as guaranteed by the bond or shall deposit the amount of the penal sum into the standby trust fund.

(6) The penal sum of the bond shall be in an amount at least equal to the current closure cost estimate.

(7) Whenever the current closure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, shall either cause the penal sum to be increased to an amount at least equal to the current closure cost estimate and submit evidence of such increase to the Director, or obtain other financial assurance as specified in Section R315-264-143. Whenever the current closure cost estimate decreases, the penal sum may be reduced to the amount of the current closure cost estimate following written approval by the Director.

(8) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Director. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Director, as evidenced by the return receipts.

(9) The owner or operator may cancel the bond if the Director has given prior written consent. The Director shall provide such written consent when:

(i) An owner or operator substitutes alternate financial assurance as specified in Section R315-264-143; or

(ii) The Director releases the owner or operator from the requirements of Section R315-264-143 in accordance with Subsection R315-264-143(i).

(10) The surety shall not be liable for deficiencies in the performance of closure by the owner or operator after the Director releases the owner or operator from the requirements of Section R315-264-143 in accordance with Subsection R315-264-143(i).

(d) Closure letter of credit.

(1) An owner or operator may satisfy the requirements of Section R315-264-143 by obtaining an irrevocable standby letter of credit which conforms to the requirements of Subsection R315-264-143(d) and submitting the letter to the Director. An owner or operator of a new facility shall submit the letter of credit to the Director at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The letter of credit shall be effective before this initial receipt of hazardous waste. The issuing institution shall be an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a Federal or State agency.

(2) The wording of the letter of credit shall be identical to the wording specified in Subsection R315-264-151(d).

(3) An owner or operator who uses a letter of credit to satisfy the requirements of Section R315-264-143 shall also establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Director shall be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Director. This standby trust fund shall meet the requirements of the trust fund specified in Subsection R315-264-143(a), except that:

(i) An originally signed duplicate of the trust agreement shall be submitted to the Director with the letter of credit; and

(ii) Unless the standby trust fund is funded pursuant to the requirements of Section R315-264-143, the following are not required by Rule R315-264:

(A) Payments into the trust fund as specified in Subsection R315-264-143(a);

(B) Updating of Schedule A of the trust agreement, see Subsection R315-264-151(a), to show current closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The letter of credit shall be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the following information: the EPA Identification Number, name, and address of the facility, and the amount

of funds assured for closure of the facility by the letter of credit.

(5) The letter of credit shall be irrevocable and issued for a period of at least 1 year. The letter of credit shall provide that the expiration date shall be automatically extended for a period of at least 1 year unless, at least 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the Director by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days shall begin on the date when both the owner or operator and the Director have received the notice, as evidenced by the return receipts.

(6) The letter of credit shall be issued in an amount at least equal to the current closure cost estimate, except as provided in Subsection R315-264-143(g).

(7) Whenever the current closure cost estimate increases to an amount greater than the amount of the credit, the owner or operator, within 60 days after the increase, shall either cause the amount of the credit to be increased so that it at least equals the current closure cost estimate and submit evidence of such increase to the Director, or obtain other financial assurance as specified in Section R315-264-143 to cover the increase. Whenever the current closure cost estimate decreases, the amount of the credit may be reduced to the amount of the current closure cost estimate following written approval by the Director.

(8) Following a final administrative determination pursuant to section 3008 of RCRA that the owner or operator has failed to perform final closure in accordance with the closure plan and other permit requirements when required to do so, the Director may draw on the letter of credit.

(9) If the owner or operator does not establish alternate financial assurance as specified in Section R315-264-143 and obtain written approval of such alternate assurance from the Director within 90 days after receipt by both the owner or operator and the Director of a notice from issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the Director shall draw on the letter of credit. The Director may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any such extension the Director shall draw on the letter of credit if the owner or operator has failed to provide alternate financial assurance as specified in

Section R315-264-143 and obtain written approval of such assurance from the Director.

(10) The Director shall return the letter of credit to the issuing institution for termination when:

(i) An owner or operator substitutes alternate financial assurance as specified in Section R315-264-143; or

(ii) The Director releases the owner or operator from the requirements of Section R315-264-143 in accordance with Subsection R315-264-143(i).

(e) Closure insurance.

(1) An owner or operator may satisfy the requirements of Section R315-264-143 by obtaining closure insurance which conforms to the requirements of this Subsection R315-264-143(e) and submitting a certificate of such insurance to the Director. An owner or operator of a new facility shall submit the certificate of insurance to the Director at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The insurance shall be effective before this initial receipt of hazardous waste. At a minimum, the insurer shall be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(2) The wording of the certificate of insurance shall be identical to the wording specified in Subsection R315-264-151(e).

(3) The closure insurance policy shall be issued for a face amount at least equal to the current closure cost estimate, except as provided in Subsection R315-264-143(g). The term “face amount” means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer shall not change the face amount, although the insurer's future liability shall be lowered by the amount of the payments.

(4) The closure insurance policy shall guarantee that funds shall be available to close the facility whenever final closure occurs. The policy shall also guarantee that once final closure begins, the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the Director, to such party or parties as the Director specifies.

(5) After beginning partial or final closure, an owner or operator or any other person authorized to conduct closure may request reimbursements for closure expenditures

by submitting itemized bills to the Director. The owner or operator may request reimbursements for partial closure only if the remaining value of the policy is sufficient to cover the maximum costs of closing the facility over its remaining operating life. Within 60 days after receiving bills for closure activities, the Director shall instruct the insurer to make reimbursements in such amounts as the Director specifies in writing, if the Director determines that the partial or final closure expenditures are in accordance with the approved closure plan or otherwise justified. If the Director has reason to believe that the maximum cost of closure over the remaining life of the facility will be significantly greater than the face amount of the policy, he may withhold reimbursements of such amounts as he deems prudent until he determines, in accordance with Subsection R315-264-143(i), that the owner or operator is no longer required to maintain financial assurance for final closure of the facility. If the Director does not instruct the insurer to make such reimbursements, he shall provide the owner or operator with a detailed written statement of reasons.

(6) The owner or operator shall maintain the policy in full force and effect until the Director consents to termination of the policy by the owner or operator as specified in Subsection R315-264-143(e)(10). Failure to pay the premium, without substitution of alternate financial assurance as specified in Section R315-264-143, shall constitute a significant violation of these regulations, warranting such remedy as the Director deems necessary. Such violation shall be deemed to begin upon receipt by the Director of a notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.

(7) Each policy shall contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.

(8) The policy shall provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy shall, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice by certified mail to the owner

or operator and the Director. Cancellation, termination, or failure to renew may not occur, however, during the 120 days beginning with the date of receipt of the notice by both the Director and the owner or operator, as evidenced by the return receipts. Cancellation, termination, or failure to renew may not occur and the policy shall remain in full force and effect in the event that on or before the date of expiration:

(i) The Director deems the facility abandoned; or

(ii) The permit is terminated or revoked or a new permit is denied; or

(iii) Closure is ordered by the Director or a U.S. district court or other court of competent jurisdiction; or

(iv) The owner or operator is named as debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; or

(v) The premium due is paid.

(9) Whenever the current closure cost estimate increases to an amount greater than the face amount of the policy, the owner or operator, within 60 days after the increase, shall either cause the face amount to be increased to an amount at least equal to the current closure cost estimate and submit evidence of such increase to the Director, or obtain other financial assurance as specified in Section R315-264-143 to cover the increase. Whenever the current closure cost estimate decreases, the face amount may be reduced to the amount of the current closure cost estimate following written approval by the Director.

(10) The Director shall give written consent to the owner or operator that he may terminate the insurance policy when:

(i) An owner or operator substitutes alternate financial assurance as specified in Section R315-264-143; or

(ii) The Director releases the owner or operator from the requirements of Section R315-264-143 in accordance with Subsection R315-264-143(i).

(f) Financial test and corporate guarantee for closure.

(1) An owner or operator may satisfy the requirements of Section R315-264-143 by demonstrating that he passes a financial test as specified in Subsection R315-264-143(f). To pass this test the owner or operator shall meet the

criteria of either Subsections R315-264-143(f)(1)(i) or (ii):

(i) The owner or operator shall have:

(A) Two of the following three ratios: a ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and

(B) Net working capital and tangible net worth each at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates; and

(C) Tangible net worth of at least $10 million; and

(D) Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.

(ii) The owner or operator shall have:

(A) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's; and

(B) Tangible net worth at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates; and

(C) Tangible net worth of at least $10 million; and

(D) Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.

(2) The phrase “current closure and post-closure cost estimates” as used in Subsection R315-264-143(f)(1) refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer, Subsection R315-264-151(f). The phrase “current plugging and abandonment cost estimates” as used in Subsection R315-264-143(f)(1) refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer, 40 CFR 144.70(f).

(3) To demonstrate that he meets this test, the owner or operator shall submit the following items to the Director:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in Subsection R315-264-151(f); and

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and

(iii) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

(A) He has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

(B) In connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

(4) An owner or operator of a new facility shall submit the items specified in Subsection R315-264-143(f)(3) to the Director at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal.

(5) After the initial submission of items specified in Subsection R315-264-143(f)(3), the owner or operator shall send updated information to the Director within 90 days after the close of each succeeding fiscal year. This information shall consist of all three items specified in Subsection R315-264-143(f)(3).

(6) If the owner or operator no longer meets the requirements of Subsection R315-264-143(f)(1), he shall send notice to the Director of intent to establish alternate financial assurance as specified in Section R315-264-143. The notice shall be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements. The owner or operator shall provide the alternate financial assurance within 120 days after the end of such fiscal year.

(7) The Director may, based on a reasonable belief that the owner or operator may no longer meet the requirements of Subsection R315-264-143(f)(1), require reports of financial condition at any time from the owner or operator in addition to those specified in Subsection R315-264-143(f)(3). If the Director finds, on the basis of

such reports or other information, that the owner or operator no longer meets the requirements of Subsection R315-264-143(f)(1), the owner or operator shall provide alternate financial assurance as specified in Section R315-264-143 within 30 days after notification of such a finding.

(8) The Director may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements, see Subsection R315-264-143(f)(3)(ii). An adverse opinion or a disclaimer of opinion shall be cause for disallowance. The Director shall evaluate other qualifications on an individual basis. The owner or operator shall provide alternate financial assurance as specified in Section R315-264-143 within 30 days after notification of the disallowance.

(9) The owner or operator is no longer required to submit the items specified in Subsection R315-264-143(f)(3) when:

(i) An owner or operator substitutes alternate financial assurance as specified in Section R315-264-143; or

(ii) The Director releases the owner or operator from the requirements of Section R315-264-143 in accordance with Subsection R315-264-143(i).

(10) An owner or operator may meet the requirements of Section R315-264-143 by obtaining a written guarantee. The guarantor shall be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a “substantial business relationship” with the owner or operator. The guarantor shall meet the requirements for owners or operators in Subsection R315-264-143(f)(1) through (8) and shall comply with the terms of the guarantee. The wording of the guarantee shall be identical to the wording specified in Subsection R315-264-151(h). The certified copy of the guarantee shall accompany the items sent to the Director as specified in Subsection R315-264-143(f)(3). One of these items shall be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, the letter shall describe the value received in consideration of the guarantee. If the guarantor is a firm with a

“substantial business relationship” with the owner or operator, this letter shall describe this “substantial business relationship” and the value received in consideration of the guarantee. The terms of the guarantee shall provide that:

(i) If the owner or operator fails to perform final closure of a facility covered by the corporate guarantee in accordance with the closure plan and other permit requirements whenever required to do so, the guarantor shall do so or establish a trust fund as specified in Subsection R315-264-143(a) in the name of the owner or operator.

(ii) The corporate guarantee shall remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the Director. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Director, as evidenced by the return receipts.

(iii) If the owner or operator fails to provide alternate financial assurance as specified in Section R315-264-143 and obtain the written approval of such alternate assurance from the Director within 90 days after receipt by both the owner or operator and the Director of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor shall provide such alternative financial assurance in the name of the owner or operator.

(g) Use of multiple financial mechanisms. An owner or operator may satisfy the requirements of Section R315-264-143 by establishing more than one financial mechanism per facility. These mechanisms are limited to trust funds, surety bonds guaranteeing payment into a trust fund, letters of credit, and insurance. The mechanisms shall be as specified in Subsections R315-264-143(a), (b), (d), and (e), respectively, except that it is the combination of mechanisms, rather than the single mechanism, which shall provide financial assurance for an amount at least equal to the current closure cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, he may use the trust fund as the standby trust fund for the other mechanisms. A single standby trust fund may be established for two or more mechanisms. The Director may use any or all of the mechanisms to provide for closure of the facility.

(h) Use of a financial mechanism for multiple facilities. An owner or operator may use a financial assurance mechanism specified in Section R315-264-143 to meet the requirements of Section R315-264-143 for more than one facility. Evidence of financial assurance submitted to the Director shall include a list showing, for each facility, the EPA Identification Number, name, address, and the amount of funds for closure assured by the mechanism. If the facilities covered by the mechanism are in more than one State, identical evidence of financial assurance shall be submitted to and maintained with the State Agency regulating hazardous waste in states other than Utah or with the appropriate Regional Administrator if the facility is located in an unauthorized State. The amount of funds available through the mechanism shall be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. In directing funds available through the mechanism for closure of any of the facilities covered by the mechanism, the Director may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

(i) Release of the owner or operator from the requirements of Section R315-264-143. Within 60 days after receiving certifications from the owner or operator and a qualified Professional Engineer that final closure has been completed in accordance with the approved closure plan, the Director shall notify the owner or operator in writing that he is no longer required by Section R315-264-143 to maintain financial assurance for final closure of the facility, unless the Director has reason to believe that final closure has not been in accordance with the approved closure plan. The Director shall provide the owner or operator a detailed written statement of any such reason to believe that closure has not been in accordance with the approved closure plan.

R315-264-144. Cost estimate for post-closure care.

(a) The owner or operator of a disposal surface impoundment, disposal miscellaneous unit, land treatment unit, or landfill unit, or of a surface impoundment or waste pile required under Sections R315-264-228 and 258 to prepare a contingent closure and post-closure plan, shall have a detailed written estimate, in current dollars, of

the annual cost of post-closure monitoring and maintenance of the facility in accordance with the applicable post-closure regulations in Sections R315-264-117 through 120, 228, 258, 280, 310, and 603.

(1) The post-closure cost estimate shall be based on the costs to the owner or operator of hiring a third party to conduct post-closure care activities. A third party is a party who is neither a parent nor a subsidiary of the owner or operator. See definition of parent corporation in Subsection R315-264-141(d).

(2) The post-closure cost estimate is calculated by multiplying the annual post-closure cost estimate by the number of years of post-closure care required under Section R315-264-117.

(b) During the active life of the facility, the owner or operator shall adjust the post-closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with Section R315-264-145. For owners or operators using the financial test or corporate guarantee, the post-closure cost estimate shall be updated for inflation within 30 days after the close of the firm's fiscal year and before the submission of updated information to the Director as specified in Subsection R315-264-145(f)(5). The adjustment may be made by recalculating the post-closure cost estimate in current dollars or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its Survey of Current Business as specified in Subsections R315-264-145(b)(1) and (2). The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

(1) The first adjustment is made by multiplying the post-closure cost estimate by the inflation factor. The result is the adjusted post-closure cost estimate.

(2) Subsequent adjustments are made by multiplying the latest adjusted post-closure cost estimate by the latest inflation factor.

(c) During the active life of the facility, the owner or operator shall revise the post-closure cost estimate within 30 days after the Director has approved the request to modify the post-closure plan, if the change in the post-closure plan increases the cost of post-closure care. The revised post-closure cost estimate shall be adjusted for inflation as specified in Subsection R315-264-144(b).

(d) The owner or operator shall keep the following at the facility during the operating life of the facility: The latest post-closure cost estimate prepared in accordance with Subsection R315-264-144(a) and (c) and, when this estimate has been adjusted in accordance with Subsection R315-264-144(b), the latest adjusted post-closure cost estimate.

R315-264-145. Financial assurance for post-closure care. The owner or operator of a hazardous waste management unit subject to the requirements of Section R315-264-144 shall establish financial assurance for post-closure care in accordance with the approved post-closure plan for the facility 60 days prior to the initial receipt of hazardous waste or the effective date of the regulation, whichever is later. He shall choose from the following options:

(a) Post-closure trust fund.

(1) An owner or operator may satisfy the requirements of Section R315-264-144 by establishing a post-closure trust fund which conforms to the requirements of Subsection R315-264-145(a) and submitting an originally signed duplicate of the trust agreement to the Director. An owner or operator of a new facility shall submit the originally signed duplicate of the trust agreement to the Director at least 60 days before the date on which hazardous waste is first received for disposal. The trustee shall be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

(2) The wording of the trust agreement shall be identical to the wording specified in Subsection R315-264-151(a)(1), and the trust agreement shall be accompanied by a formal certification of acknowledgment, for example, see Subsection R315-264-151(a)(2). Schedule A of the trust agreement shall be updated within 60 days after a change in the amount of the current post-closure cost estimate covered by the agreement.

(3) Payments into the trust fund shall be made annually by the owner or operator over the term of the initial RCRA permit or over the remaining operating life of the facility as estimated in the closure plan, whichever period is shorter; this period is hereafter referred to as the “pay-in period.” The payments into the post-closure trust fund shall be made as follows:

(i) For a new facility, the first payment shall be made before the initial receipt of hazardous waste for disposal. A receipt from the trustee for this payment shall be submitted by the owner or operator to the Director before this initial receipt of hazardous waste. The first payment shall be at least equal to the current post-closure cost estimate, except as provided in Subsection R315-264-145(g), divided by the number of years in the pay-in period. Subsequent payments shall be made no later than 30 days after each anniversary date of the first payment. The amount of each subsequent payment shall be determined by this formula:

Next payment=(CE-CV)/Y

where CE is the current post-closure cost estimate, CV is the current value of the trust fund, and Y is the number of years remaining in the pay-in period.

(ii) If an owner or operator establishes a trust fund as specified in 40 CFR 265.145(a); which is adopted by reference, and the value of that trust fund is less than the current post-closure cost estimate when a permit is awarded for the facility, the amount of the current post-closure cost estimate still to be paid into the fund shall be paid in over the pay-in period as defined in Subsection R315-264-145(a)(3). Payments shall continue to be made no later than 30 days after each anniversary date of the first payment made pursuant to R315-265. The amount of each payment shall be determined by this formula:

Next payment=(CE-CV)/Y

where CE is the current post-closure cost estimate, CV is the current value of the trust fund, and Y is the number of years remaining in the pay-in period.

(4) The owner or operator may accelerate payments into the trust fund or he may deposit the full amount of the current post-closure cost estimate at the time the fund is established. However, he shall maintain the value of the fund at no less than the value that the fund would have if annual payments were made as specified in Subsection R315-264-145(a)(3).

(5) If the owner or operator establishes a post-closure trust fund after having used one or more alternate mechanisms specified in Section R315-264-145 or in 40 CFR

265.145, which is adopted by reference; his first payment shall be in at least the amount that the fund would contain if the trust fund were established initially and annual payments made according to specifications of Subsection R315-264-145(a) and 40 CFR 265.145(a), which is adopted by reference; as applicable.

(6) After the pay-in period is completed, whenever the current post-closure cost estimate changes during the operating life of the facility, the owner or operator shall compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, shall either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current post-closure cost estimate, or obtain other financial assurance as specified in Section R315-264-145 to cover the difference.

(7) During the operating life of the facility, if the value of the trust fund is greater than the total amount of the current post-closure cost estimate, the owner or operator may submit a written request to the Director for release of the amount in excess of the current post-closure cost estimate.

(8) If an owner or operator substitutes other financial assurance as specified in Section R315-264-145 for all or part of the trust fund, he may submit a written request to the Director for release of the amount in excess of the current post-closure cost estimate covered by the trust fund.

(9) Within 60 days after receiving a request from the owner or operator for release of funds as specified in Subsection R315-264-145(a)(7) or (8), the Director shall instruct the trustee to release to the owner or operator such funds as the Director specifies in writing.

(10) During the period of post-closure care, the Director may approve a release of funds if the owner or operator demonstrates to the Director that the value of the trust fund exceeds the remaining cost of post-closure care.

(11) An owner or operator or any other person authorized to conduct post-closure care may request reimbursements for post-closure care expenditures by submitting itemized bills to the Director. Within 60 days after receiving bills for post-closure care activities, the Director shall instruct the trustee to make reimbursements

in those amounts as the Director specifies in writing, if the Director determines that the post-closure care expenditures are in accordance with the approved post-closure plan or otherwise justified. If the Director does not instruct the trustee to make such reimbursements, he shall provide the owner or operator with a detailed written statement of reasons.

(12) The Director shall agree to termination of the trust when:

(i) An owner or operator substitutes alternate financial assurance as specified in Section R315-264-145; or

(ii) The Director releases the owner or operator from the requirements of Section R315-264-145 in accordance with Subsection R315-264-145(i).

(b) Surety bond guaranteeing payment into a post-closure trust fund.

(1) An owner or operator may satisfy the requirements of Section R315-264-145 by obtaining a surety bond which conforms to the requirements of Subsection R315-264-145(b) and submitting the bond to the Director. An owner or operator of a new facility shall submit the bond to the Director at least 60 days before the date on which hazardous waste is first received for disposal. The bond shall be effective before this initial receipt of hazardous waste. The surety company issuing the bond shall, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

(2) The wording of the surety bond shall be identical to the wording specified in Subsection R315-264-151(b).

(3) The owner or operator who uses a surety bond to satisfy the requirements Section R315-264-145 shall also establish a standby trust fund. Under the terms of the bond, all payments made thereunder shall be deposited by the surety directly into the standby trust fund in accordance with instructions from the Director. This standby trust fund shall meet the requirements specified in Subsection R315-264-145(a), except that:

(i) An originally signed duplicate of the trust agreement shall be submitted to the Director with the surety bond; and

(ii) Until the standby trust fund is funded pursuant to the requirements Section R315-264-145, the following are not required by these regulations:

(A) Payments into the trust fund as specified in Subsection R315-264-145(a);

(B) Updating of Schedule A of the trust agreement, see Subsection R315-264-151(a), to show current post-closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The bond shall guarantee that the owner or operator shall:

(i) Fund the standby trust fund in an amount equal to the penal sum of the bond before the beginning of final closure of the facility; or

(ii) Fund the standby trust fund in an amount equal to the penal sum within 15 days after an administrative order to begin final closure issued by the Director becomes final, or within 15 days after an order to begin final closure is issued by a U.S. district court or other court of competent jurisdiction; or

(iii) Provide alternate financial assurance as specified in Section R315-264-145, and obtain the Director's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Director of a notice of cancellation of the bond from the surety.

(5) Under the terms of the bond, the surety shall become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

(6) The penal sum of the bond shall be in an amount at least equal to the current post-closure cost estimate, except as provided in Subsection R315-264-145(g).

(7) Whenever the current post-closure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, shall either cause the penal sum to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Director, or obtain other financial assurance as specified in Section R315-264-145 to cover the increase. Whenever the current post-closure cost estimate decreases, the penal sum may be reduced to the amount of the current post-closure cost estimate following written approval by the Director.

(8) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by

certified mail to the owner or operator and to the Director. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Director, as evidenced by the return receipts.

(9) The owner or operator may cancel the bond if the Director has given prior written consent based on his receipt of evidence of alternate financial assurance as specified in Section R315-264-145.

(c) Surety bond guaranteeing performance of post-closure care.

(1) An owner or operator may satisfy the requirements of Section R315-264-145 by obtaining a surety bond which conforms to the requirements of Subsection R315-264-145(c) and submitting the bond to the Director. An owner or operator of a new facility shall submit the bond to the Director at least 60 days before the date on which hazardous waste is first received for disposal. The bond shall be effective before this initial receipt of hazardous waste. The surety company issuing the bond shall, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

(2) The wording of the surety bond shall be identical to the wording specified in Subsection R315-264-151(c).

(3) The owner or operator who uses a surety bond to satisfy the requirements of Section R315-264-145 shall also establish a standby trust fund. Under the terms of the bond, all payments made thereunder shall be deposited by the surety directly into the standby trust fund in accordance with instructions from the Director. This standby trust fund shall meet the requirements specified in Subsection R315-264-145(a), except that:

(i) An originally signed duplicate of the trust agreement shall be submitted to the Director with the surety bond; and

(ii) Unless the standby trust fund is funded pursuant to the requirements of Section R315-264-145, the following are not required by these regulations:

(A) Payments into the trust fund as specified in Subsection R315-264-145(a);

(B) Updating of Schedule A of the trust agreement, see Subsection R315-264-151(a), to show current post-closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The bond shall guarantee that the owner or operator shall:

(i) Perform post-closure care in accordance with the post-closure plan and other requirements of the permit for the facility; or

(ii) Provide alternate financial assurance as specified in Section R315-264-145, and obtain the Director's written approval of the assurance provided, within 90 days of receipt by both the owner or operator and the Director of a notice of cancellation of the bond from the surety.

(5) Under the terms of the bond, the surety shall become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond. Following a final administrative determination pursuant to section 3008 of RCRA that the owner or operator has failed to perform post-closure care in accordance with the approved post-closure plan and other permit requirements, under the terms of the bond the surety shall perform post-closure care in accordance with the post-closure plan and other permit requirements or shall deposit the amount of the penal sum into the standby trust fund.

(6) The penal sum of the bond shall be in an amount at least equal to the current post-closure cost estimate.

(7) Whenever the current post-closure cost estimate increases to an amount greater than the penal sum during the operating life of the facility, the owner or operator, within 60 days after the increase, shall either cause the penal sum to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Director, or obtain other financial assurance as specified in Section R315-264-145. Whenever the current post-closure cost estimate decreases during the operating life of the facility, the penal sum may be reduced to the amount of the current post-closure cost estimate following written approval by the Director.

(8) During the period of post-closure care, the Director may approve a decrease in the penal sum if the owner or operator demonstrates to the Director that the amount exceeds the remaining cost of post-closure care.

(9) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Director. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Director, as evidenced by the return receipts.

(10) The owner or operator may cancel the bond if the Director has given prior written consent. The Director shall provide such written consent when:

(i) An owner or operator substitutes alternate financial assurance as specified in Section R315-264-145; or

(ii) The Director releases the owner or operator from the requirements of Section R315-264-145 in accordance with Subsection R315-264-145(i).

(11) The surety shall not be liable for deficiencies in the performance of post-closure care by the owner or operator after the Director releases the owner or operator from the requirements of Section R315-264-145 in accordance with Subsection R315-264-145(i).

(d) Post-closure letter of credit.

(1) An owner or operator may satisfy the requirements of Section R315-264-145 by obtaining an irrevocable standby letter of credit which conforms to the requirements of Subsection R315-264-145(d) and submitting the letter to the Director. An owner or operator of a new facility shall submit the letter of credit to the Director at least 60 days before the date on which hazardous waste is first received for disposal. The letter of credit shall be effective before this initial receipt of hazardous waste. The issuing institution shall be an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a Federal or State agency.

(2) The wording of the letter of credit shall be identical to the wording specified in Subsection R315-264-151(d).

(3) An owner or operator who uses a letter of credit to satisfy the requirements of Section R315-264-145 shall also establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Director shall be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Director. This standby trust fund

shall meet the requirements of the trust fund specified in Subsection R315-264-145(a), except that:

(i) An originally signed duplicate of the trust agreement shall be submitted to the Director with the letter of credit; and

(ii) Unless the standby trust fund is funded pursuant to the requirements of Section R315-264-145, the following are not required by these regulations:

(A) Payments into the trust fund as specified in Subsection R315-264-145(a);

(B) Updating of Schedule A of the trust agreement, see Subsection R315-264-151(a), to show current post-closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The letter of credit shall be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the following information: the EPA Identification Number, name, and address of the facility, and the amount of funds assured for post-closure care of the facility by the letter of credit.

(5) The letter of credit shall be irrevocable and issued for a period of at least 1 year. The letter of credit shall provide that the expiration date shall be automatically extended for a period of at least 1 year unless, at least 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the Director by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days shall begin on the date when both the owner or operator and the Director have received the notice, as evidenced by the return receipts.

(6) The letter of credit shall be issued in an amount at least equal to the current post-closure cost estimate, except as provided in Subsection R315-264-145(g).

(7) Whenever the current post-closure cost estimate increases to an amount greater than the amount of the credit during the operating life of the facility, the owner or operator, within 60 days after the increase, shall either cause the amount of the credit to be increased so that it at least equals the current post-closure cost estimate and submit evidence of such increase to the

Director, or obtain other financial assurance as specified in Section R315-264-145 to cover the increase. Whenever the current post-closure cost estimate decreases during the operating life of the facility, the amount of the credit may be reduced to the amount of the current post-closure cost estimate following written approval by the Director.

(8) During the period of post-closure care, the Director may approve a decrease in the amount of the letter of credit if the owner or operator demonstrates to the Director that the amount exceeds the remaining cost of post-closure care.

(9) Following a final administrative determination pursuant to section 3008 of RCRA that the owner or operator has failed to perform post-closure care in accordance with the approved post-closure plan and other permit requirements, the Director may draw on the letter of credit.

(10) If the owner or operator does not establish alternate financial assurance as specified in Section R315-264-145 and obtain written approval of such alternate assurance from the Director within 90 days after receipt by both the owner or operator and the Director of a notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the Director shall draw on the letter of credit. The Director may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any such extension the Director shall draw on the letter of credit if the owner or operator has failed to provide alternate financial assurance as specified in Section R315-264-145 and obtain written approval of such assurance from the Director.

(11) The Director shall return the letter of credit to the issuing institution for termination when:

(i) An owner or operator substitutes alternate financial assurance as specified in Section R315-264-145; or

(ii) The Director releases the owner or operator from the requirements of Section R315-264-145 in accordance with Subsection R315-264-145(i).

(e) Post-closure insurance.

(1) An owner or operator may satisfy the requirements of Section R315-264-145 by obtaining post-closure insurance which conforms to the requirements of Subsection R315-264-145(e) and submitting a certificate of such insurance to

the Director. An owner or operator of a new facility shall submit the certificate of insurance to the Director at least 60 days before the date on which hazardous waste is first received for disposal. The insurance shall be effective before this initial receipt of hazardous waste. At a minimum, the insurer shall be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(2) The wording of the certificate of insurance shall be identical to the wording specified in Subsection R315-264-151(e).

(3) The post-closure insurance policy shall be issued for a face amount at least equal to the current post-closure cost estimate, except as provided in Subsection R315-264-145(g). The term “face amount” means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer shall not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.

(4) The post-closure insurance policy shall guarantee that funds will be available to provide post-closure care of the facility whenever the post-closure period begins. The policy shall also guarantee that once post-closure care begins, the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the Director, to such party or parties as the Director specifies.

(5) An owner or operator or any other person authorized to conduct post-closure care may request reimbursements for post-closure care expenditures by submitting itemized bills to the Director. Within 60 days after receiving bills for post-closure care activities, the Director shall instruct the insurer to make reimbursements in those amounts as the Director specifies in writing, if the Director determines that the post-closure care expenditures are in accordance with the approved post-closure plan or otherwise justified. If the Director does not instruct the insurer to make such reimbursements, he shall provide the owner or operator with a detailed written statement of reasons.

(6) The owner or operator shall maintain the policy in full force and effect until the Director consents to termination of the policy by the owner or operator as specified in Subsection R315-264-145(e)(11). Failure to pay the premium, without substitution of alternate financial

assurance as specified in Section R315-264-145, shall constitute a significant violation of these regulations, warranting such remedy as the Director deems necessary. Such violation shall be deemed to begin upon receipt by the Director of a notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.

(7) Each policy shall contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.

(8) The policy shall provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy shall, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice by certified mail to the owner or operator and the Director. Cancellation, termination, or failure to renew may not occur, however, during the 120 days beginning with the date of receipt of the notice by both the Director and the owner or operator, as evidenced by the return receipts. Cancellation, termination, or failure to renew may not occur and the policy shall remain in full force and effect in the event that on or before the date of expiration:

(i) The Director deems the facility abandoned; or

(ii) The permit is terminated or revoked or a new permit is denied; or

(iii) Closure is ordered by the Director or a U.S. district court or other court of competent jurisdiction; or

(iv) The owner or operator is named as debtor in a voluntary or involuntary proceeding under Title 11, Bankruptcy, U.S. Code; or

(v) The premium due is paid.

(9) Whenever the current post-closure cost estimate increases to an amount greater than the face amount of the policy during the operating life of the facility, the owner or operator, within 60 days after the increase, shall either cause the face amount to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Director, or obtain other financial assurance as specified in Section R315-264-145 to cover the increase. Whenever the current

post-closure cost estimate decreases during the operating life of the facility, the face amount may be reduced to the amount of the current post-closure cost estimate following written approval by the Director.

(10) Commencing on the date that liability to make payments pursuant to the policy accrues, the insurer shall thereafter annually increase the face amount of the policy. Such increase shall be equivalent to the face amount of the policy, less any payments made, multiplied by an amount equivalent to 85 percent of the most recent investment rate or of the equivalent coupon-issue yield announced by the U.S. Treasury for 26-week Treasury securities.

(11) The Director shall give written consent to the owner or operator that he may terminate the insurance policy when:

(i) An owner or operator substitutes alternate financial assurance as specified in Section R315-264-145; or

(ii) The Director releases the owner or operator from the requirements of Section R315-264-145 in accordance with Subsection R315-264-145(i).

(f) Financial test and corporate guarantee for post-closure care.

(1) An owner or operator may satisfy the requirements of Section R315-264-145 by demonstrating that he passes a financial test as specified in Subsection R315-264-145(f). To pass this test the owner or operator shall meet the criteria of either Subsection R315-264-145(f)(1)(i) or (ii):

(i) The owner or operator shall have:

(A) Two of the following three ratios: a ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and

(B) Net working capital and tangible net worth each at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates; and

(C) Tangible net worth of at least $10 million; and

(D) Assets in the United States amounting to at least 90 percent of his total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.

(ii) The owner or operator shall have:

(A) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A or Baa as issued by Moody's; and

(B) Tangible net worth at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates; and

(C) Tangible net worth of at least $10 million; and

(D) Assets located in the United States amounting to at least 90 percent of his total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.

(2) The phrase “current closure and post-closure cost estimates” as used in Subsection R315-264-145(f)(1) refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer, Subsection R315-264-151(f). The phrase “current plugging and abandonment cost estimates” as used in Subsection R315-264-145(f)(1) refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer, 40 CFR 144.70(f).

(3) To demonstrate that he meets this test, the owner or operator shall submit the following items to the Director:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in Subsection R315-264-151(f); and

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and

(iii) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

(A) He has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

(B) In connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

(4) An owner or operator of a new facility shall submit the items specified in Subsection R315-264-145(f)(3) to the Director at least 60 days before the date on which hazardous waste is first received for disposal.

(5) After the initial submission of items specified in Subsection R315-264-145(f)(3), the owner or operator shall send updated information to the Director within 90 days after the close of each succeeding fiscal year. This information shall consist of all three items specified in Subsection R315-264-145(f)(3).

(6) If the owner or operator no longer meets the requirements of Subsection R315-264-145(f)(1), he shall send notice to the Director of intent to establish alternate financial assurance as specified in Section R315-264-145. The notice shall be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements. The owner or operator shall provide the alternate financial assurance within 120 days after the end of such fiscal year.

(7) The Director may, based on a reasonable belief that the owner or operator may no longer meet the requirements of Subsection R315-264-145(f)(1), require reports of financial condition at any time from the owner or operator in addition to those specified in Subsection R315-264-145(f)(3). If the Director finds, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of Subsection R315-264-145(f)(1), the owner or operator shall provide alternate financial assurance as specified in Section R315-264-145 within 30 days after notification of such a finding.

(8) The Director may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements, see Subsection R315-264-145(f)(3)(ii). An adverse opinion or a disclaimer of opinion shall be cause for disallowance. The Director shall evaluate other qualifications on an individual basis. The owner or operator shall provide alternate financial assurance as specified in Section R315-264-145 within 30 days after notification of the disallowance.

(9) During the period of post-closure care, the Director may approve a decrease in the current post-closure

cost estimate for which this test demonstrates financial assurance if the owner or operator demonstrates to the Director that the amount of the cost estimate exceeds the remaining cost of post-closure care.

(10) The owner or operator is no longer required to submit the items specified in Subsection R315-264-145(f)(3) when:

(i) An owner or operator substitutes alternate financial assurance as specified in Section R315-264-145; or

(ii) The Director releases the owner or operator from the requirements of Section R315-264-145 in accordance with Subsection R315-264-145(i).

(11) An owner or operator may meet the requirements of Section R315-264-145 by obtaining a written guarantee. The guarantor shall be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a “substantial business relationship” with the owner or operator. The guarantor shall meet the requirements for owners or operators in Subsections R315-264-145(f)(1) through (9) and shall comply with the terms of the guarantee. The wording of the guarantee shall be identical to the wording specified in Subsection R315-264-151(h). A certified copy of the guarantee shall accompany the items sent to the Director as specified in Subsection R315-264-145(f)(3). One of these items shall be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, the letter shall describe the value received in consideration of the guarantee. If the guarantor is a firm with a “substantial business relationship” with the owner or operator, this letter shall describe this “substantial business relationship” and the value received in consideration of the guarantee. The terms of the guarantee shall provide that:

(i) If the owner or operator fails to perform post-closure care of a facility covered by the corporate guarantee in accordance with the post-closure plan and other permit requirements whenever required to do so, the guarantor shall do so or establish a trust fund as specified in Subsection R315-264-145(a) in the name of the owner or operator.

(ii) The corporate guarantee shall remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the Director. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Director, as evidenced by the return receipts.

(iii) If the owner or operator fails to provide alternate financial assurance as specified in Section R315-264-145 and obtain the written approval of such alternate assurance from the Director within 90 days after receipt by both the owner or operator and the Director of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor shall provide such alternate financial assurance in the name of the owner or operator.

(g) Use of multiple financial mechanisms. An owner or operator may satisfy the requirements of Section R315-264-145 by establishing more than one financial mechanism per facility. These mechanisms are limited to trust funds, surety bonds guaranteeing payment into a trust fund, letters of credit, and insurance. The mechanisms shall be as specified in Subsections R315-264-145(a), (b), (d), and (e), respectively, except that it is the combination of mechanisms, rather than the single mechanism, which shall provide financial assurance for an amount at least equal to the current post-closure cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, he may use the trust fund as the standby trust fund for the other mechanisms. A single standby trust fund may be established for two or more mechanisms. The Director may use any or all of the mechanisms to provide for post-closure care of the facility.

(h) Use of a financial mechanism for multiple facilities. An owner or operator may use a financial assurance mechanism specified in Section R315-264-145 to meet the requirements of Section R315-264-145 for more than one facility. Evidence of financial assurance submitted to the Director shall include a list showing, for each facility, the EPA Identification Number, name, address, and the amount of funds for post-closure care assured by the mechanism. If the facilities covered by the mechanism are in more than one State, identical evidence of financial assurance shall be submitted to and maintained with the State Agency regulating hazardous waste in states other

than Utah or with the appropriate Regional Administrator if the facility is located in an unauthorized State. The amount of funds available through the mechanism shall be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. In directing funds available through the mechanism for post-closure care of any of the facilities covered by the mechanism, the Director may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

(i) Release of the owner or operator from the requirements of Section R315-264-145. Within 60 days after receiving certifications from the owner or operator and a qualified Professional Engineer that the post-closure care period has been completed for a hazardous waste disposal unit in accordance with the approved plan, the Director shall notify the owner or operator that he is no longer required to maintain financial assurance for post-closure of that unit, unless the Director has reason to believe that post-closure care has not been in accordance with the approved post-closure plan. The Director shall provide the owner or operator a detailed written statement of any such reason to believe that post-closure care has not been in accordance with the approved post-closure plan.

R315-264-146. Use of a mechanism for financial assurance of both closure and post-closure care.

An owner or operator may satisfy the requirements for financial assurance for both closure and post-closure care for one or more facilities by using a trust fund, surety bond, letter of credit, insurance, financial test, or corporate guarantee that meets the specifications for the mechanism in both Sections R315-264-143 and 145. The amount of funds available through the mechanism shall be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for financial assurance of closure and of post-closure care.

R315-264-147. Liability requirements.

(a) Coverage for sudden accidental occurrences. An owner or operator of a hazardous waste treatment, storage, or disposal facility, or a group of such facilities, shall demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden

accidental occurrences arising from operations of the facility or group of facilities. The owner or operator shall have and maintain liability coverage for sudden accidental occurrences in the amount of at least $1 million per occurrence with an annual aggregate of at least $2 million, exclusive of legal defense costs. This liability coverage may be demonstrated as specified in Subsections R315-264-147(a)(1), (2), (3), (4), (5), or (6):

(1) An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in Subsection R315-264-147(a).

(i) Each insurance policy shall be amended by attachment of the Hazardous Waste Facility Liability Endorsement or evidenced by a Certificate of Liability Insurance. The wording of the endorsement shall be identical to the wording specified in Subsection R315-264-151(i). The wording of the certificate of insurance shall be identical to the wording specified in Subsection R315-264-151(j). The owner or operator shall submit a signed duplicate original of the endorsement or the certificate of insurance to the Director. If requested by a Director, the owner or operator shall provide a signed duplicate original of the insurance policy. An owner or operator of a new facility shall submit the signed duplicate original of the Hazardous Waste Facility Liability Endorsement or the Certificate of Liability Insurance to the Director at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The insurance shall be effective before this initial receipt of hazardous waste.

(ii) Each insurance policy shall be issued by an insurer which, at a minimum, is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(2) An owner or operator may meet the requirements Section R315-264-146 by passing a financial test or using the guarantee for liability coverage as specified in Subsections R315-264-147(f) and (g).

(3) An owner or operator may meet the requirements of Section R315-264-147 by obtaining a letter of credit for liability coverage as specified in Subsection R315-264-147(h).

(4) An owner or operator may meet the requirements Section R315-264-146 by obtaining a surety bond for

liability coverage as specified in Subsection R315-264-147(i).

(5) An owner or operator may meet the requirements Section R315-264-146 by obtaining a trust fund for liability coverage as specified in Subsection R315-264-147(j).

(6) An owner or operator may demonstrate the required liability coverage through the use of combinations of insurance, financial test, guarantee, letter of credit, surety bond, and trust fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated shall total at least the minimum amounts required by Section R315-264-147. If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under Subsection R315-264-147(a), the owner or operator shall specify at least one such assurance as “primary” coverage and shall specify other assurance as “excess” coverage.

(7) An owner or operator shall notify the Director in writing within 30 days whenever:

(i) A claim results in a reduction in the amount of financial assurance for liability coverage provided by a financial instrument authorized in Subsections R315-264-147(a)(1) through (a)(6); or

(ii) A Certification of Valid Claim for bodily injury or property damages caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is entered between the owner or operator and third-party claimant for liability coverage under Subsections R315-264-147(a)(1) through (a)(6); or

(iii) A final court order establishing a judgment for bodily injury or property damage caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is issued against the owner or operator or an instrument that is providing financial assurance for liability coverage under Subsections R315-264-147(a)(1) through (a)(6).

(b) Coverage for nonsudden accidental occurrences. An owner or operator of a surface impoundment, landfill, land

treatment facility, or disposal miscellaneous unit that is used to manage hazardous waste, or a group of such facilities, shall demonstrate financial responsibility for bodily injury and property damage to third parties caused by nonsudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator shall have and maintain liability coverage for nonsudden accidental occurrences in the amount of at least $3 million per occurrence with an annual aggregate of at least $6 million, exclusive of legal defense costs. An owner or operator who shall meet the requirements Section R315-264-147 may combine the required per-occurrence coverage levels for sudden and nonsudden accidental occurrences into a single per-occurrence level, and combine the required annual aggregate coverage levels for sudden and nonsudden accidental occurrences into a single annual aggregate level. Owners or operators who combine coverage levels for sudden and nonsudden accidental occurrences shall maintain liability coverage in the amount of at least $4 million per occurrence and $8 million annual aggregate. This liability coverage may be demonstrated as specified in Subsections R315-264-147(b)(1), (2), (3), (4), (5), or (6):

(1) An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in Subsection R315-264-147(b).

(i) Each insurance policy shall be amended by attachment of the Hazardous Waste Facility Liability Endorsement or evidenced by a Certificate of Liability Insurance. The wording of the endorsement shall be identical to the wording specified in Subsection R315-264-151(i). The wording of the certificate of insurance shall be identical to the wording specified in Subsection R315-264-151(j). The owner or operator shall submit a signed duplicate original of the endorsement or the certificate of insurance to the Director. If requested by a Director, the owner or operator shall provide a signed duplicate original of the insurance policy. An owner or operator of a new facility shall submit the signed duplicate original of the Hazardous Waste Facility Liability Endorsement or the Certificate of Liability Insurance to the Director at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The insurance shall be effective before this initial receipt of hazardous waste.

(ii) Each insurance policy shall be issued by an insurer which, at a minimum, is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(2) An owner or operator may meet the requirements Section R315-264-147 by passing a financial test or using the guarantee for liability coverage as specified in Subsections R315-264-147(f) and (g).

(3) An owner or operator may meet the requirements of Section R315-264-147 by obtaining a letter of credit for liability coverage as specified in Subsection R315-264-147(h).

(4) An owner or operator may meet the requirements of Section R315-264-147 by obtaining a surety bond for liability coverage as specified in Subsection R315-264-147(i).

(5) An owner or operator may meet the requirements of Section R315-264-147 by obtaining a trust fund for liability coverage as specified in Subsection R315-264-147(j).

(6) An owner or operator may demonstrate the required liability coverage through the use of combinations of insurance, financial test, guarantee, letter of credit, surety bond, and trust fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated shall total at least the minimum amount required by Section R315-264-147. If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under Subsection R315-264-147(b), the owner or operator shall specify at least one such assurance as “primary” coverage and shall specify other assurance as “excess” coverage.

(7) An owner or operator shall notify the Director in writing within 30 days whenever:

(i) A Claim results in a reduction in the amount of financial assurance for liability coverage provided by a financial instrument authorized in Subsections R315-264-147(b)(1) through (b)(6); or

(ii) A Certification of Valid Claim for bodily injury or property damages caused by a sudden or non-sudden accidental occurrence arising from the operation of a

hazardous waste treatment, storage, or disposal facility is entered between the owner or operator and third-party claimant for liability coverage under Subsections R315-264-147(b)(1) through (b)(6); or

(iii) A final court order establishing a judgment for bodily injury or property damage caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is issued against the owner or operator or an instrument that is providing financial assurance for liability coverage under Subsections R315-264-147(b)(1) through (b)(6).

(c) Request for variance. If an owner or operator can demonstrate to the satisfaction of the Director that the levels of financial responsibility required by Subsection R315-264-147(a) or (b) are not consistent with the degree and duration of risk associated with treatment, storage, or disposal at the facility or group of facilities, the owner or operator may obtain a variance from the Director. The request for a variance shall be submitted to the Director as part of the application under Subsection R315-270-14 for a facility that does not have a permit, or pursuant to the procedures for permit modification under Subsection R315-124-5 for a facility that has a permit. If granted, the variance shall take the form of an adjusted level of required liability coverage, such level to be based on the Director's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. The Director may require an owner or operator who requests a variance to provide such technical and engineering information as is deemed necessary by the Director to determine a level of financial responsibility other than that required by Subsection R315-264-147(a) or (b). Any request for a variance for a permitted facility shall be treated as a request for a permit modification under Subsections R315-270-41(a)(5) and R315-124-5.

(d) Adjustments by the Director. If the Director determines that the levels of financial responsibility required by Subsection R315-264-147(a) or (b) are not consistent with the degree and duration of risk associated with treatment, storage, or disposal at the facility or group of facilities, the Director may adjust the level of financial responsibility required under Subsection R315-264-147(a) or (b) as may be necessary to protect human

health and the environment. This adjusted level shall be based on the Director's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. In addition, if the Director determines that there is a significant risk to human health and the environment from nonsudden accidental occurrences resulting from the operations of a facility that is not a surface impoundment, landfill, or land treatment facility, he may require that an owner or operator of the facility comply with Subsection R315-264-147(b). An owner or operator shall furnish to the Director, within a reasonable time, any information which the Director requests to determine whether cause exists for such adjustments of level or type of coverage. Any adjustment of the level or type of coverage for a facility that has a permit shall be treated as a permit modification under Subsections R315-270-41(a)(5) and Section R315-124-5.

(e) Period of coverage. Within 60 days after receiving certifications from the owner or operator and a qualified Professional Engineer that final closure has been completed in accordance with the approved closure plan, the Director shall notify the owner or operator in writing that he is no longer required by Section R315-264-147 to maintain liability coverage for that facility, unless the Director has reason to believe that closure has not been in accordance with the approved closure plan.

(f) Financial test for liability coverage.

(1) An owner or operator may satisfy the requirements of Section R315-264-147 by demonstrating that he passes a financial test as specified in Subsection R315-264-147(f). To pass this test the owner or operator shall meet the criteria of Subsection R315-264-147(f)(1)(i) or (ii):

(i) The owner or operator shall have:

(A) Net working capital and tangible net worth each at least six times the amount of liability coverage to be demonstrated by this test; and

(B) Tangible net worth of at least $10 million; and

(C) Assets in the United States amounting to either:

(I) At least 90 percent of his total assets; or

(II) at least six times the amount of liability coverage to be demonstrated by this test.

(ii) The owner or operator shall have:

(A) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's, or Aaa, Aa, A, or Baa as issued by Moody's; and

(B) Tangible net worth of at least $10 million; and

(C) Tangible net worth at least six times the amount of liability coverage to be demonstrated by this test; and

(D) Assets in the United States amounting to either:

(I) At least 90 percent of his total assets; or

(II) at least six times the amount of liability coverage to be demonstrated by this test.

(2) The phrase “amount of liability coverage” as used in Subsection R315-264-147(f)(1) refers to the annual aggregate amounts for which coverage is required under Section R315-264-147(a) and (b).

(3) To demonstrate that he meets this test, the owner or operator shall submit the following three items to the Director:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in Subsection R315-264-151(g). If an owner or operator is using the financial test to demonstrate both assurance for closure or post-closure care, as specified by Subsections R315-264-143(f), 145(f); or 40 CFR 265.143(e), and 145(e), which are adopted by reference; and liability coverage, he shall submit the letter specified in Subsection R315-264-151(g) to cover both forms of financial responsibility; a separate letter as specified in Subsection R315-264-151(f) is not required.

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year.

(iii) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

(A) He has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

(B) In connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

(4) An owner or operator of a new facility shall submit the items specified in Subsection R315-264-147(f)(3) to the Director at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal.

(5) After the initial submission of items specified in Subsection R315-264-147(f)(3), the owner or operator shall send updated information to the Director within 90 days after the close of each succeeding fiscal year. This information shall consist of all three items specified in Subsection R315-264-147(f)(3).

(6) If the owner or operator no longer meets the requirements of Subsection R315-264-147(f)(1), he shall obtain insurance, a letter of credit, a surety bond, a trust fund, or a guarantee for the entire amount of required liability coverage as specified in Section R315-264-147. Evidence of liability coverage shall be submitted to the Director within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the test requirements.

(7) The Director may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements, see Subsection R315-264-147(f)(3)(ii). An adverse opinion or a disclaimer of opinion shall be cause for disallowance. The Director shall evaluate other qualifications on an individual basis. The owner or operator shall provide evidence of insurance for the entire amount of required liability coverage as specified in Section R315-264-147 within 30 days after notification of disallowance.

(g) Guarantee for liability coverage.

(1) Subject to Subsection R315-264-147(g)(2), an owner or operator may meet the requirements of Section R315-264-147 by obtaining a written guarantee, hereinafter referred to as “guarantee.” The guarantor shall be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a “substantial business relationship” with the owner or operator. The guarantor shall meet the requirements for owners or operators in Section R315-264-147(f)(1) through (f)(6). The wording of the guarantee shall be identical to the wording specified in Subsection R315-264-151(h)(2). A certified copy of the guarantee shall accompany the items sent to the Director as specified in Subsection R315-264-147(f)(3). One of these items shall be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the

owner or operator, this letter shall describe the value received in consideration of the guarantee. If the guarantor is a firm with a “substantial business relationship” with the owner or operator, this letter shall describe this “substantial business relationship” and the value received in consideration of the guarantee.

(i) If the owner or operator fails to satisfy a judgment based on a determination of liability for bodily injury or property damage to third parties caused by sudden or nonsudden accidental occurrences, or both as the case may be, arising from the operation of facilities covered by this corporate guarantee, or fails to pay an amount agreed to in settlement of claims arising from or alleged to arise from such injury or damage, the guarantor shall do so up to the limits of coverage.

(ii) Reserved

(2)(i) In the case of corporations incorporated in the United States, a guarantee may be used to satisfy the requirements Section R315-264-147 only if the Attorneys General or Insurance Commissioners of the State in which the guarantor is incorporated have submitted a written statement to the Director that a guarantee executed as described in Section R315-264-147 and Subsection R315-264-151(h)(2) is a legally valid and enforceable obligation in that State.

(ii) In the case of corporations incorporated outside the United States, a guarantee may be used to satisfy the requirements Section R315-264-147 only if

(A) the non-U.S. corporation has identified a registered agent for service of process in Utah and in the State in which it has its principal place of business, and

(B) the Attorney General or Insurance Commissioner of the State in which the guarantor corporation has its principal place of business, has submitted a written statement to the Director that a guarantee executed as described in Section R315-264-147 and Subsection R315-264-151(h)(2) is a legally valid and enforceable obligation in that State.

(h) Letter of credit for liability coverage.

(1) An owner or operator may satisfy the requirements of Section R315-264-147 by obtaining an irrevocable standby letter of credit that conforms to the requirements of Subsection R315-264-147(h) and submitting a copy of the letter of credit to the Director.

(2) The financial institution issuing the letter of credit shall be an entity that has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by a Federal or State agency.

(3) The wording of the letter of credit shall be identical to the wording specified in Subsection R315-264-151(k).

(4) An owner or operator who uses a letter of credit to satisfy the requirements Section R315-264-147 may also establish a standby trust fund. Under the terms of such a letter of credit, all amounts paid pursuant to a draft by the trustee of the standby trust shall be deposited by the issuing institution into the standby trust in accordance with instructions from the trustee. The trustee of the standby trust fund shall be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

(5) The wording of the standby trust fund shall be identical to the wording specified in Subsection R315-264-151(n).

(i) Surety bond for liability coverage.

(1) An owner or operator may satisfy the requirements of Section R315-264-147 by obtaining a surety bond that conforms to the requirements of Subsection R315-264-147(i) and submitting a copy of the bond to the Director.

(2) The surety company issuing the bond shall be among those listed as acceptable sureties on Federal bonds in the most recent Circular 570 of the U.S. Department of the Treasury.

(3) The wording of the surety bond shall be identical to the wording specified in Subsection R315-264-151(l).

(4) A surety bond may be used to satisfy the requirements Section R315-264-147 only if the Attorneys General or Insurance Commissioners of the State in which the surety is incorporated has submitted a written statement to the Director that a surety bond executed as described in Section R315-264-147 and Subsection R315-264-151(l) is a legally valid and enforceable obligation in that State.

(j) Trust fund for liability coverage.

(1) An owner or operator may satisfy the requirements of Section R315-264-147 by establishing a trust fund that conforms to the requirements of Subsection R315-264-147(j) and submitting an originally signed duplicate of the trust agreement to the Director.

(2) The trustee shall be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

(3) The trust fund for liability coverage shall be funded for the full amount of the liability coverage to be provided by the trust fund before it may be relied upon to satisfy the requirements of Section R315-264-147. If at any time after the trust fund is created the amount of funds in the trust fund is reduced below the full amount of the liability coverage to be provided, the owner or operator, by the anniversary date of the establishment of the fund, shall either add sufficient funds to the trust fund to cause its value to equal the full amount of liability coverage to be provided, or obtain other financial assurance as specified in Section R315-264-147 to cover the difference. For purposes of Subsection R315-264-147(j), "the full amount of the liability coverage to be provided" means the amount of coverage for sudden and/or nonsudden occurrences required to be provided by the owner or operator by Section R315-264-147, less the amount of financial assurance for liability coverage that is being provided by other financial assurance mechanisms being used to demonstrate financial assurance by the owner or operator.

(4) The wording of the trust fund shall be identical to the wording specified in Subsection R315-264-151(m).

(k) Notwithstanding any other provision of Rule R315-264, an owner or operator using liability insurance to satisfy the requirements of Section R315-264-147 may use, until October 16, 1982, a Hazardous Waste Facility Liability Endorsement or Certificate of Liability Insurance that does not certify that the insurer is licensed to transact the business of insurance, or eligible as an excess or surplus lines insurer, in one or more States.

R315-264-148. Incapacity of owners or operators, guarantors, or financial institutions.

(a) An owner or operator shall notify the Director by certified mail of the commencement of a voluntary or involuntary proceeding under Title 11, Bankruptcy, U.S. Code, naming the owner or operator as debtor, within 10 days after commencement of the proceeding. A guarantor of a corporate guarantee as specified in Subsections R315-264-143(f) and 145(f) shall make such a notification if he is

named as debtor, as required under the terms of the corporate guarantee, Subsection R315-264-151(h).

(b) An owner or operator who fulfills the requirements of Sections R315-264-143, 145, or 147 by obtaining a trust fund, surety bond, letter of credit, or insurance policy shall be deemed to be without the required financial assurance or liability coverage in the event of bankruptcy of the trustee or issuing institution, or a suspension or revocation of the authority of the trustee institution to act as trustee or of the institution issuing the surety bond, letter of credit, or insurance policy to issue such instruments. The owner or operator shall establish other financial assurance or liability coverage within 60 days after such an event

R315-264-151. Wording of the instruments.

(a)(1) A trust agreement for a trust fund, as specified in Subsection R315-264-143(a) or Subsection R315-264-145(a) or 40 CFR 265.143(a) or 145(a), which are adopted by reference; shall be worded as follows, except that instructions in parentheses,(), are to be replaced with the relevant information and the parentheses deleted:

Trust Agreement

Trust Agreement, the “Agreement,” entered into as of (date) by and between (name of the owner or operator), a (name of State) (insert “corporation,” “partnership,” “association,” or “proprietorship”), the “Grantor,” and (name of corporate trustee), (insert “incorporated in the State of _____” or “a national bank”), the “Trustee.”

Whereas, the Utah Waste Management and Radiation Control Board has established certain regulations applicable to the Grantor, requiring that an owner or operator of a hazardous waste management facility shall provide assurance that funds will be available when needed for closure and/or post-closure care of the facility,

Whereas, the Grantor has elected to establish a trust to provide all or part of such financial assurance for the facilities identified herein,

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under

this agreement, and the Trustee is willing to act as trustee,

Now, Therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term “Grantor” means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term “Trustee” means the Trustee who enters into this Agreement and any successor Trustee.

(c) The term “Board”, “Waste Management and Radiation Control Board” created pursuant to Utah Code Annotated 19-1-106.

(d) The term “Director” means the Director, of the Division of Waste Management and Radiation Control his successors, designees, and any subsequent entity of the State of Utah upon whom the duties of regulation and enforcement of regulations governing hazardous waste.

Section 2. Identification of Facilities and Cost Estimates. This Agreement pertains to the facilities and cost estimates identified on attached Schedule A (on Schedule A, for each facility list the EPA Identification Number, name, address, and the current closure and/or post-closure cost estimates, or portions thereof, for which financial assurance is demonstrated by this Agreement).

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund, the “Fund,” for the benefit of the Director of the Utah Division of Waste Management and Radiation Control. The Grantor and the Trustee intend that no third party have access to the Fund except as herein provided. The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to

this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by the Director.

Section 4. Payment for Closure and Post-Closure Care. The Trustee shall make payments from the Fund as the Director shall direct, in writing, to provide for the payment of the costs of closure and/or post-closure care of the facilities covered by this Agreement. The Trustee shall reimburse the Grantor or other persons as specified by the Director from the Fund for closure and post-closure expenditures in such amounts as the Director shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as the Director specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions Section R315-264-151. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2.(a), shall not be

acquired or held, unless they are securities or other obligations of the Federal or a State government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or State government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depositary even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depositary with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuation. The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the appropriate Director a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within

90 days after the statement has been furnished to the Grantor and the Director shall constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the Director, and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee. All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendment to Exhibit A. The Trustee shall be fully protected in acting

without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the Director to the Trustee shall be in writing, signed by the Director, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or EPA hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or the Director, except as provided for herein.

Section 15. Notice of Nonpayment. The Trustee shall notify the Grantor and the Director and the appropriate Regional Administrator(s), by certified mail within 10 days following the expiration of the 30-day period after the anniversary of the establishment of the Trust, if no payment is received from the Grantor during that period. After the pay-in period is completed, the Trustee shall not be required to send a notice of nonpayment.

Section 16. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the Director, or by the Trustee and the Director if the Grantor ceases to exist.

Section 17. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the Director, or by the Trustee and the Director, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

Section 18. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the Director issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the

Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 19. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of Utah.

Section 20. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written: The parties below certify that the wording of this Agreement is identical to the wording specified in Subsection R315-264-151(a)(1) as such regulations were constituted on the date first above written.

_____ (Signature of Grantor)

_____ (Title)

Attest:

_____ (Title)

_____ (Seal)

_____ (Signature of Trustee)

Attest:

_____ (Title)

_____ (Seal)

(2) The following is an example of the certification of acknowledgment which shall accompany the trust agreement

for a trust fund as specified in Subsections R315-264-143(a) and 145(a) or 40 CFR 265.143(a) or 145(a), which is adopted by reference. State requirements may differ on the proper content of this acknowledgment.

State of
County of
On this (date), before me personally came (owner or operator) to me known, who, being by me duly sworn, did depose and say that she/he resides at (address), that she/he is (title) of (corporation), the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

(Signature of Notary Public)

(b) A surety bond guaranteeing payment into a trust fund, as specified in Subsection R315-264-143(b) or 145(b) or 40 CFR 265.143(b) or 145(b), which are adopted by reference, shall be worded as follows, except that instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted:

Financial Guarantee Bond

Date bond executed:

Effective date:

Principal: (legal name and business address of owner or operator)

Type of Organization: (insert “individual,” “joint venture,” “partnership,” or “corporation”)

State of incorporation:

Surety(ies): (name(s) and business address(es))

EPA Identification Number, name, address and closure and/or post-closure amount(s) for each facility guaranteed by this

bond (indicate closure and post-closure amounts separately):

Total penal sum of bond: $

Surety's bond number:

Know All Persons By These Presents, That we, the Principal and Surety(ies) hereto are firmly bound to the Director of the Utah Division of Waste Management and Radiation Control (hereinafter called Director), in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum “jointly and severally” only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

Whereas said Principal is required, under the Utah Solid and Hazardous Waste Act (the Act), to have a permit or interim status in order to own or operate each hazardous waste management facility identified above, and

Whereas said Principal is required to provide financial assurance for closure, or closure and post-closure care, as a condition of the permit or interim status, and

Whereas said Principal shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

Now, Therefore, the conditions of the obligation are such that if the Principal shall faithfully, before the beginning of final closure of each facility identified above, fund the standby trust fund in the amount(s) identified above for the facility,

Or, if the Principal shall fund the standby trust fund in such amount(s) within 15 days after a final order to begin

closure is issued by an the Director or a U.S. district court or other court of competent jurisdiction,

Or, if the Principal shall provide alternate financial assurance, as specified in Sections R315-264-140 through 148 or 40 CFR 265.140 through 148, which are adopted by reference; as applicable, and obtain the Director's written approval of such assurance, within 90 days after the date notice of cancellation is received by both the Principal and the Director from the Surety(ies), then this obligation shall be null and void; otherwise it is to remain in full force and effect.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above. Upon notification by an the Director that the Principal has failed to perform as guaranteed by this bond, the Surety(ies) shall place funds in the amount guaranteed for the facility(ies) into the standby trust fund as directed by the Director.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and to the Director, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by both the Principal and the Director, as evidenced by the return receipts.

The Principal may terminate this bond by sending written notice to the Surety(ies), provided, however, that no such notice shall become effective until the Surety(ies) receive(s) written authorization for termination of the bond by the Director.

(The following paragraph is an optional rider that may be included but is not required.)

Principal and Surety(ies) hereby agree to adjust the penal sum of the bond yearly so that it guarantees a new closure and/or post-closure amount, provided that the penal sum does not increase by more than 20 percent in any one year, and no decrease in the penal sum takes place without the written permission of the Director.

In Witness Whereof, the Principal and Surety(ies) have executed this Financial Guarantee Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in Subsection R315-264-151(b) as such regulations were constituted on the date this bond was executed.

Principal

(Signature(s))

(Name(s))

(Title(s))

(Corporate seal)

Corporate Surety(ies)

(Name and address)

State of incorporation:

Liability limit: $

(Signature(s))

(Name(s) and title(s))

(Corporate seal)

(For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.)

Bond premium: $

(c) A surety bond guaranteeing performance of closure and/or post-closure care, as specified in Subsection R315-264-143(c) or 145(c), shall be worded as follows, except that the instructions in parentheses,(), are to be replaced with the relevant information and the parentheses deleted:

Performance Bond

Date bond executed:

Effective date:

Principal: (legal name and business address of owner or operator)

Type of organization: (insert “individual,” “joint venture,” “partnership,” or “corporation”)

State of incorporation:

Surety(ies): (name(s) and business address(es))

EPA Identification Number, name, address, and closure and/or post-closure amount(s) for each facility guaranteed by this bond (indicate closure and post-closure amounts separately): _____

Total penal sum of bond: $

Surety's bond number:

Know All Persons By These Presents, That we, the Principal and Surety(ies) hereto are firmly bound to the Director of the Utah Division of Waste Management and Radiation Control (hereinafter called Director), in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum “jointly and severally” only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds

itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

Whereas said Principal is required, under the Utah Solid and Hazardous Waste Act (the Act), to have a permit in order to own or operate each hazardous waste management facility identified above, and

Whereas said Principal is required to provide financial assurance for closure, or closure and post-closure care, as a condition of the permit, and

Whereas said Principal shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

Now, Therefore, the conditions of this obligation are such that if the Principal shall faithfully perform closure, whenever required to do so, of each facility for which this bond guarantees closure, in accordance with the closure plan and other requirements of the permit as such plan and permit may be amended, pursuant to all applicable laws, statutes, rules, and regulations, as such laws, statutes, rules, and regulations may be amended,

And, if the Principal shall faithfully perform post-closure care of each facility for which this bond guarantees post-closure care, in accordance with the post-closure plan and other requirements of the permit, as such plan and permit may be amended, pursuant to all applicable laws, statutes, rules, and regulations, as such laws, statutes, rules, and regulations may be amended,

Or, if the Principal shall provide alternate financial assurance as specified in Sections R315-264-140 through 148, and obtain the Director's written approval of such assurance, within 90 days after the date notice of cancellation is received by both the Principal and the Director from the Surety(ies), then this obligation shall be null and void, otherwise it is to remain in full force and effect.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above.

Upon notification by an Director that the Principal has been found in violation of the closure requirements of Rule R315-264, for a facility for which this bond guarantees performance of closure, the Surety(ies) shall either perform closure in accordance with the closure plan and other permit requirements or place the closure amount guaranteed for the facility into the standby trust fund as directed by the Director.

Upon notification by the Director that the Principal has been found in violation of the post-closure requirements of Rule R315-264 for a facility for which this bond guarantees performance of post-closure care, the Surety(ies) shall either perform post-closure care in accordance with the post-closure plan and other permit requirements or place the post-closure amount guaranteed for the facility into the standby trust fund as directed by the Director.

Upon notification by the Director that the Principal has failed to provide alternate financial assurance as specified in Sections 315-264-140 through 148, and obtain written approval of such assurance from the Director during the 90 days following receipt by both the Principal and the Director of a notice of cancellation of the bond, the Surety(ies) shall place funds in the amount guaranteed for the facility(ies) into the standby trust fund as directed by the Director.

The surety(ies) hereby waive(s) notification of amendments to closure plans, permits, applicable laws, statutes, rules, and regulations and agrees that no such amendment shall in any way alleviate its (their) obligation on this bond.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Director and the appropriate Regional Administrator, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by both the Principal and the Director, as evidenced by the return receipts.

The principal may terminate this bond by sending written notice to the Surety(ies), provided, however, that no such notice shall become effective until the Surety(ies) receive(s) written authorization for termination of the bond by the Director.

(The following paragraph is an optional rider that may be included but is not required.)

Principal and Surety(ies) hereby agree to adjust the penal sum of the bond yearly so that it guarantees a new closure and/or post-closure amount, provided that the penal sum does not increase by more than 20 percent in any one year, and no decrease in the penal sum takes place without the written permission of the Director.

In Witness Whereof, The Principal and Surety(ies) have executed this Performance Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in Subsection R315-264-151(c) as such regulation was constituted on the date this bond was executed.

Principal

(Signature(s))

(Name(s))

(Title(s))

(Corporate seal)

Corporate Surety(ies)

(Name and address)

State of incorporation:

Liability limit: $

(Signature(s))

(Name(s) and title(s))

(Corporate seal)

(For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.)

Bond premium: $

(d) A letter of credit, as specified in Subsection R315-264-143(d) or 145(d) or 40 CFR 265.143(c) or 145(c), which are adopted by reference, shall be worded as follows, except that instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted:

Irrevocable Standby Letter of Credit

Director of the Division of Waste Management and Radiation Control
195 North 1950 West
P.O. Box 144880
Salt Lake City, UT 84114-4880

Dear Director: We hereby establish our Irrevocable Standby Letter of Credit No. ___ in your favor, at the request and for the account of (owner's or operator's name and address) up to the aggregate amount of (in words) U.S. dollars $___, available upon presentation of

(1) your sight draft, bearing reference to this letter of credit No. ___, and

(2) your signed statement reading as follows: “I certify that the amount of the draft is payable pursuant to regulations issued under authority of the Utah Solid and Hazardous Waste Act.”

This letter of credit is effective as of (date) and shall expire on (date at least 1 year later), but such expiration date shall be automatically extended for a period of (at least 1 year) on (date) and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify both you and (owner's or operator's name) by certified mail that we have decided not to extend this letter of credit beyond the current expiration date. In the event you are so notified, any unused portion of the credit shall be available upon presentation of your sight draft for 120 days after the date of receipt by both the Director and (owner's or operator's name), as shown on the signed return receipts.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us, and we shall deposit the amount of the draft directly into the standby trust fund of (owner's or operator's name) in accordance with the Director's instructions.

We certify that the wording of this letter of credit is identical to the wording specified in Subsection R315-264-151(d) as such regulations were constituted on the date shown immediately below.

(Signature(s) and title(s) of official(s) of issuing institution) (Date)

This credit is subject to (insert “the most recent edition of the Uniform Customs and Practice for Documentary Credits, published and copyrighted by the International Chamber of Commerce,” or “the Uniform Commercial Code”).

(e) A certificate of insurance, as specified in Subsection R315-264-143(e) or 145(e) or 40 CFR 265.143(d) or 145(d), which are adopted by reference, shall be worded as follows, except that instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted:

Certificate of Insurance for Closure or Post-Closure Care

Name and Address of Insurer

(herein called the “Insurer”):

Name and Address of Insured

(herein called the “Insured”):

Facilities Covered: (List for each facility: The EPA Identification Number, name, address, and the amount of insurance for closure and/or the amount for post-closure care (these amounts for all facilities covered shall total the face amount shown below).)

Face Amount:

Policy Number:

Effective Date:

The Insurer hereby certifies that it has issued to the Insured the policy of insurance identified above to provide financial assurance for (insert “closure” or “closure and post-closure care” or “post-closure care”) for the facilities identified above. The Insurer further warrants that such policy conforms in all respects with the requirements of Subsections R315-264-143(e), or 145(e), or 40 CFR 265.143(d), and 145(d), which are adopted by reference, as applicable and as such regulations were constituted on the date shown immediately below. It is agreed that any provision of the policy inconsistent with such regulations is hereby amended to eliminate such inconsistency.

Whenever requested by the Director of the Utah Division of Waste Management and Radiation Control, the Insurer agrees to furnish to the the Director a duplicate original of the policy listed above, including all endorsements thereon.

I hereby certify that the wording of this certificate is identical to the wording specified in Subsection R315-264-

151(e) as such regulations were constituted on the date shown immediately below.

(Authorized signature for Insurer)

(Name of person signing)

(Title of person signing)

Signature of witness or notary:

(Date)

(f) A letter from the chief financial officer, as specified in Subsection R315-264-143(f) or 145(f), or 40 CFR 265.143(e) or 145(e), which are adopted by reference, shall be worded as follows, except that instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted:

Letter From Chief Financial Officer

Director, Utah Division of Waste Management and Radiation Control.
195 North 1950 West
P.O. Box 144880
Salt Lake City, UT 84114-4880

I am the chief financial officer of (name and address of firm). This letter is in support of this firm's use of the financial test to demonstrate financial assurance for closure and/or post-closure costs, as specified in Sections R315-264-140 through 148 and 40 CFR 265.140 through 148, which are adopted by reference.

(Fill out the following five paragraphs regarding facilities and associated cost estimates. If your firm has no facilities that belong in a particular paragraph, write “None” in the space indicated. For each facility, include its EPA Identification Number, name, address, and current closure and/or post-closure cost estimates. Identify each cost estimate as to whether it is for closure or post-closure care).

1. This firm is the owner or operator of the following facilities for which financial assurance for closure or post-closure care is demonstrated through the financial test specified in Sections R315-264-140 through 148 and 40 CFR 265.140 through 148, which are adopted by reference. The current closure and/or post-closure cost estimates covered by the test are shown for each facility: ____.

2. This firm guarantees, through the guarantee specified in Sections R315-264-140 through 148 and 40 CFR 265.140 through 148, which are adopted by reference, the closure or post-closure care of the following facilities owned or operated by the guaranteed party. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility: ____. The firm identified above is (insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee ____; or (3) engaged in the following substantial business relationship with the owner or operator ____, and receiving the following value in consideration of this guarantee ____). (Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter).

3. In other jurisdictions, and states where the Director is not authorized to administer the financial requirements of R315-264-140 through 151 or 40 CFR 265.140 through 148, which are adopted by reference, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Sections R315-264-140 through 148 and 40 CFR 265.140 through 148, which are adopted by reference. The current closure and/or post-closure cost estimates covered by such a test are shown for each facility: ____.

4. This firm is the owner or operator of the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to EPA or a State through the financial test or any other financial assurance

mechanism specified in Sections R315-264-140 through 148 and 40 CFR 265.140 through 148, which are adopted by reference, or equivalent or substantially equivalent State mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: ____.

5. This firm is the owner or operator of the following UIC facilities for which financial assurance for plugging and abandonment is required under 40 CFR 144. The current closure cost estimates as required by 40 CFR 144.62 are shown for each facility: ____.

This firm (insert “is required” or “is not required”) to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on (month, day). The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended (date).

(Fill in Alternative I if the criteria of Subsection R315-264-143(f)(1)(i) or Subsection R315-264-145(f)(1)(i), or 40 CFR 265.143(e)(1)(i) or 145(e)(1)(i), which are adopted by reference, are used. Fill in Alternative II if the criteria of Subsection R315-264-143(f)(1)(ii) or 40 CFR 265.143(e)(1)(ii) or 145(e)(1)(ii) or 145(f)(1)(ii), which are adopted by reference, are used.)

Alternative I

1. Sum of current closure and post-closure cost estimate (total of all cost estimates shown in the five paragraphs above) $____

*2. Total liabilities (if any portion of the closure or post-closure cost estimates is included in total liabilities, you may deduct the amount of that portion from this line and add that amount to lines 3 and 4)$____

*3. Tangible net worth $____

*4. Net worth $____

*5. Current assets $____

*6. Current liabilities $____

7. Net working capital (line 5 minus line 6) $____

*8. The sum of net income plus depreciation, depletion, and amortization $____

*9. Total assets in U.S. (required only if less than 90% of firm's assets are located in the U.S.) $____

10. Is line 3 at least $10 million? (Yes/No) ____

11. Is line 3 at least 6 times line 1? (Yes/No) ____

12. Is line 7 at least 6 times line 1? (Yes/No) ____

*13. Are at least 90% of firm's assets located in the U.S.? If not, complete line 14 (Yes/No) ____

14. Is line 9 at least 6 times line 1? (Yes/No) ____

15. Is line 2 divided by line 4 less than 2.0? (Yes/No) ____

16. Is line 8 divided by line 2 greater than 0.1? (Yes/No) ____

17. Is line 5 divided by line 6 greater than 1.5? (Yes/No) ____

Alternative II

1. Sum of current closure and post-closure cost estimates (total of all cost estimates shown in the five paragraphs above) $____

2. Current bond rating of most recent issuance of this firm and name of rating service ____

3. Date of issuance of bond ____

4. Date of maturity of bond ____

*5. Tangible net worth (if any portion of the closure and post-closure cost estimates is included in “total liabilities” on your firm's financial statements, you may add the amount of that portion to this line) $____

*6. Total assets in U.S. (required only if less than 90% of firm's assets are located in the U.S.) $____

7. Is line 5 at least $10 million ? (Yes/No) ____

8. Is line 5 at least 6 times line 1? (Yes/No) ____

*9. Are at least 90% of firm's assets located in the U.S.? If not, complete line 10 (Yes/No) ____

10. Is line 6 at least 6 times line 1? (Yes/No) ____

I hereby certify that the wording of this letter is identical to the wording specified in Subsection R315-264-151(f) as such regulations were constituted on the date shown immediately below.

(Signature)

(Name)

(Title)
(Date)

(g) A letter from the chief financial officer, as specified in Subsection R315-264-147(f) or 40 CFR 265.147(f), which is adopted by reference, shall be worded as follows, except that instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted.

Letter From Chief Financial Officer

Director, Utah Division of Waste Management and Radiation Control.
195 North 1950 West
P.O. Box 144880
Salt Lake City, UT 84114-4880

I am the chief financial officer of (firm's name and address). This letter is in support of the use of the financial test to demonstrate financial responsibility for liability coverage (insert “and closure and/or post-closure care” if applicable) as specified in Sections R315-264-140 through 148 and 40 CFR 265.140 through 148, which are adopted by reference.

(Fill out the following paragraphs regarding facilities and liability coverage. If there are no facilities that belong in a particular paragraph, write “None” in the space indicated. For each facility, include its EPA Identification Number, name, and address).

The firm identified above is the owner or operator of the following facilities for which liability coverage for (insert “sudden” or “nonsudden” or “both sudden and nonsudden”) accidental occurrences is being demonstrated through the financial test specified in Sections R315-264-140 through 148 and 40 CFR 265.140 through 148, which are adopted by reference:____

The firm identified above guarantees, through the guarantee specified in Sections R315-264-140 through 148 and 40 CFR 265.140 through 148, which are adopted by reference, liability coverage for (insert “sudden” or “nonsudden” or “both sudden and nonsudden”) accidental occurrences at the following facilities owned or operated by the following: ____. The firm identified above is (insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee ____; or (3) engaged in the following substantial business relationship with the owner or operator ____, and receiving the following value in consideration of this guarantee ____). (Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter.)

(If you are using the financial test to demonstrate coverage of both liability and closure and post-closure care, fill in the following five paragraphs regarding facilities and associated closure and post-closure cost estimates. If there are no facilities that belong in a

particular paragraph, write “None” in the space indicated. For each facility, include its EPA identification number, name, address, and current closure and/or post-closure cost estimates. Identify each cost estimate as to whether it is for closure or post-closure care.)

1. The firm identified above owns or operates the following facilities for which financial assurance for closure or post-closure care or liability coverage is demonstrated through the financial test specified in Sections R315-264-140 through 148 and 40 CFR 265.140 through 148, which are adopted by reference. The current closure and/or post-closure cost estimate covered by the test are shown for each facility: _____.

2. The firm identified above guarantees, through the guarantee specified in Sections R315-264-140 through 148 and 40 CFR 265.140 through 148, which are adopted by reference, the closure and post-closure care or liability coverage of the following facilities owned or operated by the guaranteed party. The current cost estimates for closure or post-closure care so guaranteed are shown for each facility: _____.

3. In other jurisdictions, and states where the Director is not authorized to administer the financial requirements of R315-264-140 through 151 or 40 CFR 265.140 through 148, which are adopted by reference, this firm is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Sections R315-264-140 through 148 and 40 CFR 265.140 through 148, which are adopted by reference. The current closure or post-closure cost estimates covered by such a test are shown for each facility: _____.

4. The firm identified above owns or operates the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to EPA or a State through the financial test or any other financial assurance mechanisms specified in Sections R315-264-140 through 148 and 40 CFR 265.140 through 148, which are adopted by reference, or equivalent or substantially equivalent State mechanisms. The current closure and/or post-closure cost

estimates not covered by such financial assurance are shown for each facility: ____.

5. This firm is the owner or operator or guarantor of the following UIC facilities for which financial assurance for plugging and abandonment is required under 40 CFR 144 and is assured through a financial test. The current closure cost estimates as required by 40 CFR 144.62 are shown for each facility:____.

This firm (insert “is required” or “is not required”) to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on (month, day). The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended (date).

Part A. Liability Coverage for Accidental Occurrences

(Fill in Alternative I if the criteria of Subsection R315-264-147(f)(1)(i) or 40 CFR 265.147(f)(1)(i), which is adopted by reference, are used. Fill in Alternative II if the criteria of Subsection R315-264-147(f)(1)(ii) or 40 CFR 265.147(f)(1)(ii), which is adopted by reference, are used.)

Alternative I

1. Amount of annual aggregate liability coverage to be demonstrated $____.

*2. Current assets $____.

*3. Current liabilities $____.

4. Net working capital (line 2 minus line 3) $____.

*5. Tangible net worth $____.

*6. If less than 90% of assets are located in the U.S., give total U.S. assets $____.

7. Is line 5 at least $10 million? (Yes/No) ____.

8. Is line 4 at least 6 times line 1? (Yes/No) ____.

9. Is line 5 at least 6 times line 1? (Yes/No) ____.

*10. Are at least 90% of assets located in the U.S.? (Yes/No) ____. If not, complete line 11.

11. Is line 6 at least 6 times line 1? (Yes/No) ____.

Alternative II

1. Amount of annual aggregate liability coverage to be demonstrated $____.

2. Current bond rating of most recent issuance and name of rating service ____ ____.

3. Date of issuance of bond _____.

4. Date of maturity of bond _____.

*5. Tangible net worth $____.

*6. Total assets in U.S. (required only if less than 90% of assets are located in the U.S.) $____.

7. Is line 5 at least $10 million? (Yes/No) ____.

8. Is line 5 at least 6 times line 1? ____.

9. Are at least 90% of assets located in the U.S.? If not, complete line 10. (Yes/No) ____.

10. Is line 6 at least 6 times line 1? ____.

(Fill in part B if you are using the financial test to demonstrate assurance of both liability coverage and closure or post-closure care.)

Part B. Closure or Post-Closure Care and Liability Coverage (Fill in Alternative I if the criteria of Subsection R315-264-143(f)(1)(i) or Subsection R315-264-145(f)(1)(i) and of Subsection R315-264-147(f)(1)(i) are used or if the

criteria of 40 CFR 265.143(e)(1)(i) or 145(e)(1)(i), which are adopted by reference, and of 40 CFR 265.147(f)(1)(i), which is adopted by reference, are used. Fill in Alternative II if the criteria of Subsection R315-264-143(f)(1)(ii) or Subsection R315-264-145(f)(1)(ii) and of Subsection R315-264-147(f)(1)(ii) are used or if the criteria of 40 CFR 265.143(e)(1)(i) or 145(e)(1)(i), which are adopted by reference, and of 40 CFR 265.147(f)(1)(ii), which is adopted by reference, are used.)

Alternative I

1. Sum of current closure and post-closure cost estimates (total of all cost estimates listed above) $____

2. Amount of annual aggregate liability coverage to be demonstrated $____

3. Sum of lines 1 and 2 $____

*4. Total liabilities (if any portion of your closure or post-closure cost estimates is included in your total liabilities, you may deduct that portion from this line and add that amount to lines 5 and 6) $____

*5. Tangible net worth $____

*6. Net worth $____

*7. Current assets $____

*8. Current liabilities $____

9. Net working capital (line 7 minus line 8) $____

*10. The sum of net income plus depreciation, depletion, and amortization $____

*11. Total assets in U.S. (required only if less than 90% of assets are located in the U.S.) $____

12. Is line 5 at least $10 million? (Yes/No)

13. Is line 5 at least 6 times line 3? (Yes/No)

14. Is line 9 at least 6 times line 3? (Yes/No)

*15. Are at least 90% of assets located in the U.S.? (Yes/No) If not, complete line 16.

16. Is line 11 at least 6 times line 3? (Yes/No)

17. Is line 4 divided by line 6 less than 2.0? (Yes/No)

18. Is line 10 divided by line 4 greater than 0.1? (Yes/No)

19. Is line 7 divided by line 8 greater than 1.5? (Yes/No)

Alternative II

1. Sum of current closure and post-closure cost estimates (total of all cost estimates listed above) $____

2. Amount of annual aggregate liability coverage to be demonstrated $____

3. Sum of lines 1 and 2 $____

4. Current bond rating of most recent issuance and name of rating service _____ _____

5. Date of issuance of bond _____

6. Date of maturity of bond _____

*7. Tangible net worth (if any portion of the closure or post-closure cost estimates is included in “total liabilities” on your financial statements you may add that portion to this line) $____

*8. Total assets in the U.S. (required only if less than 90% of assets are located in the U.S.) $____

9. Is line 7 at least $10 million? (Yes/No)

10. Is line 7 at least 6 times line 3? (Yes/No)

*11. Are at least 90% of assets located in the U.S.? (Yes/No) If not complete line 12.

12. Is line 8 at least 6 times line 3? (Yes/No)

I hereby certify that the wording of this letter is identical to the wording specified in Subsection R315-264-151(g) as such regulations were constituted on the date shown immediately below.

(Signature)
(Name)
(Title)
(Date)

(h)(1) A corporate guarantee, as specified in Subsection R315-264-143(f) or 145(f), or 40 CFR 265.143(e) or 145(e), which are adopted by reference, shall be worded as follows, except that instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted:

Corporate Guarantee for Closure or Post-Closure Care

Guarantee made this (date) by (name of guaranteeing entity), a business corporation organized under the laws of the State of (insert name of State), herein referred to as guarantor. This guarantee is made on behalf of the (owner or operator) of (business address), which is (one of the following: “our subsidiary”; “a subsidiary of (name and address of common parent corporation), of which guarantor is a subsidiary”; or “an entity with which guarantor has a substantial business relationship, as defined in (either Subsection R315-264-141(h) or 40 CFR 265.141(h), which is adopted by reference,)” to the Director of the Utah Division of Waste Management and Radiation Control (Director).

Recitals

1. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as specified in Subsections R315-264-143(f) and 145(f) or 40 CFR 265.143(e) and 145(e), which are adopted by reference.

2. (Owner or operator) owns or operates the following hazardous waste management facility(ies) covered by this

guarantee: (List for each facility: EPA Identification Number, name, and address. Indicate for each whether guarantee is for closure, post-closure care, or both.)

3. “Closure plans” and “post-closure plans” as used below refer to the plans maintained as required by Sections R315-264-110 through 120 and 40 CFR 265.110 through 120, which are adopted by reference, for the closure and post-closure care of facilities as identified above.

4. For value received from (owner or operator), guarantor guarantees to the Director that in the event that (owner or operator) fails to perform (insert “closure,” “post-closure care” or “closure and post-closure care”) of the above facility(ies) in accordance with the closure or post-closure plans and other permit or interim status requirements whenever required to do so, the guarantor shall do so or establish a trust fund as specified in Sections R315-264-140 through 148 or 40 CFR 265.140 through 148, which are adopted by reference, as applicable, in the name of (owner or operator) in the amount of the current closure or post-closure cost estimates as specified in Sections R315-264-140 through 148 or 40 CFR 265.140 through 148, which are adopted by reference.

5. Guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, the guarantor fails to meet the financial test criteria, guarantor shall send within 90 days, by certified mail, notice to the Director and to (owner or operator) that he intends to provide alternate financial assurance as specified in Sections R315-264-140 through 148 or 40 CFR 265.140 through 148, which are adopted by reference, as applicable, in the name of (owner or operator). Within 120 days after the end of such fiscal year, the guarantor shall establish such financial assurance unless (owner or operator) has done so.

6. The guarantor agrees to notify the Director and the appropriate Regional Administrator by certified mail, of a voluntary or involuntary proceeding under Title 11, Bankruptcy, U.S. Code, naming guarantor as debtor, within 10 days after commencement of the proceeding.

7. Guarantor agrees that within 30 days after being notified by the Director of a determination that guarantor

no longer meets the financial test criteria or that he is disallowed from continuing as a guarantor of closure or post-closure care, he shall establish alternate financial assurance as specified in Sections R315-264-140 through 148 or 40 CFR 265.140 through 148, which are adopted by reference, as applicable, in the name of (owner or operator) unless (owner or operator) has done so.

8. Guarantor agrees to remain bound under this guarantee notwithstanding any or all of the following: amendment or modification of the closure or post-closure plan, amendment or modification of the permit, the extension or reduction of the time of performance of closure or post-closure, or any other modification or alteration of an obligation of the owner or operator pursuant to Rules R315-264 or 265.

9. Guarantor agrees to remain bound under this guarantee for as long as (owner or operator) shall comply with the applicable financial assurance requirements of Sections R315-264-140 through 148 or 40 CFR 265.140 through 148, which are adopted by reference, for the above-listed facilities, except as provided in paragraph 10 of this agreement.

10. (Insert the following language if the guarantor is (a) a direct or higher-tier corporate parent, or (b) a firm whose parent corporation is also the parent corporation of the owner or operator):

Guarantor may terminate this guarantee by sending notice by certified mail to the Director and to (owner or operator)and to the appropriate Regional Administrator, provided that this guarantee may not be terminated unless and until (the owner or operator) obtains, and the Director approves, alternate closure and/or post-closure care coverage complying with Sections R315-264-143 and/or 264-145, or 40 CFR 265.143, and/or 145, which are adopted by reference.

(Insert the following language if the guarantor is a firm qualifying as a guarantor due to its “substantial business relationship” with its owner or operator)

Guarantor may terminate this guarantee 120 days following the receipt of notification, through certified mail, by the Director and by (the owner or operator).

11. Guarantor agrees that if (owner or operator) fails to provide alternate financial assurance as specified in Sections R315-264-140 through 148 or 40 CFR 265.140 through 148, which are adopted by reference, as applicable, and obtain written approval of such assurance from the Director within 90 days after a notice of cancellation by the guarantor is received by the Director from guarantor, guarantor shall provide such alternate financial assurance in the name of (owner or operator).

12. Guarantor expressly waives notice of acceptance of this guarantee by the Director or by (owner or operator). Guarantor also expressly waives notice of amendments or modifications of the closure and/or post-closure plan and of amendments or modifications of the facility permit(s).

I hereby certify that the wording of this guarantee is identical to the wording specified in Subsection R315-264-151(h) as such regulations were constituted on the date first above written.

Effective date:

(Name of guarantor)

(Authorized signature for guarantor)

(Name of person signing)

(Title of person signing)

Signature of witness or notary:

(2) A guarantee, as specified in Subsection R315-264-147(g) or 40 CFR 265.147(g), which is adopted by reference, shall be worded as follows, except that instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted:

Guarantee for Liability Coverage

Guarantee made this (date) by (name of guaranteeing entity), a business corporation organized under the laws of (if incorporated within the United States insert “the State of ____” and insert name of State; if incorporated outside the United States insert the name of the country in which incorporated, the principal place of business within the United States, and the name and address of the registered agent in the State of the principal place of business), herein referred to as guarantor. This guarantee is made on behalf of (owner or operator) of (business address), which is one of the following: “our subsidiary;” “a subsidiary of (name and address of common parent corporation), of which guarantor is a subsidiary;” or “an entity with which guarantor has a substantial business relationship, as defined in (either Subsection R315-264-141(h) or 40 CFR 265.141(h), which is adopted by reference,)”, to any and all third parties who have sustained or may sustain bodily injury or property damage caused by (sudden and/or nonsudden) accidental occurrences arising from operation of the facility(ies) covered by this guarantee.

Recitals

1. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as specified in Subsection R315-264-147(g) and 40 CFR 265.147(g), which is adopted by reference.

2. (Owner or operator) owns or operates the following hazardous waste management facility(ies) covered by this guarantee: (List for each facility: EPA identification number, name, and address; and if guarantor is incorporated outside the United States list the name and address of the guarantor's registered agent in each State.) This corporate guarantee satisfies the third-party liability requirements for (insert “sudden” or “nonsudden” or “both sudden and nonsudden”) accidental occurrences in above-named owner or operator facilities for coverage in the amount of (insert dollar amount) for each occurrence and (insert dollar amount) annual aggregate.

3. For value received from (owner or operator), guarantor guarantees to any and all third parties who have sustained or may sustain bodily injury or property damage caused by (sudden and/or nonsudden) accidental occurrences arising

from operations of the facility(ies) covered by this guarantee that in the event that (owner or operator) fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by (sudden and/or nonsudden) accidental occurrences, arising from the operation of the above-named facilities, or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor shall satisfy such judgment(s), award(s) or settlement agreement(s) up to the limits of coverage identified above.

4. Such obligation does not apply to any of the following:

(a) Bodily injury or property damage for which (insert owner or operator) is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that (insert owner or operator) would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of (insert owner or operator) under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of (insert owner or operator) arising from, and in the course of, employment by (insert owner or operator); or

(2) The spouse, child, parent, brother, or sister of that employee as a consequence of, or arising from, and in the course of employment by (insert owner or operator). This exclusion applies:

(A) Whether (insert owner or operator) may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who shall pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by (insert owner or operator);

(2) Premises that are sold, given away or abandoned by (insert owner or operator) if the property damage arises out of any part of those premises;

(3) Property loaned to (insert owner or operator);

(4) Personal property in the care, custody or control of (insert owner or operator);

(5) That particular part of real property on which (insert owner or operator) or any contractors or subcontractors working directly or indirectly on behalf of (insert owner or operator) are performing operations, if the property damage arises out of these operations.

5. Guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, the guarantor fails to meet the financial test criteria, guarantor shall send within 90 days, by certified mail, notice to the Director and to (owner or operator) and to the appropriate Regional Administrator that he intends to provide alternate liability coverage as specified in Section R315-264-147 and 40 CFR 265.147, which is adopted by reference, as applicable, in the name of (owner or operator). Within 120 days after the end of such fiscal year, the guarantor shall establish such liability coverage unless (owner or operator) has done so.

6. The guarantor agrees to notify the Director and the appropriate Regional Administrator by certified mail of a voluntary or involuntary proceeding under title 11, Bankruptcy, U.S. Code, naming guarantor as debtor, within 10 days after commencement of the proceeding.

7. Guarantor agrees that within 30 days after being notified by the Director of a determination that guarantor

no longer meets the financial test criteria or that he is disallowed from continuing as a guarantor, he shall establish alternate liability coverage as specified in Section R315-264-147 or 40 CFR 265.147, which is adopted by reference, in the name of (owner or operator), unless (owner or operator) has done so.

8. Guarantor reserves the right to modify this agreement to take into account amendment or modification of the liability requirements set by Section R315-264-147 and 40 CFR 265.147, which is adopted by reference, provided that such modification shall become effective only if the Director does not disapprove the modification within 30 days of receipt of notification of the modification.

9. Guarantor agrees to remain bound under this guarantee for so long as (owner or operator) shall comply with the applicable requirements of Sections R315-264-147 and 40 CFR 265.147, which is adopted by reference, for the above-listed facility(ies), except as provided in paragraph 10 of this agreement.

10. (Insert the following language if the guarantor is (a) a direct or higher-tier corporate parent, or (b) a firm whose parent corporation is also the parent corporation of the owner or operator):

Guarantor may terminate this guarantee by sending notice by certified mail to the Director and to (owner or operator) and to the appropriate Regional Administrator, provided that this guarantee may not be terminated unless and until (the owner or operator) obtains, and the Director approves, alternate liability coverage complying with Sections R315-264-147 and/or 40 CFR 265.147, which is adopted by reference.

(Insert the following language if the guarantor is a firm qualifying as a guarantor due to its “substantial business relationship” with the owner or operator):

Guarantor may terminate this guarantee 120 days following receipt of notification, through certified mail, by the Director and by (the owner or operator).

11. Guarantor hereby expressly waives notice of acceptance of this guarantee by any party.

12. Guarantor agrees that this guarantee is in addition to and does not affect any other responsibility or liability of the guarantor with respect to the covered facilities.

13. The Guarantor shall satisfy a third-party liability claim only on receipt of one of the following documents:

(a) Certification from the Principal and the third-party claimant(s) that the liability claim should be paid. The certification shall be worded as follows, except that instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted:

Certification of Valid Claim

The undersigned, as parties (insert Principal) and (insert name and address of third-party claimant(s)), hereby certify that the claim of bodily injury and/or property damage caused by a (sudden or nonsudden) accidental occurrence arising from operating (Principal's) hazardous waste treatment, storage, or disposal facility should be paid in the amount of $.

(Signatures)

Principal

(Notary) Date

(Signatures)

Claimant(s)

(Notary) Date

(b) A valid final court order establishing a judgment against the Principal for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Principal's facility or group of facilities.

14. In the event of combination of this guarantee with another mechanism to meet liability requirements, this guarantee shall be considered (insert “primary” or “excess”) coverage.

I hereby certify that the wording of the guarantee is identical to the wording specified in Subsection R315-264-151(h)(2) as such regulations were constituted on the date shown immediately below.

Effective date:

(Name of guarantor)

(Authorized signature for guarantor)

(Name of person signing)

(Title of person signing)

Signature of witness or notary:

(i) A hazardous waste facility liability endorsement as required in Section R315-264-147 or 40 CFR 265.147, which is adopted by reference, shall be worded as follows, except that instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted:

Hazardous Waste Facility Liability Endorsement

1. This endorsement certifies that the policy to which the endorsement is attached provides liability insurance covering bodily injury and property damage in connection with the insured's obligation to demonstrate financial responsibility under Sections R315-264-147 or 40 CFR 265.147, which is adopted by reference. The coverage applies at (list EPA Identification Number, name, and address for each facility) for (insert “sudden accidental occurrences,” “nonsudden accidental occurrences,” or “sudden and nonsudden accidental occurrences”; if coverage is for multiple facilities and the coverage is different for different facilities, indicate which facilities are insured for sudden accidental occurrences, which are insured for nonsudden accidental occurrences, and which are

insured for both). The limits of liability are (insert the dollar amount of the “each occurrence” and “annual aggregate” limits of the Insurer's liability), exclusive of legal defense costs.

2. The insurance afforded with respect to such occurrences is subject to all of the terms and conditions of the policy; provided, however, that any provisions of the policy inconsistent with subsections (a) through (e) of this Paragraph 2 are hereby amended to conform with subsections (a) through (e):

(a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy to which this endorsement is attached.

(b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in Subsections R315-264-147(f) or 40 CFR 265.147(f), which is adopted by reference.

(c) Whenever requested by the Director of the Utah Division of Waste Management and Radiation Control (Director), the Insurer agrees to furnish to the Director a signed duplicate original of the policy and all endorsements.

(d) Cancellation of this endorsement, whether by the Insurer, the insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the hazardous waste management facility, shall be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the Director and by the appropriate Regional Administrator.

(e) Any other termination of this endorsement shall be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Director.

Attached to and forming part of policy No. ___ issued by (name of Insurer), herein called the Insurer, of (address of Insurer) to (name of insured) of (address) this _____ day of _____, 19__. The effective date of said policy is _____ day of _____, 19__.

I hereby certify that the wording of this endorsement is identical to the wording specified in Subsection R315-264-151(i) as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(Signature of Authorized Representative of Insurer)

(Type name)

(Title), Authorized Representative of (name of Insurer)

(Address of Representative)

(j) A certificate of liability insurance as required in Section R315-264-147 or 40 CFR 265.147, which is adopted by reference, shall be worded as follows, except that the instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted:

Hazardous Waste Facility Certificate of Liability Insurance

1. (Name of Insurer), (the “Insurer”), of (address of Insurer) hereby certifies that it has issued liability insurance covering bodily injury and property damage to (name of insured), (the “insured”), of (address of insured) in connection with the insured's obligation to demonstrate financial responsibility under Sections R315-264-147 or 40 CFR 265.147, which is adopted by reference. The coverage applies at (list EPA Identification Number, name, and address for each facility) for (insert “sudden accidental occurrences,” “nonsudden accidental occurrences,” or “sudden and nonsudden accidental occurrences”; if coverage is for multiple facilities and the coverage is different for different facilities, indicate which facilities are insured for sudden accidental occurrences, which are insured for nonsudden accidental occurrences, and which are

insured for both). The limits of liability are (insert the dollar amount of the “each occurrence” and “annual aggregate” limits of the Insurer's liability), exclusive of legal defense costs. The coverage is provided under policy number ___, issued on (date). The effective date of said policy is (date).

2. The Insurer further certifies the following with respect to the insurance described in Paragraph 1:

(a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy.

(b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in Subsection R315-264-147(f) or 40 CFR 265.147(f), which is adopted by reference.

(c) Whenever requested by the Director of the Utah Division of Waste Management and Radiation Control, the Insurer agrees to furnish to the Director a signed duplicate original of the policy and all endorsements.

(d) Cancellation of the insurance, whether by the insurer, the insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the hazardous waste management facility, shall be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the Director and by the appropriate Regional Administrator.

(e) Any other termination of the insurance shall be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Director.

I hereby certify that the wording of this instrument is identical to the wording specified in Subsection R315-264-151(j) as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact

the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(Signature of authorized representative of Insurer)

(Type name)

(Title), Authorized Representative of (name of Insurer)

(Address of Representative)

(k) A letter of credit, as specified in Subsection R315-264-147(h) or 40 CFR 265.147(h), which is adopted by reference, shall be worded as follows, except that instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted:

Irrevocable Standby Letter of Credit

Director, Utah Division of Waste Management and Radiation Control
195 North 1950 West
P.O. Box 144880
Salt Lake City, UT 84114-4880

Dear Sir or Madam: We hereby establish our Irrevocable Standby Letter of Credit No. _____ in the favor of ("any and all third-party liability claimants" or insert name of trustee of the standby trust fund), at the request and for the account of (owner or operator's name and address) for third-party liability awards or settlements up to (in words) U.S. dollars $_____ per occurrence and the annual aggregate amount of (in words) U.S. dollars $_____, for sudden accidental occurrences and/or for third-party liability awards or settlements up to the amount of (in words) U.S. dollars $_____ per occurrence, and the annual aggregate amount of (in words) U.S. dollars $_____, for nonsudden accidental occurrences available upon presentation of a sight draft bearing reference to this letter of credit No. _____, and (insert the following language if the letter of credit is being used without a standby trust fund: (1) a signed certificate reading as follows:

Certificate of Valid Claim

The undersigned, as parties (insert principal) and (insert name and address of third party claimant(s)), hereby certify that the claim of bodily injury and/or property damage caused by a (sudden or nonsudden) accidental occurrence arising from operations of (principal's) hazardous waste treatment, storage, or disposal facility should be paid in the amount of $( ). We hereby certify that the claim does not apply to any of the following:

(a) Bodily injury or property damage for which (insert principal) is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that (insert principal) would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of (insert principal) under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of (insert principal) arising from, and in the course of, employment by (insert principal); or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by (insert principal).

This exclusion applies:

(A) Whether (insert principal) may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who shall pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by (insert principal);

(2) Premises that are sold, given away or abandoned by (insert principal) if the property damage arises out of any part of those premises;

(3) Property loaned to (insert principal);

(4) Personal property in the care, custody or control of (insert principal);

(5) That particular part of real property on which (insert principal) or any contractors or subcontractors working directly or indirectly on behalf of (insert principal) are performing operations, if the property damage arises out of these operations.

(Signatures)

Grantor

(Signatures)

Claimant(s) or

(2) a valid final court order establishing a judgment against the Grantor for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Grantor's facility or group of facilities.)

This letter of credit is effective as of (date) and shall expire on (date at least one year later), but such expiration date shall be automatically extended for a period of (at least one year) on (date and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify you, the Director of the Utah Division of Waste Management and Radiation Control, and (owner's or operator's name) and the appropriate Regional Administrator by certified mail that we have decided not to extend this letter of credit beyond the current expiration date.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us.

(Insert the following language if a standby trust fund is not being used: “In the event that this letter of credit is used in combination with another mechanism for liability coverage, this letter of credit shall be considered (insert “primary” or “excess” coverage).”

We certify that the wording of this letter of credit is identical to the wording specified in Subsection R315-264-151(k) as such regulations were constituted on the date shown immediately below. (Signature(s) and title(s) of official(s) of issuing institution) (Date).

This credit is subject to (insert “the most recent edition of the Uniform Customs and Practice for Documentary Credits, published and copyrighted by the International Chamber of Commerce,” or “the Uniform Commercial Code”).

(l) A surety bond, as specified in Subsection R315-264-147(i) or 40 CFR 265.147(i), which is adopted by reference, shall be worded as follows: except that instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted:

Payment Bond

Surety Bond No. (Insert number)

Parties (Insert name and address of owner or operator), Principal, incorporated in (Insert State of incorporation) of (Insert city and State of principal place of business) and (Insert name and address of surety company(ies)), Surety Company(ies), of (Insert surety(ies) place of business).

EPA Identification Number, name, and address for each facility guaranteed by this bond: ____

	Sudden accidental occurrences	Nonsudden accidental occurrences
Penal Sum Per	(insert amount)	(insert amount)

Occurrence
Annual Aggregate (insert amount) (insert amount)

Purpose: This is an agreement between the Surety(ies) and the Principal under which the Surety(ies), its(their) successors and assignees, agree to be responsible for the payment of claims against the Principal for bodily injury and/or property damage to third parties caused by (“sudden” and/or “nonsudden”) accidental occurrences arising from operations of the facility or group of facilities in the sums prescribed herein; subject to the governing provisions and the following conditions.

Governing Provisions:

(1) Section 3004 of the Resource Conservation and Recovery Act of 1976, as amended.

(2) Rules adopted by the Utah Waste Management and Radiation Control Board under the Utah Solid and Hazardous Waste Act, particularly (“Subsection R315-264-147” or “40 CFR 265.147, which is adopted by reference,”) (if applicable).

Conditions:

(1) The Principal is subject to the applicable governing provisions that require the Principal to have and maintain liability coverage for bodily injury and property damage to third parties caused by (“sudden” and/or “nonsudden”) accidental occurrences arising from operations of the facility or group of facilities. Such obligation does not apply to any of the following:

(a) Bodily injury or property damage for which (insert principal) is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that (insert principal) would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of (insert principal) under a workers' compensation, disability benefits, or unemployment compensation law or similar law.

(c) Bodily injury to:

(1) An employee of (insert principal) arising from, and in the course of, employment by (insert principal); or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by (insert principal). This exclusion applies:

(A) Whether (insert principal) may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who shall pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by (insert principal);

(2) Premises that are sold, given away or abandoned by (insert principal) if the property damage arises out of any part of those premises;

(3) Property loaned to (insert principal);

(4) Personal property in the care, custody or control of (insert principal);

(5) That particular part of real property on which (insert principal) or any contractors or subcontractors working directly or indirectly on behalf of (insert principal) are performing operations, if the property damage arises out of these operations.

(2) This bond assures that the Principal shall satisfy valid third party liability claims, as described in condition 1.

(3) If the Principal fails to satisfy a valid third party liability claim, as described above, the Surety(ies) becomes liable on this bond obligation.

(4) The Surety(ies) shall satisfy a third party liability claim only upon the receipt of one of the following documents:

(a) Certification from the Principal and the third party claimant(s) that the liability claim should be paid. The certification shall be worded as follows, except that instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted:

Certification of Valid Claim
The undersigned, as parties (insert name of Principal) and (insert name and address of third party claimant(s)), hereby certify that the claim of bodily injury and/or property damage caused by a (sudden or nonsudden) accidental occurrence arising from operating (Principal's) hazardous waste treatment, storage, or disposal facility should be paid in the amount of $( ).

(Signature)

Principal

(Notary) Date

(Signature(s))

Claimant(s)

(Notary) Date

or (b) A valid final court order establishing a judgment against the Principal for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Principal's facility or group of facilities.

(5) In the event of combination of this bond with another mechanism for liability coverage, this bond shall be considered (insert “primary” or “excess”) coverage.

(6) The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond. In no event shall the obligation of the Surety(ies) hereunder exceed the amount of said annual aggregate penal sum, provided that the Surety(ies) furnish(es) notice to the Director forthwith of all claims filed and payments made by the Surety(ies) under this bond.

(7) The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and the Director and the appropriate Regional Administrator, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by the Principal and the Director, as evidenced by the return receipt.

(8) The Principal may terminate this bond by sending written notice to the Surety(ies) and to the Director.

(9) The Surety(ies) hereby waive(s) notification of amendments to applicable laws, statutes, rules and regulations and agree(s) that no such amendment shall in any way alleviate its (their) obligation on this bond.

(10) This bond is effective from (insert date) (12:01 a.m., standard time, at the address of the Principal as stated herein) and shall continue in force until terminated as described above.

In Witness Whereof, the Principal and Surety(ies) have executed this Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in Subsection R315-264-151(1), as such regulations were constituted on the date this bond was executed.

PRINCIPAL

(Signature(s))

(Name(s))

(Title(s))

(Corporate Seal)

CORPORATE SURETY(IES)

(Name and address)

State of incorporation:

Liability Limit: $

(Signature(s))

(Name(s) and title(s))

(Corporate seal)

(For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.)

Bond premium: $

(m)(1) A trust agreement, as specified in Subsection R315-264-147(j) or 40 CFR 265.147(j), which is adopted by reference, shall be worded as follows, except that instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted:

Trust Agreement

Trust Agreement, the “Agreement,” entered into as of (date) by and between (name of the owner or operator) a (name of State) (insert “corporation,” “partnership,” “association,” or “proprietorship”), the “Grantor,” and (name of corporate trustee), (insert, “incorporated in the State of ____” or “a national bank”), the “trustee.”

Whereas, the Utah Waste Management and Radiation Control Board, has established certain regulations applicable to

the Grantor, requiring that an owner or operator of a hazardous waste management facility or group of facilities shall demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental and/or nonsudden accidental occurrences arising from operations of the facility or group of facilities.

Whereas, the Grantor has elected to establish a trust to assure all or part of such financial responsibility for the facilities identified herein.

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee.

Now, therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "Board", "Waste Management and Radiation Control Board" created pursuant to Utah Code Annotated 19-1-106.

(b) The term "Director" means the Director,of the Division of Waste Management and Radiation Control his successors, designees, and any subsequent entity of the State of Utah upon whom the duties of regulation and enforcement of regulations governing hazardous waste.

(c) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(d) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of Facilities. This agreement pertains to the facilities identified on attached schedule A (on schedule A, for each facility list the EPA Identification Number, name, and address of the facility(ies) and the amount of liability coverage, or

portions thereof, if more than one instrument affords combined coverage as demonstrated by this Agreement).

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund, hereinafter the "Fund," for the benefit of any and all third parties injured or damaged by (sudden and/or nonsudden) accidental occurrences arising from operation of the facility(ies) covered by this guarantee, in the amounts of _____ (up to $1 million) per occurrence and _____ (up to $2 million) annual aggregate for sudden accidental occurrences and _____ (up to $3 million) per occurrence and _____ (up to $6 million) annual aggregate for nonsudden occurrences, except that the Fund is not established for the benefit of third parties for the following:

(a) Bodily injury or property damage for which (insert Grantor) is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that (insert Grantor) would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of (insert Grantor) under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of (insert Grantor) arising from, and in the course of, employment by (insert Grantor); or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by (insert Grantor).

This exclusion applies:

(A) Whether (insert Grantor) may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who shall pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by (insert Grantor);

(2) Premises that are sold, given away or abandoned by (insert Grantor) if the property damage arises out of any part of those premises;

(3) Property loaned to (insert Grantor);

(4) Personal property in the care, custody or control of (insert Grantor);

(5) That particular part of real property on which (insert Grantor) or any contractors or subcontractors working directly or indirectly on behalf of (insert Grantor) are performing operations, if the property damage arises out of these operations.

In the event of combination with another mechanism for liability coverage, the fund shall be considered (insert “primary” or “excess”) coverage.

The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by Director.

Section 4. Payment for Bodily Injury or Property Damage. The Trustee shall satisfy a third party liability claim by

making payments from the Fund only upon receipt of one of the following documents;

(a) Certification from the Grantor and the third party claimant(s) that the liability claim should be paid. The certification shall be worded as follows, except that instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted:

Certification of Valid Claim

The undersigned, as parties (insert Grantor) and (insert name and address of third party claimant(s)), hereby certify that the claim of bodily injury and/or property damage caused by a (sudden or nonsudden) accidental occurrence arising from operating (Grantor's) hazardous waste treatment, storage, or disposal facility should be paid in the amount of $( ).

(Signatures)

Grantor

(Signatures)

Claimant(s)

(b) A valid final court order establishing a judgment against the Grantor for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Grantor's facility or group of facilities.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions Section R315-264-151. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the

interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstance then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2.(a), shall not be acquired or held unless they are securities or other obligations of the Federal or a State government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or State government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common commingled, or collective trust fund created by the Trustee in which the fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 81a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not

paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuations. The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the Director a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the Director shall constitute a conclusively binding assent by the Grantor barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a

writing sent to the Grantor, the Director, and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee. All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendments to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the Director to the Trustee shall be in writing, signed by the Director and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or the Director hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or the Director, except as provided for herein.

Section 15. Notice of Nonpayment. If a payment for bodily injury or property damage is made under Section 4 of this trust, the Trustee shall notify the Grantor of such payment and the amount(s) thereof within five (5) working days. The Grantor shall, on or before the anniversary date of the establishment of the Fund following such notice, either make payments to the Trustee in amounts sufficient to cause the trust to return to its value immediately prior to the payment of claims under Section 4, or shall provide written proof to the Trustee that other financial assurance for liability coverage has been obtained equalling the amount necessary to return the trust to its value prior to the payment of claims. If the Grantor does not either make payments to the Trustee or provide the Trustee with such proof, the Trustee shall within 10 working days after the anniversary date of the establishment of the Fund provide a written notice of nonpayment to the Director and to the appropriate Regional Administrator.

Section 16. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the Director, or by the Trustee and the Director if the Grantor ceases to exist.

Section 17. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the Director, or by the Trustee and the Director, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

The Director shall agree to termination of the Trust when the owner or operator substitutes alternate financial assurance as specified in this section.

Section 18. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the Director issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 19. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of Utah.

Section 20. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and

attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in Subsection R315-264-151(m) as such regulations were constituted on the date first above written.

(Signature of Grantor)

(Title)

Attest:

(Title)

(Seal)

(Signature of Trustee)

Attest:

(Title)

(Seal)

(2) The following is an example of the certification of acknowledgement which shall accompany the trust agreement for a trust fund as specified in Subsection R315-264-147(j) or 40 CFR 265.147(j), which is adopted by reference.

State of

County of

On this (date), before me personally came (owner or operator) to me known, who, being by me duly sworn, did depose and say that she/he resides at (address), that she/he is (title) of (corporation), the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

(Signature of Notary Public)

(n)(1) A standby trust agreement, as specified in Subsection R315-264-147(h) or 40 CFR 265.147(h), which is adopted by reference, shall be worded as follows, except that instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted:

Standby Trust Agreement

Trust Agreement, the "Agreement," entered into as of (date) by and between (name of the owner or operator) a (name of a State) (insert "corporation," "partnership," "association," or "proprietorship"), the "Grantor," and (name of corporate trustee), (insert, "incorporated in the State of _____" or "a national bank"), the "trustee."

Whereas the Utah Waste Management and Radiation Control Board, in accordance with the Utah Solid and Hazardous Waste Act, has established certain regulations applicable to the Grantor, requiring that an owner or operator of a hazardous waste management facility or group of facilities shall demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental and/or nonsudden accidental occurrences arising from operations of the facility or group of facilities.

Whereas, the Grantor has elected to establish a standby trust into which the proceeds from a letter of credit may be deposited to assure all or part of such financial responsibility for the facilities identified herein.

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee.

Now, therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "Board", "Waste Management and Radiation Control Board" created pursuant to Utah Code Annotated 19-1-106.

(b) The term “Director” means the Director,of the Division of Waste Management and Radiation Control his successors, designees, and any subsequent entity of the State of Utah upon whom the duties of regulation and enforcement of regulations governing hazardous waste.

(c) The term Grantor means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(d) The term Trustee means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of Facilities. This agreement pertains to the facilities identified on attached schedule A (on schedule A, for each facility list the EPA Identification Number, name, and address of the facility(ies) and the amount of liability coverage, or portions thereof, if more than one instrument affords combined coverage as demonstrated by this Agreement).

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a standby trust fund, hereafter the “Fund,” for the benefit of any and all third parties injured or damaged by (sudden and/or nonsudden) accidental occurrences arising from operation of the facility(ies) covered by this guarantee, in the amounts of _____ (up to $1 million) per occurrence and _____ (up to $2 million) annual aggregate for sudden accidental occurrences and _____ (up to $3 million) per occurrence and _____ (up to $6 million) annual aggregate for nonsudden occurrences, except that the Fund is not established for the benefit of third parties for the following:

(a) Bodily injury or property damage for which (insert Grantor) is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that (insert Grantor) would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of (insert Grantor) under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of (insert Grantor) arising from , and in the course of, employment by (insert Grantor); or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by (insert Grantor).

This exclusion applies:

(A) Whether (insert Grantor) may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who shall pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by (insert Grantor);

(2) Premises that are sold, given away or abandoned by (insert Grantor) if the property damage arises out of any part of those premises;

(3) Property loaned by (insert Grantor);

(4) Personal property in the care, custody or control of (insert Grantor);

(5) That particular part of real property on which (insert Grantor) or any contractors or subcontractors working directly or indirectly on behalf of (insert Grantor) are performing operations, if the property damage arises out of these operations.

In the event of combination with another mechanism for liability coverage, the fund shall be considered (insert “primary” or “excess”) coverage.

The Fund is established initially as consisting of the proceeds of the letter of credit deposited into the Fund. Such proceeds and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by the Director of the Utah Division of Waste Management and Radiation Control.

Section 4. Payment for Bodily Injury or Property Damage. The Trustee shall satisfy a third party liability claim by drawing on the letter of credit described in Schedule B and by making payments from the Fund only upon receipt of one of the following documents:

(a) Certification from the Grantor and the third party claimant(s) that the liability claim should be paid. The certification shall be worded as follows, except that instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted:

Certification of Valid Claim

The undersigned, as parties (insert Grantor) and (insert name and address of third party claimant(s)), hereby certify that the claim of bodily injury and/or property damage caused by a (sudden or nonsudden) accidental occurrence arising from operating (Grantor's) hazardous waste treatment, storage, or disposal facility should be paid in the amount of $( ).

(Signature)

Grantor

(Signatures)

Claimant(s)

(b) A valid final court order establishing a judgment against the Grantor for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Grantor's facility or group of facilities.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of the proceeds from the letter of credit drawn upon by the Trustee in accordance with the requirements of Subsection R315-264-151(k) and Section 4 of this Agreement.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions Section R315-264-151. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2(a), shall not be acquired or held, unless they are securities or other obligations of the Federal or a State government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or a State government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depositary even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depositary with other securities deposited therein by another person, or to

deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve Bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements to the Trustee shall be paid from the Fund.

Section 10. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 11. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 12. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee

hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the Director and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

Section 13. Instructions to the Trustee. All orders, requests, certifications of valid claims, and instructions to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendments to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or the Director hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or the Director, except as provided for herein.

Section 14. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the Director, or by the Trustee and the Director if the Grantor ceases to exist.

Section 15. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 14, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the Director, or by the Trustee and the Director, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be paid to the Grantor.

The Director shall agree to termination of the Trust when the owner or operator substitutes alternative financial assurance as specified in this section.

Section 16. Immunity and indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor and the Director issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 17. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of Utah.

Section 18. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation of the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in Subsection R315-264-151(n) as such regulations were constituted on the date first above written.

(Signature of Grantor)

(Title)

Attest:

(Title)

(Seal)

(Signature of Trustee)

Attest:

(Title)

(Seal)

(2) The following is an example of the certification of acknowledgement which shall accompany the trust agreement for a standby trust fund as specified in Subsection R315-264-147(h) or 40 CFR 265.147(h) , which is adopted by reference.

State of

County of

On this (date), before me personally came (owner or operator) to me known, who, being by me duly sworn, did depose and say that she/he resides at (address), that she/he is (title) of (corporation), the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

(Signature of Notary Public)

R315-264-170. Use and Management of Containers - Applicability.

The regulations in Sections R315-264-170 through 179 apply to owners and operators of all hazardous waste facilities that store containers of hazardous waste, except as Section R315-264-1 provides otherwise.

Under Section R315-261-7 and Subsection R315-261-33(c), if a hazardous waste is emptied from a container the residue remaining in the container is not considered a hazardous waste if the container is “empty” as defined in Section R315-261-7. In that event, management of the container is

exempt from the requirements of Sections R315-264-170 through 179.

R315-264-171. Condition of containers.
If a container holding hazardous waste is not in good condition, e.g., severe rusting, apparent structural defects, or if it begins to leak, the owner or operator shall transfer the hazardous waste from this container to a container that is in good condition or manage the waste in some other way that complies with the requirements of Rule R315-264.

R315-264-172. Compatibility of waste with containers.
The owner or operator shall use a container made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired.

R315-264-173. Management of containers.
(a) A container holding hazardous waste shall always be closed during storage, except when it is necessary to add or remove waste.
(b) A container holding hazardous waste shall not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.

Comment: Reuse of containers in transportation is governed by U.S. Department of Transportation regulations including those set forth in 49 CFR 173.28.

R315-264-174. Inspections.
At least weekly, the owner or operator shall inspect areas where containers are stored. The owner or operator shall look for leaking containers and for deterioration of containers and the containment system caused by corrosion or other factors.

See Subsection R315-264-15(c) and Section R315-264-171 for remedial action required if deterioration or leaks are detected.

R315-264-175. Containment.
(a) Container storage areas shall have a containment system that is designed and operated in accordance with

Subsection R315-264-175(b), except as otherwise provided by Subsection R315-264-175(c).

(b) A containment system shall be designed and operated as follows:

(1) A base shall underlie the containers which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed;

(2) The base shall be sloped or the containment system shall be otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids;

(3) The containment system shall have sufficient capacity to contain 10% of the volume of containers or the volume of the largest container, whichever is greater. Containers that do not contain free liquids need not be considered in this determination;

(4) Run-on into the containment system shall be prevented unless the collection system has sufficient excess capacity in addition to that required in Subsection R315-264-175(b)(3) to contain any run-on which might enter the system; and

(5) Spilled or leaked waste and accumulated precipitation shall be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the collection system.

If the collected material is a hazardous waste under Rule R315-261, it shall be managed as a hazardous waste in accordance with all applicable requirements of Rules R315-262 through 266. If the collected material is discharged through a point source to waters of the United States, it is subject to the requirements of section 402 of the Clean Water Act, as amended.

(c) Storage areas that store containers holding only wastes that do not contain free liquids need not have a containment system defined by Subsection R315-264-175(b), except as provided by Subsection R315-264-175(d) or provided that:

(1) The storage area is sloped or is otherwise designed and operated to drain and remove liquid resulting from precipitation, or

(2) The containers are elevated or are otherwise protected from contact with accumulated liquid.

(d) Storage areas that store containers holding the wastes listed below that do not contain free liquids shall have a containment system defined by Subsection R315-264-175(b):

(1) FO20, FO21, FO22, FO23, FO26, and FO27.

R315-264-176. Special requirements for ignitable or reactive waste.

Containers holding ignitable or reactive waste shall be located at least 15 meters, 50 feet, from the facility's property line. See Subsection R315-264-17(a) for additional requirements.

R315-264-177. Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible wastes and materials, see appendix V of Rule R315-264 for examples, shall not be placed in the same container, unless Subsection R35-264-17(b) is complied with.

(b) Hazardous waste shall not be placed in an unwashed container that previously held an incompatible waste or material. As required by Section R315-264-13, the waste analysis plan shall include analyses needed to comply with Section R315-264-177. Also, Subsection R315-264-17(c) requires wastes analyses, trial tests or other documentation to assure compliance with Subsection R315-264-17(b). As required by Section R315-264-73, the owner or operator shall place the results of each waste analysis and trial test, and any documented information, in the operating record of the facility.

(c) A storage container holding a hazardous waste that is incompatible with any waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments shall be separated from the other materials or protected from them by means of a dike, berm, wall, or other device. The purpose of Section R315-264-177 is to prevent fires, explosions, gaseous emission, leaching, or other discharge of hazardous waste or hazardous waste constituents which could result from the mixing of incompatible wastes or materials if containers break or leak.

R315-264-178. Closure.

At closure, all hazardous waste and hazardous waste residues shall be removed from the containment system. Remaining containers, liners, bases, and soil containing or contaminated with hazardous waste or hazardous waste residues shall be decontaminated or removed. At closure, as throughout the operating period, unless the owner or operator can demonstrate in accordance with Subsection R315-261-3(d) that the solid waste removed from the containment system is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and shall manage it in accordance with all applicable requirements of Rules R315-262 through 266.

R315-264-179. Air emission standards.
The owner or operator shall manage all hazardous waste placed in a container in accordance with the applicable requirements of Sections R315-264-1030 through 1036, 1050 through 1065, and 1080 through 1090.

R315-264-190. Tank Systems - Applicability.
The requirements of Sections R315-264-190 through 200 apply to owners and operators of facilities that use tank systems for storing or treating hazardous waste except as otherwise provided in Subsections R315-264-190(a), (b), and (c) or in Section R315-264-1.

(a) Tank systems that are used to store or treat hazardous waste which contains no free liquids and are situated inside a building with an impermeable floor are exempted from the requirements in Section R315-264-193. To demonstrate the absence or presence of free liquids in the stored/treated waste, the following test shall be used: Method 9095B, Paint Filter Liquids Test, as described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in R315-260-11.

(b) Tank systems, including sumps, as defined in Section R315-260-10, that serve as part of a secondary containment system to collect or contain releases of hazardous wastes are exempted from the requirements in Subsection R315-264-193(a).

(c) Tanks, sumps, and other such collection devices or systems used in conjunction with drip pads, as defined in Section R315-260-10 and regulated under Sections R315-264-570 though 575, shall meet the requirements of Sections R315-264-190 through 200.

R315-264-191. Assessment of existing tank system's integrity.

(a) For each existing tank system that does not have secondary containment meeting the requirements of Section R315-264-193, the owner or operator shall determine that the tank system is not leaking or is unfit for use. Except as provided in Subsection R315-264-191(c), the owner or operator shall obtain and keep on file at the facility a written assessment reviewed and certified by a qualified Professional Engineer, in accordance with Subsection R315-270-11(d), that attests to the tank system's integrity.

(b) This assessment shall determine that the tank system is adequately designed and has sufficient structural strength and compatibility with the waste(s) to be stored or treated, to ensure that it will not collapse, rupture, or fail. At a minimum, this assessment shall consider the following:

(1) Design standard(s), if available, according to which the tank and ancillary equipment were constructed;

(2) Hazardous characteristics of the waste(s) that have been and will be handled;

(3) Existing corrosion protection measures;

(4) Documented age of the tank system, if available (otherwise, an estimate of the age); and

(5) Results of a leak test, internal inspection, or other tank integrity examination such that:

(i) For non-enterable underground tanks, the assessment shall include a leak test that is capable of taking into account the effects of temperature variations, tank end deflection, vapor pockets, and high water table effects, and

(ii) For other than non-enterable underground tanks and for ancillary equipment, this assessment shall include either a leak test, as described above, or other integrity examination that is certified by a qualified Professional Engineer in accordance with Subsection R315-270-11(d), that addresses cracks, leaks, corrosion, and erosion.

Note: The practices described in the American Petroleum Institute (API) Publication, Guide for Inspection of Refinery Equipment, Chapter XIII, “Atmospheric and Low-Pressure Storage Tanks,” 4th edition, 1981, may be used, where applicable, as guidelines in conducting other than a leak test.

(c) Tank systems that store or treat materials that become hazardous wastes subsequent to July 14, 1986, shall conduct this assessment within 12 months after the date that the waste becomes a hazardous waste.

(d) If, as a result of the assessment conducted in accordance with Subsection R315-264-191(a), a tank system is found to be leaking or unfit for use, the owner or operator shall comply with the requirements of Section R315-264-196.

R315-264-192. Design and installation of new tank systems or components.

(a) Owners or operators of new tank systems or components shall obtain and submit to the Director, at time of submittal of part B information, a written assessment, reviewed and certified by a qualified Professional Engineer, in accordance with Subsection R315-270-11(d), attesting that the tank system has sufficient structural integrity and is acceptable for the storing and treating of hazardous waste. The assessment shall show that the foundation, structural support, seams, connections, and pressure controls, if applicable, are adequately designed and that the tank system has sufficient structural strength, compatibility with the waste(s) to be stored or treated, and corrosion protection to ensure that it will not collapse, rupture, or fail. This assessment, which shall be used by the Director to review and approve or disapprove the acceptability of the tank system design, shall include, at a minimum, the following information:

(1) Design standard(s) according to which tank(s) and/or the ancillary equipment are constructed;

(2) Hazardous characteristics of the waste(s) to be handled;

(3) For new tank systems or components in which the external shell of a metal tank or any external metal component of the tank system will be in contact with the soil or with water, a determination by a corrosion expert of:

(i) Factors affecting the potential for corrosion, including but not limited to:

(A) Soil moisture content;

(B) Soil pH;

(C) Soil sulfides level;

(D) Soil resistivity;

(E) Structure to soil potential;

(F) Influence of nearby underground metal structures, e.g., piping;

(G) Existence of stray electric current;

(H) Existing corrosion-protection measures, e.g., coating, cathodic protection, and

(ii) The type and degree of external corrosion protection that are needed to ensure the integrity of the tank system during the use of the tank system or component, consisting of one or more of the following:

(A) Corrosion-resistant materials of construction such as special alloys, fiberglass reinforced plastic, etc.;

(B) Corrosion-resistant coating, such as epoxy, fiberglass, etc., with cathodic protection, e.g., impressed current or sacrificial anodes; and

(C) Electrical isolation devices such as insulating joints, flanges, etc.

Note: The practices described in the National Association of Corrosion Engineers (NACE) standard, “Recommended Practice (RP-02-85)-Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems,” and the American Petroleum Institute (API) Publication 1632, “Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems,” may be used, where applicable, as guidelines in providing corrosion protection for tank systems.

(4) For underground tank system components that are likely to be adversely affected by vehicular traffic, a determination of design or operational measures that will protect the tank system against potential damage; and

(5) Design considerations to ensure that:

(i) Tank foundations will maintain the load of a full tank;

(ii) Tank systems shall be anchored to prevent flotation or dislodgment where the tank system is placed in a saturated zone, or is located within a seismic fault zone subject to the standards of Subsection R315-264-18(a); and

(iii) Tank systems shall withstand the effects of frost heave.

(b) The owner or operator of a new tank system shall ensure that proper handling procedures are adhered to in order to prevent damage to the system during installation. Prior to covering, enclosing, or placing a new tank system or component in use, an independent, qualified, installation inspector or a qualified Professional

Engineer, either of whom is trained and experienced in the proper installation of tanks systems or components, shall inspect the system for the presence of any of the following items:

(1) Weld breaks;

(2) Punctures;

(3) Scrapes of protective coatings;

(4) Cracks;

(5) Corrosion;

(6) Other structural damage or inadequate construction/installation.

All discrepancies shall be remedied before the tank system is covered, enclosed, or placed in use.

(c) New tank systems or components that are placed underground and that are backfilled shall be provided with a backfill material that is a noncorrosive, porous, homogeneous substance and that is installed so that the backfill is placed completely around the tank and compacted to ensure that the tank and piping are fully and uniformly supported.

(d) All new tanks and ancillary equipment shall be tested for tightness prior to being covered, enclosed, or placed in use. If a tank system is found not to be tight, all repairs necessary to remedy the leak(s) in the system shall be performed prior to the tank system being covered, enclosed, or placed into use.

(e) Ancillary equipment shall be supported and protected against physical damage and excessive stress due to settlement, vibration, expansion, or contraction.

Note: The piping system installation procedures described in American Petroleum Institute (API) Publication 1615 (November 1979), “Installation of Underground Petroleum Storage Systems,” or ANSI Standard B31.3, “Petroleum Refinery Piping,” and ANSI Standard B31.4 “Liquid Petroleum Transportation Piping System,” may be used, where applicable, as guidelines for proper installation of piping systems.

(f) The owner or operator shall provide the type and degree of corrosion protection recommended by an independent corrosion expert, based on the information provided under Subsection R315-264-192(a)(3), or other corrosion protection if the Director believes other corrosion protection is necessary to ensure the integrity of the tank system during use of the tank system. The installation of a corrosion protection system that is field

fabricated shall be supervised by an independent corrosion expert to ensure proper installation.

(g) The owner or operator shall obtain and keep on file at the facility written statements by those persons required to certify the design of the tank system and supervise the installation of the tank system in accordance with the requirements of Subsections R315-264-192(b) through (f), that attest that the tank system was properly designed and installed and that repairs, pursuant to Subsections R315-264-192(b) and (d), were performed. These written statements shall also include the certification statement as required in Subsection R315-270-11(d).

R315-264-193. Containment and detection of releases.

(a) In order to prevent the release of hazardous waste or hazardous constituents to the environment, secondary containment that meets the requirements of Section R315-264-193 shall be provided, except as provided in Subsections R315-264-193(f) and (g):

(1) For all new and existing tank systems or components, prior to their being put into service.

(2) For tank systems that store or treat materials that become hazardous wastes, within two years of the hazardous waste listing, or when the tank system has reached 15 years of age, whichever comes later.

(b) Secondary containment systems shall be:

(1) Designed, installed, and operated to prevent any migration of wastes or accumulated liquid out of the system to the soil, ground water, or surface water at any time during the use of the tank system; and

(2) Capable of detecting and collecting releases and accumulated liquids until the collected material is removed.

(c) To meet the requirements of Subsection R315-264-193(b), secondary containment systems shall be at a minimum:

(1) Constructed of or lined with materials that are compatible with the wastes(s) to be placed in the tank system and shall have sufficient strength and thickness to prevent failure owing to pressure gradients, including static head and external hydrological forces, physical contact with the waste to which it is exposed, climatic conditions, and the stress of daily operation, including stresses from nearby vehicular traffic.

(2) Placed on a foundation or base capable of providing support to the secondary containment system, resistance to pressure gradients above and below the system, and capable of preventing failure due to settlement, compression, or uplift;

(3) Provided with a leak-detection system that is designed and operated so that it will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within 24 hours, or at the earliest practicable time if the owner or operator can demonstrate to the Director that existing detection technologies or site conditions shall not allow detection of a release within 24 hours; and

(4) Sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation. Spilled or leaked waste and accumulated precipitation shall be removed from the secondary containment system within 24 hours, or in as timely a manner as is possible to prevent harm to human health and the environment, if the owner or operator can demonstrate to the Director that removal of the released waste or accumulated precipitation cannot be accomplished within 24 hours.

Note: If the collected material is a hazardous waste under Rule R315-261, it is subject to management as a hazardous waste in accordance with all applicable requirements of Rules R315-262 through 265. If the collected material is discharged through a point source to waters of the United States, it is subject to the requirements of sections 301, 304, and 402 of the Clean Water Act, as amended. If discharged to a Publicly Owned Treatment Works (POTW), it is subject to the requirements of section 307 of the Clean Water Act, as amended. If the collected material is released to the environment, it may be subject to the reporting requirements of 40 CFR part 302.

(d) Secondary containment for tanks shall include one or more of the following devices:

(1) A liner, external to the tank;

(2) A vault;

(3) A double-walled tank; or

(4) An equivalent device as approved by the Director.

(e) In addition to the requirements of Subsections R315-264-193(b), (c), and (d), secondary containment systems shall satisfy the following requirements:

(1) External liner systems shall be:

(i) Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary;

(ii) Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. Such additional capacity shall be sufficient to contain precipitation from a 25-year, 24-hour rainfall event.

(iii) Free of cracks or gaps; and

(iv) Designed and installed to surround the tank completely and to cover all surrounding earth likely to come into contact with the waste if the waste is released from the tank(s), i.e., capable of preventing lateral as well as vertical migration of the waste.

(2) Vault systems shall be:

(i) Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary;

(ii) Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. Such additional capacity shall be sufficient to contain precipitation from a 25-year, 24-hour rainfall event;

(iii) Constructed with chemical-resistant water stops in place at all joints, if any;

(iv) Provided with an impermeable interior coating or lining that is compatible with the stored waste and that shall prevent migration of waste into the concrete;

(v) Provided with a means to protect against the formation of and ignition of vapors within the vault, if the waste being stored or treated:

(A) Meets the definition of ignitable waste under Section R315-261-21; or

(B) Meets the definition of reactive waste under Section R315-261-23, and may form an ignitable or explosive vapor; and

(vi) Provided with an exterior moisture barrier or be otherwise designed or operated to prevent migration of moisture into the vault if the vault is subject to hydraulic pressure.

(3) Double-walled tanks shall be:

(i) Designed as an integral structure, i.e., an inner tank completely enveloped within an outer shell, so that any release from the inner tank is contained by the outer shell;

(ii) Protected, if constructed of metal, from both corrosion of the primary tank interior and of the external surface of the outer shell; and

(iii) Provided with a built-in continuous leak detection system capable of detecting a release within 24 hours, or at the earliest practicable time, if the owner or operator can demonstrate to the Director, and the Director concludes, that the existing detection technology or site conditions would not allow detection of a release within 24 hours.

Note: The provisions outlined in the Steel Tank Institute's (STI) “Standard for Dual Wall Underground Steel Storage Tanks” may be used as guidelines for aspects of the design of underground steel double-walled tanks.

(f) Ancillary equipment shall be provided with secondary containment, e.g., trench, jacketing, double-walled piping, that meets the requirements of Subsections R315-264-193(b) and (c) except for:

(1) Aboveground piping, exclusive of flanges, joints, valves, and other connections, that are visually inspected for leaks on a daily basis;

(2) Welded flanges, welded joints, and welded connections, that are visually inspected for leaks on a daily basis;

(3) Sealless or magnetic coupling pumps and sealless valves, that are visually inspected for leaks on a daily basis; and

(4) Pressurized aboveground piping systems with automatic shut-off devices, e.g., excess flow check valves, flow metering shutdown devices, loss of pressure actuated shut-off devices, that are visually inspected for leaks on a daily basis.

(g) The owner or operator may obtain a variance from the requirements Section R315-264-193 if the Director finds, as a result of a demonstration by the owner or operator that alternative design and operating practices, together with location characteristics, will prevent the migration of any hazardous waste or hazardous constituents into the ground water; or surface water at least as effectively as secondary containment during the active life of the tank system or that in the event of a release that

does migrate to ground water or surface water, no substantial present or potential hazard will be posed to human health or the environment. New underground tank systems may not, per a demonstration in accordance with Subsection R315-264-193(g)(2), be exempted from the secondary containment requirements Section R315-264-193.

(1) In deciding whether to grant a variance based on a demonstration of equivalent protection of ground water and surface water, the Director shall consider:

(i) The nature and quantity of the wastes;

(ii) The proposed alternate design and operation;

(iii) The hydrogeologic setting of the facility, including the thickness of soils present between the tank system and ground water; and

(iv) All other factors that would influence the quality and mobility of the hazardous constituents and the potential for them to migrate to ground water or surface water.

(2) In deciding whether to grant a variance based on a demonstration of no substantial present or potential hazard, the Director shall consider:

(i) The potential adverse effects on ground water, surface water, and land quality taking into account:

(A) The physical and chemical characteristics of the waste in the tank system, including its potential for migration,

(B) The hydrogeological characteristics of the facility and surrounding land,

(C) The potential for health risks caused by human exposure to waste constituents,

(D) The potential for damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents, and

(E) The persistence and permanence of the potential adverse effects;

(ii) The potential adverse effects of a release on ground-water quality, taking into account:

(A) The quantity and quality of ground water and the direction of ground-water flow,

(B) The proximity and withdrawal rates of ground-water users,

(C) The current and future uses of ground water in the area, and

(D) The existing quality of ground water, including other sources of contamination and their cumulative impact on the ground-water quality;

(iii) The potential adverse effects of a release on surface water quality, taking into account:

(A) The quantity and quality of ground water and the direction of ground-water flow,

(B) The patterns of rainfall in the region,

(C) The proximity of the tank system to surface waters,

(D) The current and future uses of surface waters in the area and any water quality standards established for those surface waters, and

(E) The existing quality of surface water, including other sources of contamination and the cumulative impact on surface-water quality; and

(iv) The potential adverse effects of a release on the land surrounding the tank system, taking into account:

(A) The patterns of rainfall in the region, and

(B) The current and future uses of the surrounding land.

(3) The owner or operator of a tank system, for which a variance from secondary containment had been granted in accordance with the requirements of Subsection R315-264-193(g)(1), at which a release of hazardous waste has occurred from the primary tank system but has not migrated beyond the zone of engineering control, as established in the variance, shall:

(i) Comply with the requirements of Section R315-264-196, except Subsection R315-264-193(d), and

(ii) Decontaminate or remove contaminated soil to the extent necessary to:

(A) Enable the tank system for which the variance was granted to resume operation with the capability for the detection of releases at least equivalent to the capability it had prior to the release; and

(B) Prevent the migration of hazardous waste or hazardous constituents to ground water or surface water; and

(iii) If contaminated soil cannot be removed or decontaminated in accordance with Subsection R315-264-193(g)(3)(ii), comply with the requirement of Subsection R315-264-197(b).

(4) The owner or operator of a tank system, for which a variance from secondary containment had been granted in

accordance with the requirements of Subsection R315-264-193(g)(1), at which a release of hazardous waste has occurred from the primary tank system and has migrated beyond the zone of engineering control,as established in the variance, shall:

(i) Comply with the requirements of Subsections R315-264-196(a), (b), (c), and (d); and

(ii) Prevent the migration of hazardous waste or hazardous constituents to ground water or surface water, if possible, and decontaminate or remove contaminated soil. If contaminated soil cannot be decontaminated or removed or if ground water has been contaminated, the owner or operator shall comply with the requirements of Subsection R315-264-197(b); and

(iii) If repairing, replacing, or reinstalling the tank system, provide secondary containment in accordance with the requirements of Subsections R315-264-193(a) through (f) or reapply for a variance from secondary containment and meet the requirements for new tank systems in Section R315-264-192 if the tank system is replaced. The owner or operator shall comply with these requirements even if contaminated soil can be decontaminated or removed and ground water or surface water has not been contaminated.

(h) The following procedures shall be followed in order to request a variance from secondary containment:

(1) The Director shall be notified in writing by the owner or operator that he intends to conduct and submit a demonstration for a variance from secondary containment as allowed in Subsection R315-264-193(g) according to the following schedule:

(i) For existing tank systems, at least 24 months prior to the date that secondary containment shall be provided in accordance with Subsection R315-264-193(a).

(ii) For new tank systems, at least 30 days prior to entering into a contract for installation.

(2) As part of the notification, the owner or operator shall also submit to the Director a description of the steps necessary to conduct the demonstration and a timetable for completing each of the steps. The demonstration shall address each of the factors listed in Subsection R315-264-193(g)(1) or (g)(2);

(3) The demonstration for a variance shall be completed within 180 days after notifying the Director of an intent to conduct the demonstration; and

(4) If a variance is granted under Subsection R315-264-193(h), the Director shall require the permittee to construct and operate the tank system in the manner that was demonstrated to meet the requirements for the variance.

(i) All tank systems, until such time as secondary containment that meets the requirements Section R315-264-193 is provided, shall comply with the following:

(1) For non-enterable underground tanks, a leak test that meets the requirements of Subsection R315-264-191(b)(5) or other tank integrity method, as approved or required by the Director, shall be conducted at least annually.

(2) For other than non-enterable underground tanks, the owner or operator shall either conduct a leak test as in Subsection R315-264-193(i)(1) or develop a schedule and procedure for an assessment of the overall condition of the tank system by a qualified Professional Engineer. The schedule and procedure shall be adequate to detect obvious cracks, leaks, and corrosion or erosion that may lead to cracks and leaks. The owner or operator shall remove the stored waste from the tank, if necessary, to allow the condition of all internal tank surfaces to be assessed. The frequency of these assessments shall be based on the material of construction of the tank and its ancillary equipment, the age of the system, the type of corrosion or erosion protection used, the rate of corrosion or erosion observed during the previous inspection, and the characteristics of the waste being stored or treated.

(3) For ancillary equipment, a leak test or other integrity assessment as approved by the Director shall be conducted at least annually.

Note: The practices described in the American Petroleum Institute (API) Publication Guide for Inspection of Refinery Equipment, Chapter XIII, “Atmospheric and Low-Pressure Storage Tanks,” 4th edition, 1981, may be used, where applicable, as guidelines for assessing the overall condition of the tank system.

(4) The owner or operator shall maintain on file at the facility a record of the results of the assessments conducted in accordance with Subsections R315-264-193(i)(1) through (i)(3).

(5) If a tank system or component is found to be leaking or unfit for use as a result of the leak test or assessment in Subsections R315-264-193(i)(1) through

(i)(3), the owner or operator shall comply with the requirements of Section R315-264-196.

R315-264-194. General operating requirements.

(a) Hazardous wastes or treatment reagents shall not be placed in a tank system if they could cause the tank, its ancillary equipment, or the containment system to rupture, leak, corrode, or otherwise fail.

(b) The owner or operator shall use appropriate controls and practices to prevent spills and overflows from tank or containment systems. These include at a minimum:

(1) Spill prevention controls, e.g., check valves, dry disconnect couplings;

(2) Overfill prevention controls, e.g., level sensing devices, high level alarms, automatic feed cutoff, or bypass to a standby tank; and

(3) Maintenance of sufficient freeboard in uncovered tanks to prevent overtopping by wave or wind action or by precipitation.

(c) The owner or operator shall comply with the requirements of Section R315-264-196 if a leak or spill occurs in the tank system.

R315-264-195. Inspections.

(a) The owner or operator shall develop and follow a schedule and procedure for inspecting overfill controls.

(b) The owner or operator shall inspect at least once each operating day data gathered from monitoring and leak detection equipment, e.g., pressure or temperature gauges, monitoring wells, to ensure that the tank system is being operated according to its design.

Note: Subsection R315-264-15(c) requires the owner or operator to remedy any deterioration or malfunction he finds. Section R315-264-196 requires the owner or operator to notify the Director within 24 hours of confirming a leak. Also, 40 CFR part 302 may require the owner or operator to notify the National Response Center of a release.

(c) In addition, except as noted under Subsection R315-264-195(d), the owner or operator shall inspect at least once each operating day:

(1) Above ground portions of the tank system, if any, to detect corrosion or releases of waste.

(2) The construction materials and the area immediately surrounding the externally accessible portion

of the tank system, including the secondary containment system, e.g., dikes, to detect erosion or signs of releases of hazardous waste, e.g., wet spots, dead vegetation.

(d) Owners or operators of tank systems that either use leak detection systems to alert facility personnel to leaks, or implement established workplace practices to ensure leaks are promptly identified, shall inspect at least weekly those areas described in Subsections R315-264-195(c)(1) and (c)(2). Use of the alternate inspection schedule shall be documented in the facility's operating record. This documentation shall include a description of the established workplace practices at the facility.

(e) Reserved

(f) Ancillary equipment that is not provided with secondary containment, as described in Subsections R315-264-193(f)(1) through (4), shall be inspected at least once each operating day.

(g) The owner or operator shall inspect cathodic protection systems, if present, according to, at a minimum, the following schedule to ensure that they are functioning properly:

(1) The proper operation of the cathodic protection system shall be confirmed within six months after initial installation and annually thereafter; and

(2) All sources of impressed current shall be inspected and/or tested, as appropriate, at least bimonthly, i.e., every other month.

Note: The practices described in the National Association of Corrosion Engineers (NACE) standard, “Recommended Practice (RP-02-85)-Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems,” and the American Petroleum Institute (API) Publication 1632, “Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems,” may be used, where applicable, as guidelines in maintaining and inspecting cathodic protection systems.

(h) The owner or operator shall document in the operating record of the facility an inspection of those items in Subsections R315-264-195(a) through (c).

R315-264-196. Response to leaks or spills and disposition of leaking or unfit-for-use tank systems.

A tank system or secondary containment system from which there has been a leak or spill, or which is unfit for use,

shall be removed from service immediately, and the owner or operator shall satisfy the following requirements:

(a) Cessation of use; prevent flow or addition of wastes. The owner or operator shall immediately stop the flow of hazardous waste into the tank system or secondary containment system and inspect the system to determine the cause of the release.

(b) Removal of waste from tank system or secondary containment system.

(1) If the release was from the tank system, the owner/operator shall, within 24 hours after detection of the leak or, if the owner/operator demonstrates that it is not possible, at the earliest practicable time, remove as much of the waste as is necessary to prevent further release of hazardous waste to the environment and to allow inspection and repair of the tank system to be performed.

(2) If the material released was to a secondary containment system, all released materials shall be removed within 24 hours or in as timely a manner as is possible to prevent harm to human health and the environment.

(c) Containment of visible releases to the environment. The owner/operator shall immediately conduct a visual inspection of the release and, based upon that inspection:

(1) Prevent further migration of the leak or spill to soils or surface water; and

(2) Remove, and properly dispose of, any visible contamination of the soil or surface water.

(d) Notifications, reports.

(1) Any release to the environment, except as provided in Subsection R315-264-196(d)(2), shall be reported to the Director within 24 hours of its detection. If the release has been reported pursuant to 40 CFR part 302, that report shall satisfy this requirement.

(2) A leak or spill of hazardous waste is exempted from the requirements of Subsection R315-264-196(d) if it is:

(i) Less than or equal to a quantity of one (1) pound, and

(ii) Immediately contained and cleaned up.

(3) Within 30 days of detection of a release to the environment, a report containing the following information shall be submitted to the Director:

(i) Likely route of migration of the release;

(ii) Characteristics of the surrounding soil, soil composition, geology, hydrogeology, climate;

(iii) Results of any monitoring or sampling conducted in connection with the release, if available. If sampling or monitoring data relating to the release are not available within 30 days, these data shall be submitted to the Director as soon as they become available.

(iv) Proximity to downgradient drinking water, surface water, and populated areas; and

(v) Description of response actions taken or planned.

(e) Provision of secondary containment, repair, or closure.

(1) Unless the owner/operator satisfies the requirements of Subsection R315-264-196(e)(2) through (4), the tank system shall be closed in accordance with Section R315-264-197.

(2) If the cause of the release was a spill that has not damaged the integrity of the system, the owner/operator may return the system to service as soon as the released waste is removed and repairs, if necessary, are made.

(3) If the cause of the release was a leak from the primary tank system into the secondary containment system, the system shall be repaired prior to returning the tank system to service.

(4) If the source of the release was a leak to the environment from a component of a tank system without secondary containment, the owner/operator shall provide the component of the system from which the leak occurred with secondary containment that satisfies the requirements of Section R315-264-193 before it can be returned to service, unless the source of the leak is an aboveground portion of a tank system that can be inspected visually. If the source is an aboveground component that can be inspected visually, the component shall be repaired and may be returned to service without secondary containment as long as the requirements of Subsection R315-264-196(f) are satisfied. If a component is replaced to comply with the requirements of Subsection R315-264-196(e)(4), that component shall satisfy the requirements for new tank systems or components in Sections R315-264-192 and 193. Additionally, if a leak has occurred in any portion of a tank system component that is not readily accessible for visual inspection, e.g., the bottom of an inground or onground tank, the entire component shall be provided with secondary containment in

accordance with Section R315-264-193 prior to being returned to use.

(f) Certification of major repairs. If the owner/operator has repaired a tank system in accordance with Subsection R315-264-196(e), and the repair has been extensive, e.g., installation of an internal liner; repair of a ruptured primary containment or secondary containment vessel, the tank system shall not be returned to service unless the owner/operator has obtained a certification by a qualified Professional Engineer in accordance with Subsection R315-270-11(d) that the repaired system is capable of handling hazardous wastes without release for the intended life of the system. This certification shall be placed in the operating record and maintained until closure of the facility.

Note: The Director may, on the basis of any information received that there is or has been a release of hazardous waste or hazardous constituents into the environment, issue an order requiring corrective action or such other response as deemed necessary to protect human health or the environment.

Note: See Subsection R315-264-15(c) for the requirements necessary to remedy a failure. Also, 40 CFR part 302 may require the owner or operator to notify the National Response Center of certain releases.

R315-264-197. Closure and post-closure care.

(a) At closure of a tank system, the owner or operator shall remove or decontaminate all waste residues, contaminated containment system components, liners, etc., contaminated soils, and structures and equipment contaminated with waste, and manage them as hazardous waste, unless Subsection R315-261-3(d) applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for tank systems shall meet all of the requirements specified in Sections R315-264-110 through 120, 140 through 151.

(b) If the owner or operator demonstrates that not all contaminated soils can be practicably removed or decontaminated as required in Subsection R315-264-197(a), then the owner or operator shall close the tank system and perform post-closure care in accordance with the closure and post-closure care requirements that apply to landfills, Subsection R315-264-310. In addition, for the purposes of closure, post-closure, and financial responsibility, such a

tank system is then considered to be a landfill, and the owner or operator shall meet all of the requirements for landfills specified in Sections R315-264-110 through 120, 140 through 151.

(c) If an owner or operator has a tank system that does not have secondary containment that meets the requirements of Subsections R315-264-193(b) through (f) and has not been granted a variance from the secondary containment requirements in accordance with Subsection R315-264-193(g), then:

(1) The closure plan for the tank system shall include both a plan for complying with Subsection R315-264-197(a) and a contingent plan for complying with Subsection R315-264-197(b).

(2) A contingent post-closure plan for complying with Subsection R315-264-197(b) shall be prepared and submitted as part of the permit application.

(3) The cost estimates calculated for closure and post-closure care shall reflect the costs of complying with the contingent closure plan and the contingent post-closure plan, if those costs are greater than the costs of complying with the closure plan prepared for the expected closure under Subsection R315-264-197(a).

(4) Financial assurance shall be based on the cost estimates in Subsection R315-264-197(c)(3).

(5) For the purposes of the contingent closure and post-closure plans, such a tank system is considered to be a landfill, and the contingent plans shall meet all of the closure, post-closure, and financial responsibility requirements for landfills under Sections R315-264-110 through 120, 140 through 148, and 151.

R315-264-198. Special requirements for ignitable or reactive wastes.

(a) Ignitable or reactive waste shall not be placed in tank systems, unless:

(1) The waste is treated, rendered, or mixed before or immediately after placement in the tank system so that:

(i) The resulting waste, mixture, or dissolved material no longer meets the definition of ignitable or reactive waste under Sections R315-261-21 or 23, and

(ii) Subsection R315-264-17(b) is complied with; or

(2) The waste is stored or treated in such a way that it is protected from any material or conditions that may cause the waste to ignite or react; or

(3) The tank system is used solely for emergencies.

(b) The owner or operator of a facility where ignitable or reactive waste is stored or treated in a tank shall comply with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys, or an adjoining property line that can be built upon as required in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code," (1977 or 1981), incorporated by reference, see Section R315-260-11.

R315-264-199. Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible wastes and materials, shall not be placed in the same tank system, unless Subsection R315-264-17(b) is complied with.

(b) Hazardous waste shall not be placed in a tank system that has not been decontaminated and that previously held an incompatible waste or material, unless Subsection R315-264-17(b) is complied with.

R315-264-200. Air emission standards.

The owner or operator shall manage all hazardous waste placed in a tank in accordance with the applicable requirements of Sections R315-264-1030 through 1036, 1050 through 1065 and 1080 through 1090.

R315-264-220. Surface Impoundments - Applicability.

The regulations in Sections R315-264-220 through 223 and 226 through 232 apply to owners and operators of facilities that use surface impoundments to treat, store, or dispose of hazardous waste except as Section R315-264-1 provides otherwise.

R315-264-221. Design and operating requirements.

(a) Any surface impoundment that is not covered by Subsection R315-264-221(c) or 40 CFR 265.221, which is adopted by reference, shall have a liner for all portions of the impoundment, except for existing portions of such impoundments. The liner shall be designed, constructed, and installed to prevent any migration of wastes out of the impoundment to the adjacent subsurface soil or ground water or surface water at any time during the active life, including the closure period, of the impoundment. The liner may be constructed of materials that may allow wastes to

migrate into the liner, but not into the adjacent subsurface soil or ground water or surface water, during the active life of the facility, provided that the impoundment is closed in accordance with Subsection R315-264-228(a)(1). For impoundments that will be closed in accordance with Subsection R315-264-228(a)(2), the liner shall be constructed of materials that can prevent wastes from migrating into the liner during the active life of the facility. The liner shall be:

(1) Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients, including static head and external hydrogeologic forces, physical contact with the waste or leachate to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation;

(2) Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift; and

(3) Installed to cover all surrounding earth likely to be in contact with the waste or leachate.

(b) The owner or operator shall be exempted from the requirements of Subsection R315-264-221(a) if the Director finds, based on a demonstration by the owner or operator, that alternate design and operating practices, together with location characteristics, shall prevent the migration of any hazardous constituents, see Subsection R315-264-93, into the ground water or surface water at any future time. In deciding whether to grant an exemption, the Director shall consider:

(1) The nature and quantity of the wastes;

(2) The proposed alternate design and operation;

(3) The hydrogeologic setting of the facility, including the attenuative capacity and thickness of the liners and soils present between the impoundment and ground water or surface water; and

(4) All other factors which would influence the quality and mobility of the leachate produced and the potential for it to migrate to ground water or surface water.

(c) The owner or operator of each new surface impoundment unit on which construction commences after January 29, 1992, each lateral expansion of a surface impoundment unit on which construction commences after July

29, 1992 and each replacement of an existing surface impoundment unit that is to commence reuse after July 29, 1992 shall install two or more liners and a leachate collection and removal system between such liners. “Construction commences” is as defined in Section R315-260-10 under “existing facility”.

(1)(i) The liner system shall include:

(A) A top liner designed and constructed of materials, e.g., a geomembrane, to prevent the migration of hazardous constituents into such liner during the active life and post-closure care period; and

(B) A composite bottom liner, consisting of at least two components. The upper component shall be designed and constructed of materials, e.g., a geomembrane, to prevent the migration of hazardous constituents into this component during the active life and post-closure care period. The lower component shall be designed and constructed of materials to minimize the migration of hazardous constituents if a breach in the upper component were to occur. The lower component shall be constructed of at least 3 feet, 91 cm, of compacted soil material with a hydraulic conductivity of no more than 1×10^{-7} cm/sec.

(ii) The liners shall comply with Subsections R315-264-221(a)(1), (2), and (3).

(2) The leachate collection and removal system between the liners, and immediately above the bottom composite liner in the case of multiple leachate collection and removal systems, is also a leak detection system. This leak detection system shall be capable of detecting, collecting, and removing leaks of hazardous constituents at the earliest practicable time through all areas of the top liner likely to be exposed to waste or leachate during the active life and post-closure care period. The requirements for a leak detection system in Subsection R315-264-221(c)(2) are satisfied by installation of a system that is, at a minimum:

(i) Constructed with a bottom slope of one percent or more;

(ii) Constructed of granular drainage materials with a hydraulic conductivity of 1×10^{-1} cm/sec or more and a thickness of 12 inches (30.5 cm) or more; or constructed of synthetic or geonet drainage materials with a transmissivity of 3×10^{-4} m^2/sec or more;

(iii) Constructed of materials that are chemically resistant to the waste managed in the surface impoundment and the leachate expected to be generated, and of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes and any waste cover materials or equipment used at the surface impoundment;

(iv) Designed and operated to minimize clogging during the active life and post-closure care period; and

(v) Constructed with sumps and liquid removal methods, e.g., pumps, of sufficient size to collect and remove liquids from the sump and prevent liquids from backing up into the drainage layer. Each unit shall have its own sump(s). The design of each sump and removal system shall provide a method for measuring and recording the volume of liquids present in the sump and of liquids removed.

(3) The owner or operator shall collect and remove pumpable liquids in the sumps to minimize the head on the bottom liner.

(4) The owner or operator of a leak detection system that is not located completely above the seasonal high water table shall demonstrate that the operation of the leak detection system will not be adversely affected by the presence of ground water.

(d) The Director may approve alternative design or operating practices to those specified in Subsection R315-264-221(c) if the owner or operator demonstrates to the Director that such design and operating practices, together with location characteristics:

(1) Will prevent the migration of any hazardous constituent into the ground water or surface water at least as effectively as the liners and leachate collection and removal system specified in Subsection R315-264-221(c); and

(2) Will allow detection of leaks of hazardous constituents through the top liner at least as effectively.

(e) The double liner requirement set forth in Subsection R315-264-221(c) may be waived by the Director for any monofill, if:

(1) The monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and such wastes do not contain constituents which would render the wastes hazardous for reasons other than the toxicity characteristic in Section R315-261-24; and

(2)(i)(A) The monofill has at least one liner for which there is no evidence that such liner is leaking. For the purposes of Subsection R315-264-221(e), the term "liner" means a liner designed, constructed, installed, and operated to prevent hazardous waste from passing into the liner at any time during the active life of the facility, or a liner designed, constructed, installed, and operated to prevent hazardous waste from migrating beyond the liner to adjacent subsurface soil, ground water, or surface water at any time during the active life of the facility. In the case of any surface impoundment which has been exempted from the requirements of Subsection R315-264-221(c) on the basis of a liner designed, constructed, installed, and operated to prevent hazardous waste from passing beyond the liner, at the closure of such impoundment, the owner or operator shall remove or decontaminate all waste residues, all contaminated liner material, and contaminated soil to the extent practicable. If all contaminated soil is not removed or decontaminated, the owner or operator of such impoundment will comply with appropriate post-closure requirements, including but not limited to ground-water monitoring and corrective action;

(B) The monofill is located more than one-quarter mile from an "underground source of drinking water," as that term is defined in Section R315-270-2; and

(C) The monofill is in compliance with generally applicable ground-water monitoring requirements for facilities with permits under Section 19-6-108; or

(ii) The owner or operator demonstrates that the monofill is located, designed and operated so as to assure that there will be no migration of any hazardous constituent into ground water or surface water at any future time.

(f) The owner or operator of any replacement surface impoundment unit is exempt from Subsection R315-264-221(c) if:

(1) The existing unit was constructed in compliance with the design standards of sections 3004 (o)(1)(A)(i) and (o)(5) of the Resource Conservation and Recovery Act; and

(2) There is no reason to believe that the liner is not functioning as designed.

(g) A surface impoundment shall be designed, constructed, maintained, and operated to prevent overtopping resulting from normal or abnormal operations;

overfilling; wind and wave action; rainfall; run-on; malfunctions of level controllers, alarms, and other equipment; and human error.

(h) A surface impoundment shall have dikes that are designed, constructed, and maintained with sufficient structural integrity to prevent massive failure of the dikes. In ensuring structural integrity, it shall not be presumed that the liner system will function without leakage during the active life of the unit.

(i) The Director shall specify in the permit all design and operating practices that are necessary to ensure that the requirements of Section R315-264-221 are satisfied.

R315-264-222. Action leakage rate.

(a) The Director shall approve an action leakage rate for surface impoundment units subject to Subsections R315-264221(c) or (d). The action leakage rate is the maximum design flow rate that the leak detection system can remove without the fluid head on the bottom liner exceeding one foot. The action leakage rate shall include an adequate safety margin to allow for uncertainties in the design, e.g., slope, hydraulic conductivity, thickness of drainage material, construction, operation, and location of the leak detection system, waste and leachate characteristics, likelihood and amounts of other sources of liquids in the leak detection system, and proposed response actions, e.g., the action leakage rate shall consider decreases in the flow capacity of the system over time resulting from siltation and clogging, rib layover and creep of synthetic components of the system, overburden pressures, etc.

(b) To determine if the action leakage rate has been exceeded, the owner or operator shall convert the weekly or monthly flow rate from the monitoring data obtained under Subsection R315-264-226(d) to an average daily flow rate, gallons per acre per day, for each sump. Unless the Director approves a different calculation, the average daily flow rate for each sump shall be calculated weekly during the active life and closure period, and if the unit is closed in accordance with Subsection R315-264-228(b), monthly during the post-closure care period when monthly monitoring is required under Subsection R315-264-226(d).

R315-264-223. Response actions.

(a) The owner or operator of surface impoundment units subject to Subsection R315-264-221(c) or (d) shall have an approved response action plan before receipt of waste. The response action plan shall set forth the actions to be taken if the action leakage rate has been exceeded. At a minimum, the response action plan shall describe the actions specified in Subsection R315-264-223(b).

(b) If the flow rate into the leak detection system exceeds the action leakage rate for any sump, the owner or operator shall:

(1) Notify the Director in writing of the exceedance within 7 days of the determination;

(2) Submit a preliminary written assessment to the Director within 14 days of the determination, as to the amount of liquids, likely sources of liquids, possible location, size, and cause of any leaks, and short-term actions taken and planned;

(3) Determine to the extent practicable the location, size, and cause of any leak;

(4) Determine whether waste receipt should cease or be curtailed, whether any waste should be removed from the unit for inspection, repairs, or controls, and whether or not the unit should be closed;

(5) Determine any other short-term and longer-term actions to be taken to mitigate or stop any leaks; and

(6) Within 30 days after the notification that the action leakage rate has been exceeded, submit to the Director the results of the analyses specified in Subsections R315-264-223(b)(3), (4), and (5), the results of actions taken, and actions planned. Monthly thereafter, as long as the flow rate in the leak detection system exceeds the action leakage rate, the owner or operator shall submit to the Director a report summarizing the results of any remedial actions taken and actions planned.

(c) To make the leak and/or remediation determinations in Subsections R315-264-223(b)(3), (4), and (5), the owner or operator shall:

(1)(i) Assess the source of liquids and amounts of liquids by source,

(ii) Conduct a fingerprint, hazardous constituent, or other analyses of the liquids in the leak detection system to identify the source of liquids and possible location of any leaks, and the hazard and mobility of the liquid; and

(iii) Assess the seriousness of any leaks in terms of potential for escaping into the environment; or

(2) Document why such assessments are not needed.

R315-264-226. Monitoring and inspection.

(a) During construction and installation, liners, except in the case of existing portions of surface impoundments exempt from Subsection R315-264-221(a), and cover systems, e.g., membranes, sheets, or coatings, shall be inspected for uniformity, damage, and imperfections, e.g., holes, cracks, thin spots, or foreign materials. Immediately after construction or installation:

(1) Synthetic liners and covers shall be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters; and

(2) Soil-based and admixed liners and covers shall be inspected for imperfections including lenses, cracks, channels, root holes, or other structural non-uniformities that may cause an increase in the permeability of the liner or cover.

(b) While a surface impoundment is in operation, it shall be inspected weekly and after storms to detect evidence of any of the following:

(1) Deterioration, malfunctions, or improper operation of overtopping control systems;

(2) Sudden drops in the level of the impoundment's contents; and

(3) Severe erosion or other signs of deterioration in dikes or other containment devices.

(c) Prior to the issuance of a permit, and after any extended period of time, at least six months, during which the impoundment was not in service, the owner or operator shall obtain a certification from a qualified engineer that the impoundment's dike, including that portion of any dike which provides freeboard, has structural integrity. The certification shall establish, in particular, that the dike:

(1) Will withstand the stress of the pressure exerted by the types and amounts of wastes to be placed in the impoundment; and

(2) Will not fail due to scouring or piping, without dependence on any liner system included in the surface impoundment construction.

(d)(1) An owner or operator required to have a leak detection system under Subsection R315-264-221(c) or (d) shall record the amount of liquids removed from each leak

detection system sump at least once each week during the active life and closure period.

(2) After the final cover is installed, the amount of liquids removed from each leak detection system sump shall be recorded at least monthly. If the liquid level in the sump stays below the pump operating level for two consecutive months, the amount of liquids in the sumps shall be recorded at least quarterly. If the liquid level in the sump stays below the pump operating level for two consecutive quarters, the amount of liquids in the sumps shall be recorded at least semi-annually. If at any time during the post-closure care period the pump operating level is exceeded at units on quarterly or semi-annual recording schedules, the owner or operator shall return to monthly recording of amounts of liquids removed from each sump until the liquid level again stays below the pump operating level for two consecutive months.

(3) "Pump operating level" is a liquid level proposed by the owner or operator and approved by the Director based on pump activation level, sump dimensions, and level that avoids backup into the drainage layer and minimizes head in the sump.

R315-264-227. Emergency repairs; contingency plans.

(a) A surface impoundment shall be removed from service in accordance with Subsection R315-264-227(b) when:

(1) The level of liquids in the impoundment suddenly drops and the drop is not known to be caused by changes in the flows into or out of the impoundment; or

(2) The dike leaks.

(b) When a surface impoundment shall be removed from service as required by Subsection R315-264-227(a), the owner or operator shall:

(1) Immediately shut off the flow or stop the addition of wastes into the impoundment;

(2) Immediately contain any surface leakage which has occurred or is occurring;

(3) Immediately stop the leak;

(4) Take any other necessary steps to stop or prevent catastrophic failure;

(5) If a leak cannot be stopped by any other means, empty the impoundment; and

(6) Notify the Director of the problem in writing within seven days after detecting the problem.

(c) As part of the contingency plan required in Sections R315-264-50 through 56, the owner or operator shall specify a procedure for complying with the requirements of Subsection R315-264-227(b).

(d) No surface impoundment that has been removed from service in accordance with the requirements of Section R315-264-227 may be restored to service unless the portion of the impoundment which was failing is repaired and the following steps are taken:

(1) If the impoundment was removed from service as the result of actual or imminent dike failure, the dike's structural integrity shall be recertified in accordance with Subsection R315-264-226(c).

(2) If the impoundment was removed from service as the result of a sudden drop in the liquid level, then:

(i) For any existing portion of the impoundment, a liner shall be installed in compliance with Subsection R315-264-221(a); and

(ii) For any other portion of the impoundment, the repaired liner system shall be certified by a qualified engineer as meeting the design specifications approved in the permit.

(e) A surface impoundment that has been removed from service in accordance with the requirements of Section R315-264-227 and that is not being repaired shall be closed in accordance with the provisions of Section R315-264-228.

R315-264-228. Closure and post-closure care.

(a) At closure, the owner or operator shall:

(1) Remove or decontaminate all waste residues, contaminated containment system components, liners, etc., contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless Subsection R315-261-3(d) applies; or

(2)(i) Eliminate free liquids by removing liquid wastes or solidifying the remaining wastes and waste residues;

(ii) Stabilize remaining wastes to a bearing capacity sufficient to support final cover; and

(iii) Cover the surface impoundment with a final cover designed and constructed to:

(A) Provide long-term minimization of the migration of liquids through the closed impoundment;

(B) Function with minimum maintenance;

(C) Promote drainage and minimize erosion or abrasion of the final cover;

(D) Accommodate settling and subsidence so that the cover's integrity is maintained; and

(E) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

(b) If some waste residues or contaminated materials are left in place at final closure, the owner or operator shall comply with all post-closure requirements contained in Sections R315-264-117 through 120, including maintenance and monitoring throughout the post- closure care period, specified in the permit under Section R315-264-117. The owner or operator shall:

(1) Maintain the integrity and effectiveness of the final cover, including making repairs to the cap as necessary to correct the effects of settling, subsidence, erosion, or other events;

(2) Maintain and monitor the leak detection system in accordance with Subsections R315-264-221(c)(2)(iv) and (3) and 226(d), and comply with all other applicable leak detection system requirements of Rule R315-264;

(3) Maintain and monitor the ground-water monitoring system and comply with all other applicable requirements of Sections R315-264-90 through 101; and

(4) Prevent run-on and run-off from eroding or otherwise damaging the final cover.

(c)(1) If an owner or operator plans to close a surface impoundment in accordance with Subsection R315-264-228(a)(1), and the impoundment does not comply with the liner requirements of Subsection R315-264-221(a) and is not exempt from them in accordance with Subsection R315-264-221(b), then:

(i) The closure plan for the impoundment under Section R315-264-112 shall include both a plan for complying with Subsection R315-264-228(a)(1) and a contingent plan for complying with Subsection R315-264-228(a)(2) in case not all contaminated subsoils can be practicably removed at closure; and

(ii) The owner or operator shall prepare a contingent post-closure plan under Section R315-264-118 for complying with Subsection R315-264-228(b) in case not all contaminated subsoils can be practicably removed at closure.

(2) The cost estimates calculated under Sections R315-264-142 and 264-144 for closure and post-closure care of an impoundment subject to Subsection R315-264-228(c) shall include the cost of complying with the contingent closure plan and the contingent post-closure plan, but are not required to include the cost of expected closure under Subsection R315-264-228(a)(1).

R315-264-229. Special requirements for ignitable or reactive waste.

Ignitable or reactive waste shall not be placed in a surface impoundment, unless the waste and impoundment satisfy all applicable requirements of Rule R315-268, and:

(a) The waste is treated, rendered, or mixed before or immediately after placement in the impoundment so that:

(1) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under Sections R315-261-21 or 23; and

(2) Subsection R315-264-17(b) is complied with; or

(b) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react; or

(c) The surface impoundment is used solely for emergencies.

R315-264-230. Special requirements for incompatible wastes.

Incompatible wastes, or incompatible wastes and materials, see appendix V of Rule R315-264 for examples, shall not be placed in the same surface impoundment, unless Subsection R315-264-17(b) is complied with.

R315-264-231. Special requirements for hazardous wastes FO20, FO21, FO22, FO23, FO26, and FO27.

(a) Hazardous Wastes FO20, FO21, FO22, FO23, FO26, and FO27 shall not be placed in a surface impoundment unless the owner or operator operates the surface impoundment in accordance with a management plan for these wastes that is approved by the Director pursuant to the standards set out in Subsection R315-264-231(a), and in accord with all other applicable requirements of Rule R315-264. The factors to be considered are:

(1) The volume, physical, and chemical characteristics of the wastes, including their potential to

migrate through soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring techniques.

(b) The Director may determine that additional design, operating, and monitoring requirements are necessary for surface impoundments managing hazardous wastes FO20, FO21, FO22, FO23, FO26, and FO27 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment.

R315-264-232. Air emission standards.

The owner or operator shall manage all hazardous waste placed in a surface impoundment in accordance with the applicable requirements of Sections R315-264-1050 through 1065 and 1080 through 1090.

R315-264-250. Waste Piles - Applicability.

(a) The regulations in Sections R315-264-250 through 254 and 256 through 259 apply to owners and operators of facilities that store or treat hazardous waste in piles, except as Section R315-264-1 provides otherwise.

(b) The regulations in Sections R315-264-250 through 254 and 256 through 259 do not apply to owners or operators of waste piles that are closed with wastes left in place. Such waste piles are subject to regulation under Sections R315-264-300 through 304, 309 and 310, and 312 through 317, Landfills.

(c) The owner or operator of any waste pile that is inside or under a structure that provides protection from precipitation so that neither run-off nor leachate is generated is not subject to regulation under Section R315-264-251 or under Sections R315-264-90 through 101, provided that:

(1) Liquids or materials containing free liquids are not placed in the pile;

(2) The pile is protected from surface water run-on by the structure or in some other manner;

(3) The pile is designed and operated to control dispersal of the waste by wind, where necessary, by means other than wetting; and

(4) The pile will not generate leachate through decomposition or other reactions.

R315-264-251. Design and operating requirements.

(a) A waste pile, except for an existing portion of a waste pile, shall have:

(1) A liner that is designed, constructed, and installed to prevent any migration of wastes out of the pile into the adjacent subsurface soil or ground water or surface water at any time during the active life, including the closure period, of the waste pile. The liner may be constructed of materials that may allow waste to migrate into the liner itself, but not into the adjacent subsurface soil or ground water or surface water, during the active life of the facility. The liner shall be:

(i) Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients, including static head and external hydrogeologic forces, physical contact with the waste or leachate to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation;

(ii) Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift; and

(iii) Installed to cover all surrounding earth likely to be in contact with the waste or leachate; and

(2) A leachate collection and removal system immediately above the liner that is designed, constructed, maintained, and operated to collect and remove leachate from the pile. The Director shall specify design and operating conditions in the permit to ensure that the leachate depth over the liner does not exceed 30 cm, one foot. The leachate collection and removal system shall be:

(i) Constructed of materials that are:

(A) Chemically resistant to the waste managed in the pile and the leachate expected to be generated; and

(B) Of sufficient strength and thickness to prevent collapse under the pressures exerted by overlaying wastes, waste cover materials, and by any equipment used at the pile; and

(ii) Designed and operated to function without clogging through the scheduled closure of the waste pile.

(b) The owner or operator shall be exempted from the requirements of Subsection R315-264-251(a), if the Director finds, based on a demonstration by the owner or operator, that alternate design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituents, see Section R315-264-93, into the ground water or surface water at any future time. In deciding whether to grant an exemption, the Director shall consider:

(1) The nature and quantity of the wastes;

(2) The proposed alternate design and operation;

(3) The hydrogeologic setting of the facility, including attenuative capacity and thickness of the liners and soils present between the pile and ground water or surface water; and

(4) All other factors which would influence the quality and mobility of the leachate produced and the potential for it to migrate to ground water or surface water.

(c) The owner or operator of each new waste pile unit, each lateral expansion of a waste pile unit, and each replacement of an existing waste pile unit shall install two or more liners and a leachate collection and removal system above and between such liners.

(1)(i) The liner system shall include:

(A) A top liner designed and constructed of materials, e.g., a geomembrane, to prevent the migration of hazardous constituents into such liner during the active life and post-closure care period; and

(B) A composite bottom liner, consisting of at least two components. The upper component shall be designed and constructed of materials, e.g., a geomembrane, to prevent the migration of hazardous constituents into this component during the active life and post-closure care period. The lower component shall be designed and constructed of materials to minimize the migration of hazardous constituents if a breach in the upper component were to occur. The lower component shall be constructed of at least 3 feet, 91 cm, of compacted soil material with a hydraulic conductivity of no more than 1×10^{-7} cm/sec.

(ii) The liners shall comply with Subsections R315-264-251(a)(1)(i), (ii), and (iii).

(2) The leachate collection and removal system immediately above the top liner shall be designed, constructed, operated, and maintained to collect and remove leachate from the waste pile during the active life and post-closure care period. The Director shall specify design and operating conditions in the permit to ensure that the leachate depth over the liner does not exceed 30 cm, one foot. The leachate collection and removal system shall comply with Subsections R315-264-251(c)(3)(iii) and (iv).

(3) The leachate collection and removal system between the liners, and immediately above the bottom composite liner in the case of multiple leachate collection and removal systems, is also a leak detection system. This leak detection system shall be capable of detecting, collecting, and removing leaks of hazardous constituents at the earliest practicable time through all areas of the top liner likely to be exposed to waste or leachate during the active life and post-closure care period. The requirements for a leak detection system in Subsection R315-264-251(c) are satisfied by installation of a system that is, at a minimum:

(i) Constructed with a bottom slope of one percent or more;

(ii) Constructed of granular drainage materials with a hydraulic conductivity of 1×10^{-2} cm/sec or more and a thickness of 12 inches, 30.5 cm, or more; or constructed of synthetic or geonet drainage materials with a transmissivity of 3×10^{-5} m^2/sec or more:

(iii) Constructed of materials that are chemically resistant to the waste managed in the waste pile and the leachate expected to be generated, and of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials, and equipment used at the waste pile;

(iv) Designed and operated to minimize clogging during the active life and post-closure care period; and

(v) Constructed with sumps and liquid removal methods, e.g., pumps, of sufficient size to collect and remove liquids from the sump and prevent liquids from backing up into the drainage layer. Each unit shall have its own sump(s). The design of each sump and removal system shall provide a method for measuring and recording the volume of liquids present in the sump and of liquids removed.

(4) The owner or operator shall collect and remove pumpable liquids in the leak detection system sumps to minimize the head on the bottom liner.

(5) The owner or operator of a leak detection system that is not located completely above the seasonal high water table shall demonstrate that the operation of the leak detection system will not be adversely affected by the presence of ground water.

(d) The Director may approve alternative design or operating practices to those specified in Subsection R315-264-251(c) if the owner or operator demonstrates to the Director that such design and operating practices, together with location characteristics:

(1) Will prevent the migration of any hazardous constituent into the ground water or surface water at least as effectively as the liners and leachate collection and removal systems specified in Subsection R315-264-251(c); and

(2) Will allow detection of leaks of hazardous constituents through the top liner at least as effectively.

(e) Subsection R315-264-251(c) does not apply to monofills that are granted a waiver by the Director in accordance with Section R315-264-221(e).

(f) The owner or operator of any replacement waste pile unit is exempt from Subsection R315-264-251(c) if:

(1) The existing unit was constructed in compliance with the design standards of section 3004(o)(1)(A)(i) and 3004(o)(5) of the Resource Conservation and Recovery Act; and

(2) There is no reason to believe that the liner is not functioning as designed.

(g) The owner or operator shall design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the pile during peak discharge from at least a 25-year storm.

(h) The owner or operator shall design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

(i) Collection and holding facilities, e.g., tanks or basins, associated with run-on and run-off control systems shall be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

(j) If the pile contains any particulate matter which may be subject to wind dispersal, the owner or operator

shall cover or otherwise manage the pile to control wind dispersal.

(k) The Director shall specify in the permit all design and operating practices that are necessary to ensure that the requirements of Section R315-264-251 are satisfied.

R315-264-252. Action leakage rate.

(a) The Director shall approve an action leakage rate for waste pile units subject to Subsections R315-264-251(c) or (d). The action leakage rate is the maximum design flow rate that the leak detection system can remove without the fluid head on the bottom liner exceeding one foot. The action leakage rate shall include an adequate safety margin to allow for uncertainties in the design, e.g., slope, hydraulic conductivity, thickness of drainage material, construction, operation, and location of the leak detection system, waste and leachate characteristics, likelihood and amounts of other sources of liquids in the leak detection system, and proposed response actions, e.g., the action leakage rate shall consider decreases in the flow capacity of the system over time resulting from siltation and clogging, rib layover and creep of synthetic components of the system, overburden pressures, etc.

(b) To determine if the action leakage rate has been exceeded, the owner or operator shall convert the weekly flow rate from the monitoring data obtained under Subsection R315-264-254(c) to an average daily flow rate, gallons per acre per day, for each sump. Unless the Director approves a different calculation, the average daily flow rate for each sump shall be calculated weekly during the active life and closure period.

R315-264-253. Response actions.

(a) The owner or operator of waste pile units subject to Subsections R315-264-251(c) or (d) shall have an approved response action plan before receipt of waste. The response action plan shall set forth the actions to be taken if the action leakage rate has been exceeded. At a minimum, the response action plan shall describe the actions specified in Subsection R315-264-253(b).

(b) If the flow rate into the leak detection system exceeds the action leakage rate for any sump, the owner or operator shall:

(1) Notify the Director in writing of the exceedance within 7 days of the determination;

(2) Submit a preliminary written assessment to the Director within 14 days of the determination, as to the amount of liquids, likely sources of liquids, possible location, size, and cause of any leaks, and short-term actions taken and planned;

(3) Determine to the extent practicable the location, size, and cause of any leak;

(4) Determine whether waste receipt should cease or be curtailed, whether any waste should be removed from the unit for inspection, repairs, or controls, and whether or not the unit should be closed;

(5) Determine any other short-term and long-term actions to be taken to mitigate or stop any leaks; and

(6) Within 30 days after the notification that the action leakage rate has been exceeded, submit to the Director the results of the analyses specified in Subsections R315-264-253(b)(3), (4), and (5), the results of actions taken, and actions planned. Monthly thereafter, as long as the flow rate in the leak detection system exceeds the action leakage rate, the owner or operator shall submit to the Director a report summarizing the results of any remedial actions taken and actions planned.

(c) To make the leak and/or remediation determinations in Subsections R315-264-253(b)(3), (4), and (5), the owner or operator shall:

(1)(i) Assess the source of liquids and amounts of liquids by source,

(ii) Conduct a fingerprint, hazardous constituent, or other analyses of the liquids in the leak detection system to identify the source of liquids and possible location of any leaks, and the hazard and mobility of the liquid; and

(iii) Assess the seriousness of any leaks in terms of potential for escaping into the environment; or

(2) Document why such assessments are not needed.

R315-264-254. Monitoring and inspection.

(a) During construction or installation, liners, except in the case of existing portions of piles exempt from Subsection R315-264-251(a), and cover systems, e.g., membranes, sheets, or coatings, shall be inspected for uniformity, damage, and imperfections, e.g., holes, cracks, thin spots, or foreign materials. Immediately after construction or installation:

(1) Synthetic liners and covers shall be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters; and

(2) Soil-based and admixed liners and covers shall be inspected for imperfections including lenses, cracks, channels, root holes, or other structural non-uniformities that may cause an increase in the permeability of the liner or cover.

(b) While a waste pile is in operation, it shall be inspected weekly and after storms to detect evidence of any of the following:

(1) Deterioration, malfunctions, or improper operation of run-on and run-off control systems;

(2) Proper functioning of wind dispersal control systems, where present; and

(3) The presence of leachate in and proper functioning of leachate collection and removal systems, where present.

(c) An owner or operator required to have a leak detection system under Subsection R315-264-251(c) shall record the amount of liquids removed from each leak detection system sump at least once each week during the active life and closure period.

R315-264-256. Special requirements for ignitable or reactive waste.

Ignitable or reactive waste shall not be placed in a waste pile unless the waste and waste pile satisfy all applicable requirements of Rule R315-268, and:

(a) The waste is treated, rendered, or mixed before or immediately after placement in the pile so that:

(1) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under Sections R315-261-21 or 23; and

(2) Subsection R315-264-17(b) is complied with; or

(b) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react.

R315-264-257. Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible wastes and materials, see appendix V of Rule R315-264 for examples, shall not be placed in the same pile, unless Subsection R315-264-17(b) is complied with.

(b) A pile of hazardous waste that is incompatible with any waste or other material stored nearby in containers, other piles, open tanks, or surface impoundments shall be separated from the other materials, or protected from them by means of a dike, berm, wall, or other device.

(c) Hazardous waste shall not be piled on the same base where incompatible wastes or materials were previously piled, unless the base has been decontaminated sufficiently to ensure compliance with Subsection R315-264-17(b).

R315-264-258. Closure and post-closure care.

(a) At closure, the owner or operator shall remove or decontaminate all waste residues, contaminated containment system components, liners, etc., contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless Subsection R315-261-3(d) applies.

(b) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in Subsection R315-264-258(a), the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he shall close the facility and perform post-closure care in accordance with the closure and post-closure care requirements that apply to landfills, Section R315-264-310.

(c)(1) The owner or operator of a waste pile that does not comply with the liner requirements of Subsection R315-264-251(a)(1) and is not exempt from them in accordance with Subsections R315-264-250(c) or 251(b), shall:

(i) Include in the closure plan for the pile under Section R315-264-112 both a plan for complying with Subsection R315-264-258(a) and a contingent plan for complying with Subsection R315-264-258(b) in case not all contaminated subsoils can be practicably removed at closure; and

(ii) Prepare a contingent post-closure plan under Section R315-264-118 for complying with Subsection R315-264-258(b) in case not all contaminated subsoils can be practicably removed at closure.

(2) The cost estimates calculated under Sections R315-264-142 and 144 for closure and post-closure care of a

pile subject to this Subsection R315-264-258(c) shall include the cost of complying with the contingent closure plan and the contingent post-closure plan, but are not required to include the cost of expected closure under Subsection R315-264-258(a).

R315-264-259. Special requirements for hazardous wastes FO20, FO21, FO22, FO23, FO26, and FO27.

(a) Hazardous Wastes FO20, FO21, FO22, FO23, FO26, and FO27 shall not be placed in waste piles that are not enclosed, as defined in Subsection R315-264-250(c), unless the owner or operator operates the waste pile in accordance with a management plan for these wastes that is approved by the Director pursuant to the standards set out in Subsection R315-264-259(a), and in accord with all other applicable requirements of Rule R315-264. The factors to be considered are:

(1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring techniques.

(b) The Director may determine that additional design, operating, and monitoring requirements are necessary for piles managing hazardous wastes FO20, FO21, FO22, FO23, FO26, and FO27 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment.

R315-264-270. Land Treatment - Applicability.

The regulations in Sections R315-264-270 through 283 apply to owners and operators of facilities that treat or dispose of hazardous waste in land treatment units, except as Section R315-264-1 provides otherwise.

R315-264-271. Treatment program.

(a) An owner or operator subject to Sections R315-264-270 through 283 shall establish a land treatment program that is designed to ensure that hazardous

constituents placed in or on the treatment zone are degraded, transformed, or immobilized within the treatment zone. The Director shall specify in the facility permit the elements of the treatment program, including:

(1) The wastes that are capable of being treated at the unit based on a demonstration under Section R315-264-272;

(2) Design measures and operating practices necessary to maximize the success of degradation, transformation, and immobilization processes in the treatment zone in accordance with Subsection R315-264-273(a); and

(3) Unsaturated zone monitoring provisions meeting the requirements of Section R315-264-278.

(b) The Director shall specify in the facility permit the hazardous constituents that shall be degraded, transformed, or immobilized under Sections R315-264-270 through 283. Hazardous constituents are constituents identified in appendix VIII of Rule R315-261 that are reasonably expected to be in, or derived from, waste placed in or on the treatment zone.

(c) The Director shall specify the vertical and horizontal dimensions of the treatment zone in the facility permit. The treatment zone is the portion of the unsaturated zone below and including the land surface in which the owner or operator intends to maintain the conditions necessary for effective degradation, transformation, or immobilization of hazardous constituents. The maximum depth of the treatment zone shall be:

(1) No more than 1.5 meters, 5 feet, from the initial soil surface; and

(2) More than 1 meter, 3 feet, above the seasonal high water table.

R315-264-272. Treatment demonstration.

(a) For each waste that will be applied to the treatment zone, the owner or operator shall demonstrate, prior to application of the waste, that hazardous constituents in the waste can be completely degraded, transformed, or immobilized in the treatment zone.

(b) In making this demonstration, the owner or operator may use field tests, laboratory analyses, available data, or, in the case of existing units, operating data. If the owner or operator intends to conduct field tests or laboratory analyses in order to make the

demonstration required under Subsection R315-264-272(a), he shall obtain a treatment or disposal permit under Section R315-270-63. The Director shall specify in this permit the testing, analytical, design, and operating requirements, including the duration of the tests and analyses, and, in the case of field tests, the horizontal and vertical dimensions of the treatment zone, monitoring procedures, closure and clean-up activities, necessary to meet the requirements in Subsection R315-264-272(c).

(c) Any field test or laboratory analysis conducted in order to make a demonstration under Subsection R315-264-272(a) shall:

(1) Accurately simulate the characteristics and operating conditions for the proposed land treatment unit including:

(i) The characteristics of the waste, including the presence of appendix VIII of Rule R315-261 constituents;

(ii) The climate in the area;

(iii) The topography of the surrounding area;

(iv) The characteristics of the soil in the treatment zone, including depth; and

(v) The operating practices to be used at the unit.

(2) Be likely to show that hazardous constituents in the waste to be tested will be completely degraded, transformed, or immobilized in the treatment zone of the proposed land treatment unit; and

(3) Be conducted in a manner that protects human health and the environment considering:

(i) The characteristics of the waste to be tested;

(ii) The operating and monitoring measures taken during the course of the test;

(iii) The duration of the test;

(iv) The volume of waste used in the test;

(v) In the case of field tests, the potential for migration of hazardous constituents to ground water or surface water.

R315-264-273. Design and operating requirements.

The Director shall specify in the facility permit how the owner or operator will design, construct, operate, and maintain the land treatment unit in compliance with Section R315-264-273.

(a) The owner or operator shall design, construct, operate, and maintain the unit to maximize the degradation, transformation, and immobilization of hazardous

constituents in the treatment zone. The owner or operator shall design, construct, operate, and maintain the unit in accord with all design and operating conditions that were used in the treatment demonstration under Section R315-264-272. At a minimum, the Director shall specify the following in the facility permit:

(1) The rate and method of waste application to the treatment zone;

(2) Measures to control soil pH;

(3) Measures to enhance microbial or chemical reactions, e.g., fertilization, tilling; and

(4) Measures to control the moisture content of the treatment zone.

(b) The owner or operator shall design, construct, operate, and maintain the treatment zone to minimize run-off of hazardous constituents during the active life of the land treatment unit.

(c) The owner or operator shall design, construct, operate, and maintain a run-on control system capable of preventing flow onto the treatment zone during peak discharge from at least a 25-year storm.

(d) The owner or operator shall design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

(e) Collection and holding facilities, e.g., tanks or basins, associated with run-on and run-off control systems shall be emptied or otherwise managed expeditiously after storms to maintain the design capacity of the system.

(f) If the treatment zone contains particulate matter which may be subject to wind dispersal, the owner or operator shall manage the unit to control wind dispersal.

(g) The owner or operator shall inspect the unit weekly and after storms to detect evidence of:

(1) Deterioration, malfunctions, or improper operation of run-on and run-off control systems; and

(2) Improper functioning of wind dispersal control measures.

R315-264-276. Food-chain crops.

The Director may allow the growth of food-chain crops in or on the treatment zone only if the owner or operator satisfies the conditions of Section R315-264-276. The Director shall specify in the facility permit the specific food-chain crops which may be grown.

(a)(1) The owner or operator shall demonstrate that there is no substantial risk to human health caused by the growth of such crops in or on the treatment zone by demonstrating, prior to the planting of such crops, that hazardous constituents other than cadmium:

(i) Will not be transferred to the food or feed portions of the crop by plant uptake or direct contact, and will not otherwise be ingested by food-chain animals, e.g., by grazing; or

(ii) Will not occur in greater concentrations in or on the food or feed portions of crops grown on the treatment zone than in or on identical portions of the same crops grown on untreated soils under similar conditions in the same region.

(2) The owner or operator shall make the demonstration required under Subsection R315-264-276(a) prior to the planting of crops at the facility for all constituents identified in appendix VIII of Rule R315-261 that are reasonably expected to be in, or derived from, waste placed in or on the treatment zone.

(3) In making a demonstration under Subsection R315-264-276(a), the owner or operator may use field tests, greenhouse studies, available data, or, in the case of existing units, operating data, and shall:

(i) Base the demonstration on conditions similar to those present in the treatment zone, including soil characteristics, e.g., pH, cation exchange capacity, specific wastes, application rates, application methods, and crops to be grown; and

(ii) Describe the procedures used in conducting any tests, including the sample selection criteria, sample size, analytical methods, and statistical procedures.

(4) If the owner or operator intends to conduct field tests or greenhouse studies in order to make the demonstration required under Subsection R315-264-276(a), he shall obtain a permit for conducting such activities.

(b) The owner or operator shall comply with the following conditions if cadmium is contained in wastes applied to the treatment zone:

(1)(i) The pH of the waste and soil mixture shall be 6.5 or greater at the time of each waste application, except for waste containing cadmium at concentrations of 2 mg/kg, dry weight, or less;

(ii) The annual application of cadmium from waste shall not exceed 0.5 kilograms per hectare, kg/ha, on land

used for tobacco, leafy vegetables, or root crops grown for human consumption or any other food-chain crop;

(iii) The cumulative application of cadmium from waste shall not exceed 5 kg/ha if the waste and soil mixture has a pH of less than 6.5; and

(iv) If the waste and soil mixture has a pH of 6.5 or greater or is maintained at a pH of 6.5 or greater during crop growth, the cumulative application of cadmium from waste shall not exceed: 5 kg/ha if soil cation exchange capacity (CEC) is less than 5 meq/100g; 10 kg/ha if soil CEC is 5-15 meq/100g; and 20 kg/ha if soil CEC is greater than 15 meq/100g; or

(2)(i) Animal feed shall be the only food-chain crop produced;

(ii) The pH of the waste and soil mixture shall be 6.5 or greater at the time of waste application or at the time the crop is planted, whichever occurs later, and this pH level shall be maintained whenever food-chain crops are grown;

(iii) There shall be an operating plan which demonstrates how the animal feed will be distributed to preclude ingestion by humans. The operating plan shall describe the measures to be taken to safeguard against possible health hazards from cadmium entering the food chain, which may result from alternative land uses; and

(iv) Future property owners shall be notified by a stipulation in the land record or property deed which states that the property has received waste at high cadmium application rates and that food-chain crops shall not be grown except in compliance with Subsection R315-264-276(b)(2).

R315-264-278. Unsaturated zone monitoring.

An owner or operator subject to Sections R315-270 through 283 shall establish an unsaturated zone monitoring program to discharge the following responsibilities:

(a) The owner or operator shall monitor the soil and soil-pore liquid to determine whether hazardous constituents migrate out of the treatment zone.

(1) The Director shall specify the hazardous constituents to be monitored in the facility permit. The hazardous constituents to be monitored are those specified under Section R315-264-271(b).

(2) The Director may require monitoring for principal hazardous constituents (PHCs) in lieu of the constituents

specified under Section R315-264-271(b). PHCs are hazardous constituents contained in the wastes to be applied at the unit that are the most difficult to treat, considering the combined effects of degradation, transformation, and immobilization. The Director shall establish PHCs if he finds, based on waste analyses, treatment demonstrations, or other data, that effective degradation, transformation, or immobilization of the PHCs will assure treatment at at least equivalent levels for the other hazardous constituents in the wastes.

(b) The owner or operator shall install an unsaturated zone monitoring system that includes soil monitoring using soil cores and soil-pore liquid monitoring using devices such as lysimeters. The unsaturated zone monitoring system shall consist of a sufficient number of sampling points at appropriate locations and depths to yield samples that:

(1) Represent the quality of background soil-pore liquid quality and the chemical make-up of soil that has not been affected by leakage from the treatment zone; and

(2) Indicate the quality of soil-pore liquid and the chemical make-up of the soil below the treatment zone.

(c) The owner or operator shall establish a background value for each hazardous constituent to be monitored under Subsection R315-264-278(a). The permit shall specify the background values for each constituent or specify the procedures to be used to calculate the background values.

(1) Background soil values may be based on a one-time sampling at a background plot having characteristics similar to those of the treatment zone.

(2) Background soil-pore liquid values shall be based on at least quarterly sampling for one year at a background plot having characteristics similar to those of the treatment zone.

(3) The owner or operator shall express all background values in a form necessary for the determination of statistically significant increases under Subsection R315-264-278(f).

(4) In taking samples used in the determination of all background values, the owner or operator shall use an unsaturated zone monitoring system that complies with Subsection R315-264-278(b)(1).

(d) The owner or operator shall conduct soil monitoring and soil-pore liquid monitoring immediately

below the treatment zone. The Director shall specify the frequency and timing of soil and soil-pore liquid monitoring in the facility permit after considering the frequency, timing, and rate of waste application, and the soil permeability. The owner or operator shall express the results of soil and soil-pore liquid monitoring in a form necessary for the determination of statistically significant increases under Subsection R315-264-278(f).

(e) The owner or operator shall use consistent sampling and analysis procedures that are designed to ensure sampling results that provide a reliable indication of soil-pore liquid quality and the chemical make-up of the soil below the treatment zone. At a minimum, the owner or operator shall implement procedures and techniques for:

(1) Sample collection;

(2) Sample preservation and shipment;

(3) Analytical procedures; and

(4) Chain of custody control.

(f) The owner or operator shall determine whether there is a statistically significant change over background values for any hazardous constituent to be monitored under Subsection R315-264-278(a) below the treatment zone each time he conducts soil monitoring and soil-pore liquid monitoring under Subsection R315-264-278(d).

(1) In determining whether a statistically significant increase has occurred, the owner or operator shall compare the value of each constituent, as determined under Subsection R315-264-278(d), to the background value for that constituent according to the statistical procedure specified in the facility permit under Subsection R315-264-278(e).

(2) The owner or operator shall determine whether there has been a statistically significant increase below the treatment zone within a reasonable time period after completion of sampling. The Director shall specify that time period in the facility permit after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of soil and soil-pore liquid samples.

(3) The owner or operator shall determine whether there is a statistically significant increase below the treatment zone using a statistical procedure that provides reasonable confidence that migration from the treatment zone will be identified. The Director shall specify a statistical procedure in the facility permit that he finds:

(i) Is appropriate for the distribution of the data used to establish background values; and

(ii) Provides a reasonable balance between the probability of falsely identifying migration from the treatment zone and the probability of failing to identify real migration from the treatment zone.

(g) If the owner or operator determines, pursuant to Subsection R315-264-278(f), that there is a statistically significant increase of hazardous constituents below the treatment zone, he shall:

(1) Notify the Director of this finding in writing within seven days. The notification shall indicate what constituents have shown statistically significant increases.

(2) Within 90 days, submit to the Director an application for a permit modification to modify the operating practices at the facility in order to maximize the success of degradation, transformation, or immobilization processes in the treatment zone.

(h) If the owner or operator determines, pursuant to Subsection R315-264-278(f), that there is a statistically significant increase of hazardous constituents below the treatment zone, he may demonstrate that a source other than regulated units caused the increase or that the increase resulted from an error in sampling, analysis, or evaluation. While the owner or operator may make a demonstration under Subsection R315-264-278(h) in addition to, or in lieu of, submitting a permit modification application under Subsection R315-264-278(g)(2), he is not relieved of the requirement to submit a permit modification application within the time specified in Subsection R315-264-278(g)(2) unless the demonstration made under Subsection R315-264-278(h) successfully shows that a source other than regulated units caused the increase or that the increase resulted from an error in sampling, analysis, or evaluation. In making a demonstration under Subsection R315-264-278(h), the owner or operator shall:

(1) Notify the Director in writing within seven days of determining a statistically significant increase below the treatment zone that he intends to make a determination under Subsection R315-264-278(h);

(2) Within 90 days, submit a report to the Director demonstrating that a source other than the regulated units caused the increase or that the increase resulted from error in sampling, analysis, or evaluation;

(3) Within 90 days, submit to the Director an application for a permit modification to make any appropriate changes to the unsaturated zone monitoring program at the facility; and

(4) Continue to monitor in accordance with the unsaturated zone monitoring program established under Section R315-264-278.

R315-264-279. Recordkeeping.

The owner or operator shall include hazardous waste application dates and rates in the operating record required under Section R315-264-73.

R315-264-280. Closure and post-closure care.

(a) During the closure period the owner or operator shall:

(1) Continue all operations, including pH control, necessary to maximize degradation, transformation, or immobilization of hazardous constituents within the treatment zone as required under Subsection R315-264-273(a), except to the extent such measures are inconsistent with Subsection R315-264-280(a)(8).

(2) Continue all operations in the treatment zone to minimize run-off of hazardous constituents as required under Subsection R315-264-273(b);

(3) Maintain the run-on control system required under Subsection R315-264-273(c);

(4) Maintain the run-off management system required under Subsection R315-264-273(d);

(5) Control wind dispersal of hazardous waste if required under Subsection R315-264-273(f);

(6) Continue to comply with any prohibitions or conditions concerning growth of food-chain crops under Section R315-264-276;

(7) Continue unsaturated zone monitoring in compliance with Section R315-264-278, except that soil-pore liquid monitoring may be terminated 90 days after the last application of waste to the treatment zone; and

(8) Establish a vegetative cover on the portion of the facility being closed at such time that the cover will not substantially impede degradation, transformation, or immobilization of hazardous constituents in the treatment zone. The vegetative cover shall be capable of maintaining growth without extensive maintenance.

(b) For the purpose of complying with Section R315-264-115, when closure is completed the owner or operator may submit to the Director certification by an independent, qualified soil scientist, in lieu of a qualified Professional Engineer, that the facility has been closed in accordance with the specifications in the approved closure plan.

(c) During the post-closure care period the owner or operator shall:

(1) Continue all operations, including pH control, necessary to enhance degradation and transformation and sustain immobilization of hazardous constituents in the treatment zone to the extent that such measures are consistent with other post-closure care activities;

(2) Maintain a vegetative cover over closed portions of the facility;

(3) Maintain the run-on control system required under Subsection R315-264-273(c);

(4) Maintain the run-off management system required under Subsection R315-264-273(d);

(5) Control wind dispersal of hazardous waste if required under Subsection R315-264-273(f);

(6) Continue to comply with any prohibitions or conditions concerning growth of food-chain crops under Section R315-264-276; and

(7) Continue unsaturated zone monitoring in compliance with Section R315-264-278, excect that soil-pore liquid monitoring may be terminated 90 days after the last application of waste to the treatment zone.

(d) The owner or operator is not subject to regulation under Subsections R315-264-280(a)(8) and (c) if the Director finds that the level of hazardous constituents in the treatment zone soil does not exceed the background value of those constituents by an amount that is statistically significant when using the test specified in Subsection R315-264-280(d)(3). The owner or operator may submit such a demonstration to the Director at any time during the closure or post-closure care periods. For the purposes of Subsection R315-264-280(d):

(1) The owner or operator shall establish background soil values and determine whether there is a statistically significant increase over those values for all hazardous constituents specified in the facility permit under Subsection R315-264-271(b).

(i) Background soil values may be based on a one-time sampling of a background plot having characteristics similar to those of the treatment zone.

(ii) The owner or operator shall express background values and values for hazardous constituents in the treatment zone in a form necessary for the determination of statistically significant increases under Subsection R315-264-280(d)(3).

(2) In taking samples used in the determination of background and treatment zone values, the owner or operator shall take samples at a sufficient number of sampling points and at appropriate locations and depths to yield samples that represent the chemical make-up of soil that has not been affected by leakage from the treatment zone and the soil within the treatment zone, respectively.

(3) In determining whether a statistically significant increase has occurred, the owner or operator shall compare the value of each constituent in the treatment zone to the background value for that constituent using a statistical procedure that provides reasonable confidence that constituent presence in the treatment zone will be identified. The owner or operator shall use a statistical procedure that:

(i) Is appropriate for the distribution of the data used to establish background values; and

(ii) Provides a reasonable balance between the probability of falsely identifying hazardous constituent presence in the treatment zone and the probability of failing to identify real presence in the treatment zone.

(e) The owner or operator is not subject to regulation under Sections R315-264-90 through 101 if the Director finds that the owner or operator satisfies Subsection R315-264-280(d) and if unsaturated zone monitoring under Section R315-264-278 indicates that hazardous constituents have not migrated beyond the treatment zone during the active life of the land treatment unit.

R315-264-281. Special requirements for ignitable or reactive waste.

The owner or operator shall not apply ignitable or reactive waste to the treatment zone unless the waste and the treatment zone meet all applicable requirements of Rule R315-268, and:

(a) The waste is immediately incorporated into the soil so that:

(1) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under Sections R315-261-21 or 23; and

(2) Subsection R315-264-17(b) is complied with; or

(b) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react.

R315-264-282. Special requirements for incompatible wastes.

The owner or operator shall not place incompatible wastes, or incompatible wastes and materials, see appendix V of Rule R315-264 for examples, in or on the same treatment zone, unless Subsection R315-264-17(b) is complied with.

R315-264-283. Special requirements for hazardous wastes FO20, FO21, FO22, FO23, FO26, and FO27.

(a) Hazardous Wastes FO20, FO21, FO22, FO23, FO26 and FO27 shall not be placed in a land treatment unit unless the owner or operator operates the facility in accordance with a management plan for these wastes that is approved by the Director pursuant to the standards set out in Subsection R315-264-283(a), and in accord with all other applicable requirements of Rule R315-264. The factors to be considered are:

(1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring techniques.

(b) The Director may determine that additional design, operating, and monitoring requirements are necessary for land treatment facilities managing hazardous wastes FO20, FO21, FO22, FO23, FO26, and FO27 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment.

R315-264-300. Landfills - Applicability.
The regulations in Sections R315-264-300 through 317 apply to owners and operators of facilities that dispose of hazardous waste in landfills, except as Section R315-264-1 provides otherwise.

R315-264-301. Design and operating requirements.
(a) Any landfill that is not covered by Subsection R315-264-301(c) or 40 CFR 265.301(a), which is adopted by reference, shall have a liner system for all portions of the landfill, except for portions of such landfill that existed on or prior to October 10, 1984. The liner system shall have:
(1) A liner that is designed, constructed, and installed to prevent any migration of wastes out of the landfill to the adjacent subsurface soil or ground water or surface water at anytime during the active life, including the closure period, of the landfill. The liner shall be constructed of materials that prevent wastes from passing into the liner during the active life of the facility. The liner shall be:
(i) Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients, including static head and external hydrogeologic forces, physical contact with the waste or leachate to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation;
(ii) Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift; and
(iii) Installed to cover all surrounding earth likely to be in contact with the waste or leachate; and
(2) A leachate collection and removal system immediately above the liner that is designed, constructed, maintained, and operated to collect and remove leachate from the landfill. The Director shall specify design and operating conditions in the permit to ensure that the leachate depth over the liner does not exceed 30 cm, one foot. The leachate collection and removal system shall be:
(i) Constructed of materials that are:
(A) Chemically resistant to the waste managed in the landfill and the leachate expected to be generated; and

(B) Of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials, and by any equipment used at the landfill; and

(ii) Designed and operated to function without clogging through the scheduled closure of the landfill.

(b) The owner or operator shall be exempted from the requirements of Subsection R315-264-301(a) if the Director finds, based on a demonstration by the owner or operator, that alternative design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituents, see Section R315-264-93, into the ground water or surface water at any future time. In deciding whether to grant an exemption, the Director shall consider:

(1) The nature and quantity of the wastes;

(2) The proposed alternate design and operation;

(3) The hydrogeologic setting of the facility, including the attenuative capacity and thickness of the liners and soils present between the landfill and ground water or surface water; and

(4) All other factors which would influence the quality and mobility of the leachate produced and the potential for it to migrate to ground water or surface water.

(c) The owner or operator of each new landfill unit on which construction commences after January 29, 1992, each lateral expansion of a landfill unit on which construction commences after July 29, 1992, and each replacement of an existing landfill unit that is to commence reuse after July 29, 1992 shall install two or more liners and a leachate collection and removal system above and between such liners. “Construction commences” is as defined in Section R315-260-10 under “existing facility”.

(1)(i) The liner system shall include:

(A) A top liner designed and constructed of materials, e.g., a geomembrane, to prevent the migration of hazardous constituents into such liner during the active life and post-closure care period; and

(B) A composite bottom liner, consisting of at least two components. The upper component shall be designed and constructed of materials, e.g., a geomembrane, to prevent the migration of hazardous constituents into this component during the active life and post-closure care period. The

lower component shall be designed and constructed of materials to minimize the migration of hazardous constituents if a breach in the upper component were to occur. The lower component shall be constructed of at least 91 cm, 3 feet, of compacted soil material with a hydraulic conductivity of no more than 1×10−7 cm/sec.

(ii) The liners shall comply with Subsections R315-264-301(a)(1)(i), (ii), and (iii).

(2) The leachate collection and removal system immediately above the top liner shall be designed, constructed, operated, and maintained to collect and remove leachate from the landfill during the active life and post-closure care period. The Director shall specify design and operating conditions in the permit to ensure that the leachate depth over the liner does not exceed 30 cm, one foot. The leachate collection and removal system shall comply with Subsections R315-264-301(c)(3)(iii) and (iv).

(3) The leachate collection and removal system between the liners, and immediately above the bottom composite liner in the case of multiple leachate collection and removal systems, is also a leak detection system. This leak detection system shall be capable of detecting, collecting, and removing leaks of hazardous constituents at the earliest practicable time through all areas of the top liner likely to be exposed to waste or leachate during the active life and post-closure care period. The requirements for a leak detection system in Subsection R315-264-301(c) are satisfied by installation of a system that is, at a minimum:

(i) Constructed with a bottom slope of one percent or more;

(ii) Constructed of granular drainage materials with a hydraulic conductivity of 1×10−2 cm/sec or more and a thickness of 30.5 cm, 12 inches, or more; or constructed of synthetic or geonet drainage materials with a transmissivity of 3×10−5 m2/sec or more;

(iii) Constructed of materials that are chemically resistant to the waste managed in the landfill and the leachate expected to be generated, and of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials, and equipment used at the landfill;

(iv) Designed and operated to minimize clogging during the active life and post-closure care period; and

(v) Constructed with sumps and liquid removal methods, e.g., pumps, of sufficient size to collect and remove liquids from the sump and prevent liquids from backing up into the drainage layer. Each unit shall have its own sump(s). The design of each sump and removal system shall provide a method for measuring and recording the volume of liquids present in the sump and of liquids removed.

(4) The owner or operator shall collect and remove pumpable liquids in the leak detection system sumps to minimize the head on the bottom liner.

(5) The owner or operator of a leak detection system that is not located completely above the seasonal high water table shall demonstrate that the operation of the leak detection system will not be adversely affected by the presence of ground water.

(d) The Director may approve alternative design or operating practices to those specified in Subsection R315-264-301(c) if the owner or operator demonstrates to the Director that such design and operating practices, together with location characteristics:

(1) Will prevent the migration of any hazardous constituent into the ground water or surface water at least as effectively as the liners and leachate collection and removal systems specified in Subsection R315-264-301(c); and

(2) Will allow detection of leaks of hazardous constituents through the top liner at least as effectively.

(e) The double liner requirement set forth in Subsection R315-264-301(c) may be waived by the Director for any monofill, if:

(1) The monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and such wastes do not contain constituents which would render the wastes hazardous for reasons other than the Toxicity Characteristic in Section R315-261-24, with EPA Hazardous Waste Numbers D004 through D017; and

(2)(i)(A) The monofill has at least one liner for which there is no evidence that such liner is leaking;

(B) The monofill is located more than one-quarter mile from an “underground source of drinking water," as that term is defined in Section R315-270-2); and

(C) The monofill is in compliance with generally applicable ground-water monitoring requirements for facilities with permits under Section 19-6-108; or

(ii) The owner or operator demonstrates that the monofill is located, designed and operated so as to assure that there will be no migration of any hazardous constituent into ground water or surface water at any future time.

(f) The owner or operator of any replacement landfill unit is exempt from Subsection R315-264-301(c) if:

(1) The existing unit was constructed in compliance with the design standards of section 3004(o)(1)(A)(i) and (o)(5) of the Resource Conservation and Recovery Act; and

(2) There is no reason to believe that the liner is not functioning as designed.

(g) The owner or operator shall design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the landfill during peak discharge from at least a 24-hour, 25-year storm.

(h) The owner or operator shall design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

(i) Collection and holding facilities, e.g., tanks or basins, associated with run-on and run-off control systems shall be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

(j) If the landfill contains any particulate matter which may be subject to wind dispersal, the owner or operator shall cover or otherwise manage the landfill to control wind dispersal.

(k) The Director shall specify in the permit all design and operating practices that are necessary to ensure that the requirements of Section R315-264-301 are satisfied.

R315-264-302. Action leakage rate.

(a) The Director shall approve an action leakage rate for landfill units subject to Subsections R315-264-301(c) or (d). The action leakage rate is the maximum design flow rate that the leak detection system can remove without the fluid head on the bottom liner exceeding 30.5 cm, l foot. The action leakage rate shall include an adequate safety margin to allow for uncertainties in the design, e.g., slope, hydraulic conductivity, thickness of drainage material, construction, operation, and location of the leak detection system, waste and leachate characteristics,

likelihood and amounts of other sources of liquids in the leak detection system, and proposed response actions, e.g., the action leakage rate shall consider decreases in the flow capacity of the system over time resulting from siltation and clogging, rib layover and creep of synthetic components of the system, overburden pressures, etc.

(b) To determine if the action leakage rate has been exceeded, the owner or operator shall convert the weekly or monthly flow rate from the monitoring data obtained under Subsection R315-264-303(c) to an average daily flow rate, gallons per acre per day, for each sump. Unless the Director approves a different calculation, the average daily flow rate for each sump shall be calculated weekly during the active life and closure period, and monthly during the post-closure care period when monthly monitoring is required under Subsection R315-264-303(c).

R315-264-303. Monitoring and inspection.

(a) During construction or installation, liners, except in the case of existing portions of landfills exempt from Subsection R315-264-301(a) and cover systems, e.g., membranes, sheets, or coatings, shall be inspected for uniformity, damage, and imperfections, e.g., holes, cracks, thin spots, or foreign materials. Immediately after construction or installation:

(1) Synthetic liners and covers shall be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters; and

(2) Soil-based and admixed liners and covers shall be inspected for imperfections including lenses, cracks, channels, root holes, or other structural non-uniformities that may cause an increase in the permeability of the liner or cover.

(b) While a landfill is in operation, it shall be inspected weekly and after storms to detect evidence of any of the following:

(1) Deterioration, malfunctions, or improper operation of run-on and run-off control systems;

(2) Proper functioning of wind dispersal control systems, where present; and

(3) The presence of leachate in and proper functioning of leachate collection and removal systems, where present.

(c)(1) An owner or operator required to have a leak detection system under Subsection R315-264-301(c) or (d)

shall record the amount of liquids removed from each leak detection system sump at least once each week during the active life and closure period.

(2) After the final cover is installed, the amount of liquids removed from each leak detection system sump shall be recorded at least monthly. If the liquid level in the sump stays below the pump operating level for two consecutive months, the amount of liquids in the sumps shall be recorded at least quarterly. If the liquid level in the sump stays below the pump operating level for two consecutive quarters, the amount of liquids in the sumps shall be recorded at least semi-annually. If at any time during the post-closure care period the pump operating level is exceeded at units on quarterly or semi-annual recording schedules, the owner or operator shall return to monthly recording of amounts of liquids removed from each sump until the liquid level again stays below the pump operating level for two consecutive months.

(3) "Pump operating level" is a liquid level proposed by the owner or operator and approved by the Director based on pump activation level, sump dimensions, and level that avoids backup into the drainage layer and minimizes head in the sump.

R315-264-304. Response actions.

(a) The owner or operator of landfill units subject to Subsections R315-264-301(c) or (d) shall have an approved response action plan before receipt of waste. The response action plan shall set forth the actions to be taken if the action leakage rate has been exceeded. At a minimum, the response action plan shall describe the actions specified in Subsection R315-264-304(b).

(b) If the flow rate into the leak detection system exceeds the action leakage rate for any sump, the owner or operator shall:

(1) Notify the Director in writing of the exceedance within 7 days of the determination;

(2) Submit a preliminary written assessment to the Director within 14 days of the determination, as to the amount of liquids, likely sources of liquids, possible location, size, and cause of any leaks, and short-term actions taken and planned;

(3) Determine to the extent practicable the location, size, and cause of any leak;

(4) Determine whether waste receipt should cease or be curtailed, whether any waste should be removed from the unit for inspection, repairs, or controls, and whether or not the unit should be closed;

(5) Determine any other short-term and longer-term actions to be taken to mitigate or stop any leaks; and

(6) Within 30 days after the notification that the action leakage rate has been exceeded, submit to the Director the results of the analyses specified in Subsections R315-264-304(b)(3), (4), and (5), the results of actions taken, and actions planned. Monthly thereafter, as long as the flow rate in the leak detection system exceeds the action leakage rate, the owner or operator shall submit to the Director a report summarizing the results of any remedial actions taken and actions planned.

(c) To make the leak and/or remediation determinations in Subsections R315-264-304(b)(3), (4), and (5), the owner or operator shall:

(1)(i) Assess the source of liquids and amounts of liquids by source,

(ii) Conduct a fingerprint, hazardous constituent, or other analyses of the liquids in the leak detection system to identify the source of liquids and possible location of any leaks, and the hazard and mobility of the liquid; and

(iii) Assess the seriousness of any leaks in terms of potential for escaping into the environment; or

(2) Document why such assessments are not needed.

R315-264-309. Surveying and recordkeeping.

The owner or operator of a landfill shall maintain the following items in the operating record required under Section R315-264-73:

(a) On a map, the exact location and dimensions, including depth, of each cell with respect to permanently surveyed benchmarks; and

(b) The contents of each cell and the approximate location of each hazardous waste type within each cell.

R315-264-310. Closure and post-closure care.

(a) At final closure of the landfill or upon closure of any cell, the owner or operator shall cover the landfill or cell with a final cover designed and constructed to:

(1) Provide long-term minimization of migration of liquids through the closed landfill;

(2) Function with minimum maintenance;

(3) Promote drainage and minimize erosion or abrasion of the cover;

(4) Accommodate settling and subsidence so that the cover's integrity is maintained; and

(5) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

(b) After final closure, the owner or operator shall comply with all post-closure requirements contained in Sections R315-264-117 through 120, including maintenance and monitoring throughout the post-closure care period, specified in the permit under Section R315-264-117. The owner or operator shall:

(1) Maintain the integrity and effectiveness of the final cover, including making repairs to the cap as necessary to correct the effects of settling, subsidence, erosion, or other events;

(2) Continue to operate the leachate collection and removal system until leachate is no longer detected;

(3) Maintain and monitor the leak detection system in accordance with Subsections R315-264-301(c)(3)(iv) and (4) and R315-264-303(c), and comply with all other applicable leak detection system requirements of Rul3 R315-264;

(4) Maintain and monitor the ground-water monitoring system and comply with all other applicable requirements of Sections R315-264-90 through 101;

(5) Prevent run-on and run-off from eroding or otherwise damaging the final cover; and

(6) Protect and maintain surveyed benchmarks used in complying with Section R315-264-309.

R315-264-312. Special requirements for ignitable or reactive waste.

(a) Except as provided in Subsection R315-264-312(b), and in Section R316-264-316, ignitable or reactive waste shall not be placed in a landfill, unless the waste and landfill meet all applicable requirements of Rule R315-268, and:

(1) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under Sections R315-261-21 or 23; and

(2) Subsection R315-264-17(b) is complied with.

(b) Except for prohibited wastes which remain subject to treatment standards in Sections R315-268-40 through 49, ignitable wastes in containers may be landfilled without

meeting the requirements of Subsection R315-264-312(a), provided that the wastes are disposed of in such a way that they are protected from any material or conditions which may cause them to ignite. At a minimum, ignitable wastes shall be disposed of in non-leaking containers which are carefully handled and placed so as to avoid heat, sparks, rupture, or any other condition that might cause ignition of the wastes; shall be covered daily with soil or other non-combustible material to minimize the potential for ignition of the wastes; and shall not be disposed of in cells that contain or will contain other wastes which may generate heat sufficient to cause ignition of the waste.

R315-264-313. Special requirements for incompatible wastes.

Incompatible wastes, or incompatible wastes and materials, (see appendix V of Rule R315-264 for examples) shall not be placed in the same landfill cell, unless Subsection R315-264-17(b) is complied with.

R315-264-314. Special requirements for bulk and containerized liquids.

(a) The placement of bulk or non-containerized liquid hazardous waste or hazardous waste containing free liquids, whether or not sorbents have been added, in any landfill is prohibited.

(b) To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the following test shall be used: Method 9095B, Paint Filter Liquids Test, as described in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW-846, as incorporated by reference in Section R315-260-11.

(c) Containers holding free liquids shall not be placed in a landfill unless:

(1) All free-standing liquid:

(i) Has been removed by decanting, or other methods;

(ii) Has been mixed with sorbent or solidified so that free-standing liquid is no longer observed; or

(iii) Has been otherwise eliminated; or

(2) The container is very small, such as an ampule; or

(3) The container is designed to hold free liquids for use other than storage, such as a battery or capacitor; or

(4) The container is a lab pack as defined in Section R316-264-316 and is disposed of in accordance with Section R316-264-316.

(d) Sorbents used to treat free liquids to be disposed of in landfills shall be nonbiodegradable. Nonbiodegradable sorbents are: materials listed or described in Subsection R315-264-314(d)(1); materials that pass one of the tests in Subsection R315-264-314(d)(2); or materials that are determined by the Director to be nonbiodegradable through the Rule R315-260 petition process.

(1) Nonbiodegradable sorbents.

(i) Inorganic minerals, other inorganic materials, and elemental carbon, e.g., aluminosilicates, clays, smectites, Fuller's earth, bentonite, calcium bentonite, montmorillonite, calcined montmorillonite, kaolinite, micas - illite, vermiculites, zeolites; calcium carbonate (organic free limestone; oxides/hydroxides, alumina, lime, silica - sand, diatomaceous earth; perlite - volcanic glass; expanded volcanic rock; volcanic ash; cement kiln dust; fly ash; rice hull ash; activated charcoal/activated carbon; or

(ii) High molecular weight synthetic polymers, e.g., polyethylene, high density polyethylene (HDPE), polypropylene, polystyrene, polyurethane, polyacrylate, polynorborene, polyisobutylene, ground synthetic rubber, cross-linked allylstyrene and tertiary butyl copolymers. This does not include polymers derived from biological material or polymers specifically designed to be degradable; or

(iii) Mixtures of these nonbiodegradable materials.

(2) Tests for nonbiodegradable sorbents.

(i) The sorbent material is determined to be nonbiodegradable under ASTM Method G21-70 (1984a)-Standard Practice for Determining Resistance of Synthetic Polymer Materials to Fungi; or

(ii) The sorbent material is determined to be nonbiodegradable under ASTM Method G22-76 (1984b)-Standard Practice for Determining Resistance of Plastics to Bacteria; or

(iii) The sorbent material is determined to be non-biodegradable under OECD test 301B: CO2 Evolution - Modified Sturm Test.

(e) The placement of any liquid which is not a hazardous waste in a landfill is prohibited unless the

owner or operator of such landfill demonstrates to the Director, or the Director determines that:

(1) The only reasonably available alternative to the placement in such landfill is placement in a landfill or unlined surface impoundment, whether or not permitted or operating under interim status, which contains, or may reasonably be anticipated to contain, hazardous waste; and

(2) Placement in such owner or operator's landfill will not present a risk of contamination of any “underground source of drinking water," as that term is defined in Section R315-270-2.

R315-264-315. Special requirements for containers.

Unless they are very small, such as an ampule, containers shall be either:

(a) At least 90 percent full when placed in the landfill; or

(b) Crushed, shredded, or similarly reduced in volume to the maximum practical extent before burial in the landfill.

R315-264-316. Disposal of small containers of hazardous waste in overpacked drums (lab packs).

Small containers of hazardous waste in overpacked drums, lab packs, may be placed in a landfill if the following requirements are met:

(a) Hazardous waste shall be packaged in non-leaking inside containers. The inside containers shall be of a design and constructed of a material that will not react dangerously with, be decomposed by, or be ignited by the contained waste. Inside containers shall be tightly and securely sealed. The inside containers shall be of the size and type specified in the Department of Transportation hazardous materials regulations, 49 CFR parts 173, 178, and 179, if those regulations specify a particular inside container for the waste.

(b) The inside containers shall be overpacked in an open head Department of Transportation-specification metal shipping container, 49 CFR parts 178 and 179, of no more than 416-liter, 110 gallon, capacity and surrounded by, at a minimum, a sufficient quantity of sorbent material, determined to be nonbiodegradable in accordance with Subsection R315-264-314(d), to completely sorb all of the liquid contents of the inside containers. The metal outer

container shall be full after it has been packed with inside containers and sorbent material.

(c) The sorbent material used shall not be capable of reacting dangerously with, being decomposed by, or being ignited by the contents of the inside containers, in accordance with Subsection R315-264-17(b).

(d) Incompatible wastes, as defined in Section R315-260-10, shall not be placed in the same outside container.

(e) Reactive wastes, other than cyanide- or sulfide-bearing waste as defined in Subsection R315-261-23(a)(5), shall be treated or rendered non-reactive prior to packaging in accordance with Subsections R315-264-316(a) through (d). Cyanide- and sulfide-bearing reactive waste may be packed in accordance with Subsections R315-264-316(a) through (d) without first being treated or rendered non-reactive.

(f) Such disposal is in compliance with the requirements of Rule R315-268. Persons who incinerate lab packs according to the requirements in Subsection R315-268-42(c)(1) may use fiber drums in place of metal outer containers. Such fiber drums shall meet the Department of Transportation specifications in 49 CFR 173.12 and be overpacked according to the requirements in Subsection R315-264-316(b).

R315-264-317. Special requirements for hazardous wastes FO20, FO21, FO22, FO23, FO26, and FO27.

(a) Hazardous Wastes FO20, FO21, FO22, FO23, FO26, and FO27 shall not be placed in a landfill unless the owner or operator operates the landfill in accord with a management plan for these wastes that is approved by the Director pursuant to the standards set out in Section R315-264-317, and in accord with all other applicable requirements of Rule R315-264. The factors to be considered are:

(1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through the soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring requirements.

(b) The Director may determine that additional design, operating, and monitoring requirements are necessary for

landfills managing hazardous wastes FO20, FO21, FO22, FO23, FO26, and FO27 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment.

R315-264-340. Incinerator - Applicability.

(a) The regulations of Sections R315-264-340 through 351 apply to owners and operators of hazardous waste incinerators, as defined in Section R315-260-10, except as Section R315-264-1 provides otherwise.

(b) Integration of the MACT standards.

(1) Except as provided by Subsections R315-264-340(b)(2) through (b)(4), the standards of Rule R315-264 do not apply to a new hazardous waste incineration unit that becomes subject to RCRA permit requirements after October 12, 2005; or no longer apply when an owner or operator of an existing hazardous waste incineration unit demonstrates compliance with the maximum achievable control technology (MACT) requirements of Section R307-214-2 by conducting a comprehensive performance test and submitting to the Director a Notification of Compliance under Section R307-14-2 documenting compliance with the requirements of Section R307-14-2. Nevertheless, even after this demonstration of compliance with the MACT standards, RCRA permit conditions that were based on the standards of Rule R315-264 shall continue to be in effect until they are removed from the permit or the permit is terminated or revoked, unless the permit expressly provides otherwise.

(2) The MACT standards do not replace the closure requirements of Section R315-264-351 or the applicable requirements of Sections R315-264-1 through 4, 10 though 19, 30 through 37, 50 through 56, 70 through 77, 90 through 101, 110 through 120, 140 through 151, 1050 through 1065 and 1080 through 1090.

(3) The particulate matter standard of Subsection R315-264-343(c) remains in effect for incinerators that elect to comply with the alternative to the particulate matter standard under Section R307-214-2.

(4) The following requirements remain in effect for startup, shutdown, and malfunction events if you elect to comply with Subsection R35-270-235(a)(1)(i) to minimize emissions of toxic compounds from these events:

(i) Subsection R315-264-345(a) requiring that an incinerator operate in accordance with operating requirements specified in the permit; and

(ii) Subsection R315-264-345(c) requiring compliance with the emission standards and operating requirements during startup and shutdown if hazardous waste is in the combustion chamber, except for particular hazardous wastes.

(c) After consideration of the waste analysis included with part B of the permit application, the Director, in establishing the permit conditions, shall exempt the applicant from all requirements of Sections R315-264-340 through 351 except Section R315-264-341, Waste analysis, and Section R315-264-351, Closure,

(1) If the Director finds that the waste to be burned is:

(i) Listed as a hazardous waste in Sections R315-261-30 through 35 solely because it is ignitable, Hazard Code I, corrosive, Hazard Code C, or both; or

(ii) Listed as a hazardous waste in Sections R315-261-30 through 35 solely because it is reactive, Hazard Code R, for characteristics other than those listed in Subsections R315-261-23(a)(4) and (5), and will not be burned when other hazardous wastes are present in the combustion zone; or

(iii) A hazardous waste solely because it possesses the characteristic of ignitability, corrosivity, or both, as determined by the test for characteristics of hazardous wastes under Sections R315-261-20 through 24; or

(iv) A hazardous waste solely because it possesses any of the reactivity characteristics described by Subsections R315-261-23(a)(1), (2), (3), (6), (7), and (8), and will not be burned when other hazardous wastes are present in the combustion zone; and

(2) If the waste analysis shows that the waste contains none of the hazardous constituents listed in Rule R315-261, appendix VIII, which would reasonably be expected to be in the waste.

(d) If the waste to be burned is one which is described by Subsections R315-264-340(b)(1)(i), (ii), (iii), or (iv) and contains insignificant concentrations of the hazardous constituents listed in Rule R315-261, appendix VIII, then the Director may, in establishing permit conditions, exempt the applicant from all requirements of Sections R315-264-340 through 351, except Section R315-264-341, Waste analysis, and Section R315-264-351, Closure, after consideration of the waste analysis included with part B of the permit application, unless the

Director finds that the waste will pose a threat to human health and the environment when burned in an incinerator.

(e) The owner or operator of an incinerator may conduct trial burns subject only to the requirements of Section R315-270-62, Short term and incinerator permits.

R315-264-341. Waste analysis.

(a) As a portion of the trial burn plan required by Section R315-270-62, or with part B of the permit application, the owner or operator shall have included an analysis of the waste feed sufficient to provide all information required by Subsection R315-270-62(b) or Section R315-270-19. Owners or operators of new hazardous waste incinerators shall provide the information required by Subsection R315-270-62(c) or Section R315-270-19 to the greatest extent possible.

(b) Throughout normal operation the owner or operator shall conduct sufficient waste analysis to verify that waste feed to the incinerator is within the physical and chemical composition limits specified in his permit, under Subsection R315-264-345(b).

R315-264-342. Principal organic hazardous constituents.

(a) Principal organic hazardous constituents in the waste feed shall be treated to the extent required by the performance standard of Section R315-264-343.

(b)(1) One or more principal organic hazardous constituents shall be specified in the facility's permit, from among those constituents listed in appendix VIII of Rule R315-261 for each waste feed to be burned. This specification shall be based on the degree of difficulty of incineration of the organic constituents in the waste and on their concentration or mass in the waste feed, considering the results of waste analyses and trial burns or alternative data submitted with part B of the facility's permit application. Organic constituents which represent the greatest degree of difficulty of incineration will be those most likely to be designated as principal organic hazardous constituents. Constituents are more likely to be designated as principal organic hazardous constituents if they are present in large quantities or concentrations in the waste.

(2) Trial principal organic hazardous constituents shall be designated for performance of trial burns in

accordance with the procedure specified in Section R315-270-62 for obtaining trial burn permits.

R315-264-343. Performance standards.
An incinerator burning hazardous waste shall be designed, constructed, and maintained so that, when operated in accordance with operating requirements specified under Section R315-264-345, it shall meet the following performance standards:

(a)(1) Except as provided in Subsection R315-264-343(a)(2), an incinerator burning hazardous waste shall achieve a destruction and removal efficiency of 99.99% for each principal organic hazardous constituent designated, under Section R315-264-342, in its permit for each waste feed. Destruction and removal efficiency is determined for each principal organic hazardous constituent from the following equation:

Destruction and removal efficiency=((Win-Wout)/Win)x100%

where:
Win = mass feed rate of one principal organic hazardous constituent in the waste stream feeding the incinerator and
Wout = mass emission rate of the same principal organic hazardous constituent present in exhaust emissions prior to release to the atmosphere.

(2) An incinerator burning hazardous wastes FO20, FO21, FO22, FO23, FO26, or FO27 shall achieve a destruction and removal efficiency of 99.9999% for each principal organic hazardous constituent designated, under Section R315-264-342, in its permit. This performance shall be demonstrated on principal organic hazardous constituents that are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo-p-dioxins and dibenzofurans. destruction and removal efficiency is determined for each principal organic hazardous constituent from the equation in Subsection R315-264-343(a)(1).

(b) An incinerator burning hazardous waste and producing stack emissions of more than 1.8 kilograms per hour, 4 pounds per hour, of hydrogen chloride shall control hydrogen chloride emissions such that the rate of emission is no greater than the larger of either 1.8 kilograms per hour or 1% of the hydrogen chloride in the stack gas prior to entering any pollution control equipment.

(c) An incinerator burning hazardous waste shall not emit particulate matter in excess of 180 milligrams per dry standard cubic meter, 0.08 grains per dry standard cubic foot, when corrected for the amount of oxygen in the stack gas according to the formula:

$$Pc=Pm \times (14/(21-Y))$$

Where Pc is the corrected concentration of particulate matter, Pm is the measured concentration of particulate matter, and Y is the measured concentration of oxygen in the stack gas, using the Orsat method for oxygen analysis of dry flue gas, presented in 40 CFR 60, appendix A Method 3, which is adopted and incorporated by Section R307-221-3. This correction procedure is to be used by all hazardous waste incinerators except those operating under conditions of oxygen enrichment. For these facilities, the Director shall select an appropriate correction procedure, to be specified in the facility permit.

(d) For purposes of permit enforcement, compliance with the operating requirements specified in the permit, under Section R315-264-345, shall be regarded as compliance with Section R315-264-343. However, evidence that compliance with those permit conditions is insufficient to ensure compliance with the performance requirements of Section R315-264-343 may be “information” justifying modification, revocation, or reissuance of a permit under Section R315-270-41.

R315-264-344. Hazardous waste incinerator permits.

(a) The owner or operator of a hazardous waste incinerator may burn only wastes specified in his permit and only under operating conditions specified for those wastes under Section R315-264-345, except:

(1) In approved trial burns under Section R315-270-62; or

(2) Under exemptions created by Section R315-264-340.

(b) Other hazardous wastes may be burned only after operating conditions have been specified in a new permit or a permit modification as applicable. Operating requirements for new wastes may be based on either trial burn results or alternative data included with part B of a permit application under Section R315-270-19.

(c) The permit for a new hazardous waste incinerator shall establish appropriate conditions for each of the applicable requirements of Sections R315-264-340 through 351, including but not limited to allowable waste feeds and operating conditions necessary to meet the requirements of Section R315-264-345, sufficient to comply with the following standards:

(1) For the period beginning with initial introduction of hazardous waste to the incinerator and ending with initiation of the trial burn, and only for the minimum time required to establish operating conditions required in Subsection R315-264-344(c)(2), not to exceed a duration of 720 hours operating time for treatment of hazardous waste, the operating requirements shall be those most likely to ensure compliance with the performance standards of Section R315-264-343, based on the Director's engineering judgment. The Director may extend the duration of this period once for up to 720 additional hours when good cause for the extension is demonstrated by the applicant.

(2) For the duration of the trial burn, the operating requirements shall be sufficient to demonstrate compliance with the performance standards of Section R315-264-343 and shall be in accordance with the approved trial burn plan;

(3) For the period immediately following completion of the trial burn, and only for the minimum period sufficient to allow sample analysis, data computation, and submission of the trial burn results by the applicant, and review of the trial burn results and modification of the facility permit by the Director, the operating requirements shall be those most likely to ensure compliance with the performance standards of Section R315-264-343, based on the Director's engineering judgment.

(4) For the remaining duration of the permit, the operating requirements shall be those demonstrated, in a trial burn or by alternative data specified in Subsection R315-270-19(c), as sufficient to ensure compliance with the performance standards of Section R315-264-343.

R315-264-345. Operating requirements.

(a) An incinerator shall be operated in accordance with operating requirements specified in the permit. These shall be specified on a case-by-case basis as those demonstrated, in a trial burn or in alternative data as specified in Subsection R315-264-344(b) and included with

part B of a facility's permit application, to be sufficient to comply with the performance standards of Section R315-264-343.

(b) Each set of operating requirements shall specify the composition of the waste feed, including acceptable variations in the physical or chemical properties of the waste feed which will not affect compliance with the performance requirement of Section R315-264-343, to which the operating requirements apply. For each such waste feed, the permit shall specify acceptable operating limits including the following conditions:

(1) Carbon monoxide level in the stack exhaust gas;

(2) Waste feed rate;

(3) Combustion temperature;

(4) An appropriate indicator of combustion gas velocity;

(5) Allowable variations in incinerator system design or operating procedures; and

(6) Such other operating requirements as are necessary to ensure that the performance standards of Section R315-264-343 are met.

(c) During start-up and shut-down of an incinerator, hazardous waste, except wastes exempted in accordance with Section R315-264-340, shall not be fed into the incinerator unless the incinerator is operating within the conditions of operation, temperature, air feed rate, etc., specified in the permit.

(d) Fugitive emissions from the combustion zone shall be controlled by:

(1) Keeping the combustion zone totally sealed against fugitive emissions; or

(2) Maintaining a combustion zone pressure lower than atmospheric pressure; or

(3) An alternate means of control demonstrated, with part B of the permit application, to provide fugitive emissions control equivalent to maintenance of combustion zone pressure lower than atmospheric pressure.

(e) An incinerator shall be operated with a functioning system to automatically cut off waste feed to the incinerator when operating conditions deviate from limits established under Subsection R315-264-345(a).

(f) An incinerator shall cease operation when changes in waste feed, incinerator design, or operating conditions exceed limits designated in its permit.

R315-264-347. Monitoring and inspections.

(a) The owner or operator shall conduct, as a minimum, the following monitoring while incinerating hazardous waste:

(1) Combustion temperature, waste feed rate, and the indicator of combustion gas velocity specified in the facility permit shall be monitored on a continuous basis.

(2) Carbon monoxide shall be monitored on a continuous basis at a point in the incinerator downstream of the combustion zone and prior to release to the atmosphere.

(3) Upon request by the Director, sampling and analysis of the waste and exhaust emissions shall be conducted to verify that the operating requirements established in the permit achieve the performance standards of Section R315-264-343.

(b) The incinerator and associated equipment, pumps, valves, conveyors, pipes, etc., shall be subjected to thorough visual inspection, at least daily, for leaks, spills, fugitive emissions, and signs of tampering.

(c) The emergency waste feed cutoff system and associated alarms shall be tested at least weekly to verify operability, unless the applicant demonstrates to the Director that weekly inspections will unduly restrict or upset operations and that less frequent inspection will be adequate. At a minimum, operational testing shall be conducted at least monthly.

(d) This monitoring and inspection data shall be recorded and the records shall be placed in the operating record required by Section R315-264-73 and maintained in the operating record for five years.

R315-264-351. Closure.

At closure the owner or operator shall remove all hazardous waste and hazardous waste residues, including, but not limited to, ash, scrubber waters, and scrubber sludges, from the incinerator site.

At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with Subsection R315-261-3(d), that the residue removed from the incinerator is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and shall manage it in accordance with applicable requirements of Rules R315-262 through 266.

R315-264-550. Applicability of Corrective Action Management Unit (CAMU) regulations.

(a) Except as provided in Subsection R315-264-550(b), CAMUs are subject to the requirements of Section R315-264-552.

(b) CAMUs that were approved before April 22, 2002, or for which substantially complete applications (or equivalents) were submitted to the Agency on or before November 20, 2000, are subject to the requirements in Section R315-264-551 for grandfathered CAMUs; CAMU waste, activities, and design shall not be subject to the standards in Section R315-264-552, so long as the waste, activities, and design remain within the general scope of the CAMU as approved.

R315-264-551. Grandfathered Corrective Action Management Units (CAMUs).

(a) To implement remedies under Section R315-264-101 or RCRA Section 3008(h), or to implement remedies at a permitted facility that is not subject to Section R315-264-101, the Director may designate an area at the facility as a corrective action management unit under the requirements in Section R315-264-551. Corrective action management unit means an area within a facility that is used only for managing remediation wastes for implementing corrective action or cleanup at the facility. A CAMU shall be located within the contiguous property under the control of the owner or operator where the wastes to be managed in the CAMU originated. One or more CAMUs may be designated at a facility.

(1) Placement of remediation wastes into or within a CAMU does not constitute land disposal of hazardous wastes.

(2) Consolidation or placement of remediation wastes into or within a CAMU does not constitute creation of a unit subject to minimum technology requirements.

(b)(1) The Director may designate a regulated unit, as defined in Subsection R315-264-90(a)(2), as a CAMU, or may incorporate a regulated unit into a CAMU, if:

(i) The regulated unit is closed or closing, meaning it has begun the closure process under Section R315-264-113 or 40 CFR 265.113, which is adopted by reference; and

(ii) Inclusion of the regulated unit will enhance implementation of effective, protective and reliable remedial actions for the facility.

(2) The requirements of Sections R315-264-90 through 101, 110 through 120, and 140 through 151 and the unit-specific requirements of Rules R315-264 or 265 that applied to that regulated unit shall continue to apply to that portion of the CAMU after incorporation into the CAMU.

(c) The Director shall designate a CAMU in accordance with the following:

(1) The CAMU shall facilitate the implementation of reliable, effective, protective, and cost-effective remedies;

(2) Waste management activities associated with the CAMU shall not create unacceptable risks to humans or to the environment resulting from exposure to hazardous wastes or hazardous constituents;

(3) The CAMU shall include uncontaminated areas of the facility, only if including such areas for the purpose of managing remediation waste is more protective than management of such wastes at contaminated areas of the facility;

(4) Areas within the CAMU, where wastes remain in place after closure of the CAMU, shall be managed and contained so as to minimize future releases, to the extent practicable;

(5) The CAMU shall expedite the timing of remedial activity implementation, when appropriate and practicable;

(6) The CAMU shall enable the use, when appropriate, of treatment technologies, including innovative technologies, to enhance the long-term effectiveness of remedial actions by reducing the toxicity, mobility, or volume of wastes that will remain in place after closure of the CAMU; and

(7) The CAMU shall, to the extent practicable, minimize the land area of the facility upon which wastes will remain in place after closure of the CAMU.

(d) The owner/operator shall provide sufficient information to enable the Director to designate a CAMU in accordance with the criteria in Section R315-264-552.

(e) The Director shall specify, in the permit or order, requirements for CAMUs to include the following:

(1) The areal configuration of the CAMU.

(2) Requirements for remediation waste management to include the specification of applicable design, operation and closure requirements.

(3) Requirements for ground water monitoring that are sufficient to:

(i) Continue to detect and to characterize the nature, extent, concentration, direction, and movement of existing releases of hazardous constituents in ground water from sources located within the CAMU; and

(ii) Detect and subsequently characterize releases of hazardous constituents to ground water that may occur from areas of the CAMU in which wastes will remain in place after closure of the CAMU.

(4) Closure and post-closure requirements.

(i) Closure of corrective action management units shall:

(A) Minimize the need for further maintenance; and

(B) Control, minimize, or eliminate, to the extent necessary to protect human health and the environment, for areas where wastes remain in place, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated runoff, or hazardous waste decomposition products to the ground, to surface waters, or to the atmosphere.

(ii) Requirements for closure of CAMUs shall include the following, as appropriate and as deemed necessary by the Director for a given CAMU:

(A) Requirements for excavation, removal, treatment or containment of wastes;

(B) For areas in which wastes will remain after closure of the CAMU, requirements for capping of such areas; and

(C) Requirements for removal and decontamination of equipment, devices, and structures used in remediation waste management activities within the CAMU.

(iii) In establishing specific closure requirements for CAMUs under Subsection R315-264-552(e), the Director shall consider the following factors:

(A) CAMU characteristics;

(B) Volume of wastes which remain in place after closure;

(C) Potential for releases from the CAMU;

(D) Physical and chemical characteristics of the waste;

(E) Hydrological and other relevant environmental conditions at the facility which may influence the migration of any potential or actual releases; and

(F) Potential for exposure of humans and environmental receptors if releases were to occur from the CAMU.

(iv) Post-closure requirements as necessary to protect human health and the environment, to include, for areas where wastes will remain in place, monitoring and maintenance activities, and the frequency with which such activities shall be performed to ensure the integrity of any cap, final cover, or other containment system.

(f) The Director shall document the rationale for designating CAMUs and shall make such documentation available to the public.

(g) Incorporation of a CAMU into an existing permit shall be approved by the Director according to the procedures for permit modifications under Section R315-270-41, or according to the permit modification procedures of Section R315-270-42.

(h) The designation of a CAMU does not change the Director's existing authority to address clean-up levels, media-specific points of compliance to be applied to remediation at a facility, or other remedy selection decisions.

R315-264-552. Corrective Action Management Units (CAMU).

(a) To implement remedies under Subsection R315-264-101 or RCRA Section 3008(h), or to implement remedies at a permitted facility that is not subject to Subsection R315-264-101, the Director may designate an area at the facility as a corrective action management unit under the requirements in Section R315-264-552. Corrective action management unit means an area within a facility that is used only for managing CAMU-eligible wastes for implementing corrective action or cleanup at the facility. A CAMU shall be located within the contiguous property under the control of the owner or operator where the wastes to be managed in the CAMU originated. One or more CAMUs may be designated at a facility.

(1) CAMU-eligible waste means:

(i) All solid and hazardous wastes, and all media, including ground water, surface water, soils, and sediments, and debris, that are managed for implementing cleanup. As-generated wastes, either hazardous or non-hazardous, from ongoing industrial operations at a site are not CAMU-eligible wastes.

(ii) Wastes that would otherwise meet the description in Subsection R315-264-552(a)(1)(i) are not “CAMU-Eligible Wastes” where:

(A) The wastes are hazardous wastes found during cleanup in intact or substantially intact containers, tanks, or other non-land-based units found above ground, unless the wastes are first placed in the tanks, containers or non-land-based units as part of cleanup, or the containers or tanks are excavated during the course of cleanup; or

(B) The Director exercises the discretion in Subsection R315-264-552(a)(2) to prohibit the wastes from management in a CAMU.

(iii) Notwithstanding Subsection R315-264-552(a)(1)(i), where appropriate, as-generated non-hazardous waste may be placed in a CAMU where such waste is being used to facilitate treatment or the performance of the CAMU.

(2) The Director may prohibit, where appropriate, the placement of waste in a CAMU where the Director has or receives information that such wastes have not been managed in compliance with applicable land disposal treatment standards of Rule R315-268, or applicable unit design requirements of Rule R315-264, or applicable unit design requirements of Rule R315-265, or that non-compliance with other applicable requirements of Rules R315-260 through 266, 268, 270 and 273 likely contributed to the release of the waste.

(3) Prohibition against placing liquids in CAMUs.

(i) The placement of bulk or noncontainerized liquid hazardous waste or free liquids contained in hazardous waste, whether or not sorbents have been added, in any CAMU is prohibited except where placement of such wastes facilitates the remedy selected for the waste.

(ii) The requirements in Subsection R315-264-314(c) for placement of containers holding free liquids in landfills apply to placement in a CAMU except where placement facilitates the remedy selected for the waste.

(iii) The placement of any liquid which is not a hazardous waste in a CAMU is prohibited unless such placement facilitates the remedy selected for the waste or a demonstration is made pursuant to Subsection R315-264-314(e).

(iv) The absence or presence of free liquids in either a containerized or a bulk waste shall be determined in accordance with Subsection R315-264-314(b). Sorbents used to treat free liquids in CAMUs shall meet the requirements of Subsection R315-264-314(d).

(4) Placement of CAMU-eligible wastes into or within a CAMU does not constitute land disposal of hazardous wastes.

(5) Consolidation or placement of CAMU-eligible wastes into or within a CAMU does not constitute creation of a unit subject to minimum technology requirements.

(b)(1) The Director may designate a regulated unit, as defined in Subsection R315-264-90(a)(2), as a CAMU, or may incorporate a regulated unit into a CAMU, if:

(i) The regulated unit is closed or closing, meaning it has begun the closure process under Section R315-264-113 or 40 CFR 265.113, which is adopted by reference; and

(ii) Inclusion of the regulated unit will enhance implementation of effective, protective and reliable remedial actions for the facility.

(2) The requirements of Sections R315-264-90 through 101, 110 through 120, and 140 through 151 and the unit-specific requirements of Rules R315-264 or 265 that applied to the regulated unit shall continue to apply to that portion of the CAMU after incorporation into the CAMU.

(c) The Director shall designate a CAMU that will be used for storage and/or treatment only in accordance with Subsection R315-264-552(f). The Director shall designate all other CAMUs in accordance with the following:

(1) The CAMU shall facilitate the implementation of reliable, effective, protective, and cost-effective remedies;

(2) Waste management activities associated with the CAMU shall not create unacceptable risks to humans or to the environment resulting from exposure to hazardous wastes or hazardous constituents;

(3) The CAMU shall include uncontaminated areas of the facility, only if including such areas for the purpose of managing CAMU-eligible waste is more protective than management of such wastes at contaminated areas of the facility;

(4) Areas within the CAMU, where wastes remain in place after closure of the CAMU, shall be managed and contained so as to minimize future releases, to the extent practicable;

(5) The CAMU shall expedite the timing of remedial activity implementation, when appropriate and practicable;

(6) The CAMU shall enable the use, when appropriate, of treatment technologies, including innovative technologies, to enhance the long-term effectiveness of

remedial actions by reducing the toxicity, mobility, or volume of wastes that will remain in place after closure of the CAMU; and

(7) The CAMU shall, to the extent practicable, minimize the land area of the facility upon which wastes will remain in place after closure of the CAMU.

(d) The owner/operator shall provide sufficient information to enable the Director to designate a CAMU in accordance with the criteria in Section R315-264-552. This shall include, unless not reasonably available, information on:

(1) The origin of the waste and how it was subsequently managed, including a description of the timing and circumstances surrounding the disposal and/or release;

(2) Whether the waste was listed or identified as hazardous at the time of disposal and/or release; and

(3) Whether the disposal and/or release of the waste occurred before or after the land disposal requirements of Rule R315-268 were in effect for the waste listing or characteristic.

(e) The Director shall specify, in the permit or order, requirements for CAMUs to include the following:

(1) The areal configuration of the CAMU.

(2) Except as provided in Subsection R315-264-552(g), requirements for CAMU-eligible waste management to include the specification of applicable design, operation, treatment and closure requirements.

(3) Minimum design requirements. CAMUs, except as provided in Subsection R315-264-552(f), into which wastes are placed shall be designed in accordance with the following:

(i) Unless the Director approves alternate requirements under Subsection R315-264-552(e)(3)(ii), CAMUs that consist of new, replacement, or laterally expanded units shall include a composite liner and a leachate collection system that is designed and constructed to maintain less than a 30-cm depth of leachate over the liner. For purposes of Section R315-264-552, composite liner means a system consisting of two components; the upper component shall consist of a minimum 30-mil flexible membrane liner (FML), and the lower component shall consist of at least a two-foot layer of compacted soil with a hydraulic conductivity of no more than 1×10-7 cm/sec. FML components consisting of high density polyethylene (HDPE) shall be at least 60 mil thick. The FML component shall be

installed in direct and uniform contact with the compacted soil component;

(ii) Alternate requirements. The Director may approve alternate requirements if:

(A) The Director finds that alternate design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituents into the ground water or surface water at least as effectively as the liner and leachate collection systems in Subsection R315-264-552(e)(3)(i); or

(B) The CAMU is to be established in an area with existing significant levels of contamination, and the Director finds that an alternative design, including a design that does not include a liner, would prevent migration from the unit that would exceed long-term remedial goals.

(4) Minimum treatment requirements: Unless the wastes will be placed in a CAMU for storage and/or treatment only in accordance with Subsection R315-264-552(f), CAMU-eligible wastes that, absent Section R315-264-552, would be subject to the treatment requirements of Rule R315-268, and that the Director determines contain principal hazardous constituents shall be treated to the standards specified in Subsection R315-264-552(e)(4)(iii).

(i) Principal hazardous constituents are those constituents that the Director determines pose a risk to human health and the environment substantially higher than the cleanup levels or goals at the site.

(A) In general, the Director shall designate as principal hazardous constituents:

(I) Carcinogens that pose a potential direct risk from ingestion or inhalation at the site at or above 10^{-3}; and

(II) Non-carcinogens that pose a potential direct risk from ingestion or inhalation at the site an order of magnitude or greater over their reference dose.

(B) The Director shall also designate constituents as principal hazardous constituents, where appropriate, when risks to human health and the environment posed by the potential migration of constituents in wastes to ground water are substantially higher than cleanup levels or goals at the site; when making such a designation, the Director may consider such factors as constituent concentrations,

and fate and transport characteristics under site conditions.

(C) The Director may also designate other constituents as principal hazardous constituents that the Director determines pose a risk to human health and the environment substantially higher than the cleanup levels or goals at the site.

(ii) In determining which constituents are “principal hazardous constituents,” the Director shall consider all constituents which, absent Section R315-264-552, would be subject to the treatment requirements in Rule R315-268.

(iii) Waste that the Director determines contains principal hazardous constituents shall meet treatment standards determined in accordance with Subsections R315-264-552(e)(4)(iv) or (e)(4)(v).

(iv) Treatment standards for wastes placed in CAMUs.

(A) For non-metals, treatment shall achieve 90 percent reduction in total principal hazardous constituent concentrations, except as provided by Subsection R315-264-552(e)(4)(iv)(C).

(B) For metals, treatment shall achieve 90 percent reduction in principal hazardous constituent concentrations as measured in leachate from the treated waste or media, tested according to the TCLP, or 90 percent reduction in total constituent concentrations, when a metal removal treatment technology is used, except as provided by Subsection R315-264-552(e)(4)(iv)(C).

(C) When treatment of any principal hazardous constituent to a 90 percent reduction standard would result in a concentration less than 10 times the Universal Treatment Standard for that constituent, treatment to achieve constituent concentrations less than 10 times the Universal Treatment Standard is not required. Universal Treatment Standards are identified in Section R315-268-48 Table UTS.

(D) For waste exhibiting the hazardous characteristic of ignitability, corrosivity or reactivity, the waste shall also be treated to eliminate these characteristics.

(E) For debris, the debris shall be treated in accordance with Section R315-268-45, or by methods or to levels established under Subsections R315-264-552(e)(4)(iv)(A) through (D) or Subsection R315-264-552(e)(4)(v), whichever the Director determines is appropriate.

(F) Alternatives to TCLP. For metal bearing wastes for which metals removal treatment is not used, the Director may specify a leaching test other than the TCLP, SW846 Method 1311, Rule R315-260-11(c)(3)(v), to measure treatment effectiveness, provided the Director determines that an alternative leach testing protocol is appropriate for use, and that the alternative more accurately reflects conditions at the site that affect leaching.

(v) Adjusted standards. The Director may adjust the treatment level or method in Subsection R315-264-552(e)(4)(iv) to a higher or lower level, based on one or more of the following factors, as appropriate. The adjusted level or method shall be protective of human health and the environment:

(A) The technical impracticability of treatment to the levels or by the methods in Subsection R315-264-552(e)(4)(iv);

(B) The levels or methods in Subsection R315-264-552(e)(4)(iv) would result in concentrations of principal hazardous constituents (PHCs) that are significantly above or below cleanup standards applicable to the site, established either site-specifically, or promulgated under state or federal law;

(C) The views of the affected local community on the treatment levels or methods in Subsection R315-264-552(e)(4)(iv) as applied at the site, and, for treatment levels, the treatment methods necessary to achieve these levels;

(D) The short-term risks presented by the on-site treatment method necessary to achieve the levels or treatment methods in Subsection R315-264-552(e)(4)(iv);

(E) The long-term protection offered by the engineering design of the CAMU and related engineering controls:

(I) Where the treatment standards in Subsection R315-264-552(e)(4)(iv) are substantially met and the principal hazardous constituents in the waste or residuals are of very low mobility; or

(II) Where cost-effective treatment has been used and the CAMU meets the Subtitle C liner and leachate collection requirements for new land disposal units at Subsections R315-264-301(c) and (d); or

(III) Where, after review of appropriate treatment technologies, the Director determines that cost-effective treatment is not reasonably available, and the CAMU meets

the Subtitle C liner and leachate collection requirements for new land disposal units at Subsection R315-264-301(c) and (d); or

(IV) Where cost-effective treatment has been used and the principal hazardous constituents in the treated wastes are of very low mobility; or

(V) Where, after review of appropriate treatment technologies, the Director determines that cost-effective treatment is not reasonably available, the principal hazardous constituents in the wastes are of very low mobility, and either the CAMU meets or exceeds the liner standards for new, replacement, or laterally expanded CAMUs in Subsections R315-264-552(e)(3)(i) and (ii), or the CAMU provides substantially equivalent or greater protection.

(vi) The treatment required by the treatment standards shall be completed prior to, or within a reasonable time after, placement in the CAMU.

(vii) For the purpose of determining whether wastes placed in CAMUs have met site-specific treatment standards, the Director may, as appropriate, specify a subset of the principal hazardous constituents in the waste as analytical surrogates for determining whether treatment standards have been met for other principal hazardous constituents. This specification shall be based on the degree of difficulty of treatment and analysis of constituents with similar treatment properties.

(5) Except as provided in Subsection R315-264-552(f), requirements for ground water monitoring and corrective action that are sufficient to:

(i) Continue to detect and to characterize the nature, extent, concentration, direction, and movement of existing releases of hazardous constituents in ground water from sources located within the CAMU; and

(ii) Detect and subsequently characterize releases of hazardous constituents to ground water that may occur from areas of the CAMU in which wastes will remain in place after closure of the CAMU; and

(iii) Require notification to the Director and corrective action as necessary to protect human health and the environment for releases to ground water from the CAMU.

(6) Except as provided in Subsection R315-264-552(f), closure and post-closure requirements:

(i) Closure of corrective action management units shall:

(A) Minimize the need for further maintenance; and

(B) Control, minimize, or eliminate, to the extent necessary to protect human health and the environment, for areas where wastes remain in place, post-closure escape of hazardous wastes, hazardous constituents, leachate, contaminated runoff, or hazardous waste decomposition products to the ground, to surface waters, or to the atmosphere.

(ii) Requirements for closure of CAMUs shall include the following, as appropriate and as deemed necessary by the Director for a given CAMU:

(A) Requirements for excavation, removal, treatment or containment of wastes; and

(B) Requirements for removal and decontamination of equipment, devices, and structures used in CAMU-eligible waste management activities within the CAMU.

(iii) In establishing specific closure requirements for CAMUs under Subsection R315-264-552(e), the Director shall consider the following factors:

(A) CAMU characteristics;

(B) Volume of wastes which remain in place after closure;

(C) Potential for releases from the CAMU;

(D) Physical and chemical characteristics of the waste;

(E) Hydrogeological and other relevant environmental conditions at the facility which may influence the migration of any potential or actual releases; and

(F) Potential for exposure of humans and environmental receptors if releases were to occur from the CAMU.

(iv) Cap requirements:

(A) At final closure of the CAMU, for areas in which wastes will remain after closure of the CAMU, with constituent concentrations at or above remedial levels or goals applicable to the site, the owner or operator shall cover the CAMU with a final cover designed and constructed to meet the following performance criteria, except as provided in Subsection R315-264-552(e)(6)(iv)(B):

(1) Provide long-term minimization of migration of liquids through the closed unit;

(2) Function with minimum maintenance;

(3) Promote drainage and minimize erosion or abrasion of the cover;

(4) Accommodate settling and subsidence so that the cover's integrity is maintained; and

(5) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

(B) The Director may determine that modifications to Subsection R315-264-552(e)(6)(iv)(A) are needed to facilitate treatment or the performance of the CAMU, e.g., to promote biodegradation.

(v) Post-closure requirements as necessary to protect human health and the environment, to include, for areas where wastes will remain in place, monitoring and maintenance activities, and the frequency with which such activities shall be performed to ensure the integrity of any cap, final cover, or other containment system.

(f) CAMUs used for storage and/or treatment only are CAMUs in which wastes will not remain after closure. Such CAMUs shall be designated in accordance with all of the requirements of Section R315-264-552, except as follows.

(1) CAMUs that are used for storage and/or treatment only and that operate in accordance with the time limits established in the staging pile regulations at Subsections R315-264-554(d)(1)(iii), (h), and (i) are subject to the requirements for staging piles at Subsections R315-264-554(d)(1)(i) and (ii), (d)(2), (e) and (f), (j), and (k) in lieu of the performance standards and requirements for CAMUs in Subsections R315-264-552(c) and (e)(3) through (6).

(2) CAMUs that are used for storage and/or treatment only and that do not operate in accordance with the time limits established in the staging pile regulations at Subsections R315-264-554(d)(1)(iii), (h), and (i):

(i) Shall operate in accordance with a time limit, established by the Director, that is no longer than necessary to achieve a timely remedy selected for the waste, and

(ii) Are subject to the requirements for staging piles at Subsection R315-264-554(d)(1)(i) and (ii), (d)(2), (e) and (f), (j), and (k) in lieu of the performance standards and requirements for CAMUs in Subsection R315-264-552(c) and (e)(4) and (6).

(g) CAMUs into which wastes are placed where all wastes have constituent levels at or below remedial levels or goals applicable to the site do not have to comply with the requirements for liners at Subsection R315-264-552(e)(3)(i), caps at Subsection R315-264-552(e)(6)(iv), ground water monitoring requirements at Subsection R315-

264-552(e)(5) or, for treatment and/or storage-only CAMUs, the design standards at Subsection R315-264-552(f).

(h) The Director shall provide public notice and a reasonable opportunity for public comment before designating a CAMU. Such notice shall include the rationale for any proposed adjustments under Subsection R315-264-552(e)(4)(v) to the treatment standards in Subsection R315-264-552(e)(4)(iv).

(i) Notwithstanding any other provision of Section R315-264-552, the Director may impose additional requirements as necessary to protect human health and the environment.

(j) Incorporation of a CAMU into an existing permit shall be approved by the Director according to the procedures for permit modifications under Section R315-270-41, or according to the permit modification procedures of Section R315-270-42.

(k) The designation of a CAMU does not change the Director's existing authority to address clean-up levels, media-specific points of compliance to be applied to remediation at a facility, or other remedy selection decisions.

R315-264-553. Temporary Units (TU).

(a) For temporary tanks and container storage areas used to treat or store hazardous remediation wastes during remedial activities required under Section R315-264-101 or RCRA 3008(h), or at a permitted facility that is not subject to Section R315-264-101, the Director may designate a unit at the facility, as a temporary unit. A temporary unit shall be located within the contiguous property under the control of the owner/operator where the wastes to be managed in the temporary unit originated. For temporary units, the Director may replace the design, operating, or closure standard applicable to these units under Rule R315-264 or 265 with alternative requirements which protect human health and the environment.

(b) Any temporary unit to which alternative requirements are applied in accordance with Subsection R315-264-553(a) shall be:

(1) Located within the facility boundary; and

(2) Used only for treatment or storage of remediation wastes.

(c) In establishing standards to be applied to a temporary unit, the Director shall consider the following factors:

(1) Length of time such unit will be in operation;

(2) Type of unit;

(3) Volumes of wastes to be managed;

(4) Physical and chemical characteristics of the wastes to be managed in the unit;

(5) Potential for releases from the unit;

(6) Hydrogeological and other relevant environmental conditions at the facility which may influence the migration of any potential releases; and

(7) Potential for exposure of humans and environmental receptors if releases were to occur from the unit.

(d) The Director shall specify in the permit or order the length of time a temporary unit will be allowed to operate, to be no longer than a period of one year. The Director shall also specify the design, operating, and closure requirements for the unit.

(e) The Director may extend the operational period of a temporary unit once for no longer than a period of one year beyond that originally specified in the permit or order, if the Director determines that:

(1) Continued operation of the unit will not pose a threat to human health and the environment; and

(2) Continued operation of the unit is necessary to ensure timely and efficient implementation of remedial actions at the facility.

(f) Incorporation of a temporary unit or a time extension for a temporary unit into an existing permit shall be:

(1) Approved in accordance with the procedures for permit modifications under Section R315-270-41; or

(2) Requested by the owner/operator as a Class II modification according to the procedures under Section R315-270-42.

(g) The Director shall document the rationale for designating a temporary unit and for granting time extensions for temporary units and shall make such documentation available to the public.

R315-264-554. Staging piles.

Section R315-264-554 is written in a special format to make it easier to understand the regulatory requirements. Like

other regulations, this establishes enforceable legal requirements. For Section R315-264-554 “I” and “you” refer to the owner/operator.

(a) What is a staging pile? A staging pile is an accumulation of solid, non-flowing remediation waste, as defined in Section R315-260-10, that is not a containment building and is used only during remedial operations for temporary storage at a facility. A staging pile shall be located within the contiguous property under the control of the owner/operator where the wastes to be managed in the staging pile originated. Staging piles shall be designated by the Director according to the requirements in Section R315-264-554.

(1) For the purposes of Section R315-264-554, storage includes mixing, sizing, blending, or other similar physical operations as long as they are intended to prepare the wastes for subsequent management or treatment.

(b) When may I use a staging pile? You may use a staging pile to store hazardous remediation waste, or remediation waste otherwise subject to land disposal restrictions, only if you follow the standards and design criteria the Director has designated for that staging pile. The Director shall designate the staging pile in a permit or, at an interim status facility, in a closure plan or order, consistent with Subsections R315-270-72(a)(5) and (b)(5). The Director shall establish conditions in the permit, closure plan, or order that comply with Subsection R315-264-554(d) through (k).

(c) What information shall I provide to get a staging pile designated? When seeking a staging pile designation, you shall provide:

(1) Sufficient and accurate information to enable the Director to impose standards and design criteria for your staging pile according to Section R315-264-554(d) through (k);

(2) Certification by a qualified Professional Engineer for technical data, such as design drawings and specifications, and engineering studies, unless the Director determines, based on information that you provide, that this certification is not necessary to ensure that a staging pile will protect human health and the environment; and

(3) Any additional information the Director determines is necessary to protect human health and the environment.

(d) What performance criteria shall a staging pile satisfy? The Director shall establish the standards and design criteria for the staging pile in the permit, closure plan, or order.

(1) The standards and design criteria shall comply with the following:

(i) The staging pile shall facilitate a reliable, effective and protective remedy;

(ii) The staging pile shall be designed so as to prevent or minimize releases of hazardous wastes and hazardous constituents into the environment, and minimize or adequately control cross-media transfer, as necessary to protect human health and the environment, for example, through the use of liners, covers, run-off/run-on controls, as appropriate; and

(iii) The staging pile shall not operate for more than two years, except when the Director grants an operating term extension under Subsection R315-264-554(i), entitled “May I receive an operating extension for a staging pile?”. You shall measure the two-year limit, or other operating term specified by the Director in the permit, closure plan, or order, from the first time you place remediation waste into a staging pile. You shall maintain a record of the date when you first placed remediation waste into the staging pile for the life of the permit, closure plan, or order, or for three years, whichever is longer.

(2) In setting the standards and design criteria, the Director shall consider the following factors:

(i) Length of time the pile will be in operation;

(ii) Volumes of wastes you intend to store in the pile;

(iii) Physical and chemical characteristics of the wastes to be stored in the unit;

(iv) Potential for releases from the unit;

(v) Hydrogeological and other relevant environmental conditions at the facility that may influence the migration of any potential releases; and

(vi) Potential for human and environmental exposure to potential releases from the unit;

(e) May a staging pile receive ignitable or reactive remediation waste? You shall not place ignitable or reactive remediation waste in a staging pile unless:

(1) You have treated, rendered or mixed the remediation waste before you placed it in the staging pile so that:

(i) The remediation waste no longer meets the definition of ignitable or reactive under Sections R315-261-21 or 23; and

(ii) You have complied with Subsection R315-264-17(b); or

(2) You manage the remediation waste to protect it from exposure to any material or condition that may cause it to ignite or react.

(f) How do I handle incompatible remediation wastes in a staging pile? The term “incompatible waste” is defined in Section R315-260-10. You shall comply with the following requirements for incompatible wastes in staging piles:

(1) You shall not place incompatible remediation wastes in the same staging pile unless you have complied with Subsection R315-264-17(b);

(2) If remediation waste in a staging pile is incompatible with any waste or material stored nearby in containers, other piles, open tanks or land disposal units, for example, surface impoundments, you shall separate the incompatible materials, or protect them from one another by using a dike, berm, wall or other device; and

(3) You shall not pile remediation waste on the same base where incompatible wastes or materials were previously piled, unless the base has been decontaminated sufficiently to comply with Subsection R315-264-17(b).

(g) Are staging piles subject to Land Disposal Restrictions and Minimum Technological Requirements? No. Placing hazardous remediation wastes into a staging pile does not constitute land disposal of hazardous wastes or create a unit that is subject to the minimum technological requirements of RCRA 3004(o).

(h) How long may I operate a staging pile? The Director may allow a staging pile to operate for up to two years after hazardous remediation waste is first placed into the pile. You shall use a staging pile no longer than the length of time designated by the Director in the permit, closure plan, or order, the “operating term”, except as provided in Subsection R315-264-554(i).

(i) May I receive an operating extension for a staging pile?

(1) The Director may grant one operating term extension of up to 180 days beyond the operating term limit

contained in the permit, closure plan, or order, see Subsection R315-264-554(l) for modification procedures. To justify to the Director the need for an extension, you shall provide sufficient and accurate information to enable the Director to determine that continued operation of the staging pile:

(i) Will not pose a threat to human health and the environment; and

(ii) Is necessary to ensure timely and efficient implementation of remedial actions at the facility.

(2) The Director may, as a condition of the extension, specify further standards and design criteria in the permit, closure plan, or order, as necessary, to ensure protection of human health and the environment.

(j) What is the closure requirement for a staging pile located in a previously contaminated area?

(1) Within 180 days after the operating term of the staging pile expires, you shall close a staging pile located in a previously contaminated area of the site by removing or decontaminating all:

(i) Remediation waste;

(ii) Contaminated containment system components; and

(iii) Structures and equipment contaminated with waste and leachate.

(2) You shall also decontaminate contaminated subsoils in a manner and according to a schedule that the Director determines will protect human health and the environment.

(3) The Director shall include the above requirements in the permit, closure plan, or order in which the staging pile is designated.

(k) What is the closure requirement for a staging pile located in an uncontaminated area?

(1) Within 180 days after the operating term of the staging pile expires, you shall close a staging pile located in an uncontaminated area of the site according to Subsections R315-264-258(a) and 264-111; or according to 40 CFR 265.258(a) and 265.111, which are adopted by reference.

(2) The Director shall include the above requirement in the permit, closure plan, or order in which the staging pile is designated.

(l) How may my existing permit, for example, Remedial Action Plan, closure plan, or order be modified to allow me to use a staging pile?

(1) To modify a permit, other than a Remedial Action Plan, to incorporate a staging pile or staging pile operating term extension, either:

(i) The Director shall approve the modification under the procedures for permit modifications in Section R315-270-41; or

(ii) You shall request a Class 2 modification under Section R315-270-42.

(2) To modify a Remedial Action Plan to incorporate a staging pile or staging pile operating term extension, you shall comply with the Remedial Action Plan modification requirements under Sections R315-270-170 and 175.

(3) To modify a closure plan to incorporate a staging pile or staging pile operating term extension, you shall follow the applicable requirements under Section R315-264-112(c) or 40 CFR 265.112(c), which is adopted by reference.

(4) To modify an order to incorporate a staging pile or staging pile operating term extension, you shall follow the terms of the order and the applicable provisions of Subsection R315-270-72(a)(5) or (b)(5).

(m) Is information about the staging pile available to the public? The Director shall document the rationale for designating a staging pile or staging pile operating term extension and make this documentation available to the public.

R315-264-555. Disposal of CAMU-eligible wastes in permitted hazardous waste landfills.

(a) The Director may approve placement of CAMU-eligible wastes in hazardous waste landfills not located at the site from which the waste originated, without the wastes meeting the requirements of Rule R315-268, if the conditions in Subsections R315-264-555(a)(1) through (3) are met:

(1) The waste meets the definition of CAMU-eligible waste in Subsection R315-264-552(a)(1) and (2).

(2) The Director identifies principal hazardous constitutes in such waste, in accordance with Subsection R315-264-552(e)(4)(i) and (ii), and requires that such principal hazardous constituents are treated to any of the following standards specified for CAMU-eligible wastes:

(i) The treatment standards under Subsection R315-264-552(e)(4)(iv); or

(ii) Treatment standards adjusted in accordance with Subsection R315-264-552(e)(4)(v)(A), (C), (D) or (E)(I); or

(iii) Treatment standards adjusted in accordance with Subsection R315-264-552(e)(4)(v)(E)(II), where treatment has been used and that treatment significantly reduces the toxicity or mobility of the principal hazardous constituents in the waste, minimizing the short-term and long-term threat posed by the waste, including the threat at the remediation site.

(3) The landfill receiving the CAMU-eligible waste shall have a permit issued under Section 19-6-108, meet the requirements for new landfills in Sections R315-264-300 through 317, and be authorized to accept CAMU-eligible wastes; for the purposes of this requirement, “permit” does not include interim status.

(b) The person seeking approval shall provide sufficient information to enable the Director to approve placement of CAMU-eligible waste in accordance with Subsection R315-264-555(a). Information required by Subsections R315-264-552(d)(1) through (3) for CAMU applications shall be provided, unless not reasonably available.

(c) The Director shall provide public notice and a reasonable opportunity for public comment before approving CAMU eligible waste for placement in an off-site permitted hazardous waste landfill, consistent with the requirements for CAMU approval at Subsection R315-264-552(h). The approval shall be specific to a single remediation.

(d) Applicable hazardous waste management requirements in Rule R315-264, including recordkeeping requirements to demonstrate compliance with treatment standards approved under Section R315-264-555, for CAMU-eligible waste shall be incorporated into the receiving facility permit through permit issuance or a permit modification, providing notice and an opportunity for comment and a hearing. Notwithstanding Subsection R315-270-4(a), a landfill may not receive hazardous CAMU-eligible waste under Section R315-264-555 unless its permit specifically authorizes receipt of such waste.

(e) For each remediation, CAMU-eligible waste may not be placed in an off-site landfill authorized to receive CAMU-eligible waste in accordance with Subsection R315-264-555(d) until the following additional conditions have been met:

(1) The landfill owner/operator notifies the Director and persons on the facility mailing list, maintained in accordance with Subsection R315-124-10(c)(1)(ix), of his or

her intent to receive CAMU-eligible waste in accordance with Section R315-264-555; the notice shall identify the source of the remediation waste, the principal hazardous constituents in the waste, and treatment requirements.

(2) Persons on the facility mailing list may provide comments, including objections to the receipt of the CAMU-eligible waste, to the Director within 15 days of notification.

(3) The Director may object to the placement of the CAMU-eligible waste in the landfill within 30 days of notification; the Director may extend the review period an additional 30 days because of public concerns or insufficient information.

(4) CAMU-eligible wastes may not be placed in the landfill until the Director has notified the facility owner/operator that he or she does not object to its placement.

(5) If the Director objects to the placement or does not notify the facility owner/operator that he or she has chosen not to object, the facility may not receive the waste, notwithstanding Subsection R315-270-4(a), until the objection has been resolved, or the owner/operator obtains a permit modification in accordance with the procedures of Section R315-270-42 specifically authorizing receipt of the waste.

(6) As part of the permit issuance or permit modification process of Subsection R315-264-555(d), the Director may modify, reduce, or eliminate the notification requirements of Subsection R315-264-555(e) as they apply to specific categories of CAMU-eligible waste, based on minimal risk.

(f) Generators of CAMU-eligible wastes sent off-site to a hazardous waste landfill under Section R315-264-555 shall comply with the requirements of Subsection R315-268-7(a)(4); off-site facilities treating CAMU-eligible wastes to comply with Section R315-264-555 shall comply with the requirements of Subsection R315-268-7(b)(4), except that the certification shall be with respect to the treatment requirements of Subsection R315-264-555(a)(2).

(g) For the purposes of Section R315-264-555 only, the “design of the CAMU” in Subsection R315-264-552(e)(4)(v)(E) means design of the permitted hazardous waste landfill.

R315-264-570. Drip Pads - Applicability.

(a) The requirements of Sections R315-264-570 through 575 apply to owners and operators of facilities that use new or existing drip pads to convey treated wood drippage, precipitation, and/or surface water run-off to an associated collection system. Existing drip pads are those constructed before December 6, 1990 and those for which the owner or operator has a design and has entered into binding financial or other agreements for construction prior to December 6, 1990 for all HSWA drip pads or July 30, 1993 for all non-HSWA drip pads. All other drip pads are new drip pads. The requirement at Subsection R315-264-573(b)(3) to install a leak collection system applies only to those drip pads that are constructed after December 24, 1992 except for those constructed after December 24, 1992 for which the owner or operator has a design and has entered into binding financial or other agreements for construction prior to December 24, 1992 for all HSWA drip pads or July 30, 1993 for all non-HSWA drip pads.

(b) The owner or operator of any drip pad that is inside or under a structure that provides protection from precipitation so that neither run-off nor run-on is generated is not subject to regulation under Subsection R315-264-573(e) or Subsection R315-264-573(f), as appropriate.

(c) The requirements of Sections R315-264-570 through 575 are not applicable to the management of infrequent and incidental drippage in storage yards provided that:

(1) The owner or operator maintains and complies with a written contingency plan that describes how the owner or operator will respond immediately to the discharge of such infrequent and incidental drippage. At a minimum, the contingency plan shall describe how the owner or operator will do the following:

(i) Clean up the drippage;

(ii) Document the cleanup of the drippage;

(iii) Retain documents regarding cleanup for three years; and

(iv) Manage the contaminated media in a manner consistent with Utah regulations.

R315-264-571. Assessment of existing drip pad integrity.

(a) For each existing drip pad as defined in Subsection R315-264-570, the owner or operator shall evaluate the drip pad and determine whether it meets all of the requirements of Sections R315-264-570 through 575,

except the requirements for liners and leak detection systems of Subsection R315-264-573(b). The owner or operator shall obtain and keep on file at the facility a written assessment of the drip pad, reviewed and certified by a qualified Professional Engineer that attests to the results of the evaluation. The assessment shall be reviewed, updated and re-certified annually until all upgrades, repairs, or modifications necessary to achieve compliance with all the standards of Section R315-264-573 are complete. The evaluation shall document the extent to which the drip pad meets each of the design and operating standards of Section R315-264-573, except the standards for liners and leak detection systems, specified in Subsection R315-264-573(b).

(b) The owner or operator shall develop a written plan for upgrading, repairing, and modifying the drip pad to meet the requirements of Subsection R315-264-573(b) and submit the plan to the Director no later than 2 years before the date that all repairs, upgrades, and modifications are complete. This written plan shall describe all changes to be made to the drip pad in sufficient detail to document compliance with all the requirements of Section R315-264-573. The plan shall be reviewed and certified by a qualified Professional Engineer.

(c) Upon completion of all upgrades, repairs, and modifications, the owner or operator shall submit to the Director, the as-built drawings for the drip pad together with a certification by a qualified Professional Engineer attesting that the drip pad conforms to the drawings.

(d) If the drip pad is found to be leaking or unfit for use, the owner or operator shall comply with the provisions of Subsection R315-264-573(m) or close the drip pad in accordance with Section R315-264-575.

R315-264-572. Design and installation of new drip pads. Owners and operators of new drip pads shall ensure that the pads are designed, installed, and operated in accordance with one of the following:

(a) all of the requirements of Section R315-264-573, except 573(a)(4) and Subsections R315-264-574 and 575, or

(b) all of the requirements of Sections R315-264-573, except 573(b), 574 and 575.

R315-264-573. Design and operating requirements.

(a) Drip pads shall:

(1) Be constructed of non-earthen materials, excluding wood and non-structurally supported asphalt;

(2) Be sloped to free-drain treated wood drippage, rain and other waters, or solutions of drippage and water or other wastes to the associated collection system;

(3) Have a curb or berm around the perimeter;

(4)(i) Have a hydraulic conductivity of less than or equal to 1×10^{-7} centimeters per second, e.g., existing concrete drip pads shall be sealed, coated, or covered with a surface material with a hydraulic conductivity of less than or equal to 1×10^{-7} centimeters per second such that the entire surface where drippage occurs or may run across is capable of containing such drippage and mixtures of drippage and precipitation, materials, or other wastes while being routed to an associated collection system. This surface material shall be maintained free of cracks and gaps that could adversely affect its hydraulic conductivity, and the material shall be chemically compatible with the preservatives that contact the drip pad. The requirements of this provision apply only to existing drip pads and those drip pads for which the owner or operator elects to comply with Subsection R315-264-572(b) instead of Subsection R315-264-572(a).

(ii) The owner or operator shall obtain and keep on file at the facility a written assessment of the drip pad, reviewed and certified by a qualified Professional Engineer that attests to the results of the evaluation. The assessment shall be reviewed, updated and recertified annually. The evaluation shall document the extent to which the drip pad meets the design and operating standards of Section R315-264-573, except for Subsection R315-264-573(b).

(5) Be of sufficient structural strength and thickness to prevent failure due to physical contact, climatic conditions, the stress of daily operations, e.g., variable and moving loads such as vehicle traffic, movement of wood, etc.

Note: The Director will generally consider applicable standards established by professional organizations generally recognized by the industry such as the American Concrete Institute or the American Society of Testing and Materials in judging the structural integrity requirement of Subsection R315-264-573(a).

(b) If an owner/operator elects to comply with Subsection R315-264-572(a) instead of Subsection R315-264-572(b), the drip pad shall have:

(1) A synthetic liner installed below the drip pad that is designed, constructed, and installed to prevent leakage from the drip pad into the adjacent subsurface soil or groundwater or surface water at any time during the active life, including the closure period, of the drip pad. The liner shall be constructed of materials that will prevent waste from being absorbed into the liner and to prevent releases into the adjacent subsurface soil or groundwater or surface water during the active life of the facility. The liner shall be:

(i) Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients, including static head and external hydrogeologic forces; physical contact with the waste or drip pad leakage to which they are exposed; climatic conditions; the stress of installation; and the stress of daily operation, including stresses from vehicular traffic on the drip pad;

(ii) Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression or uplift; and

(iii) Installed to cover all surrounding earth that could come in contact with the waste or leakage; and

(2) A leakage detection system immediately above the liner that is designed, constructed, maintained and operated to detect leakage from the drip pad. The leakage detection system shall be:

(i) Constructed of materials that are:

(A) Chemically resistant to the waste managed in the drip pad and the leakage that might be generated; and

(B) Of sufficient strength and thickness to prevent collapse under the pressures exerted by overlaying materials and by any equipment used at the drip pad;

(ii) Designed and operated to function without clogging through the scheduled closure of the drip pad; and

(iii) Designed so that it will detect the failure of the drip pad or the presence of a release of hazardous waste or accumulated liquid at the earliest practicable time.

(3) A leakage collection system immediately above the liner that is designed, constructed, maintained and

operated to collect leakage from the drip pad such that it can be removed from below the drip pad. The date, time, and quantity of any leakage collected in this system and removed shall be documented in the operating log.

(c) Drip pads shall be maintained such that they remain free of cracks, gaps, corrosion, or other deterioration that could cause hazardous waste to be released from the drip pad.

Note:See Subsection R315-264-573(m) for remedial action required if deterioration or leakage is detected.]

(d) The drip pad and associated collection system shall be designed and operated to convey, drain, and collect liquid resulting from drippage or precipitation in order to prevent run-off.

(e) Unless protected by a structure, as described in Subsection R315-264-570(b), the owner or operator shall design, construct, operate and maintain a run-on control system capable of preventing flow onto the drip pad during peak discharge from at least a 24-hour, 25-year storm, unless the system has sufficient excess capacity to contain any run-off that might enter the system.

(f) Unless protected by a structure or cover as described in Subsection R315-264-570(b), the owner or operator shall design, construct, operate and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

(g) The drip pad shall be evaluated to determine that it meets the requirements of Subsections R315-264-573(a) through (f) and the owner or operator shall obtain a statement from a qualified Professional Engineer certifying that the drip pad design meets the requirements of Section R315-264-573.

(h) Drippage and accumulated precipitation shall be removed from the associated collection system as necessary to prevent overflow onto the drip pad.

(i) The drip pad surface shall be cleaned thoroughly in a manner and frequency such that accumulated residues of hazardous waste or other materials are removed, with residues being properly managed as hazardous waste, so as to allow weekly inspections of the entire drip pad surface without interference or hindrance from accumulated residues of hazardous waste or other materials on the drip pad. The owner or operator shall document the date and time of each cleaning and the cleaning procedure used in the facility's operating log. The owner/operator shall determine if the

residues are hazardous as per Section R315-262-11 and, if so, shall manage them under Rules R315-261 through 268, 270, and section 3010 of RCRA.

(j) Drip pads shall be operated and maintained in a manner to minimize tracking of hazardous waste or hazardous waste constituents off the drip pad as a result of activities by personnel or equipment.

(k) After being removed from the treatment vessel, treated wood from pressure and non-pressure processes shall be held on the drip pad until drippage has ceased. The owner or operator shall maintain records sufficient to document that all treated wood is held on the pad following treatment in accordance with this requirement.

(l) Collection and holding units associated with run-on and run-off control systems shall be emptied or otherwise managed as soon as possible after storms to maintain design capacity of the system.

(m) Throughout the active life of the drip pad and as specified in the permit, if the owner or operator detects a condition that may have caused or has caused a release of hazardous waste, the condition shall be repaired within a reasonably prompt period of time following discovery, in accordance with the following procedures:

(1) Upon detection of a condition that may have caused or has caused a release of hazardous waste, e.g., upon detection of leakage in the leak detection system, the owner or operator shall:

(i) Enter a record of the discovery in the facility operating log;

(ii) Immediately remove the portion of the drip pad affected by the condition from service;

(iii) Determine what steps shall be taken to repair the drip pad and clean up any leakage from below the drip pad, and establish a schedule for accomplishing the repairs;

(iv) Within 24 hours after discovery of the condition, notify the Director of the condition and, within 10 working days, provide written notice to the Director with a description of the steps that will be taken to repair the drip pad and clean up any leakage, and the schedule for accomplishing this work.

(2) The Director shall review the information submitted, make a determination regarding whether the pad shall be removed from service completely or partially until repairs and cleanup are complete and notify the owner or

operator of the determination and the underlying rationale in writing.

(3) Upon completing all repairs and cleanup, the owner or operator shall notify the Director in writing and provide a certification signed by an independent, qualified registered professional engineer, that the repairs and cleanup have been completed according to the written plan submitted in accordance with Subsection R315-264-573(m)(1)(iv).

(n) Should a permit be necessary, the Director shall specify in the permit all design and operating practices that are necessary to ensure that the requirements of Section R315-264-573 are satisfied.

(o) The owner or operator shall maintain, as part of the facility operating log, documentation of past operating and waste handling practices. This shall include identification of preservative formulations used in the past, a description of drippage management practices, and a description of treated wood storage and handling practices.

R315-264-574. Inspections.

(a) During construction or installation, liners and cover systems, e.g., membranes, sheets, or coatings, shall be inspected for uniformity, damage and imperfections, e.g., holes, cracks, thin spots, or foreign materials. Immediately after construction or installation, liners shall be inspected and certified as meeting the requirements in Section R315-264-573 by a qualified Professional Engineer. This certification shall be maintained at the facility as part of the facility operating record. After installation, liners and covers shall be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters.

(b) While a drip pad is in operation, it shall be inspected weekly and after storms to detect evidence of any of the following:

(1) Deterioration, malfunctions or improper operation of run-on and run-off control systems;

(2) The presence of leakage in and proper functioning of leak detection system.

(3) Deterioration or cracking of the drip pad surface.

Note: See Section R315-264-573(m) for remedial action required if deterioration or leakage is detected.

R315-264-575. Closure.

(a) At closure, the owner or operator shall remove or decontaminate all waste residues, contaminated containment system components, pad, liners, etc., contaminated subsoils, and structures and equipment contaminated with waste and leakage, and manage them as hazardous waste.

(b) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in Subsection R315-264-575(a), the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he shall close the facility and perform post-closure care in accordance with closure and post-closure care requirements that apply to landfills, Section R315-264-310. For permitted units, the requirement to have a permit continues throughout the post-closure period. In addition, for the purpose of closure, post-closure, and financial responsibility, such a drip pad is then considered to be landfill, and the owner or operator shall meet all of the requirements for landfills specified in Sections R315-264-110 through 120 and 140 through 151.

(c)(1) The owner or operator of an existing drip pad, as defined in Section R315-264-570, that does not comply with the liner requirements of Subsection R315-264-573(b)(1) shall:

(i) Include in the closure plan for the drip pad under Section R315-264-112 both a plan for complying with Subsection R315-264-575(a) and a contingent plan for complying with Subsection R315-264-575(b) in case not all contaminated subsoils can be practicably removed at closure; and

(ii) Prepare a contingent post-closure plan under Section R315-264-118 for complying with Subsection R315-264-575(b) in case not all contaminated subsoils can be practicably removed at closure.

(2) The cost estimates calculated under Sections R315-264-112 and 144 for closure and post-closure care of a drip pad subject to Subsection R315-264-575(c) shall include the cost of complying with the contingent closure plan and the contingent post-closure plan, but are not required to include the cost of expected closure under Subsection R315-264-575(a).

R315-264-600. Miscellaneous Units - Applicability.

The requirements in Sections R315-264-600 through 603 apply to owners and operators of facilities that treat, store, or dispose of hazardous waste in miscellaneous units, except as Section R315-264-1 provides otherwise.

R315-264-601. Environmental performance standards.

A miscellaneous unit shall be located, designed, constructed, operated, maintained, and closed in a manner that will ensure protection of human health and the environment. Permits for miscellaneous units are to contain such terms and provisions as necessary to protect human health and the environment, including, but not limited to, as appropriate, design and operating requirements, detection and monitoring requirements, and requirements for responses to releases of hazardous waste or hazardous constituents from the unit. Permit terms and provisions shall include those requirements of Sections R315-264-170 through 179, 190 through 200, 220 through 232, 250 through 259, 270 through 283, 300 through 317, 340 through 351, 1030 through 1036, 1050 through 1065, 1080 through 1090, Rule 270, Subsection R307-214-2(39), and Rule R317-7 that are appropriate for the miscellaneous unit being permitted. Protection of human health and the environment includes, but is not limited to:

(a) Prevention of any releases that may have adverse effects on human health or the environment due to migration of waste constituents in the ground water or subsurface environment, considering:

(1) The volume and physical and chemical characteristics of the waste in the unit, including its potential for migration through soil, liners, or other containing structures;

(2) The hydrologic and geologic characteristics of the unit and the surrounding area;

(3) The existing quality of ground water, including other sources of contamination and their cumulative impact on the ground water;

(4) The quantity and direction of ground-water flow;

(5) The proximity to and withdrawal rates of current and potential ground-water users;

(6) The patterns of land use in the region;

(7) The potential for deposition or migration of waste constituents into subsurface physical structures, and into the root zone of food-chain crops and other vegetation;

(8) The potential for health risks caused by human exposure to waste constituents; and

(9) The potential for damage to domestic animals, wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents;

(b) Prevention of any releases that may have adverse effects on human health or the environment due to migration of waste constituents in surface water, or wetlands or on the soil surface considering:

(1) The volume and physical and chemical characteristics of the waste in the unit;

(2) The effectiveness and reliability of containing, confining, and collecting systems and structures in preventing migration;

(3) The hydrologic characteristics of the unit and the surrounding area, including the topography of the land around the unit;

(4) The patterns of precipitation in the region;

(5) The quantity, quality, and direction of ground-water flow;

(6) The proximity of the unit to surface waters;

(7) The current and potential uses of nearby surface waters and any water quality standards established for those surface waters;

(8) The existing quality of surface waters and surface soils, including other sources of contamination and their cumulative impact on surface waters and surface soils;

(9) The patterns of land use in the region;

(10) The potential for health risks caused by human exposure to waste constituents; and

(11) The potential for damage to domestic animals, wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents.

(c) Prevention of any release that may have adverse effects on human health or the environment due to migration of waste constituents in the air, considering:

(1) The volume and physical and chemical characteristics of the waste in the unit, including its potential for the emission and dispersal of gases, aerosols and particulates;

(2) The effectiveness and reliability of systems and structures to reduce or prevent emissions of hazardous constituents to the air;

(3) The operating characteristics of the unit;

(4) The atmospheric, meteorologic, and topographic characteristics of the unit and the surrounding area;

(5) The existing quality of the air, including other sources of contamination and their cumulative impact on the air;

(6) The potential for health risks caused by human exposure to waste constituents; and

(7) The potential for damage to domestic animals, wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents.

R315-264-602. Monitoring, analysis, inspection, response, reporting, and corrective action.

Monitoring, testing, analytical data, inspections, response, and reporting procedures and frequencies shall ensure compliance with Sections R315-264-601, 15, 33, 75, 76, 77, and 101 as well as meet any additional requirements needed to protect human health and the environment as specified in the permit.

R315-264-603. Post-closure care.

A miscellaneous unit that is a disposal unit shall be maintained in a manner that complies with Section R315-264-601 during the post-closure care period. In addition, if a treatment or storage unit has contaminated soils or ground water that cannot be completely removed or decontaminated during closure, then that unit shall also meet the requirements of Section R315-264-601 during post-closure care. The post-closure plan under Section R315-264-118 shall specify the procedures that will be used to satisfy this requirement.

R315-264-1030. Air Emission Standards for Process Vents - Applicability.

(a) The regulations in Sections R315-1030 through 1036 apply to owners and operators of facilities that treat, store, or dispose of hazardous wastes, except as provided in Section R315-264-1.

(b) Except for Subsections R315-264-1034(d) and (e), Sections R315-1030 through 1036 apply to process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations that manage hazardous wastes with organic concentrations of at least 10 ppmw, if these operations are conducted in one of the following:

(1) A unit that is subject to the permitting requirements of Rule R315-270, or

(2) A unit, including a hazardous waste recycling unit, that is not exempt from permitting under the provisions of Subsection R315-262-34(a), i.e., a hazardous waste recycling unit that is not a 90-day tank or container, and that is located at a hazardous waste management facility otherwise subject to the permitting requirements of Rule R315-270, or

(3) A unit that is exempt from permitting under the provisions of Subsection R315-262-34(a), i.e., a “90-day” tank or container, and is not a recycling unit under the provisions of Section R315-261-6.

(c) For the owner and operator of a facility subject to Sections R315-1030 through 1036 and who received a final permit under Section 19-6-108 prior to December 6, 1996, the requirements of Sections R315-1030 through 1036 shall be incorporated into the permit when the permit is reissued in accordance with the requirements of Section R315-124-15 or reviewed in accordance with the requirements of Subsection R315-270-50(d). Until such date when the owner and operator receive a final permit incorporating the requirements of Sections R315-1030 through 1036, the owner and operator are subject to the requirements of , which is adopted by reference,1030 through 1035, which is adopted by reference.

Note: The requirements of Sections R315-264-1032 through 1036 apply to process vents on hazardous waste recycling units previously exempt under Subsection R315-261-6(c)(1). Other exemptions under Section R315-261-4, and Subsection R35-264-1(g) are not affected by these requirements.

(d) The requirements of Sections R315-264-1030 through 1036 do not apply to the pharmaceutical manufacturing facility, commonly referred to as the Stonewall Plant, located at Route 340 South, Elkton, Virginia, provided that facility is operated in compliance with the requirements contained in a permit issued pursuant to the Utah Air Conservation Act. The requirements of Sections R315-264-1030 through 1036 shall apply to the facility upon termination of the permit issued pursuant to the Utah Air Conservation Act.

(e) The requirements of Sections R315-264-1030 through 1036 do not apply to the process vents at a facility where the facility owner or operator certifies that all of the process vents that would otherwise be

subject to Sections R315-264-1030 through 1036 are equipped with and operating air emission controls in accordance with the process vent requirements of an applicable regulation codified under the Utah Air Conservation Act. The documentation of compliance under regulations codified under the Utah Air Conservation Act shall be kept with, or made readily available with, the facility operating record.

R315-264-1031. Definitions.

As used in Sections R315-264-1030 through 1036, all terms not defined herein shall have the meaning given them in RCRA and Rules R315-260 through 266.

(a) Air stripping operation is a desorption operation employed to transfer one or more volatile components from a liquid mixture into a gas (air) either with or without the application of heat to the liquid. Packed towers, spray towers, and bubble-cap, sieve, or valve-type plate towers are among the process configurations used for contacting the air and a liquid.

(b) Bottoms receiver means a container or tank used to receive and collect the heavier bottoms fractions of the distillation feed stream that remain in the liquid phase.

(c) Closed-vent system means a system that is not open to the atmosphere and that is composed of piping, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device.

(d) Condenser means a heat-transfer device that reduces a thermodynamic fluid from its vapor phase to its liquid phase.

(e) Connector means flanged, screwed, welded, or other joined fittings used to connect two pipelines or a pipeline and a piece of equipment. For the purposes of reporting and recordkeeping, connector means flanged fittings that are not covered by insulation or other materials that prevent location of the fittings.

(f) Continuous recorder means a data-recording device recording an instantaneous data value at least once every 15 minutes.

(g) Control device means an enclosed combustion device, vapor recovery system, or flare. Any device the primary function of which is the recovery or capture of solvents or other organics for use, reuse, or sale, e.g., a primary condenser on a solvent recovery unit, is not a control device.

(h) Control device shutdown means the cessation of operation of a control device for any purpose.

(i) Distillate receiver means a container or tank used to receive and collect liquid material (condensed) from the overhead condenser of a distillation unit and from which the condensed liquid is pumped to larger storage tanks or other process units.

(j) Distillation operation means an operation, either batch or continuous, separating one or more feed stream(s) into two or more exit streams, each exit stream having component concentrations different from those in the feed stream(s). The separation is achieved by the redistribution of the components between the liquid and vapor phase as they approach equilibrium within the distillation unit.

(k) Double block and bleed system means two block valves connected in series with a bleed valve or line that can vent the line between the two block valves.

(l) Equipment means each valve, pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, or flange or other connector, and any control devices or systems required by Sections R315-264-1030 through 1036.

(m) Flame zone means the portion of the combustion chamber in a boiler occupied by the flame envelope.

(n) Flow indicator means a device that indicates whether gas flow is present in a vent stream.

(o) First attempt at repair means to take rapid action for the purpose of stopping or reducing leakage of organic material to the atmosphere using best practices.

(p) Fractionation operation means a distillation operation or method used to separate a mixture of several volatile components of different boiling points in successive stages, each stage removing from the mixture some proportion of one of the components.

(q) Hazardous waste management unit shutdown means a work practice or operational procedure that stops operation of a hazardous waste management unit or part of a hazardous waste management unit. An unscheduled work practice or operational procedure that stops operation of a hazardous waste management unit or part of a hazardous waste management unit for less than 24 hours is not a hazardous waste management unit shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping operation are not hazardous waste management unit shutdowns.

(r) Hot well means a container for collecting condensate as in a steam condenser serving a vacuum-jet or steam-jet ejector.

(s) In gas/vapor service means that the piece of equipment contains or contacts a hazardous waste stream that is in the gaseous state at operating conditions.

(t) In heavy liquid service means that the piece of equipment is not in gas/vapor service or in light liquid service.

(u) In light liquid service means that the piece of equipment contains or contacts a waste stream where the vapor pressure of one or more of the organic components in the stream is greater than 0.3 kilopascals (kPa) at 20 °C, the total concentration of the pure organic components having a vapor pressure greater than 0.3 kilopascals (kPa) at 20 °C is equal to or greater than 20 percent by weight, and the fluid is a liquid at operating conditions.

(v) In situ sampling systems means nonextractive samplers or in-line samplers.

(w) In vacuum service means that equipment is operating at an internal pressure that is at least 5 kPa below ambient pressure.

(x) Malfunction means any sudden failure of a control device or a hazardous waste management unit or failure of a hazardous waste management unit to operate in a normal or usual manner, so that organic emissions are increased.

(y) Open-ended valve or line means any valve, except pressure relief valves, having one side of the valve seat in contact with hazardous waste and one side open to the atmosphere, either directly or through open piping.

(z) Pressure release means the emission of materials resulting from the system pressure being greater than the set pressure of the pressure relief device.

(aa) Process heater means a device that transfers heat liberated by burning fuel to fluids contained in tubes, including all fluids except water that are heated to produce steam.

(bb) Process vent means any open-ended pipe or stack that is vented to the atmosphere either directly, through a vacuum-producing system, or through a tank (e.g., distillate receiver, condenser, bottoms receiver, surge control tank, separator tank, or hot well) associated with hazardous waste distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations.

(cc) Repaired means that equipment is adjusted, or otherwise altered, to eliminate a leak.

(dd) Sampling connection system means an assembly of equipment within a process or waste management unit used during periods of representative operation to take samples of the process or waste fluid. Equipment used to take non-routine grab samples is not considered a sampling connection system.

(ee) Sensor means a device that measures a physical quantity or the change in a physical quantity, such as temperature, pressure, flow rate, pH, or liquid level.

(ff) Separator tank means a device used for separation of two immiscible liquids.

(gg) Solvent extraction operation means an operation or method of separation in which a solid or solution is contacted with a liquid solvent, the two being mutually insoluble, to preferentially dissolve and transfer one or more components into the solvent.

(hh) Startup means the setting in operation of a hazardous waste management unit or control device for any purpose.

(ii) Steam stripping operation means a distillation operation in which vaporization of the volatile constituents of a liquid mixture takes place by the introduction of steam directly into the charge.

(jj) Surge control tank means a large-sized pipe or storage reservoir sufficient to contain the surging liquid discharge of the process tank to which it is connected.

(kk) Thin-film evaporation operation means a distillation operation that employs a heating surface consisting of a large diameter tube that may be either straight or tapered, horizontal or vertical. Liquid is spread on the tube wall by a rotating assembly of blades that maintain a close clearance from the wall or actually ride on the film of liquid on the wall.

(ll) Vapor incinerator means any enclosed combustion device that is used for destroying organic compounds and does not extract energy in the form of steam or process heat.

(mm) Vented means discharged through an opening, typically an open-ended pipe or stack, allowing the passage of a stream of liquids, gases, or fumes into the atmosphere. The passage of liquids, gases, or fumes is caused by mechanical means such as compressors or vacuum-producing systems or by process-related means such as

evaporation produced by heating and not caused by tank loading and unloading, working losses, or by natural means such as diurnal temperature changes.

R315-264-1032. Standards: Process vents.

(a) The owner or operator of a facility with process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations managing hazardous wastes with organic concentrations of at least 10 ppmw shall either:

(1) Reduce total organic emissions from all affected process vents at the facility below 1.4 kg/h (3 lb/h) and 2.8 Mg/yr (3.1 tons/yr), or

(2) Reduce, by use of a control device, total organic emissions from all affected process vents at the facility by 95 weight percent.

(b) If the owner or operator installs a closed-vent system and control device to comply with the provisions of Subsection R315-264-1032(a) the closed-vent system and control device shall meet the requirements of Section R315-264-1033.

(c) Determinations of vent emissions and emission reductions or total organic compound concentrations achieved by add-on control devices may be based on engineering calculations or performance tests. If performance tests are used to determine vent emissions, emission reductions, or total organic compound concentrations achieved by add-on control devices, the performance tests shall conform with the requirements of Subsection R315-264-1034(c).

(d) When an owner or operator and the Director do not agree on determinations of vent emissions and/or emission reductions or total organic compound concentrations achieved by add-on control devices based on engineering calculations, the procedures in Subsection R315-264-1034(c) shall be used to resolve the disagreement.

R315-264-1033. Standards: Closed-vent systems and control devices.

(a)(1) Owners or operators of closed-vent systems and control devices used to comply with provisions of Sections R315-264-1030 through 1036 shall comply with the provisions of Section R315-264-1033.

(2)(i) The owner or operator of an existing facility who cannot install a closed-vent system and control device

to comply with the provisions of Sections R315-264-1030 through 1036 on the effective date that the facility becomes subject to the provisions of Sections R315-264-1030 through 1036 shall prepare an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The controls shall be installed as soon as possible, but the implementation schedule may allow up to 30 months after the effective date that the facility becomes subject to Sections R315-264-1030 through 1036 for installation and startup.

(ii) Any unit that begins operation after December 21, 1990, and is subject to the provisions of Sections R315-264-1030 through 1036 when operation begins, shall comply with the rules immediately, i.e., shall have control devices installed and operating on startup of the affected unit; the 30-month implementation schedule does not apply.

(iii) The owner or operator of any facility in existence on the effective date of a statutory or regulatory amendment that renders the facility subject to Sections R315-264-1030 through 1036 shall comply with all requirements of Sections R315-264-1030 through 1036 as soon as practicable but no later than 30 months after the amendment's effective date. When control equipment required by Sections R315-264-1030 through 1036 cannot be installed and begin operation by the effective date of the amendment, the facility owner or operator shall prepare an implementation schedule that includes the following information: Specific calendar dates for award of contracts or issuance of purchase orders for the control equipment, initiation of on-site installation of the control equipment, completion of the control equipment installation, and performance of any testing to demonstrate that the installed equipment meets the applicable standards of Sections R315-264-1030 through 1036. The owner or operator shall enter the implementation schedule in the operating record or in a permanent, readily available file located at the facility.

(iv) Owners and operators of facilities and units that become newly subject to the requirements of Sections R315-264-1030 through 1036 after December 8, 1997, due to an action other than those described in Subsection R315-264-1033(a)(2)(iii) shall comply with all applicable requirements immediately, i.e., shall have control devices installed and operating on the date the facility or unit

becomes subject to Sections R315-264-1030 through 1036; the 30-month implementation schedule does not apply.

(b) A control device involving vapor recovery, e.g., a condenser or adsorber, shall be designed and operated to recover the organic vapors vented to it with an efficiency of 95 weight percent or greater unless the total organic emission limits of Subsection R315-264-1032(a)(1) for all affected process vents can be attained at an efficiency less than 95 weight percent.

(c) An enclosed combustion device, e.g., a vapor incinerator, boiler, or process heater, shall be designed and operated to reduce the organic emissions vented to it by 95 weight percent or greater; to achieve a total organic compound concentration of 20 ppmv, expressed as the sum of the actual compounds, not carbon equivalents, on a dry basis corrected to 3 percent oxygen; or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760 °C. If a boiler or process heater is used as the control device, then the vent stream shall be introduced into the flame zone of the boiler or process heater.

(d)(1) A flare shall be designed for and operated with no visible emissions as determined by the methods specified in Subsection R315-264-1033(e)(1), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

(2) A flare shall be operated with a flame present at all times, as determined by the methods specified in Subsection R315-264-1033(f)(2)(iii).

(3) A flare shall be used only if the net heating value of the gas being combusted is 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or if the net heating value of the gas being combusted is 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified in Subsection R315-264-1033(e)(2).

(4)(i) A steam-assisted or nonassisted flare shall be designed for and operated with an exit velocity, as determined by the methods specified in Subsection R315-264-1033(e)(3), less than 18.3 m/s (60 ft/s), except as provided in Subsections R315-264-133(d)(4)(ii) and (iii).

(ii) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in Subsection R315-264-1033(e)(3),

equal to or greater than 18.3 m/s (60 ft/s) but less than 122 m/s (400 ft/s) is allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

(iii) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in Subsection R315-264-1033(e)(3), less than the velocity, Vmax, as determined by the method specified in Subsection R315-264-1033(e)(4) and less than 122 m/s (400 ft/s) is allowed.

(5) An air-assisted flare shall be designed and operated with an exit velocity less than the velocity, Vmax, as determined by the method specified in Subsection R315-264-1033(e)(5).

(6) A flare used to comply with Section R315-24-1033 shall be steam-assisted, air-assisted, or nonassisted.

(e)(1) Reference Method 22 in 40 CFR part 60 shall be used to determine the compliance of a flare with the visible emission provisions of Sections R315-264-1030 through 1036. The observation period is 2 hours and shall be used according to Method 22.

(2) The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

Ht=K times the summation product of Ci and Hi from i equals 1 to n

where:

Ht = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to 1 mol is 20 °C;

K=Constant, 1.74×10^{-7} (1/ppm) (g mol/scm) (MJ/kcal) where standard temperature for (g mol/scm) is 20 °C;

Ci = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 in 40 CFR part 60 and measured for hydrogen and carbon monoxide by ASTM D 1946-82, incorporated by reference as specified in Section R315-260-11; and

Hi = Net heat of combustion of sample component i, kcal/9 mol at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D 2382-83, incorporated by reference as specified in Section R315-260-11, if published values are not available or cannot be calculated.

(3) The actual exit velocity of a flare shall be determined by dividing the volumetric flow rate, in units of standard temperature and pressure, as determined by Reference Methods 2, 2A, 2C, or 2D in 40 CFR part 60 as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.

(4) The maximum allowed velocity in m/s, Vmax, for a flare complying with Subsection R315-264-1033(d)(4)(iii) shall be determined by the following equation:

$$\text{Log10}(V_{max})=(HT+28.8)/31.7$$

where:

28.8=Constant,

31.7=Constant,

HT = The net heating value as determined in Subsection R315-264-1033(e)(2).

(5) The maximum allowed velocity in m/s, Vmax, for an air-assisted flare shall be determined by the following equation:

$$V_{max} = 8.706+0.7084\ (HT)$$

where:

8.706=Constant,

0.7084=Constant,

HT = The net heating value as determined in Subsection R315-264-1033(e)(2).

(f) The owner or operator shall monitor and inspect each control device required to comply with Section R315-

264-1033 to ensure proper operation and maintenance of the control device by implementing the following requirements:

(1) Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow indicator that provides a record of vent stream flow from each affected process vent to the control device at least once every hour. The flow indicator sensor shall be installed in the vent stream at the nearest feasible point to the control device inlet but before the point at which the vent streams are combined.

(2) Install, calibrate, maintain, and operate according to the manufacturer's specifications a device to continuously monitor control device operation as specified below:

(i) For a thermal vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of ±1 percent of the temperature being monitored in °C or ±0.5 °C, whichever is greater. The temperature sensor shall be installed at a location in the combustion chamber downstream of the combustion zone.

(ii) For a catalytic vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature at two locations and have an accuracy of ±1 percent of the temperature being monitored in °C or ±0.5 °C, whichever is greater. One temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed inlet and a second temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed outlet.

(iii) For a flare, a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame.

(iv) For a boiler or process heater having a design heat input capacity less than 44 MW, a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of ±1 percent of the temperature being monitored in °C or ±0.5 °C, whichever is greater. The temperature sensor shall be installed at a location in the furnace downstream of the combustion zone.

(v) For a boiler or process heater having a design heat input capacity greater than or equal to 44 MW, a monitoring device equipped with a continuous recorder to

measure a parameter(s) that indicates good combustion operating practices are being used.

(vi) For a condenser, either:

(A) A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the condenser, or

(B) A temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature with an accuracy of ±1 percent of the temperature being monitored in degrees Celsius, or ±0.5 °C, whichever is greater. The temperature sensor shall be installed at a location in the exhaust vent stream from the condenser exit, i.e., product side.

(vii) For a carbon adsorption system that regenerates the carbon bed directly in the control device such as a fixed-bed carbon adsorber, either:

(A) A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the carbon bed, or

(B) A monitoring device equipped with a continuous recorder to measure a parameter that indicates the carbon bed is regenerated on a regular, predetermined time cycle.

(3) Inspect the readings from each monitoring device required by Subsections R315-24-1033(f)(1) and (2) at least once each operating day to check control device operation and, if necessary, immediately implement the corrective measures necessary to ensure the control device operates in compliance with the requirements of Section R315-264-1033.

(g) An owner or operator using a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device shall replace the existing carbon in the control device with fresh carbon at a regular, predetermined time interval that is no longer than the carbon service life established as a requirement of Subsection R315-264-1035(b)(4)(iii)(F).

(h) An owner or operator using a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly onsite in the control device shall replace the existing carbon in the control device with fresh carbon on a regular basis by using one of the following procedures:

(1) Monitor the concentration level of the organic compounds in the exhaust vent stream from the carbon adsorption system on a regular schedule, and replace the

existing carbon with fresh carbon immediately when carbon breakthrough is indicated. The monitoring frequency shall be daily or at an interval no greater than 20 percent of the time required to consume the total carbon working capacity established as a requirement of Subsection R315-264-1035(b)(4)(iii)(G), whichever is longer.

(2) Replace the existing carbon with fresh carbon at a regular, predetermined time interval that is less than the design carbon replacement interval established as a requirement of Subsection R315-264-1035(b)(4)(iii)(G).

(i) An alternative operational or process parameter may be monitored if it can be demonstrated that another parameter will ensure that the control device is operated in conformance with these standards and the control device's design specifications.

(j) An owner or operator of an affected facility seeking to comply with the provisions of Rule R315-264 by using a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system is required to develop documentation including sufficient information to describe the control device operation and identify the process parameter or parameters that indicate proper operation and maintenance of the control device.

(k) A closed-vent system shall meet either of the following design requirements:

(1) A closed-vent system shall be designed to operate with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background as determined by the procedure in Subsection R315-264-1034(b), and by visual inspections; or

(2) A closed-vent system shall be designed to operate at a pressure below atmospheric pressure. The system shall be equipped with at least one pressure gauge or other pressure measurement device that can be read from a readily accessible location to verify that negative pressure is being maintained in the closed-vent system when the control device is operating.

(l) The owner or operator shall monitor and inspect each closed-vent system required to comply with Section R315-264-1033 to ensure proper operation and maintenance of the closed-vent system by implementing the following requirements:

(1) Each closed-vent system that is used to comply with Subsection R315-264-1033(k)(1) shall be inspected and monitored in accordance with the following requirements:

(i) An initial leak detection monitoring of the closed-vent system shall be conducted by the owner or operator on or before the date that the system becomes subject to Section R315-264-1033. The owner or operator shall monitor the closed-vent system components and connections using the procedures specified in Subsection R315-264-1034(b) to demonstrate that the closed-vent system operates with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background.

(ii) After initial leak detection monitoring required in Subsection R315-264-1033(l)(1)(i), the owner or operator shall inspect and monitor the closed-vent system as follows:

(A) Closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed, e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange, shall be visually inspected at least once per year to check for defects that could result in air pollutant emissions. The owner or operator shall monitor a component or connection using the procedures specified in Subsection R315-264-1034(b) to demonstrate that it operates with no detectable emissions following any time the component is repaired or replaced, e.g., a section of damaged hard piping is replaced with new hard piping, or the connection is unsealed, e.g., a flange is unbolted.

(B) Closed-vent system components or connections other than those specified in Subsection R315-264-1033(l)(1)(ii)(A) shall be monitored annually and at other times as requested by the Director, except as provided for in Subsection R315-264-1033(o), using the procedures specified in Subsection R315-264-1034(b) to demonstrate that the components or connections operate with no detectable emissions.

(iii) In the event that a defect or leak is detected, the owner or operator shall repair the defect or leak in accordance with the requirements of Subsection R315-264-1033(l)(3).

(iv) The owner or operator shall maintain a record of the inspection and monitoring in accordance with the requirements specified in Subsection R315-264-1035.

(2) Each closed-vent system that is used to comply with Subsection R315-264-1033(k)(2) shall be inspected and monitored in accordance with the following requirements:

(i) The closed-vent system shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwork or piping or loose connections.

(ii) The owner or operator shall perform an initial inspection of the closed-vent system on or before the date that the system becomes subject to Section R315-264-1033. Thereafter, the owner or operator shall perform the inspections at least once every year.

(iii) In the event that a defect or leak is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-264-1033(l)(3).

(iv) The owner or operator shall maintain a record of the inspection and monitoring in accordance with the requirements specified in Subsection R315-264-1035.

(3) The owner or operator shall repair all detected defects as follows:

(i) Detectable emissions, as indicated by visual inspection, or by an instrument reading greater than 500 ppmv above background, shall be controlled as soon as practicable, but not later than 15 calendar days after the emission is detected, except as provided for in Subsection R315-264-1033(l)(3)(iii).

(ii) A first attempt at repair shall be made no later than 5 calendar days after the emission is detected.

(iii) Delay of repair of a closed-vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown, or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be completed by the end of the next process unit shutdown.

(iv) The owner or operator shall maintain a record of the defect repair in accordance with the requirements specified in Section R315-264-1035.

(m) Closed-vent systems and control devices used to comply with provisions of Sections R315-264-1033 through 1036 shall be operated at all times when emissions may be vented to them.

(n) The owner or operator using a carbon adsorption system to control air pollutant emissions shall document that all carbon that is a hazardous waste and that is removed from the control device is managed in one of the following manners, regardless of the average volatile organic concentration of the carbon:

(1) Regenerated or reactivated in a thermal treatment unit that meets one of the following:

(i) The owner or operator of the unit has been issued a final permit under Rule R315-270 which implements the requirements of Sections R315-264-600 through 603; or

(ii) The unit is equipped with and operating air emission controls in accordance with the applicable requirements of Sections R315-264-1030 through 1036 and 1080 through 1090 or 40 CFR 265.1030 through 1035 and 1080 through 1090, which are adopted by reference; or

(iii) The unit is equipped with and operating air emission controls in accordance with a national emission standard for hazardous air pollutants under Section R315-307-214-1, which incorporates 40 CFR part 61 or Section R307-214-2, which incorporates 40 CFR part 63.

(2) Incinerated in a hazardous waste incinerator for which the owner or operator either:

(i) Has been issued a final permit under Rule R315-270 which implements the requirements of Sections R315-264-340 through 351; or

(ii) Has designed and operates the incinerator in accordance with the interim status requirements of 40 CFR 265.340 through 352, which are adopted by reference.

(3) Burned in a boiler or industrial furnace for which the owner or operator either:

(i) Has been issued a final permit under Rule R315-270 which implements the requirements of Sections R315-266-100 through 112; or

(ii) Has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of Sections R315-266-100 through 112.

(o) Any components of a closed-vent system that are designated, as described in Subsection R315-264-1035(c)(9), as unsafe to monitor are exempt from the requirements of Subsection R315-264-1033(l)(1)(ii)(B) if:

(1) The owner or operator of the closed-vent system determines that the components of the closed-vent system are unsafe to monitor because monitoring personnel would be

exposed to an immediate danger as a consequence of complying with Subsection R315-264-1033(l)(1)(ii)(B); and

(2) The owner or operator of the closed-vent system adheres to a written plan that requires monitoring the closed-vent system components using the procedure specified in Subsection R315-264-1033(l)(1)(ii)(B) as frequently as practicable during safe-to-monitor times.

R315-264-1034. Test methods and procedures.

(a) Each owner or operator subject to the provisions of Sections R315-264-1030 through 1036 shall comply with the test methods and procedures requirements provided in Section R315-264-1034.

(b) When a closed-vent system is tested for compliance with no detectable emissions, as required in Subsection R315-264-1033(l), the test shall comply with the following requirements:

(1) Monitoring shall comply with Reference Method 21 in 40 CFR part 60.

(2) The detection instrument shall meet the performance criteria of Reference Method 21.

(3) The instrument shall be calibrated before use on each day of its use by the procedures specified in Reference Method 21.

(4) Calibration gases shall be:

(i) Zero air, less than 10 ppm of hydrocarbon in air.

(ii) A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.

(5) The background level shall be determined as set forth in Reference Method 21.

(6) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.

(7) The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

(c) Performance tests to determine compliance with Subsection R315-264-1032(a) and with the total organic compound concentration limit of Subsection R315-264-1033(c) shall comply with the following:

(1) Performance tests to determine total organic compound concentrations and mass flow rates entering and exiting control devices shall be conducted and data reduced

in accordance with the following reference methods and calculation procedures:

(i) Method 2 in 40 CFR part 60 for velocity and volumetric flow rate.

(ii) Method 18 or Method 25A in 40 CFR part 60, appendix A, for organic content. If Method 25A is used, the organic HAP used as the calibration gas shall be the single organic HAP representing the largest percent by volume of the emissions. The use of Method 25A is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.

(iii) Each performance test shall consist of three separate runs; each run conducted for at least 1 hour under the conditions that exist when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur. For the purpose of determining total organic compound concentrations and mass flow rates, the average of results of all runs shall apply. The average shall be computed on a time-weighted basis.

(iv) Total organic mass flow rates shall be determined by the following equation:

(A) For sources utilizing Method 18.

The equation found in 40 CFR 264.1034(c)(1)(iv)(A), 2015 edition, is adopted and incorporated by reference.

Where:

Eh = Total organic mass flow rate, kg/h;

Q2sd = Volumetric flow rate of gases entering or exiting control device, as determined by Method 2, dscm/h;

n = Number of organic compounds in the vent gas;

Ci = Organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by Method 18;

MWi = Molecular weight of organic compound i in the vent gas, kg/kg-mol;

0.0416 = Conversion factor for molar volume, kg-mol/m3, at 293 K and 760 mm Hg;

10^{-6} = Conversion from ppm

(B) For sources utilizing Method 25A.

$Eh = (Q)(C)(MW)(0.0416)(10^{-6})$

Where:

Eh = Total organic mass flow rate, kg/h;

Q = Volumetric flow rate of gases entering or exiting control device, as determined by Method 2, dscm/h;

C = Organic concentration in ppm, dry basis, as determined by Method 25A;

MW = Molecular weight of propane, 44;

0.0416 = Conversion factor for molar volume, kg-mol/m3, at 293 K and 760 mm Hg;

10^{-6} = Conversion from ppm.

(v) The annual total organic emission rate shall be determined by the following equation:

$EA = (Eh)(H)$

where:

EA = Total organic mass emission rate, kg/y;

Eh = Total organic mass flow rate for the process vent, kg/h;

H=Total annual hours of operations for the affected unit, h.

(vi) Total organic emissions from all affected process vents at the facility shall be determined by summing the hourly total organic mass emission rates, Eh as determined in Subsection R315-264-1034(c)(1)(iv), and by

summing the annual total organic mass emission rates, EA, as determined in Subsection R315-264-1034(c)(1)(v), for all affected process vents at the facility.

(2) The owner or operator shall record such process information as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test.

(3) The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

(i) Sampling ports adequate for the test methods specified in Subsection R315-264-1034(c)(1).

(ii) Safe sampling platform(s).

(iii) Safe access to sampling platform(s).

(iv) Utilities for sampling and testing equipment.

(4) For the purpose of making compliance determinations, the time-weighted average of the results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs shall be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the owner or operator's control, compliance may, upon the Director's approval, be determined using the average of the results of the two other runs.

(d) To show that a process vent associated with a hazardous waste distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation is not subject to the requirements of Sections R315-264-1030 through 1036, the owner or operator shall make an initial determination that the time-weighted, annual average total organic concentration of the waste managed by the waste management unit is less than 10 ppmw using one of the following two methods:

(1) Direct measurement of the organic concentration of the waste using the following procedures:

(i) The owner or operator shall take a minimum of four grab samples of waste for each waste stream managed in the affected unit under process conditions expected to cause the maximum waste organic concentration.

(ii) For waste generated onsite, the grab samples shall be collected at a point before the waste is exposed to the atmosphere such as in an enclosed pipe or other

closed system that is used to transfer the waste after generation to the first affected distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation. For waste generated offsite, the grab samples shall be collected at the inlet to the first waste management unit that receives the waste provided the waste has been transferred to the facility in a closed system such as a tank truck and the waste is not diluted or mixed with other waste.

(iii) Each sample shall be analyzed and the total organic concentration of the sample shall be computed using Method 9060A, incorporated by reference under Section R315-260-11, of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, or analyzed for its individual organic constituents.

(iv) The arithmetic mean of the results of the analyses of the four samples shall apply for each waste stream managed in the unit in determining the time-weighted, annual average total organic concentration of the waste. The time-weighted average is to be calculated using the annual quantity of each waste stream processed and the mean organic concentration of each waste stream managed in the unit.

(2) Using knowledge of the waste to determine that its total organic concentration is less than 10 ppmw. Documentation of the waste determination is required. Examples of documentation that shall be used to support a determination under this provision include production process information documenting that no organic compounds are used, information that the waste is generated by a process that is identical to a process at the same or another facility that has previously been demonstrated by direct measurement to generate a waste stream having a total organic content less than 10 ppmw, or prior speciation analysis results on the same waste stream where it can also be documented that no process changes have occurred since that analysis that could affect the waste total organic concentration.

(e) The determination that distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations manage hazardous wastes with time-weighted, annual average total organic concentrations less than 10 ppmw shall be made as follows:

(1) By the effective date that the facility becomes subject to the provisions of Sections R315-264-1030 through

1036 or by the date when the waste is first managed in a waste management unit, whichever is later, and

(2) For continuously generated waste, annually, or

(3) Whenever there is a change in the waste being managed or a change in the process that generates or treats the waste.

(f) When an owner or operator and the Director do not agree on whether a distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation manages a hazardous waste with organic concentrations of at least 10 ppmw based on knowledge of the waste, the dispute may be resolved by using direct measurement as specified at Subsection R315-264-1034(d)(1).

R315-264-1035. Recordkeeping requirements.

(a)(1) Each owner or operator subject to the provisions of Sections R315-264-1030 through 1036 shall comply with the recordkeeping requirements of Section R315-264-1035.

(2) An owner or operator of more than one hazardous waste management unit subject to the provisions of Sections R315-264-1030 through 1036 may comply with the recordkeeping requirements for these hazardous waste management units in one recordkeeping system if the system identifies each record by each hazardous waste management unit.

(b) Owners and operators shall record the following information in the facility operating record:

(1) For facilities that comply with the provisions of Subsection R315-264-1033(a)(2), an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The schedule shall also include a rationale of why the installation cannot be completed at an earlier date. The implementation schedule shall be in the facility operating record by the effective date that the facility becomes subject to the provisions of Sections R315-264-1030 through 1036.

(2) Up-to-date documentation of compliance with the process vent standards in Section R315-264-1032, including:

(i) Information and data identifying all affected process vents, annual throughput and operating hours of each affected unit, estimated emission rates for each affected vent and for the overall facility, i.e., the total emissions for all affected vents at the facility, and the

approximate location within the facility of each affected unit, e.g., identify the hazardous waste management units on a facility plot plan.

(ii) Information and data supporting determinations of vent emissions and emission reductions achieved by add-on control devices based on engineering calculations or source tests. For the purpose of determining compliance, determinations of vent emissions and emission reductions shall be made using operating parameter values, e.g., temperatures, flow rates, or vent stream organic compounds and concentrations, that represent the conditions that result in maximum organic emissions, such as when the waste management unit is operating at the highest load or capacity level reasonably expected to occur. If the owner or operator takes any action, e.g., managing a waste of different composition or increasing operating hours of affected waste management units, that would result in an increase in total organic emissions from affected process vents at the facility, then a new determination is required.

(3) Where an owner or operator chooses to use test data to determine the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan. The test plan shall include:

(i) A description of how it is determined that the planned test is going to be conducted when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur. This shall include the estimated or design flow rate and organic content of each vent stream and define the acceptable operating ranges of key process and control device parameters during the test program.

(ii) A detailed engineering description of the closed-vent system and control device including:

(A) Manufacturer's name and model number of control device.

(B) Type of control device.

(C) Dimensions of the control device.

(D) Capacity.

(E) Construction materials.

(iii) A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling

and monitoring frequency, and planned analytical procedures for sample analysis.

(4) Documentation of compliance with Section R315-264-1033 shall include the following information:

(i) A list of all information references and sources used in preparing the documentation.

(ii) Records, including the dates, of each compliance test required by Subsection R315-264-1033(k).

(iii) If engineering calculations are used, a design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of “APTI Course 415: Control of Gaseous Emissions,” incorporated by reference as specified in Section R315-260-11, or other engineering texts acceptable to the Director that present basic control device design information. Documentation provided by the control device manufacturer or vendor that describes the control device design in accordance with Subsections R315-264-1035(b)(4)(iii)(A) through (b)(4)(iii)(G) may be used to comply with this requirement. The design analysis shall address the vent stream characteristics and control device operation parameters as specified below.

(A) For a thermal vapor incinerator, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average temperature in the combustion zone and the combustion zone residence time.

(B) For a catalytic vapor incinerator, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average temperatures across the catalyst bed inlet and outlet.

(C) For a boiler or process heater, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average flame zone temperatures, combustion zone residence time, and description of method and location where the vent stream is introduced into the combustion zone.

(D) For a flare, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also consider the requirements specified in Subsection R315-264-1033(d).

(E) For a condenser, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis shall also establish the design outlet organic compound concentration level, design average temperature of the condenser exhaust vent stream, and design average temperatures of the coolant fluid at the condenser inlet and outlet.

(F) For a carbon adsorption system such as a fixed-bed adsorber that regenerates the carbon bed directly onsite in the control device, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis shall also establish the design exhaust vent stream organic compound concentration level, number and capacity of carbon beds, type and working capacity of activated carbon used for carbon beds, design total steam flow over the period of each complete carbon bed regeneration cycle, duration of the carbon bed steaming and cooling/drying cycles, design carbon bed temperature after regeneration, design carbon bed regeneration time, and design service life of carbon.

(G) For a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly onsite in the control device, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis shall also establish the design outlet organic concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed, and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule.

(iv) A statement signed and dated by the owner or operator certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous waste management unit is or would be operating at the highest load or capacity level reasonably expected to occur.

(v) A statement signed and dated by the owner or operator certifying that the control device is designed to operate at an efficiency of 95 percent or greater unless the total organic concentration limit of Subsection R315-264-1032(a) is achieved at an efficiency less than 95 weight percent or the total organic emission limits of

Subsection R315-264-1032(a) for affected process vents at the facility can be attained by a control device involving vapor recovery at an efficiency less than 95 weight percent. A statement provided by the control device manufacturer or vendor certifying that the control equipment meets the design specifications may be used to comply with this requirement.

(vi) If performance tests are used to demonstrate compliance, all test results.

(c) Design documentation and monitoring, operating, and inspection information for each closed-vent system and control device required to comply with the provisions of Rule R315-264 shall be recorded and kept up-to-date in the facility operating record. The information shall include:

(1) Description and date of each modification that is made to the closed-vent system or control device design.

(2) Identification of operating parameter, description of monitoring device, and diagram of monitoring sensor location or locations used to comply with Subsections R315-264-1033(f)(1) and (f)(2).

(3) Monitoring, operating, and inspection information required by Subsections R315-264-1033(f) through (k).

(4) Date, time, and duration of each period that occurs while the control device is operating when any monitored parameter exceeds the value established in the control device design analysis as specified below:

(i) For a thermal vapor incinerator designed to operate with a minimum residence time of 0.50 second at a minimum temperature of 760 °C, period when the combustion temperature is below 760 °C.

(ii) For a thermal vapor incinerator designed to operate with an organic emission reduction efficiency of 95 weight percent or greater, period when the combustion zone temperature is more than 28 °C below the design average combustion zone temperature established as a requirement of Subsection R315-264-1035(b)(4)(iii)(A).

(iii) For a catalytic vapor incinerator, period when:

(A) Temperature of the vent stream at the catalyst bed inlet is more than 28 °C below the average temperature of the inlet vent stream established as a requirement of Subsection R315-264-1035(b)(4)(iii)(B), or

(B) Temperature difference across the catalyst bed is less than 80 percent of the design average temperature difference established as a requirement of Subsection R315-264-1035(b)(4)(iii)(B).

(iv) For a boiler or process heater, period when:

(A) Flame zone temperature is more than 28 °C below the design average flame zone temperature established as a requirement of Subsection R315-264-1035(b)(4)(iii)(C), or

(B) Position changes where the vent stream is introduced to the combustion zone from the location established as a requirement of Subsection R315-264-1035(b)(4)(iii)(C).

(v) For a flare, period when the pilot flame is not ignited.

(vi) For a condenser that complies with Subsection R315-264-1033(f)(2)(vi)(A), period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the condenser are more than 20 percent greater than the design outlet organic compound concentration level established as a requirement of Subsection R315-264-1035(b)(4)(iii)(E).

(vii) For a condenser that complies with Subsection R315-264-1033(f)(2)(vi)(B), period when:

(A) Temperature of the exhaust vent stream from the condenser is more than 6 °C above the design average exhaust vent stream temperature established as a requirement of Subsection R315-264-1035(b)(4)(iii)(E); or

(B) Temperature of the coolant fluid exiting the condenser is more than 6 °C above the design average coolant fluid temperature at the condenser outlet established as a requirement of Subsection R315-264-1035(b)(4)(iii)(E).

(viii) For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device and complies with Subsection R315-264-1033(f)(2)(vii)(A), period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the carbon bed are more than 20 percent greater than the design exhaust vent stream organic compound concentration level established as a requirement of Subsection R315-264-1035(b)(4)(iii)(F).

(ix) For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device and complies with Subsection R315-264-1033(f)(2)(vii)(B), period when the vent stream continues to flow through the control device beyond the predetermined carbon bed regeneration time

established as a requirement of Subsection R315-264-1035(b)(4)(iii)(F).

(5) Explanation for each period recorded under Subsection R315-264-1035(4) of the cause for control device operating parameter exceeding the design value and the measures implemented to correct the control device operation.

(6) For a carbon adsorption system operated subject to requirements specified in Subsection R315-264-1033(g) or (h)(2), date when existing carbon in the control device is replaced with fresh carbon.

(7) For a carbon adsorption system operated subject to requirements specified in Subsection R315-264-1033(h)(1), a log that records:

(i) Date and time when control device is monitored for carbon breakthrough and the monitoring device reading.

(ii) Date when existing carbon in the control device is replaced with fresh carbon.

(8) Date of each control device startup and shutdown.

(9) An owner or operator designating any components of a closed-vent system as unsafe to monitor pursuant to Subsection R315-264-1033(o) shall record in a log that is kept in the facility operating record the identification of closed-vent system components that are designated as unsafe to monitor in accordance with the requirements of Subsection R315-264-1033(o), an explanation for each closed-vent system component stating why the closed-vent system component is unsafe to monitor, and the plan for monitoring each closed-vent system component.

(10) When each leak is detected as specified in Subsection R315-264-1033(l), the following information shall be recorded:

(i) The instrument identification number, the closed-vent system component identification number, and the operator name, initials, or identification number.

(ii) The date the leak was detected and the date of first attempt to repair the leak.

(iii) The date of successful repair of the leak.

(iv) Maximum instrument reading measured by Method 21 of 40 CFR part 60, appendix A after it is successfully repaired or determined to be nonrepairable.

(v) “Repair delayed” and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

(A) The owner or operator may develop a written procedure that identifies the conditions that justify a delay of repair. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.

(B) If delay of repair was caused by depletion of stocked parts, there shall be documentation that the spare parts were sufficiently stocked on-site before depletion and the reason for depletion.

(d) Records of the monitoring, operating, and inspection information required by Subsections R315-264-1035(c)(3) through (c)(10) shall be maintained by the owner or operator for at least 3 years following the date of each occurrence, measurement, maintenance, corrective action, or record.

(e) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system, the Director shall specify the appropriate recordkeeping requirements.

(f) Up-to-date information and data used to determine whether or not a process vent is subject to the requirements in Section R315-264-1032 including supporting documentation as required by Subsection R315-264-1034(d)(2) when application of the knowledge of the nature of the hazardous waste stream or the process by which it was produced is used, shall be recorded in a log that is kept in the facility operating record.

R315-264-1036. Reporting requirements.

(a) A semiannual report shall be submitted by owners and operators subject to the requirements of Sections R315-264-1030 through 1036 to the Director by dates specified by the Director. The report shall include the following information:

(1) The Environmental Protection Agency identification number, name, and address of the facility.

(2) For each month during the semiannual reporting period, dates when the control device exceeded or operated outside of the design specifications as defined in Subsection R315-264-1035(c)(4) and as indicated by the control device monitoring required by Subsection R315-264-1033(f) and such exceedances were not corrected within 24 hours, or that a flare operated with visible emissions as defined in Subsection R315-264-1033(d) and as determined by

Method 22 monitoring, the duration and cause of each exceedance or visible emissions, and any corrective measures taken.

(b) If, during the semiannual reporting period, the control device does not exceed or operate outside of the design specifications as defined in Subsection R315-264-264-1035(c)(4) for more than 24 hours or a flare does not operate with visible emissions as defined in Subsection R315-264-264-1033(d), a report to the Director is not required.

R315-264-1050. Air Emission Standards for Equipment Leaks - Applicability.

(a) The regulations in Sections R315-264-1050 through 1065 apply to owners and operators of facilities that treat, store, or dispose of hazardous wastes, except as provided in Section R315-264-1.

(b) Except as provided in Subsection R315-264-1064(k), Sections R315-264-1050 through 1065 apply to equipment that contains or contacts hazardous wastes with organic concentrations of at least 10 percent by weight that are managed in one of the following:

(1) A unit that is subject to the permitting requirements of Rule R315-270, or

(2) A unit, including a hazardous waste recycling unit, that is not exempt from permitting under the provisions of Subsection R315-262-34(a), i.e., a hazardous waste recycling unit that is not a “90-day” tank or container, and that is located at a hazardous waste management facility otherwise subject to the permitting requirements of Rule R315-270, or

(3) A unit that is exempt from permitting under the provisions of Subsection R315-262-34(a), i.e., a “90-day” tank or container, and is not a recycling unit under the provisions of Section R315-261-6.

(c) For the owner or operator of a facility subject to Sections R315-264-1050 through 1065 and who received a final permit under RCRA section 3005 prior to December 6, 1996, the requirements of Sections R315-264-1050 through 1065 shall be incorporated into the permit when the permit is reissued in accordance with the requirements of Section R315-124-15 or reviewed in accordance with the requirements of Subsection R315-270-50(d). Until such date when the owner or operator receives a final permit incorporating the requirements of Sections R315-264-1050 through 1065, the

owner or operator is subject to the requirements of 40 CFR 265.1050 through 1064, which are adopted by reference.

(d) Each piece of equipment to which Sections R315-264-1050 through 1065 applies shall be marked in such a manner that it can be distinguished readily from other pieces of equipment.

(e) Equipment that is in vacuum service is excluded from the requirements of Sections R315-264-1052 to 1060 if it is identified as required in Subsection R315-264-1064(g)(5).

(f) Equipment that contains or contacts hazardous waste with an organic concentration of at least 10 percent by weight for less than 300 hours per calendar year is excluded from the requirements of Sections R315-264-1052 through 1060 if it is identified, as required in Subsection R315-264-1064(g)(6).

(g) The requirements of Sections R315-264-1050 through 1065 do not apply to the pharmaceutical manufacturing facility, commonly referred to as the Stonewall Plant, located at Route 340 South, Elkton, Virginia, provided that facility is operated in compliance with the requirements contained in a permit issued pursuant to the Utah Air Conservation Act. The requirements of Sections R315-264-1050 through 1065 shall apply to the facility upon termination of the permit issued pursuant to the Utah Air Conservation Act.

(h) Purged coatings and solvents from surface coating operations subject to the national emission standards for hazardous air pollutants (NESHAP) for the surface coating of automobiles and light-duty trucks at R307-214-2(61), which incorporates 40 CFR part 63 subpart IIII, are not subject to the requirements of Sections R315-264-1050 through 1065.

Note: The requirements of Sections R315-264-1052 through 1065 apply to equipment associated with hazardous waste recycling units previously exempt under Subsection R315-261-6(c)(1). Other exemptions under Section R315-261-4, and Subsection R315-264-1(g) are not affected by these requirements.

R315-264-1051. Definitions.

As used in Sections R315-264-1050 through 1065, all terms shall have the meaning given them in Section R315-264-1031, RCRA, and Rules R315-260 through 266.

R315-264-1052. Standards: Pumps in light liquid service.

(a)(1) Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in Subsection R315-264-1063(b), except as provided in Subsections R315-264-1052(d), (e), and (f).

(2) Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.

(b)(1) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(2) If there are indications of liquids dripping from the pump seal, a leak is detected.

(c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section R315-264-1059.

(2) A first attempt at repair, e.g., tightening the packing gland, shall be made no later than 5 calendar days after each leak is detected.

(d) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of Subsection R315-264-1052(a), provided the following requirements are met:

(1) Each dual mechanical seal system shall be:

(i) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure, or

(ii) Equipped with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with the requirements of Section R315-264-1060, or

(iii) Equipped with a system that purges the barrier fluid into a hazardous waste stream with no detectable emissions to the atmosphere.

(2) The barrier fluid system shall not be a hazardous waste with organic concentrations 10 percent or greater by weight.

(3) Each barrier fluid system shall be equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

(4) Each pump shall be checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.

(5)(i) Each sensor as described in Subsection R315-264-1052(d)(3) shall be checked daily or be equipped with

an audible alarm that shall be checked monthly to ensure that it is functioning properly.

(ii) The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(6)(i) If there are indications of liquids dripping from the pump seal or the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined in Subsection R315-264-1052(d)(5)(ii), a leak is detected.

(ii) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section R315-264-1059.

(iii) A first attempt at repair, e.g., relapping the seal, shall be made no later than 5 calendar days after each leak is detected.

(e) Any pump that is designated, as described in Subsection R315-264-1064(g)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of Subsections R315-264-1052(a), (c), and (d) if the pump meets the following requirements:

(1) Shall have no externally actuated shaft penetrating the pump housing.

(2) Shall operate with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in Subsection R315-264-1063(c).

(3) Shall be tested for compliance with Subsection R315-264-1052(e)(2) initially upon designation, annually, and at other times as requested by the Director.

(f) If any pump is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of Section R315-264-1060, it is exempt from the requirements of Subsections R315-264-1052(a) through (e).

R315-264-1053. Standards: Compressors.

(a) Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of total organic emissions to the

atmosphere, except as provided in Subsections R315-264-1053(h) and (i).

(b) Each compressor seal system as required in Subsection R315-264-1053(a) shall be:

(1) Operated with the barrier fluid at a pressure that is at all times greater than the compressor stuffing box pressure, or

(2) Equipped with a barrier fluid system that is connected by a closed-vent system to a control device that complies with the requirements of Section R315-264-1060, or

(3) Equipped with a system that purges the barrier fluid into a hazardous waste stream with no detectable emissions to atmosphere.

(c) The barrier fluid shall not be a hazardous waste with organic concentrations 10 percent or greater by weight.

(d) Each barrier fluid system as described in Subsections R315-264-1053(a) through (c) shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.

(e)(1) Each sensor as required in Subsection R315-264-1053(d) shall be checked daily or shall be equipped with an audible alarm that shall be checked monthly to ensure that it is functioning properly unless the compressor is located within the boundary of an unmanned plant site, in which case the sensor shall be checked daily.

(2) The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(f) If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined under Subsection R315-264-1053(e)(2), a leak is detected.

(g)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section R315-264-1059.

(2) A first attempt at repair, e.g., tightening the packing gland, shall be made no later than 5 calendar days after each leak is detected.

(h) A compressor is exempt from the requirements of Subsections R315-264-1053(a) and (b) if it is equipped with a closed-vent system capable of capturing and transporting

any leakage from the seal to a control device that complies with the requirements of Section R315-264-1060, except as provided in Subsection R315-264-1053(i).

(i) Any compressor that is designated, as described in Subsection R315-264-1064(g)(2), for no detectable emissions as indicated by an instrument reading of less than 500 ppm above background is exempt from the requirements of Subsections R315-264-1053(a) through (h) if the compressor:

(1) Is determined to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Subsection R315-264-1063(c).

(2) Is tested for compliance with Subsection R315-264-1053(i)(1) initially upon designation, annually, and at other times as requested by the Director.

R315-264-1054. Standards: Pressure relief devices in gas/vapor service.

(a) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Subsection R315-264-1063(c).

(b)(1) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in Section R315-264-1059.

(2) No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Subsection R315-264-1063(c).

(c) Any pressure relief device that is equipped with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device as described in Section R315-264-264-1060 is exempt from the requirements of Subsection R315-264-1054(a) and (b).

R315-264-1055. Standards: Sampling connection systems.

(a) Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system. This system shall collect the sample purge for return to the process or for routing to the appropriate treatment system. Gases displaced during filling of the sample container are not required to be collected or captured.

(b) Each closed-purge, closed-loop, or closed-vent system as required in Subsection R315-264-1055(a) shall meet one of the following requirements:

(1) Return the purged process fluid directly to the process line;

(2) Collect and recycle the purged process fluid; or

(3) Be designed and operated to capture and transport all the purged process fluid to a waste management unit that complies with the applicable requirements of Sections R315-264-1084 through 1086 or a control device that complies with the requirements of Section R315-264-1060.

(c) In-situ sampling systems and sampling systems without purges are exempt from the requirements of Subsections R315-264-1055(a) and (b).

R315-264-1056. Standards: Open-ended valves or lines.

(a)(1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve.

(2) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring hazardous waste stream flow through the open-ended valve or line.

(b) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the hazardous waste stream end is closed before the second valve is closed.

(c) When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with Subsection R315-264-1056(a) at all other times.

R315-264-1057. Standards: Valves in gas/vapor service or in light liquid service.

(a) Each valve in gas/vapor or light liquid service shall be monitored monthly to detect leaks by the methods specified in Subsection R315-264-1063(b) and shall comply with Subsections R315-264-1057(b) through (e), except as

provided in Subsections R315-264-1057(f), (g), and (h), and Sections R315-264-1061 and 1062.

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(c)(1) Any valve for which a leak is not detected for two successive months may be monitored the first month of every succeeding quarter, beginning with the next quarter, until a leak is detected.

(2) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for two successive months,

(d)(1) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in Section R315-264-1059.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(e) First attempts at repair include, but are not limited to, the following best practices where practicable:

(1) Tightening of bonnet bolts.

(2) Replacement of bonnet bolts.

(3) Tightening of packing gland nuts.

(4) Injection of lubricant into lubricated packing.

(f) Any valve that is designated, as described in Subsection R315-264-1064(g)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of Subsection R315-264-1057(a) if the valve:

(1) Has no external actuating mechanism in contact with the hazardous waste stream.

(2) Is operated with emissions less than 500 ppm above background as determined by the method specified in Subsection R315-264-1063(c).

(3) Is tested for compliance with Subsection R315-264-1057(f)(2) initially upon designation, annually, and at other times as requested by the Director.

(g) Any valve that is designated, as described in Subsection R315-264-1064(h)(1), as an unsafe-to-monitor valve is exempt from the requirements of Subsection R315-264-1057(a) if:

(1) The owner or operator of the valve determines that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with Subsection R315-264-1057(a).

(2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times.

(h) Any valve that is designated, as described in Subsection R315-264-1064(h)(2), as a difficult-to-monitor valve is exempt from the requirements of Subsection R315-264-1057(a) if:

(1) The owner or operator of the valve determines that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface.

(2) The hazardous waste management unit within which the valve is located was in operation before June 21, 1990.

(3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year.

R315-264-1058. Standards: Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and flanges and other connectors.

(a) Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and flanges and other connectors shall be monitored within 5 days by the method specified in Subsection R315-264-1063(b) if evidence of a potential leak is found by visual, audible, olfactory, or any other detection method.

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section R315-264-1059.

(2) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(d) First attempts at repair include, but are not limited to, the best practices described under Subsection R315-264-1057(e).

(e) Any connector that is inaccessible or is ceramic or ceramic-lined, e.g., porcelain, glass, or glass-lined, is exempt from the monitoring requirements of Subsection R315-264-1058(a) and from the recordkeeping requirements of Section R315-264-1064.

R315-264-1059. Standards: Delay of repair.

(a) Delay of repair of equipment for which leaks have been detected will be allowed if the repair is technically infeasible without a hazardous waste management unit shutdown. In such a case, repair of this equipment shall occur before the end of the next hazardous waste management unit shutdown.

(b) Delay of repair of equipment for which leaks have been detected will be allowed for equipment that is isolated from the hazardous waste management unit and that does not continue to contain or contact hazardous waste with organic concentrations at least 10 percent by weight.

(c) Delay of repair for valves will be allowed if:

(1) The owner or operator determines that emissions of purged material resulting from immediate repair are greater than the emissions likely to result from delay of repair.

(2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with Section R315-264-1060.

(d) Delay of repair for pumps will be allowed if:

(1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system.

(2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

(e) Delay of repair beyond a hazardous waste management unit shutdown will be allowed for a valve if valve assembly replacement is necessary during the hazardous waste management unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next hazardous waste management unit shutdown will not be allowed unless the next hazardous waste management unit shutdown occurs sooner than 6 months after the first hazardous waste management unit shutdown.

R315-264-1060. Standards: Closed-vent systems and control devices.

(a) Owners and operators of closed-vent systems and control devices subject to Sections R315-264-1050 through 1065 shall comply with the provisions of Section R315-264-1033.

(b)(1) The owner or operator of an existing facility who cannot install a closed-vent system and control device to comply with the provisions of Sections R315-264-1050

through 1065 on the effective date that the facility becomes subject to the provisions of Sections R315-264-1050 through 1065 shall prepare an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The controls shall be installed as soon as possible, but the implementation schedule may allow up to 30 months after the effective date that the facility becomes subject to Sections R315-264-1050 through 1065 for installation and startup.

(2) Any unit that begins operation after December 21, 1990, and is subject to the provisions of Sections R315-264-1050 through 1065 when operation begins, shall comply with the rules immediately, i.e., shall have control devices installed and operating on startup of the affected unit; the 30-month implementation schedule does not apply.

(3) The owner or operator of any facility in existence on the effective date of a statutory or regulatory amendment that renders the facility subject to Sections R315-264-1050 through 1065 shall comply with all requirements of Sections R315-264-1050 through 1065 as soon as practicable but no later than 30 months after the amendment's effective date. When control equipment required by Sections R315-264-1050 through 1065 cannot be installed and begin operation by the effective date of the amendment, the facility owner or operator shall prepare an implementation schedule that includes the following information: Specific calendar dates for award or contracts or issuance of purchase orders for the control equipment, initiation of on-site installation of the control equipment, completion of the control equipment installation, and performance of any testing to demonstrate that the installed equipment meets the applicable standards of Sections R315-264-1050 through 1065. The owner or operator shall enter the implementation schedule in the operating record or in a permanent, readily available file located at the facility.

(4) Owners and operators of facilities and units that become newly subject to the requirements of Sections R315-264-1050 through 1065 after December 8, 1997, due to an action other than those described in Subsection R315-264-1060(b)(3) shall comply with all applicable requirements immediately, i.e., shall have control devices installed and operating on the date the facility or unit becomes subject

to Sections R315-264-1050 through 1065; the 30-month implementation schedule does not apply.

R315-264-1061. Alternative standards for valves in gas/vapor service or in light liquid service: percentage of valves allowed to leak.

(a) An owner or operator subject to the requirements of Section R315-264-1057 may elect to have all valves within a hazardous waste management unit comply with an alternative standard that allows no greater than 2 percent of the valves to leak.

(b) The following requirements shall be met if an owner or operator decides to comply with the alternative standard of allowing 2 percent of valves to leak:

(1) A performance test as specified in Section R315-264-1061(c) shall be conducted initially upon designation, annually, and at other times requested by the Director.

(2) If a valve leak is detected, it shall be repaired in accordance with Subsections R315-264-1057(d) and (e).

(c) Performance tests shall be conducted in the following manner:

(1) All valves subject to the requirements in Section R315-264-1057 within the hazardous waste management unit shall be monitored within 1 week by the methods specified in Subsection R315-264-1063(b).

(2) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(3) The leak percentage shall be determined by dividing the number of valves subject to the requirements in Section R315-264-1057 for which leaks are detected by the total number of valves subject to the requirements in Section R315-264-1057 within the hazardous waste management unit.

R315-264-1062. Alternative standards for valves in gas/vapor service or in light liquid service: skip period leak detection and repair.

(a) An owner or operator subject to the requirements of Section R315-264-1057 may elect for all valves within a hazardous waste management unit to comply with one of the alternative work practices specified in Subsections R315-264-1062(b) (2) and (3).

(b)(1) An owner or operator shall comply with the requirements for valves, as described in Section R315-264-

1057, except as described in Subsections R315-264-1062(b)(2) and (b)(3).

(2) After two consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than 2 percent, an owner or operator may begin to skip one of the quarterly leak detection periods, i.e., monitor for leaks once every six months, for the valves subject to the requirements in Section R315-264-1057.

(3) After five consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than 2 percent, an owner or operator may begin to skip three of the quarterly leak detection periods, i.e., monitor for leaks once every year, for the valves subject to the requirements in Section R315-264-1057.

(4) If the percentage of valves leaking is greater than 2 percent, the owner or operator shall monitor monthly in compliance with the requirements in Section R315-264-1057, but may again elect to use Section R315-264-1062 after meeting the requirements of Section R315-264-1057(c)(1).

R315-264-1063. Test methods and procedures.

(a) Each owner or operator subject to the provisions of Rule R315-264 shall comply with the test methods and procedures requirements provided in Section R315-264-1063.

(b) Leak detection monitoring, as required in Sections R315-264-1052 through 1062, shall comply with the following requirements:

(1) Monitoring shall comply with Reference Method 21 in 40 CFR part 60.

(2) The detection instrument shall meet the performance criteria of Reference Method 21.

(3) The instrument shall be calibrated before use on each day of its use by the procedures specified in Reference Method 21.

(4) Calibration gases shall be:

(i) Zero air, less than 10 ppm of hydrocarbon in air.

(ii) A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.

(5) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.

(c) When equipment is tested for compliance with no detectable emissions, as required in Subsections R315-264-

1052(e), 1053(i), 1054, and 1057(f), the test shall comply with the following requirements:

(1) The requirements of Subsections R315-264-1063(b)(1) through (4) shall apply.

(2) The background level shall be determined as set forth in Reference Method 21.

(3) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.

(4) The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

(d) In accordance with the waste analysis plan required by Subsection R315-264-13(b), an owner or operator of a facility shall determine, for each piece of equipment, whether the equipment contains or contacts a hazardous waste with organic concentration that equals or exceeds 10 percent by weight using the following:

(1) Methods described in ASTM Methods D 2267-88, E 169-87, E 168-88, E 260-85, incorporated by reference under Section R315-260-11);

(2) Method 9060A, incorporated by reference under Section R315-260-11, of “Test Methods for Evaluating Solid Waste,” EPA Publication SW-846, for computing total organic concentration of the sample, or analyzed for its individual organic constituents; or

(3) Application of the knowledge of the nature of the hazardous waste stream or the process by which it was produced. Documentation of a waste determination by knowledge is required. Examples of documentation that shall be used to support a determination under this provision include production process information documenting that no organic compounds are used, information that the waste is generated by a process that is identical to a process at the same or another facility that has previously been demonstrated by direct measurement to have a total organic content less than 10 percent, or prior speciation analysis results on the same waste stream where it can also be documented that no process changes have occurred since that analysis that could affect the waste total organic concentration.

(e) If an owner or operator determines that a piece of equipment contains or contacts a hazardous waste with organic concentrations at least 10 percent by weight, the

determination can be revised only after following the procedures in Subsections R315-264-1063(d)(1) or (d)(2).

(f) When an owner or operator and the Director do not agree on whether a piece of equipment contains or contacts a hazardous waste with organic concentrations at least 10 percent by weight, the procedures in Subsections R315-264-1063(d)(1) or (d)(2) can be used to resolve the dispute.

(g) Samples used in determining the percent organic content shall be representative of the highest total organic content hazardous waste that is expected to be contained in or contact the equipment.

(h) To determine if pumps or valves are in light liquid service, the vapor pressures of constituents may be obtained from standard reference texts or may be determined by ASTM D-2879-86, incorporated by reference under Section R315-260-11.

(i) Performance tests to determine if a control device achieves 95 weight percent organic emission reduction shall comply with the procedures of Sections R315-264-1034(c)(1) through (c)(4).

R315-264-1064. Recordkeeping requirements.

(a)(1) Each owner or operator subject to the provisions of Sections R315-264-1050 through 1065 shall comply with the recordkeeping requirements of Section R315-264-1064.

(2) An owner or operator of more than one hazardous waste management unit subject to the provisions of Sections R315-264-1050 through 1065 may comply with the recordkeeping requirements for these hazardous waste management units in one recordkeeping system if the system identifies each record by each hazardous waste management unit.

(b) Owners and operators shall record the following information in the facility operating record:

(1) For each piece of equipment to which Sections R315-264-1050 through 1065 apply:

(i) Equipment identification number and hazardous waste management unit identification.

(ii) Approximate locations within the facility, e.g., identify the hazardous waste management unit on a facility plot plan.

(iii) Type of equipment, e.g., a pump or pipeline valve.

(iv) Percent-by-weight total organics in the hazardous waste stream at the equipment.

(v) Hazardous waste state at the equipment, e.g., gas/vapor or liquid.

(vi) Method of compliance with the standard, e.g., “monthly leak detection and repair” or “equipped with dual mechanical seals.”

(2) For facilities that comply with the provisions of Subsection R315-264-1033(a)(2), an implementation schedule as specified in Subsection R315-264-1033(a)(2).

(3) Where an owner or operator chooses to use test data to demonstrate the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan as specified in Subsection R315-264-1035(b)(3).

(4) Documentation of compliance with Section R315-264-1060, including the detailed design documentation or performance test results specified in Subsection R315-264-1035(b)(4).

(c) When each leak is detected as specified in Sections R315-264-1052, 1053, 1057, and 1058, the following requirements apply:

(1) A weatherproof and readily visible identification, marked with the equipment identification number, the date evidence of a potential leak was found in accordance with Subsection R315-264-1058(a), and the date the leak was detected, shall be attached to the leaking equipment.

(2) The identification on equipment, except on a valve, may be removed after it has been repaired.

(3) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in Subsection R315-264-1057(c) and no leak has been detected during those 2 months.

(d) When each leak is detected as specified in Subsections R315-264-1052, 1053, 1057, and 1058, the following information shall be recorded in an inspection log and shall be kept in the facility operating record:

(1) The instrument and operator identification numbers and the equipment identification number.

(2) The date evidence of a potential leak was found in accordance with Subsection R315-264-1058(a).

(3) The date the leak was detected and the dates of each attempt to repair the leak.

(4) Repair methods applied in each attempt to repair the leak.

(5) “Above 10,000” if the maximum instrument reading measured by the methods specified in Subsection R315-264-1063(b) after each repair attempt is equal to or greater than 10,000 ppm.

(6) “Repair delayed” and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

(7) Documentation supporting the delay of repair of a valve in compliance with Subsection R315-264-1059(c).

(8) The signature of the owner or operator, or designate, whose decision it was that repair could not be effected without a hazardous waste management unit shutdown.

(9) The expected date of successful repair of the leak if a leak is not repaired within 15 calendar days.

(10) The date of successful repair of the leak.

(e) Design documentation and monitoring, operating, and inspection information for each closed-vent system and control device required to comply with the provisions of Section R315-264-1060 shall be recorded and kept up-to-date in the facility operating record as specified in Subsection R315-264-1035(c). Design documentation is specified in Subsection R315-264-1035(c)(1) and (c)(2) and monitoring, operating, and inspection information in Subsection R315-264-1035(c)(3)through (c)(8).

(f) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system, the Director shall specify the appropriate recordkeeping requirements.

(g) The following information pertaining to all equipment subject to the requirements in Sections R315-264-1052 through 1060 shall be recorded in a log that is kept in the facility operating record:

(1) A list of identification numbers for equipment, except welded fittings, subject to the requirements of Sections R315-264-1050 through 1065.

(2)(i) A list of identification numbers for equipment that the owner or operator elects to designate for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, under the provisions of Subsections R315-264-1052(e), 1053(i), and 1057(f).

(ii) The designation of this equipment as subject to the requirements of Subsections R315-264-1052(e), 1053(i), or 1057(f) shall be signed by the owner or operator.

(3) A list of equipment identification numbers for pressure relief devices required to comply with Subsection R315-264-1054(a).

(4)(i) The dates of each compliance test required in Subsections R315-264-1052(e), 1053(i), 1054, and 1057(f).

(ii) The background level measured during each compliance test.

(iii) The maximum instrument reading measured at the equipment during each compliance test.

(5) A list of identification numbers for equipment in vacuum service.

(6) Identification, either by list or location, area or group, of equipment that contains or contacts hazardous waste with an organic concentration of at least 10 percent by weight for less than 300 hours per calendar year.

(h) The following information pertaining to all valves subject to the requirements of Subsections R315-264-1057 (g) and (h) shall be recorded in a log that is kept in the facility operating record:

(1) A list of identification numbers for valves that are designated as unsafe to monitor, an explanation for each valve stating why the valve is unsafe to monitor, and the plan for monitoring each valve.

(2) A list of identification numbers for valves that are designated as difficult to monitor, an explanation for each valve stating why the valve is difficult to monitor, and the planned schedule for monitoring each valve.

(i) The following information shall be recorded in the facility operating record for valves complying with Section R315-264-1062:

(1) A schedule of monitoring.

(2) The percent of valves found leaking during each monitoring period.

(j) The following information shall be recorded in a log that is kept in the facility operating record:

(1) Criteria required in Subsections R315-264-1052(d)(5)(ii) and 1053(e)(2) and an explanation of the design criteria.

(2) Any changes to these criteria and the reasons for the changes.

(k) The following information shall be recorded in a log that is kept in the facility operating record for use

in determining exemptions as provided in the applicability section of Sections R315-264-1050 through 1065 and other specific sections of Rule R315-264:

(1) An analysis determining the design capacity of the hazardous waste management unit.

(2) A statement listing the hazardous waste influent to and effluent from each hazardous waste management unit subject to the requirements in Subsections R315-264-1052 through 1060 and an analysis determining whether these hazardous wastes are heavy liquids.

(3) An up-to-date analysis and the supporting information and data used to determine whether or not equipment is subject to the requirements in Subsections R315-264-1052 through 1060. The record shall include supporting documentation as required by Subsection R315-264-1063(d)(3) when application of the knowledge of the nature of the hazardous waste stream or the process by which it was produced is used. If the owner or operator takes any action, e.g., changing the process that produced the waste, that could result in an increase in the total organic content of the waste contained in or contacted by equipment determined not to be subject to the requirements in Sections R315-264-1052 through 1060, then a new determination is required.

(l) Records of the equipment leak information required by Subsection R315-264-1064(d) and the operating information required by Subsection R315-264-1064(e) need be kept only 3 years.

(m) The owner or operator of a facility with equipment that is subject to Sections R315-264-1050 through 1065 and to regulations at 40 CFR part 60, part 61, or part 63 may elect to determine compliance with Sections R315-264-1050 through 1065 either by documentation pursuant to Section R315-264-1064, or by documentation of compliance with the regulations at 40 CFR part 60, part 61, or part 63 pursuant to the relevant provisions of the regulations at 40 part 60, part 61, or part 63. The documentation of compliance under regulations at 40 CFR part 60, part 61, or part 63 shall be kept with or made readily available with the facility operating record.

R315-264-1065. Reporting requirements.

(a) A semiannual report shall be submitted by owners and operators subject to the requirements of Sections R315-264-1050 through 1065 to the Director by dates specified by

the Director. The report shall include the following information:

(1) The Environmental Protection Agency identification number, name, and address of the facility.

(2) For each month during the semiannual reporting period:

(i) The equipment identification number of each valve for which a leak was not repaired as required in Subsection R315-264-1057(d).

(ii) The equipment identification number of each pump for which a leak was not repaired as required in Subsections R315-264-1052(c) and (d)(6).

(iii) The equipment identification number of each compressor for which a leak was not repaired as required in Subsection R315-264-1053(g).

(3) Dates of hazardous waste management unit shutdowns that occurred within the semiannual reporting period.

(4) For each month during the semiannual reporting period, dates when the control device installed as required by Sections R315-264-1052, 1053, 1054, or 1055 exceeded or operated outside of the design specifications as defined in Subsection R315-264-1064(e) and as indicated by the control device monitoring required by Section R315-264-1060 and was not corrected within 24 hours, the duration and cause of each exceedance, and any corrective measures taken.

(b) If, during the semiannual reporting period, leaks from valves, pumps, and compressors are repaired as required in Subsections R315-264-1057(d), 1052(c) and (d)(6), and 1053(g), respectively, and the control device does not exceed or operate outside of the design specifications as defined in Subsection R315-264-1064(e) for more than 24 hours, a report to the Director is not required.

R315-264-1080. Air Emission Standards for Tanks, Surface Impoundments, and Containers - Applicability.

(a) The requirements of Sections R315-264-1080 through 1090 apply to owners and operators of all facilities that treat, store, or dispose of hazardous waste in tanks, surface impoundments, or containers subject to either Sections R315-264-170 through 179, 190 through 200, or 220 through 232 except as Section R315-264-1 and Subsection R315-264-1080(b) provide otherwise.

(b) The requirements of Sections R315-264-1080 through 1090 do not apply to the following waste management units at the facility:

(1) A waste management unit that holds hazardous waste placed in the unit before December 6, 1996, and in which no hazardous waste is added to the unit on or after December 6, 1996.

(2) A container that has a design capacity less than or equal to 0.1 cubic meter.

(3) A tank in which an owner or operator has stopped adding hazardous waste and the owner or operator has begun implementing or completed closure pursuant to an approved closure plan.

(4) A surface impoundment in which an owner or operator has stopped adding hazardous waste, except to implement an approved closure plan, and the owner or operator has begun implementing or completed closure pursuant to an approved closure plan.

(5) A waste management unit that is used solely for on-site treatment or storage of hazardous waste that is placed in the unit as a result of implementing remedial activities required under the corrective action authorities of RCRA sections 3004(u), 3004(v), or 3008(h); CERCLA authorities; or similar Federal or Utah authorities.

(6) A waste management unit that is used solely for the management of radioactive mixed waste in accordance with all applicable regulations under the authority of the Atomic Energy Act and the Nuclear Waste Policy Act.

(7) A hazardous waste management unit that the owner or operator certifies is equipped with and operating air emission controls in accordance with the requirements of an applicable regulation codified under the Utah Air Conservation Act. For the purpose of complying with Subsection R315-264-1080(b), a tank for which the air emission control includes an enclosure, as opposed to a cover, shall be in compliance with the enclosure and control device requirements of Subsection R315-264-1084(i), except as provided in Subsection R315-264-1082(c)(5).

(8) A tank that has a process vent as defined in Section R315-264-1031.

(c) For the owner and operator of a facility subject to Sections R315-264-1080 through 1090 who received a final permit under RCRA section 3005 prior to December 6, 1996, the requirements of Sections R315-264-1080 through 1090 shall be incorporated into the permit when the permit is

reissued in accordance with the requirements of Section R315-124-15 or reviewed in accordance with the requirements of Subsection R315-270-50(d). Until such date when the permit is reissued in accordance with the requirements of Section R315-124-15 or reviewed in accordance with the requirements of Subsection R315-270-50(d), the owner and operator are subject to the requirements of 40 CFR 265.1080 through 1090, which are adopted by reference.

(d) The requirements of Sections R315-264-1080 through 1090, except for the recordkeeping requirements specified in Subsection R315-264-1089(i), are administratively stayed for a tank or a container used for the management of hazardous waste generated by organic peroxide manufacturing and its associated laboratory operations when the owner or operator of the unit meets all of the following conditions:

(1) The owner or operator identifies that the tank or container receives hazardous waste generated by an organic peroxide manufacturing process producing more than one functional family of organic peroxides or multiple organic peroxides within one functional family, that one or more of these organic peroxides could potentially undergo self-accelerating thermal decomposition at or below ambient temperatures, and that organic peroxides are the predominant products manufactured by the process. For the purpose of meeting the conditions of Section R315-264-1080, “organic peroxide” means an organic compound that contains the bivalent structure and which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.

(2) The owner or operator prepares documentation, in accordance with the requirements of Subsection R315-264-1089(i), explaining why an undue safety hazard would be created if air emission controls specified in Sections R315-264-1084 through 1087 are installed and operated on the tanks and containers used at the facility to manage the hazardous waste generated by the organic peroxide manufacturing process or processes meeting the conditions of Subsection R315-264-1080(d)(1).

(3) The owner or operator notifies the Director in writing that hazardous waste generated by an organic peroxide manufacturing process or processes meeting the conditions of Subsection R315-264-1080(d)(1) are managed at the facility in tanks or containers meeting the conditions of Subsection R315-264-1080(d)(2). The notification shall

state the name and address of the facility, and be signed and dated by an authorized representative of the facility owner or operator.

R315-264-1081. Definitions.

As used in Sections R315-264-1080 through 1090, all terms shall have the meaning given to them in 40 CFR 265.1081, which is adopted by reference; RCRA; and Rules R315-260 through 266.

R315-264-1082. Standards: General.

(a) Section R315-264-1082 applies to the management of hazardous waste in tanks, surface impoundments, and containers subject to Sections R315-264-1080 through 1090.

(b) The owner or operator shall control air pollutant emissions from each hazardous waste management unit in accordance with standards specified in Sections R315-264-1084 through 1087, as applicable to the hazardous waste management unit, except as provided for in Subsection R315-264-1082(c).

(c) A tank, surface impoundment, or container is exempt from standards specified in Sections R315-264-1084 through 1087, as applicable, provided that the waste management unit is one of the following:

(1) A tank, surface impoundment, or container for which all hazardous waste entering the unit has an average VO concentration at the point of waste origination of less than 500 parts per million by weight (ppmw). The average VO concentration shall be determined using the procedures specified in Subsection R315-264-1083(a). The owner or operator shall review and update, as necessary, this determination at least once every 12 months following the date of the initial determination for the hazardous waste streams entering the unit.

(2) A tank, surface impoundment, or container for which the organic content of all the hazardous waste entering the waste management unit has been reduced by an organic destruction or removal process that achieves any one of the following conditions:

(i) A process that removes or destroys the organics contained in the hazardous waste to a level such that the average VO concentration of the hazardous waste at the point of waste treatment is less than the exit concentration limit (Ct) established for the process. The

average VO concentration of the hazardous waste at the point of waste treatment and the exit concentration limit for the process shall be determined using the procedures specified in Subsection R315-264-1083(b).

(ii) A process that removes or destroys the organics contained in the hazardous waste to a level such that the organic reduction efficiency (R) for the process is equal to or greater than 95 percent, and the average VO concentration of the hazardous waste at the point of waste treatment is less than 100 ppmw. The organic reduction efficiency for the process and the average VO concentration of the hazardous waste at the point of waste treatment shall be determined using the procedures specified in Subsection R315-264-1083(b).

(iii) A process that removes or destroys the organics contained in the hazardous waste to a level such that the actual organic mass removal rate (MR) for the process is equal to or greater than the required organic mass removal rate (RMR) established for the process. The required organic mass removal rate and the actual organic mass removal rate for the process shall be determined using the procedures specified in Subsection R315-264-1083(b).

(iv) A biological process that destroys or degrades the organics contained in the hazardous waste, such that either of the following conditions is met:

(A) The organic reduction efficiency (R) for the process is equal to or greater than 95 percent, and the organic biodegradation efficiency (Rbio) for the process is equal to or greater than 95 percent. The organic reduction efficiency and the organic biodegradation efficiency for the process shall be determined using the procedures specified in Subsection R315-264-1083(b).

(B) The total actual organic mass biodegradation rate (MRbio) for all hazardous waste treated by the process is equal to or greater than the required organic mass removal rate (RMR). The required organic mass removal rate and the actual organic mass biodegradation rate for the process shall be determined using the procedures specified in Subsection R315-264-1083(b).

(v) A process that removes or destroys the organics contained in the hazardous waste and meets all of the following conditions:

(A) From the point of waste origination through the point where the hazardous waste enters the treatment process, the hazardous waste is managed continuously in

waste management units which use air emission controls in accordance with the standards specified in Sections R315-264-1084 through 1087, as applicable to the waste management unit.

(B) From the point of waste origination through the point where the hazardous waste enters the treatment process, any transfer of the hazardous waste is accomplished through continuous hard-piping or other closed system transfer that does not allow exposure of the waste to the atmosphere. The Director considers a drain system that meets the requirements of Subsection R307-214-2(29), which incorporates 40 CFR part 63, subpart RR-National Emission Standards for Individual Drain Systems to be a closed system.

(C) The average VO concentration of the hazardous waste at the point of waste treatment is less than the lowest average VO concentration at the point of waste origination determined for each of the individual waste streams entering the process or 500 ppmw, whichever value is lower. The average VO concentration of each individual waste stream at the point of waste origination shall be determined using the procedures specified in Subsection R315-264-1083(a). The average VO concentration of the hazardous waste at the point of waste treatment shall be determined using the procedures specified in Subsection R315-264-1083(b).

(vi) A process that removes or destroys the organics contained in the hazardous waste to a level such that the organic reduction efficiency (R) for the process is equal to or greater than 95 percent and the owner or operator certifies that the average VO concentration at the point of waste origination for each of the individual waste streams entering the process is less than 10,000 ppmw. The organic reduction efficiency for the process and the average VO concentration of the hazardous waste at the point of waste origination shall be determined using the procedures specified in Subsections R315-264-1083(b) and 1083(a), respectively.

(vii) A hazardous waste incinerator for which the owner or operator has either:

(A) Been issued a final permit under Rule R315-270 which implements the requirements of Sections R315-264-340 through 351; or

(B) Has designed and operates the incinerator in accordance with the interim status requirements of 40 CFR 265.340 through 352, which are adopted by reference.

(viii) A boiler or industrial furnace for which the owner or operator has either:

(A) Been issued a final permit under Rule R315-270 which implements the requirements of Sections R315-266-100 through 112, or

(B) Has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of Sections R315-266-100 through 112.

(ix) For the purpose of determining the performance of an organic destruction or removal process in accordance with the conditions in each of Subsections R315-264-1082(c)(2)(i) through (c)(2)(vi), the owner or operator shall account for VO concentrations determined to be below the limit of detection of the analytical method by using the following VO concentration:

(A) If Method 25D in 40 CFR part 60, appendix A is used for the analysis, one-half the blank value determined in the method at section 4.4 of Method 25D in 40 CFR part 60, appendix A, or a value of 25 ppmw, whichever is less.

(B) If any other analytical method is used, one-half the sum of the limits of detection established for each organic constituent in the waste that has a Henry's law constant value at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X), which can also be expressed as 1.8×10^{-6} atmospheres/gram-mole/m3, at 25 degrees Celsius.

(3) A tank or surface impoundment used for biological treatment of hazardous waste in accordance with the requirements of Subsection R315-264-1082(c)(2)(iv).

(4) A tank, surface impoundment, or container for which all hazardous waste placed in the unit either:

(i) Meets the numerical concentration limits for organic hazardous constituents, applicable to the hazardous waste, as specified in Section R315-268-40-Land Disposal Restrictions under Table “Treatment Standards for Hazardous Waste;” or

(ii) The organic hazardous constituents in the waste have been treated by the treatment technology established by the Board for the waste in Subsection R315-268-42(a), or have been removed or destroyed by an equivalent method of treatment approved by EPA pursuant to 40 CFR 268.42(b).

(5) A tank used for bulk feed of hazardous waste to a waste incinerator and all of the following conditions are met:

(i) The tank is located inside an enclosure vented to a control device that is designed and operated in accordance with all applicable requirements specified under Section R315-214-1, which incorporates 40 CFR part 61, subpart FF-National Emission Standards for Benzene Waste Operations for a facility at which the total annual benzene quantity from the facility waste is equal to or greater than 10 megagrams per year;

(ii) The enclosure and control device serving the tank were installed and began operation prior to November 25, 1996 and

(iii) The enclosure is designed and operated in accordance with the criteria for a permanent total enclosure as specified in “Procedure T-Criteria for and Verification of a Permanent or Temporary Total Enclosure” under 40 CFR 52.741, appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical or electrical equipment; or to direct air flow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure as specified in Section 5.0 to “Procedure T-Criteria for and Verification of a Permanent or Temporary Total Enclosure” annually.

(d) The Director may at any time perform or request that the owner or operator perform a waste determination for a hazardous waste managed in a tank, surface impoundment, or container exempted from using air emission controls under the provisions of Section R315-264-1082 as follows:

(1) The waste determination for average VO concentration of a hazardous waste at the point of waste origination shall be performed using direct measurement in accordance with the applicable requirements of Subsection R315-264-1083(a). The waste determination for a hazardous waste at the point of waste treatment shall be performed in accordance with the applicable requirements of Subsection R315-264-1083(b).

(2) In performing a waste determination pursuant to Subsection R315-264-1082(d)(1), the sample preparation and analysis shall be conducted as follows:

(i) In accordance with the method used by the owner or operator to perform the waste analysis, except in the case specified in Subsection R315-264-1082(d)(2)(ii).

(ii) If the Director determines that the method used by the owner or operator was not appropriate for the hazardous waste managed in the tank, surface impoundment, or container, then the Director may choose an appropriate method.

(3) In a case when the owner or operator is requested to perform the waste determination, the Director may elect to have an authorized representative observe the collection of the hazardous waste samples used for the analysis.

(4) In a case when the results of the waste determination performed or requested by the Director do not agree with the results of a waste determination performed by the owner or operator using knowledge of the waste, then the results of the waste determination performed in accordance with the requirements of Subsection R315-264-1082(d)(1) shall be used to establish compliance with the requirements of Sections R315-264-1080 through 1090.

(5) In a case when the owner or operator has used an averaging period greater than 1 hour for determining the average VO concentration of a hazardous waste at the point of waste origination, the Director may elect to establish compliance with Sections R315-264-1080 through 1090 by performing or requesting that the owner or operator perform a waste determination using direct measurement based on waste samples collected within a 1-hour period as follows:

(i) The average VO concentration of the hazardous waste at the point of waste origination shall be determined by direct measurement in accordance with the requirements of Subsection R315-264-1083(a).

(ii) Results of the waste determination performed or requested by the Director showing that the average VO concentration of the hazardous waste at the point of waste origination is equal to or greater than 500 ppmw shall constitute noncompliance with Sections R315-264-1080 through 1090 except in a case as provided for in Subsection R315-264-1082(d)(5)(iii).

(iii) For the case when the average VO concentration of the hazardous waste at the point of waste origination previously has been determined by the owner or operator using an averaging period greater than 1 hour to be less than 500 ppmw but because of normal operating process variations the VO concentration of the hazardous waste

determined by direct measurement for any given 1-hour period may be equal to or greater than 500 ppmw, information that was used by the owner or operator to determine the average VO concentration of the hazardous waste, e.g., test results, measurements, calculations, and other documentation, and recorded in the facility records in accordance with the requirements of Subsections R315-264-1083(a) and Section R315-264-1089 shall be considered by the Director together with the results of the waste determination performed or requested by the Director in establishing compliance with Sections R315-264-1080 through 1090.

R315-264-1083. Waste determination procedures.

(a) Waste determination procedure to determine average volatile organic (VO) concentration of a hazardous waste at the point of waste origination.

(1) An owner or operator shall determine the average VO concentration at the point of waste origination for each hazardous waste placed in a waste management unit exempted under the provisions of Subsection R315-264-1082(c)(1) from using air emission controls in accordance with standards specified in Sections R315-264-1084 through 1087, as applicable to the waste management unit.

(i) An initial determination of the average VO concentration of the waste stream shall be made before the first time any portion of the material in the hazardous waste stream is placed in a waste management unit exempted under the provisions of Subsection R315-264-1082(c)(1) from using air emission controls, and thereafter an initial determination of the average VO concentration of the waste stream shall be made for each averaging period that a hazardous waste is managed in the unit; and

(ii) Perform a new waste determination whenever changes to the source generating the waste stream are reasonably likely to cause the average VO concentration of the hazardous waste to increase to a level that is equal to or greater than the applicable VO concentration limits specified in Section R315-264-1082.

(2) For a waste determination that is required by Subsection R315-264-1083(a)(1), the average VO concentration of a hazardous waste at the point of waste origination shall be determined in accordance with the procedures specified in 40 CFR 265.1084(a)(2) through (a)(4), which are adopted by reference.

(b) Waste determination procedures for treated hazardous waste.

(1) An owner or operator shall perform the applicable waste determinations for each treated hazardous waste placed in waste management units exempted under the provisions of Subsections R315-264-1082(c)(2)(i) through (c)(2)(vi) from using air emission controls in accordance with standards specified in Sections R315-264-1084 through 1087, as applicable to the waste management unit.

(i) An initial determination of the average VO concentration of the waste stream shall be made before the first time any portion of the material in the treated waste stream is placed in the exempt waste management unit, and thereafter update the information used for the waste determination at least once every 12 months following the date of the initial waste determination; and

(ii) Perform a new waste determination whenever changes to the process generating or treating the waste stream are reasonably likely to cause the average VO concentration of the hazardous waste to increase to a level such that the applicable treatment conditions specified in Subsection R315-264-1082(c)(2) are not achieved.

(2) The waste determination for a treated hazardous waste shall be performed in accordance with the procedures specified in 40 CFR 265.1084(b)(2) through (b)(9), which are adopted by reference, as applicable to the treated hazardous waste.

(c) Procedure to determine the maximum organic vapor pressure of a hazardous waste in a tank.

(1) An owner or operator shall determine the maximum organic vapor pressure for each hazardous waste placed in a tank using Tank Level 1 controls in accordance with standards specified in Subsection R315-264-1084(c).

(2) The maximum organic vapor pressure of the hazardous waste may be determined in accordance with the procedures specified in 40 CFR 265.1084(c)(2) through (c)(4), which are adopted by reference.

(d) The procedure for determining no detectable organic emissions for the purpose of complying with Sections R315-264-1080 through 1090 shall be conducted in accordance with the procedures specified in 40 CFR 265.1084(d), which is adopted by reference.

R315-264-1084. Standards: Tanks.

(a) The provisions of Section R315-264-1084 apply to the control of air pollutant emissions from tanks for which Subsection R315-264-1082(b) references the use of Section R315-264-1084 for such air emission control.

(b) The owner or operator shall control air pollutant emissions from each tank subject to Section R315-264-1084 in accordance with the following requirements as applicable:

(1) For a tank that manages hazardous waste that meets all of the conditions specified in Subsections R315-264-1084(b)(1)(i) through (b)(1)(iii), the owner or operator shall control air pollutant emissions from the tank in accordance with the Tank Level 1 controls specified in Subsection R315-264-1084(c) or the Tank Level 2 controls specified in Subsection R315-264-1084(d).

(i) The hazardous waste in the tank has a maximum organic vapor pressure which is less than the maximum organic vapor pressure limit for the tank's design capacity category as follows:

(A) For a tank design capacity equal to or greater than 151 cubic meters, the maximum organic vapor pressure limit for the tank is 5.2 kPa.

(B) For a tank design capacity equal to or greater than 75 cubic meters but less than 151 cubic meters, the maximum organic vapor pressure limit for the tank is 27.6 kPa.

(C) For a tank design capacity less than 75 cubic meters, the maximum organic vapor pressure limit for the tank is 76.6 kPa.

(ii) The hazardous waste in the tank is not heated by the owner or operator to a temperature that is greater than the temperature at which the maximum organic vapor pressure of the hazardous waste is determined for the purpose of complying with Subsection R315-264-1084(b)(1)(i).

(iii) The hazardous waste in the tank is not treated by the owner or operator using a waste stabilization process, as defined in 40 CFR 265.1081, which is adopted by reference.

(2) For a tank that manages hazardous waste that does not meet all of the conditions specified in Subsections R315-264-1084(b)(1)(i) through (b)(1)(iii), the owner or operator shall control air pollutant emissions from the tank by using Tank Level 2 controls in accordance with the requirements of Subsection R315-264-1084(d). Examples of tanks required to use Tank Level 2 controls include: A tank

used for a waste stabilization process; and a tank for which the hazardous waste in the tank has a maximum organic vapor pressure that is equal to or greater than the maximum organic vapor pressure limit for the tank's design capacity category as specified in Subsection R315-264-1084(b)(1)(i).

(c) Owners and operators controlling air pollutant emissions from a tank using Tank Level 1 controls shall meet the requirements specified in Subsections R315-264-1084(c)(1) through (c)(4):

(1) The owner or operator shall determine the maximum organic vapor pressure for a hazardous waste to be managed in the tank using Tank Level 1 controls before the first time the hazardous waste is placed in the tank. The maximum organic vapor pressure shall be determined using the procedures specified in Subsection R315-264-1083(c). Thereafter, the owner or operator shall perform a new determination whenever changes to the hazardous waste managed in the tank could potentially cause the maximum organic vapor pressure to increase to a level that is equal to or greater than the maximum organic vapor pressure limit for the tank design capacity category specified in Subsection R315-264-1084(b)(1)(i), as applicable to the tank.

(2) The tank shall be equipped with a fixed roof designed to meet the following specifications:

(i) The fixed roof and its closure devices shall be designed to form a continuous barrier over the entire surface area of the hazardous waste in the tank. The fixed roof may be a separate cover installed on the tank, e.g., a removable cover mounted on an open-top tank, or may be an integral part of the tank structural design, e.g., a horizontal cylindrical tank equipped with a hatch.

(ii) The fixed roof shall be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between roof section joints or between the interface of the roof edge and the tank wall.

(iii) Each opening in the fixed roof, and any manifold system associated with the fixed roof, shall be either:

(A) Equipped with a closure device designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the opening and the closure device; or

(B) Connected by a closed-vent system that is vented to a control device. The control device shall remove or destroy organics in the vent stream, and shall be operating whenever hazardous waste is managed in the tank, except as provided for in Subsection R315-264-1084(c)(2)(iii)(B)(I) and (II).

(I) During periods when it is necessary to provide access to the tank for performing the activities of Subsection R315-264-1084(c)(2)(iii)(B)(II), venting of the vapor headspace underneath the fixed roof to the control device is not required, opening of closure devices is allowed, and removal of the fixed roof is allowed. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, and resume operation of the control device.

(II) During periods of routine inspection, maintenance, or other activities needed for normal operations, and for removal of accumulated sludge or other residues from the bottom of the tank.

(iv) The fixed roof and its closure devices shall be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices shall include: Organic vapor permeability, the effects of any contact with the hazardous waste or its vapors managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.

(3) Whenever a hazardous waste is in the tank, the fixed roof shall be installed with each closure device secured in the closed position except as follows:

(i) Opening of closure devices or removal of the fixed roof is allowed at the following times:

(A) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly

secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.

(B) To remove accumulated sludge or other residues from the bottom of tank.

(ii) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the tank internal pressure in accordance with the tank design specifications. The device shall be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the tank internal pressure is within the internal pressure operating range determined by the owner or operator based on the tank manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the tank internal pressure exceeds the internal pressure operating range for the tank as a result of loading operations or diurnal ambient temperature fluctuations.

(iii) Opening of a safety device, as defined in 40 CFR 265.1081, which is adopted by reference, is allowed at any time conditions require doing so to avoid an unsafe condition.

(4) The owner or operator shall inspect the air emission control equipment in accordance with the following requirements.

(i) The fixed roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(ii) The owner or operator shall perform an initial inspection of the fixed roof and its closure devices on or before the date that the tank becomes subject to Section R315-264-1084. Thereafter, the owner or operator shall

perform the inspections at least once every year except under the special conditions provided for in Subsection R315-264-1084(l).

(iii) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-264-1084(k).

(iv) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Subsection R315-264-1089(b).

(d) Owners and operators controlling air pollutant emissions from a tank using Tank Level 2 controls shall use one of the following tanks:

(1) A fixed-roof tank equipped with an internal floating roof in accordance with the requirements specified in Subsection R315-264-1084(e);

(2) A tank equipped with an external floating roof in accordance with the requirements specified in Subsection R315-264-1084(f)

(3) A tank vented through a closed-vent system to a control device in accordance with the requirements specified in Subsection R315-264-1084(g);

(4) A pressure tank designed and operated in accordance with the requirements specified in Subsection R315-264-1084(h); or

(5) A tank located inside an enclosure that is vented through a closed-vent system to an enclosed combustion control device in accordance with the requirements specified in Subsection R315-264-1084(i).

(e) The owner or operator who controls air pollutant emissions from a tank using a fixed roof with an internal floating roof shall meet the requirements specified in Subsections R315-264-1084(e)(1) through (e)(3).

(1) The tank shall be equipped with a fixed roof and an internal floating roof in accordance with the following requirements:

(i) The internal floating roof shall be designed to float on the liquid surface except when the floating roof shall be supported by the leg supports.

(ii) The internal floating roof shall be equipped with a continuous seal between the wall of the tank and the floating roof edge that meets either of the following requirements:

(A) A single continuous seal that is either a liquid-mounted seal or a metallic shoe seal, as defined in 40 CFR 265.1081, which is adopted by reference; or

(B) Two continuous seals mounted one above the other. The lower seal may be a vapor-mounted seal.

(iii) The internal floating roof shall meet the following specifications:

(A) Each opening in a noncontact internal floating roof except for automatic bleeder vents, vacuum breaker vents, and the rim space vents is to provide a projection below the liquid surface.

(B) Each opening in the internal floating roof shall be equipped with a gasketed cover or a gasketed lid except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains.

(C) Each penetration of the internal floating roof for the purpose of sampling shall have a slit fabric cover that covers at least 90 percent of the opening.

(D) Each automatic bleeder vent and rim space vent shall be gasketed.

(E) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

(F) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

(2) The owner or operator shall operate the tank in accordance with the following requirements:

(i) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be completed as soon as practical.

(ii) Automatic bleeder vents are to be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports.

(iii) Prior to filling the tank, each cover, access hatch, gauge float well or lid on any opening in the internal floating roof shall be bolted or fastened closed, i.e., no visible gaps. Rim space vents are to be set to open only when the internal floating roof is not floating or when the pressure beneath the rim exceeds the manufacturer's recommended setting.

(3) The owner or operator shall inspect the internal floating roof in accordance with the procedures specified as follows:

(i) The floating roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to: The internal floating roof is not floating on the surface of the liquid inside the tank; liquid has accumulated on top of the internal floating roof; any portion of the roof seals have detached from the roof rim; holes, tears, or other openings are visible in the seal fabric; the gaskets no longer close off the hazardous waste surface from the atmosphere; or the slotted membrane has more than 10 percent open area.

(ii) The owner or operator shall inspect the internal floating roof components as follows except as provided in Subsection R315-264-1084(e)(3)(iii):

(A) Visually inspect the internal floating roof components through openings on the fixed-roof, e.g., manholes and roof hatches, at least once every 12 months after initial fill, and

(B) Visually inspect the internal floating roof, primary seal, secondary seal, if one is in service, gaskets, slotted membranes, and sleeve seals, if any, each time the tank is emptied and degassed and at least every 10 years.

(iii) As an alternative to performing the inspections specified in Subsection R315-264-1084(e)(3)(ii) for an internal floating roof equipped with two continuous seals mounted one above the other, the owner or operator may visually inspect the internal floating roof, primary and secondary seals, gaskets, slotted membranes, and sleeve seals, if any, each time the tank is emptied and degassed and at least every 5 years.

(iv) Prior to each inspection required by Subsections R315-264-1084(e)(3)(ii) or (e)(3)(iii), the owner or operator shall notify the Director in advance of each inspection to provide the Director with the opportunity to have an observer present during the inspection. The owner or operator shall notify the Director of the date and location of the inspection as follows:

(A) Prior to each visual inspection of an internal floating roof in a tank that has been emptied and degassed, written notification shall be prepared and sent by the owner or operator so that it is received by the Director at least 30 calendar days before refilling the tank except when an inspection is not planned as provided for in Subsection R315-264-1084(e)(3)(iv)(B).

(B) When a visual inspection is not planned and the owner or operator could not have known about the inspection 30 calendar days before refilling the tank, the owner or operator shall notify the Director as soon as possible, but no later than 7 calendar days before refilling of the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the Director at least 7 calendar days before refilling the tank.

(v) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-264-1084(k).

(vi) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Subsection R315-264-1089(b).

(4) Safety devices, as defined in 40 CFR 265.1081, which is adopted by reference, may be installed and operated as necessary on any tank complying with the requirements of Subsection R315-264-1084(e).

(f) The owner or operator who controls air pollutant emissions from a tank using an external floating roof shall meet the requirements specified in Subsections R315-264-1084(f)(1) through (f)(3).

(1) The owner or operator shall design the external floating roof in accordance with the following requirements:

(i) The external floating roof shall be designed to float on the liquid surface except when the floating roof shall be supported by the leg supports.

(ii) The floating roof shall be equipped with two continuous seals, one above the other, between the wall of the tank and the roof edge. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.

(A) The primary seal shall be a liquid-mounted seal or a metallic shoe seal, as defined in 40 CFR 265.1081, which is adopted by reference. The total area of the gaps between the tank wall and the primary seal shall not exceed 212 square centimeters per meter of tank diameter, and the width of any portion of these gaps shall not exceed 3.8 centimeters. If a metallic shoe seal is used for the primary seal, the metallic shoe seal shall be designed so that one end extends into the liquid in the tank and the

other end extends a vertical distance of at least 61 centimeters above the liquid surface.

(B) The secondary seal shall be mounted above the primary seal and cover the annular space between the floating roof and the wall of the tank. The total area of the gaps between the tank wall and the secondary seal shall not exceed 21.2 square centimeters per meter of tank diameter, and the width of any portion of these gaps shall not exceed 1.3 centimeters.

(iii) The external floating roof shall meet the following specifications:

(A) Except for automatic bleeder vents, vacuum breaker vents, and rim space vents, each opening in a noncontact external floating roof shall provide a projection below the liquid surface.

(B) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof shall be equipped with a gasketed cover, seal, or lid.

(C) Each access hatch and each gauge float well shall be equipped with a cover designed to be bolted or fastened when the cover is secured in the closed position.

(D) Each automatic bleeder vent and each rim space vent shall be equipped with a gasket.

(E) Each roof drain that empties into the liquid managed in the tank shall be equipped with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.

(F) Each unslotted and slotted guide pole well shall be equipped with a gasketed sliding cover or a flexible fabric sleeve seal.

(G) Each unslotted guide pole shall be equipped with a gasketed cap on the end of the pole.

(H) Each slotted guide pole shall be equipped with a gasketed float or other device which closes off the liquid surface from the atmosphere.

(I) Each gauge hatch and each sample well shall be equipped with a gasketed cover.

(2) The owner or operator shall operate the tank in accordance with the following requirements:

(i) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be completed as soon as practical.

(ii) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the

roof shall be secured and maintained in a closed position at all times except when the closure device shall be open for access.

(iii) Covers on each access hatch and each gauge float well shall be bolted or fastened when secured in the closed position.

(iv) Automatic bleeder vents shall be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports.

(v) Rim space vents shall be set to open only at those times that the roof is being floated off the roof leg supports or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.

(vi) The cap on the end of each unslotted guide pole shall be secured in the closed position at all times except when measuring the level or collecting samples of the liquid in the tank.

(vii) The cover on each gauge hatch or sample well shall be secured in the closed position at all times except when the hatch or well shall be opened for access.

(viii) Both the primary seal and the secondary seal shall completely cover the annular space between the external floating roof and the wall of the tank in a continuous fashion except during inspections.

(3) The owner or operator shall inspect the external floating roof in accordance with the procedures specified as follows:

(i) The owner or operator shall measure the external floating roof seal gaps in accordance with the following requirements:

(A) The owner or operator shall perform measurements of gaps between the tank wall and the primary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every 5 years.

(B) The owner or operator shall perform measurements of gaps between the tank wall and the secondary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every year.

(C) If a tank ceases to hold hazardous waste for a period of 1 year or more, subsequent introduction of hazardous waste into the tank shall be considered an

initial operation for the purposes of Subsections R315-264-1084(f)(3)(i)(A) and (f)(3)(i)(B).

(D) The owner or operator shall determine the total surface area of gaps in the primary seal and in the secondary seal individually using the following procedure:

(1) The seal gap measurements shall be performed at one or more floating roof levels when the roof is floating off the roof supports.

(2) Seal gaps, if any, shall be measured around the entire perimeter of the floating roof in each place where a 0.32-centimeter diameter uniform probe passes freely, without forcing or binding against the seal, between the seal and the wall of the tank and measure the circumferential distance of each such location.

(3) For a seal gap measured under Subsection R315-264-1084(f)(3), the gap surface area shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(4) The total gap area shall be calculated by adding the gap surface areas determined for each identified gap location for the primary seal and the secondary seal individually, and then dividing the sum for each seal type by the nominal diameter of the tank. These total gap areas for the primary seal and secondary seal are then compared to the respective standards for the seal type as specified in Subsection R315-264-1084(f)(1)(ii).

(E) In the event that the seal gap measurements do not conform to the specifications in Subsection R315-264-1084(f)(1)(ii), the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-264-1084(k).

(F) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Subsection R315-264-1089(b).

(ii) The owner or operator shall visually inspect the external floating roof in accordance with the following requirements:

(A) The floating roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to: Holes, tears, or other openings in the rim seal or seal fabric of the floating roof; a rim seal detached from the floating roof;

all or a portion of the floating roof deck being submerged below the surface of the liquid in the tank; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(B) The owner or operator shall perform an initial inspection of the external floating roof and its closure devices on or before the date that the tank becomes subject to Section R315-264-1084. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in Subsection R315-264-1084(l).

(C) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-264-1084(k).

(D) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Subsection R315-264-1089(b).

(iii) Prior to each inspection required by Subsections R315-264-1084(f)(3)(i) or (f)(3)(ii), the owner or operator shall notify the Director in advance of each inspection to provide the Director with the opportunity to have an observer present during the inspection. The owner or operator shall notify the Director of the date and location of the inspection as follows:

(A) Prior to each inspection to measure external floating roof seal gaps as required under Subsection R315-264-1084(f)(3)(i), written notification shall be prepared and sent by the owner or operator so that it is received by the Director at least 30 calendar days before the date the measurements are scheduled to be performed.

(B) Prior to each visual inspection of an external floating roof in a tank that has been emptied and degassed, written notification shall be prepared and sent by the owner or operator so that it is received by the Director at least 30 calendar days before refilling the tank except when an inspection is not planned as provided for in Subsection R315-264-1084(f)(3)(iii)(C).

(C) When a visual inspection is not planned and the owner or operator could not have known about the inspection 30 calendar days before refilling the tank, the owner or operator shall notify the Director as soon as possible, but no later than 7 calendar days before refilling of the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is

unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the Director at least 7 calendar days before refilling the tank.

(4) Safety devices, as defined in 40 CFR 265.1081, which is adopted by reference, may be installed and operated as necessary on any tank complying with the requirements of Subsection R315-264-1084(f).

(g) The owner or operator who controls air pollutant emissions from a tank by venting the tank to a control device shall meet the requirements specified in Subsections R315-264-1084(g)(1) through (g)(3).

(1) The tank shall be covered by a fixed roof and vented directly through a closed-vent system to a control device in accordance with the following requirements:

(i) The fixed roof and its closure devices shall be designed to form a continuous barrier over the entire surface area of the liquid in the tank.

(ii) Each opening in the fixed roof not vented to the control device shall be equipped with a closure device. If the pressure in the vapor headspace underneath the fixed roof is less than atmospheric pressure when the control device is operating, the closure devices shall be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the fixed roof is equal to or greater than atmospheric pressure when the control device is operating, the closure device shall be designed to operate with no detectable organic emissions.

(iii) The fixed roof and its closure devices shall be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices shall include: Organic vapor permeability, the effects of any contact with the liquid and its vapor managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.

(iv) The closed-vent system and control device shall be designed and operated in accordance with the requirements of Section R315-264-1087.

(2) Whenever a hazardous waste is in the tank, the fixed roof shall be installed with each closure device secured in the closed position and the vapor headspace underneath the fixed roof vented to the control device except as follows:

(i) Venting to the control device is not required, and opening of closure devices or removal of the fixed roof is allowed at the following times:

(A) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.

(B) To remove accumulated sludge or other residues from the bottom of a tank.

(ii) Opening of a safety device, as defined in 40 CFR 265.1081, which is adopted by reference, is allowed at any time conditions require doing so to avoid an unsafe condition.

(3) The owner or operator shall inspect and monitor the air emission control equipment in accordance with the following procedures:

(i) The fixed roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(ii) The closed-vent system and control device shall be inspected and monitored by the owner or operator in accordance with the procedures specified in Section R315-264-1087.

(iii) The owner or operator shall perform an initial inspection of the air emission control equipment on or before the date that the tank becomes subject to Section R315-264-1084. Thereafter, the owner or operator shall

perform the inspections at least once every year except for the special conditions provided for in Subsection R315-264-1084(l).

(iv) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-264-1084(k).

(v) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Subsection R315-264-1089(b).

(h) The owner or operator who controls air pollutant emissions by using a pressure tank shall meet the following requirements.

(1) The tank shall be designed not to vent to the atmosphere as a result of compression of the vapor headspace in the tank during filling of the tank to its design capacity.

(2) All tank openings shall be equipped with closure devices designed to operate with no detectable organic emissions as determined using the procedure specified in Subsection R315-264-1083(d).

(3) Whenever a hazardous waste is in the tank, the tank shall be operated as a closed system that does not vent to the atmosphere except under either or the following conditions as specified in Subsections R315-264-1084(h)(3)(i) or (h)(3)(ii).

(i) At those times when opening of a safety device, as defined in 40 CFR 265.1081, which is adopted by reference, is required to avoid an unsafe condition.

(ii) At those times when purging of inerts from the tank is required and the purge stream is routed to a closed-vent system and control device designed and operated in accordance with the requirements of Section R315-264-1087.

(i) The owner or operator who controls air pollutant emissions by using an enclosure vented through a closed-vent system to an enclosed combustion control device shall meet the requirements specified in Subsections R315-264-1084(i)(1) through (i)(4).

(1) The tank shall be located inside an enclosure. The enclosure shall be designed and operated in accordance with the criteria for a permanent total enclosure as specified in “Procedure T-Criteria for and Verification of a Permanent or Temporary Total Enclosure” under 40 CFR 52.741, appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of

material into or out of the enclosure by conveyor, vehicles, or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure as specified in Section 5.0 to “Procedure T-Criteria for and Verification of a Permanent or Temporary Total Enclosure” initially when the enclosure is first installed and, thereafter, annually.

(2) The enclosure shall be vented through a closed-vent system to an enclosed combustion control device that is designed and operated in accordance with the standards for either a vapor incinerator, boiler, or process heater specified in Section R315-264-1087.

(3) Safety devices, as defined in 40 CFR 265.1081, which is adopted by reference, may be installed and operated as necessary on any enclosure, closed-vent system, or control device used to comply with the requirements of Subsections R315-264-1084(i)(1) and (i)(2).

(4) The owner or operator shall inspect and monitor the closed-vent system and control device as specified in Section R315-264-1087.

(j) The owner or operator shall transfer hazardous waste to a tank subject to Section R315-264-1084 in accordance with the following requirements:

(1) Transfer of hazardous waste, except as provided in Subsection R315-264-1084(j)(2), to the tank from another tank subject to Section R315-264-1084 or from a surface impoundment subject to Section R315-264-1085 shall be conducted using continuous hard-piping or another closed system that does not allow exposure of the hazardous waste to the atmosphere. For the purpose of complying with this provision, an individual drain system is considered to be a closed system when it meets the requirements of Subsection R307-214-2(29), which incorporates 40 CFR part 63, subpart RR-National Emission Standards for Individual Drain Systems.

(2) The requirements of Subsection R315-264-1084(j)(1) do not apply when transferring a hazardous waste to the tank under any of the following conditions:

(i) The hazardous waste meets the average VO concentration conditions specified in Subsection R315-264-1082(c)(1) at the point of waste origination.

(ii) The hazardous waste has been treated by an organic destruction or removal process to meet the requirements in Subsection R315-264-1082(c)(2).

(iii) The hazardous waste meets the requirements of Subsection R315-264-1082(c)(4).

(k) The owner or operator shall repair each defect detected during an inspection performed in accordance with the requirements of Subsections R315-264-1084(c)(4), (e)(3), (f)(3), or (g)(3) as follows:

(1) The owner or operator shall make first efforts at repair of the defect no later than 5 calendar days after detection, and repair shall be completed as soon as possible but no later than 45 calendar days after detection except as provided in Subsection R315-264-1084(k)(2).

(2) Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the tank and no alternative tank capacity is available at the site to accept the hazardous waste normally managed in the tank. In this case, the owner or operator shall repair the defect the next time the process or unit that is generating the hazardous waste managed in the tank stops operation. Repair of the defect shall be completed before the process or unit resumes operation.

(l) Following the initial inspection and monitoring of the cover as required by the applicable provisions of Sections R315-264-1080 through 1090, subsequent inspection and monitoring may be performed at intervals longer than 1 year under the following special conditions:

(1) In the case when inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions, then the owner or operator may designate a cover as an “unsafe to inspect and monitor cover” and comply with all of the following requirements:

(i) Prepare a written explanation for the cover stating the reasons why the cover is unsafe to visually inspect or to monitor, if required.

(ii) Develop and implement a written plan and schedule to inspect and monitor the cover, using the procedures specified in the applicable section of Sections R315-264-1080 through 1090, as frequently as practicable during those times when a worker can safely access the cover.

(2) In the case when a tank is buried partially or entirely underground, an owner or operator is required to inspect and monitor, as required by the applicable provisions of Section R315-264-1084, only those portions of the tank cover and those connections to the tank, e.g.,

fill ports, access hatches, gauge wells, etc., that are located on or above the ground surface.

R315-264-1085. Standards: Surface impoundments.

(a) The provisions of Section R315-264-1085 apply to the control of air pollutant emissions from surface impoundments for which Subsection R315-264-1082(b) references the use of Section R315-264-1085 for such air emission control.

(b) The owner or operator shall control air pollutant emissions from the surface impoundment by installing and operating either of the following:

(1) A floating membrane cover in accordance with the provisions specified in Subsection R315-264-1085(c); or

(2) A cover that is vented through a closed-vent system to a control device in accordance with the provisions specified in Subsection R315-264-1085(d).

(c) The owner or operator who controls air pollutant emissions from a surface impoundment using a floating membrane cover shall meet the requirements specified in Subsections R315-264-1085(c)(1) through (c)(3).

(1) The surface impoundment shall be equipped with a floating membrane cover designed to meet the following specifications:

(i) The floating membrane cover shall be designed to float on the liquid surface during normal operations and form a continuous barrier over the entire surface area of the liquid.

(ii) The cover shall be fabricated from a synthetic membrane material that is either:

(A) High density polyethylene (HDPE) with a thickness no less than 2.5 millimeters; or

(B) A material or a composite of different materials determined to have both organic permeability properties that are equivalent to those of the material listed in Subsection R315-264-1085(c)(1)(ii)(A) and chemical and physical properties that maintain the material integrity for the intended service life of the material.

(iii) The cover shall be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between cover section seams or between the interface of the cover edge and its foundation mountings.

(iv) Except as provided for in Subsection R315-264-1085(c)(1)(v), each opening in the floating membrane cover shall be equipped with a closure device designed to operate

such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device.

(v) The floating membrane cover may be equipped with one or more emergency cover drains for removal of stormwater. Each emergency cover drain shall be equipped with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening or a flexible fabric sleeve seal.

(vi) The closure devices shall be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the closure devices throughout their intended service life. Factors to be considered when selecting the materials of construction and designing the cover and closure devices shall include: Organic vapor permeability; the effects of any contact with the liquid and its vapor managed in the surface impoundment; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the surface impoundment on which the floating membrane cover is installed.

(2) Whenever a hazardous waste is in the surface impoundment, the floating membrane cover shall float on the liquid and each closure device shall be secured in the closed position except as follows:

(i) Opening of closure devices or removal of the cover is allowed at the following times:

(A) To provide access to the surface impoundment for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the surface impoundment, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly replace the cover and secure the closure device in the closed position, as applicable.

(B) To remove accumulated sludge or other residues from the bottom of surface impoundment.

(ii) Opening of a safety device, as defined in 40 CFR 265.1081, which is adopted by reference, is allowed at any time conditions require doing so to avoid an unsafe condition.

(3) The owner or operator shall inspect the floating membrane cover in accordance with the following procedures:

(i) The floating membrane cover and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover section seams or between the interface of the cover edge and its foundation mountings; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(ii) The owner or operator shall perform an initial inspection of the floating membrane cover and its closure devices on or before the date that the surface impoundment becomes subject to Section R315-264-1085. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in Subsection R315-264-1085(g).

(iii) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-264-1085(f).

(iv) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Subsection R315-264-1089(c).

(d) The owner or operator who controls air pollutant emissions from a surface impoundment using a cover vented to a control device shall meet the requirements specified in Subsections R315-264-1085(d)(1) through (d)(3).

(1) The surface impoundment shall be covered by a cover and vented directly through a closed-vent system to a control device in accordance with the following requirements:

(i) The cover and its closure devices shall be designed to form a continuous barrier over the entire surface area of the liquid in the surface impoundment.

(ii) Each opening in the cover not vented to the control device shall be equipped with a closure device. If the pressure in the vapor headspace underneath the cover is less than atmospheric pressure when the control device is operating, the closure devices shall be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the cover is

equal to or greater than atmospheric pressure when the control device is operating, the closure device shall be designed to operate with no detectable organic emissions using the procedure specified in Subsection R315-264-1083(d).

(iii) The cover and its closure devices shall be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the cover and closure devices throughout their intended service life. Factors to be considered when selecting the materials of construction and designing the cover and closure devices shall include: Organic vapor permeability; the effects of any contact with the liquid or its vapors managed in the surface impoundment; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the surface impoundment on which the cover is installed.

(iv) The closed-vent system and control device shall be designed and operated in accordance with the requirements of Section R315-264-1087.

(2) Whenever a hazardous waste is in the surface impoundment, the cover shall be installed with each closure device secured in the closed position and the vapor headspace underneath the cover vented to the control device except as follows:

(i) Venting to the control device is not required, and opening of closure devices or removal of the cover is allowed at the following times:

(A) To provide access to the surface impoundment for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the surface impoundment, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the surface impoundment.

(B) To remove accumulated sludge or other residues from the bottom of the surface impoundment.

(ii) Opening of a safety device, as defined in 40 CFR 265.1081, which is adopted by reference, is allowed at any time conditions require doing so to avoid an unsafe condition.

(3) The owner or operator shall inspect and monitor the air emission control equipment in accordance with the following procedures:

(i) The surface impoundment cover and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover section seams or between the interface of the cover edge and its foundation mountings; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(ii) The closed-vent system and control device shall be inspected and monitored by the owner or operator in accordance with the procedures specified in Section R315-264-1087.

(iii) The owner or operator shall perform an initial inspection of the air emission control equipment on or before the date that the surface impoundment becomes subject to Section R315-264-1085. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in Subsection R315-264-1085(g).

(iv) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-264-1085(f).

(v) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Subsection R315-264-1089(c).

(e) The owner or operator shall transfer hazardous waste to a surface impoundment subject to Section R315-264-1085 in accordance with the following requirements:

(1) Transfer of hazardous waste, except as provided in Subsection R315-264-1085(e)(2), to the surface impoundment from another surface impoundment subject to Section R315-264-1085 or from a tank subject to Section R315-264-1084 shall be conducted using continuous hard-piping or another closed system that does not allow exposure of the waste to the atmosphere. For the purpose of complying with this provision, an individual drain system is considered to be a closed system when it meets the requirements of Subsection R307-214-2(29), which incorporates 40 CFR part 63, subpart RR-National Emission Standards for Individual Drain Systems.

(2) The requirements of Subsection R315-264-1085(e)(1) do not apply when transferring a hazardous waste to the surface impoundment under either of the following conditions:

(i) The hazardous waste meets the average VO concentration conditions specified in Subsection R315-264-1082(c)(1) at the point of waste origination.

(ii) The hazardous waste has been treated by an organic destruction or removal process to meet the requirements in Subsection R315-264-1082(c)(2).

(iii) The hazardous waste meets the requirements of Subsection R315-264-1082(c)(4).

(f) The owner or operator shall repair each defect detected during an inspection performed in accordance with the requirements of Subsections R315-264-1085(c)(3) or (d)(3) as follows:

(1) The owner or operator shall make first efforts at repair of the defect no later than 5 calendar days after detection and repair shall be completed as soon as possible but no later than 45 calendar days after detection except as provided in Subsection R315-264-1085(f)(2).

(2) Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the surface impoundment and no alternative capacity is available at the site to accept the hazardous waste normally managed in the surface impoundment. In this case, the owner or operator shall repair the defect the next time the process or unit that is generating the hazardous waste managed in the surface impoundment stops operation. Repair of the defect shall be completed before the process or unit resumes operation.

(g) Following the initial inspection and monitoring of the cover as required by the applicable provisions of Sections R315-264-1080 through 1090, subsequent inspection and monitoring may be performed at intervals longer than 1 year in the case when inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions. In this case, the owner or operator may designate the cover as an “unsafe to inspect and monitor cover” and comply with all of the following requirements:

(1) Prepare a written explanation for the cover stating the reasons why the cover is unsafe to visually inspect or to monitor, if required.

(2) Develop and implement a written plan and schedule to inspect and monitor the cover using the procedures specified in the applicable section of Sections R315-264-1080 through 1090 as frequently as practicable during those times when a worker can safely access the cover.

R315-264-1086. Standards: Containers.

(a) The provisions of Section R315-264-1086 apply to the control of air pollutant emissions from containers for which Subsection R315-264-1082(b) references the use of Section R315-264-1086 for such air emission control.

(b) General requirements.

(1) The owner or operator shall control air pollutant emissions from each container subject to Section R315-264-1086 in accordance with the following requirements, as applicable to the container, except when the special provisions for waste stabilization processes specified in Subsection R315-264-1086(b)(2) apply to the container.

(i) For a container having a design capacity greater than 0.1 cubic meters and less than or equal to 0.46 cubic meters, the owner or operator shall control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in Subsection R315-264-1086(c).

(ii) For a container having a design capacity greater than 0.46 cubic meters that is not in light material service, the owner or operator shall control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in Subsection R315-264-1086(c).

(iii) For a container having a design capacity greater than 0.46 cubic meters that is in light material service, the owner or operator shall control air pollutant emissions from the container in accordance with the Container Level 2 standards specified in Subsection R315-264-1086(d).

(2) When a container having a design capacity greater than 0.1 cubic meters is used for treatment of a hazardous waste by a waste stabilization process, the owner or operator shall control air pollutant emissions from the container in accordance with the Container Level 3 standards specified in Subsection R315-264-1086(e) at those times during the waste stabilization process when the hazardous waste in the container is exposed to the atmosphere.

(c) Container Level 1 standards.

(1) A container using Container Level 1 controls is one of the following:

(i) A container that meets the applicable U.S. Department of Transportation (DOT) regulations on packaging hazardous materials for transportation as specified in Subsection R315-264-1086(f).

(ii) A container equipped with a cover and closure devices that form a continuous barrier over the container openings such that when the cover and closure devices are secured in the closed position there are no visible holes, gaps, or other open spaces into the interior of the container. The cover may be a separate cover installed on the container, e.g., a lid on a drum or a suitably secured tarp on a roll-off box, or may be an integral part of the container structural design, e.g., a “portable tank” or bulk cargo container equipped with a screw-type cap.

(iii) An open-top container in which an organic-vapor suppressing barrier is placed on or over the hazardous waste in the container such that no hazardous waste is exposed to the atmosphere. One example of such a barrier is application of a suitable organic-vapor suppressing foam.

(2) A container used to meet the requirements of Subsections R315-264-1086(c)(1)(ii) or (c)(1)(iii) shall be equipped with covers and closure devices, as applicable to the container, that are composed of suitable materials to minimize exposure of the hazardous waste to the atmosphere and to maintain the equipment integrity, for as long as the container is in service. Factors to be considered in selecting the materials of construction and designing the cover and closure devices shall include: Organic vapor permeability; the effects of contact with the hazardous waste or its vapor managed in the container; the effects of outdoor exposure of the closure device or cover material to wind, moisture, and sunlight; and the operating practices for which the container is intended to be used.

(3) Whenever a hazardous waste is in a container using Container Level 1 controls, the owner or operator shall install all covers and closure devices for the container, as applicable to the container, and secure and maintain each closure device in the closed position except as follows:

(i) Opening of a closure device or cover is allowed for the purpose of adding hazardous waste or other material to the container as follows:

(A) In the case when the container is filled to the intended final level in one continuous operation, the owner or operator shall promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.

(B) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first.

(ii) Opening of a closure device or cover is allowed for the purpose of removing hazardous waste from the container as follows:

(A) For the purpose of meeting the requirements of Section R315-264-1086, an empty container as defined in Subsection R315-261-7(b) may be open to the atmosphere at any time, i.e., covers and closure devices are not required to be secured in the closed position on an empty container.

(B) In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container as defined in Subsection R315-261-7(b), the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

(iii) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous waste. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the owner or operator shall promptly secure the closure device

in the closed position or reinstall the cover, as applicable to the container.

(iv) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications. The device shall be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the internal pressure of the container is within the internal pressure operating range determined by the owner or operator based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.

(v) Opening of a safety device, as defined in 40 CFR 265.1081, which is adopted by reference, is allowed at any time conditions require doing so to avoid an unsafe condition.

(4) The owner or operator of containers using Container Level 1 controls shall inspect the containers and their covers and closure devices as follows:

(i) In the case when a hazardous waste already is in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility, i.e., does not meet the conditions for an empty container as specified in Subsection R315-261-7(b), the owner or operator shall visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The container visual inspection shall be conducted on or before the date that the container is

accepted at the facility, i.e., the date the container becomes subject to container standards of Sections R315-264-1080 through 1090. For purposes of this requirement, the date of acceptance is the date of signature that the facility owner or operator enters on Item 20 of the Uniform Hazardous Waste Manifest in the appendix to Rule R315-262 (EPA Forms 8700-22 and 8700-22A), as required under Section R315-264-71. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-264-1086(c)(4)(iii).

(ii) In the case when a container used for managing hazardous waste remains at the facility for a period of 1 year or more, the owner or operator shall visually inspect the container and its cover and closure devices initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-264-1086(c)(4)(iii).

(iii) When a defect is detected for the container, cover, or closure devices, the owner or operator shall make first efforts at repair of the defect no later than 24 hours after detection and repair shall be completed as soon as possible but no later than 5 calendar days after detection. If repair of a defect cannot be completed within 5 calendar days, then the hazardous waste shall be removed from the container and the container shall not be used to manage hazardous waste until the defect is repaired.

(5) The owner or operator shall maintain at the facility a copy of the procedure used to determine that containers with capacity of 0.46 cubic meters or greater, which do not meet applicable DOT regulations as specified in Subsection R315-264-1086(f), are not managing hazardous waste in light material service.

(d) Container Level 2 standards.

(1) A container using Container Level 2 controls is one of the following:

(i) A container that meets the applicable U.S. Department of Transportation (DOT) regulations on packaging hazardous materials for transportation as specified in Subsection R315-264-1086(f).

(ii) A container that operates with no detectable organic emissions as defined in 40 CFR 265.1081, which is

adopted by reference, and determined in accordance with the procedure specified in Subsection R315-264-1086(g).

(iii) A container that has been demonstrated within the preceding 12 months to be vapor-tight by using 40 CFR part 60, appendix A, Method 27 in accordance with the procedure specified in Subsection R315-264-1086(h).

(2) Transfer of hazardous waste in or out of a container using Container Level 2 controls shall be conducted in such a manner as to minimize exposure of the hazardous waste to the atmosphere, to the extent practical, considering the physical properties of the hazardous waste and good engineering and safety practices for handling flammable, ignitable, explosive, reactive, or other hazardous materials. Examples of container loading procedures that the Director considers to meet the requirements of Subsection R315-264-1086(d) include using any one of the following: A submerged-fill pipe or other submerged-fill method to load liquids into the container; a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or a fitted opening in the top of a container through which the hazardous waste is filled and subsequently purging the transfer line before removing it from the container opening.

(3) Whenever a hazardous waste is in a container using Container Level 2 controls, the owner or operator shall install all covers and closure devices for the container, and secure and maintain each closure device in the closed position except as follows:

(i) Opening of a closure device or cover is allowed for the purpose of adding hazardous waste or other material to the container as follows:

(A) In the case when the container is filled to the intended final level in one continuous operation, the owner or operator shall promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.

(B) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes;

the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first.

(ii) Opening of a closure device or cover is allowed for the purpose of removing hazardous waste from the container as follows:

(A) For the purpose of meeting the requirements of Section R315-264-1086, an empty container as defined in Subsection R315-261-7(b) may be open to the atmosphere at any time, i.e., covers and closure devices are not required to be secured in the closed position on an empty container.

(B) In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container as defined in Subsection R315-261-7(b), the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

(iii) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous waste. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.

(iv) Opening of a spring-loaded, pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications. The device shall be designed to operate with no detectable organic emission when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the internal pressure of the container is

within the internal pressure operating range determined by the owner or operator based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.

(v) Opening of a safety device, as defined in 40 CFR 265.1081, which is adopted by reference, is allowed at any time conditions require doing so to avoid an unsafe condition.

(4) The owner or operator of containers using Container Level 2 controls shall inspect the containers and their covers and closure devices as follows:

(i) In the case when a hazardous waste already is in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility, i.e., does not meet the conditions for an empty container as specified in Subsection R35- 261-7(b), the owner or operator shall visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The container visual inspection shall be conducted on or before the date that the container is accepted at the facility, i.e., the date the container becomes subject to the container standards of Sections R315-264-1080 through. For purposes of this requirement, the date of acceptance is the date of signature that the facility owner or operator enters on Item 20 of the Uniform Hazardous Waste Manifest in the appendix to Rule R315-262 (EPA Forms 8700-22 and 8700-22A), as required under Section R315-264-71. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-264-1086(d)(4)(iii).

(ii) In the case when a container used for managing hazardous waste remains at the facility for a period of 1 year or more, the owner or operator shall visually inspect

the container and its cover and closure devices initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-264-1086(d)(4)(iii).

(iii) When a defect is detected for the container, cover, or closure devices, the owner or operator shall make first efforts at repair of the defect no later than 24 hours after detection, and repair shall be completed as soon as possible but no later than 5 calendar days after detection. If repair of a defect cannot be completed within 5 calendar days, then the hazardous waste shall be removed from the container and the container shall not be used to manage hazardous waste until the defect is repaired.

(e) Container Level 3 standards.

(1) A container using Container Level 3 controls is one of the following:

(i) A container that is vented directly through a closed-vent system to a control device in accordance with the requirements of Subsection R315-264-1086(e)(2)(ii).

(ii) A container that is vented inside an enclosure which is exhausted through a closed-vent system to a control device in accordance with the requirements of Subsections R315-264-1086(e)(2)(i) and (e)(2)(ii).

(2) The owner or operator shall meet the following requirements, as applicable to the type of air emission control equipment selected by the owner or operator:

(i) The container enclosure shall be designed and operated in accordance with the criteria for a permanent total enclosure as specified in “Procedure T-Criteria for and Verification of a Permanent or Temporary Total Enclosure” under 40 CFR 52.741, appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of containers through the enclosure by conveyor or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure as specified in Section 5.0 to “Procedure T-Criteria for and Verification of a Permanent or Temporary Total Enclosure” initially when the enclosure is first installed and, thereafter, annually.

(ii) The closed-vent system and control device shall be designed and operated in accordance with the requirements of Section R315-264-1087.

(3) Safety devices, as defined in 40 CFR 265.1081, which is adopted by reference, may be installed and operated as necessary on any container, enclosure, closed-vent system, or control device used to comply with the requirements of Subsection R315-264-1086(e)(1).

(4) Owners and operators using Container Level 3 controls in accordance with the provisions of Sections R315-264-1086 through 1090 shall inspect and monitor the closed-vent systems and control devices as specified in Subsection R315-264-1087.

(5) Owners and operators that use Container Level 3 controls in accordance with the provisions of Sections R315-264-1086 through 1090 shall prepare and maintain the records specified in Subsection R315-264-1089(d).

(6) Transfer of hazardous waste in or out of a container using Container Level 3 controls shall be conducted in such a manner as to minimize exposure of the hazardous waste to the atmosphere, to the extent practical, considering the physical properties of the hazardous waste and good engineering and safety practices for handling flammable, ignitable, explosive, reactive, or other hazardous materials. Examples of container loading procedures that the Director considers to meet the requirements of Subsection R315-264-1086(e) include using any one of the following: A submerged-fill pipe or other submerged-fill method to load liquids into the container; a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or a fitted opening in the top of a container through which the hazardous waste is filled and subsequently purging the transfer line before removing it from the container opening.

(f) For the purpose of compliance with Subsection R315-264-1086(c)(1)(i) or (d)(1)(i), containers shall be used that meet the applicable U.S. Department of Transportation (DOT) regulations on packaging hazardous materials for transportation as follows:

(1) The container meets the applicable requirements specified in 49 CFR part 178-Specifications for Packaging or 49 CFR part 179-Specifications for Tank Cars.

(2) Hazardous waste is managed in the container in accordance with the applicable requirements specified in 49

CFR part 107, subpart B-Exemptions; 49 CFR part 172-Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements; 49 CFR part 173-Shippers-General Requirements for Shipments and Packages; and 49 CFR part 180-Continuing Qualification and Maintenance of Packagings.

(3) For the purpose of complying with Sections R315-264-1086 through 1090, no exceptions to the 49 CFR part 178 or part 179 regulations are allowed except as provided for in Subsection R315-264-1086(f)(4).

(4) For a lab pack that is managed in accordance with the requirements of 49 CFR part 178 for the purpose of complying with Sections R315-264-1086 through 1090, an owner or operator may comply with the exceptions for combination packagings specified in 49 CFR 173.12(b).

(g) To determine compliance with the no detectable organic emissions requirement of Subsection R315-264-1086(d)(1)(ii), the procedure specified in Subsection R315-264-1083(d) shall be used.

(1) Each potential leak interface, i.e., a location where organic vapor leakage could occur, on the container, its cover, and associated closure devices, as applicable to the container, shall be checked. Potential leak interfaces that are associated with containers include, but are not limited to: The interface of the cover rim and the container wall; the periphery of any opening on the container or container cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.

(2) The test shall be performed when the container is filled with a material having a volatile organic concentration representative of the range of volatile organic concentrations for the hazardous wastes expected to be managed in this type of container. During the test, the container cover and closure devices shall be secured in the closed position.

(h) Procedure for determining a container to be vapor-tight using Method 27 of 40 CFR part 60, appendix A for the purpose of complying with Subsection R315-264-1086(d)(1)(iii).

(1) The test shall be performed in accordance with Method 27 of 40 CFR part 60, appendix A of this chapter.

(2) A pressure measurement device shall be used that has a precision of ±2.5 mm water and that is capable of

measuring above the pressure at which the container is to be tested for vapor tightness.

(3) If the test results determined by Method 27 indicate that the container sustains a pressure change less than or equal to 750 Pascals within 5 minutes after it is pressurized to a minimum of 4,500 Pascals, then the container is determined to be vapor-tight.

R315-264-1087. Standards: Closed-vent systems and control devices.

(a) Section R315-264-1087 applies to each closed-vent system and control device installed and operated by the owner or operator to control air emissions in accordance with standards of Sections R315-264-1080 through 1090.

(b) The closed-vent system shall meet the following requirements:

(1) The closed-vent system shall route the gases, vapors, and fumes emitted from the hazardous waste in the waste management unit to a control device that meets the requirements specified in Subsection R315-264-1087(c).

(2) The closed-vent system shall be designed and operated in accordance with the requirements specified in Subsection R315-264-1033(k).

(3) In the case when the closed-vent system includes bypass devices that could be used to divert the gas or vapor stream to the atmosphere before entering the control device, each bypass device shall be equipped with either a flow indicator as specified in Subsection R315-264-1087(b)(3)(i) or a seal or locking device as specified in Subsection R315-264-1087(b)(3)(ii). For the purpose of complying with Subsection R315-264-1087(b), low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, spring loaded pressure relief valves, and other fittings used for safety purposes are not considered to be bypass devices.

(i) If a flow indicator is used to comply with Subsection R315-264-1087(b)(3), the indicator shall be installed at the inlet to the bypass line used to divert gases and vapors from the closed-vent system to the atmosphere at a point upstream of the control device inlet. For Subsection R315-264-1087(b), a flow indicator means a device which indicates the presence of either gas or vapor flow in the bypass line.

(ii) If a seal or locking device is used to comply with Subsection R315-264-1087(b)(3), the device shall be

placed on the mechanism by which the bypass device position is controlled, e.g., valve handle, damper lever, when the bypass device is in the closed position such that the bypass device cannot be opened without breaking the seal or removing the lock. Examples of such devices include, but are not limited to, a car-seal or a lock-and-key configuration valve. The owner or operator shall visually inspect the seal or closure mechanism at least once every month to verify that the bypass mechanism is maintained in the closed position.

(4) The closed-vent system shall be inspected and monitored by the owner or operator in accordance with the procedure specified in Subsection R315-264-1033(l).

(c) The control device shall meet the following requirements:

(1) The control device shall be one of the following devices:

(i) A control device designed and operated to reduce the total organic content of the inlet vapor stream vented to the control device by at least 95 percent by weight;

(ii) An enclosed combustion device designed and operated in accordance with the requirements of Subsection R315-264-1033(c); or

(iii) A flare designed and operated in accordance with the requirements of Subsection R315-264-1033(d).

(2) The owner or operator who elects to use a closed-vent system and control device to comply with the requirements of Section R315-264-1087 shall comply with the requirements specified in Subsections R315-264-1087(c)(2)(i) through (c)(2)(vi).

(i) Periods of planned routine maintenance of the control device, during which the control device does not meet the specifications of Subsections R315-264-1087(c)(1)(i), (c)(1)(ii), or (c)(1)(iii), as applicable, shall not exceed 240 hours per year.

(ii) The specifications and requirements in Subsections R315-264-1087(c)(1)(i), (c)(1)(ii), and (c)(1)(iii) for control devices do not apply during periods of planned routine maintenance.

(iii) The specifications and requirements in Subsections R315-264-1087(c)(1)(i), (c)(1)(ii), and (c)(1)(iii) for control devices do not apply during a control device system malfunction.

(iv) The owner or operator shall demonstrate compliance with the requirements of Subsection R315-264-

1087(c)(2)(i), i.e., planned routine maintenance of a control device, during which the control device does not meet the specifications of Subsections R315-264-1087(c)(1)(i), (c)(1)(ii), or (c)(1)(iii), as applicable, shall not exceed 240 hours per year, by recording the information specified in Subsection R315-264-1089(e)(1)(v).

(v) The owner or operator shall correct control device system malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of air pollutants.

(vi) The owner or operator shall operate the closed-vent system such that gases, vapors, or fumes are not actively vented to the control device during periods of planned maintenance or control device system malfunction, i.e., periods when the control device is not operating or not operating normally, except in cases when it is necessary to vent the gases, vapors, and/or fumes to avoid an unsafe condition or to implement malfunction corrective actions or planned maintenance actions.

(3) The owner or operator using a carbon adsorption system to comply with Subsection R315-264-1087(c)(1) shall operate and maintain the control device in accordance with the following requirements:

(i) Following the initial startup of the control device, all activated carbon in the control device shall be replaced with fresh carbon on a regular basis in accordance with the requirements of Subsections R315-264-1033(g) or 1033(h).

(ii) All carbon that is a hazardous waste and that is removed from the control device shall be managed in accordance with the requirements of Subsection R315-264-1033(n), regardless of the average volatile organic concentration of the carbon.

(4) An owner or operator using a control device other than a thermal vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system to comply with Subsection R315-264-1087(c)(1) shall operate and maintain the control device in accordance with the requirements of Subsection R315-264-1033(j).

(5) The owner or operator shall demonstrate that a control device achieves the performance requirements of Subsection R315-264-1087(c)(1) as follows:

(i) An owner or operator shall demonstrate using either a performance test as specified in Subsection R315-264-1087(c)(5)(iii) or a design analysis as specified in

Subsection R315-264-1087(c)(5)(iv) the performance of each control device except for the following:

(A) A flare;

(B) A boiler or process heater with a design heat input capacity of 44 megawatts or greater;

(C) A boiler or process heater into which the vent stream is introduced with the primary fuel;

(D) A boiler or industrial furnace burning hazardous waste for which the owner or operator has been issued a final permit under Rule R315-270 and has designed and operates the unit in accordance with the requirements of Sections R315-266-100 through 112; or

(E) A boiler or industrial furnace burning hazardous waste for which the owner or operator has designed and operates in accordance with the interim status requirements of Sections R315-266-100 through 112.

(ii) An owner or operator shall demonstrate the performance of each flare in accordance with the requirements specified in Subsection R315-264-1033(e).

(iii) For a performance test conducted to meet the requirements of Subsection R315-264-1087(c)(5)(i), the owner or operator shall use the test methods and procedures specified in Subsections R315-264-1034(c)(1) through (c)(4).

(iv) For a design analysis conducted to meet the requirements of Subsection R315-264-1087(c)(5)(i), the design analysis shall meet the requirements specified in Subsection R315-264-1035(b)(4)(iii).

(v) The owner or operator shall demonstrate that a carbon adsorption system achieves the performance requirements of Subsection R315-264-1087(c)(1) based on the total quantity of organics vented to the atmosphere from all carbon adsorption system equipment that is used for organic adsorption, organic desorption or carbon regeneration, organic recovery, and carbon disposal.

(6) If the owner or operator and the Director do not agree on a demonstration of control device performance using a design analysis then the disagreement shall be resolved using the results of a performance test performed by the owner or operator in accordance with the requirements of Subsection R315-264-1087(c)(5)(iii). The Director may choose to have an authorized representative observe the performance test.

(7) The closed-vent system and control device shall be inspected and monitored by the owner or operator in

accordance with the procedures specified in Subsections R315-264-1033(f)(2) and 1033(l). The readings from each monitoring device required by Subsection R315-264-1033(f)(2) shall be inspected at least once each operating day to check control device operation. Any necessary corrective measures shall be immediately implemented to ensure the control device is operated in compliance with the requirements of Section R315-264-1087.

R315-264-1088. Inspection and monitoring requirements.

(a) The owner or operator shall inspect and monitor air emission control equipment used to comply with Sections R315-264-1080 through 1090 in accordance with the applicable requirements specified in Sections R315-264-1084 through 1087.

(b) The owner or operator shall develop and implement a written plan and schedule to perform the inspections and monitoring required by Subsection R315-264-1088(a). The owner or operator shall incorporate this plan and schedule into the facility inspection plan required under Section R315-264-15.

R315-264-1089. Recordkeeping requirements.

(a) Each owner or operator of a facility subject to requirements of Sections R315-264-1080 through 1090 shall record and maintain the information specified in Subsections R315-264-1089(b) through (j), as applicable to the facility. Except for air emission control equipment design documentation and information required by Subsections R315-264-1089(i) and (j), records required by Section R315-264-1089 shall be maintained in the operating record for a minimum of 3 years. Air emission control equipment design documentation shall be maintained in the operating record until the air emission control equipment is replaced or otherwise no longer in service. Information required by Subsections R315-264-1089(i) and (j) shall be maintained in the operating record for as long as the waste management unit is not using air emission controls specified in Sections R315-264-1084 through 1087 in accordance with the conditions specified in Subsection R315-264-1080(d) or 1080(b)(7), respectively.

(b) The owner or operator of a tank using air emission controls in accordance with the requirements of Section R315-264-1084 shall prepare and maintain records for the tank that include the following information:

(1) For each tank using air emission controls in accordance with the requirements of Subsection R315-264-1084, the owner or operator shall record:

(i) A tank identification number, or other unique identification description as selected by the owner or operator.

(ii) A record for each inspection required by Section R315-264-1084 that includes the following information:

(A) Date inspection was conducted.

(B) For each defect detected during the inspection: The location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the requirements of Section R315-264-1084, the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected.

(2) In addition to the information required by Subsection R315-264-1089(b)(1), the owner or operator shall record the following information, as applicable to the tank:

(i) The owner or operator using a fixed roof to comply with the Tank Level 1 control requirements specified in Subsection R315-264-1084(c) shall prepare and maintain records for each determination for the maximum organic vapor pressure of the hazardous waste in the tank performed in accordance with the requirements of Subsection R315-264-1084(c). The records shall include the date and time the samples were collected, the analysis method used, and the analysis results.

(ii) The owner or operator using an internal floating roof to comply with the Tank Level 2 control requirements specified in Subsection R315-264-1084(e) shall prepare and maintain documentation describing the floating roof design.

(iii) Owners and operators using an external floating roof to comply with the Tank Level 2 control requirements specified in Subsection R315-264-1084(f) shall prepare and maintain the following records:

(A) Documentation describing the floating roof design and the dimensions of the tank.

(B) Records for each seal gap inspection required by Subsection R315-264-1084(f)(3) describing the results of the seal gap measurements. The records shall include the date that the measurements were performed, the raw data obtained for the measurements, and the calculations of the

total gap surface area. In the event that the seal gap measurements do not conform to the specifications in Subsection R315-264-1084(f)(1), the records shall include a description of the repairs that were made, the date the repairs were made, and the date the tank was emptied, if necessary.

(iv) Each owner or operator using an enclosure to comply with the Tank Level 2 control requirements specified in Subsection R315-264-1084(i) shall prepare and maintain the following records:

(A) Records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure meets the criteria of a permanent total enclosure as specified in “Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure” under 40 CFR 52.741, appendix B.

(B) Records required for the closed-vent system and control device in accordance with the requirements of Subsection R315-264-1089(e).

(c) The owner or operator of a surface impoundment using air emission controls in accordance with the requirements of Section R315-264-1085 shall prepare and maintain records for the surface impoundment that include the following information:

(1) A surface impoundment identification number, or other unique identification description as selected by the owner or operator.

(2) Documentation describing the floating membrane cover or cover design, as applicable to the surface impoundment, that includes information prepared by the owner or operator or provided by the cover manufacturer or vendor describing the cover design, and certification by the owner or operator that the cover meets the specifications listed in Subsection R315-264-1085(c).

(3) A record for each inspection required by Section R315-264-1085 that includes the following information:

(i) Date inspection was conducted.

(ii) For each defect detected during the inspection the following information: The location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of Subsection R315-264-1085(f), the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected.

(4) For a surface impoundment equipped with a cover and vented through a closed-vent system to a control device, the owner or operator shall prepare and maintain the records specified in Subsection R315-264-1089(e).

(d) The owner or operator of containers using Container Level 3 air emission controls in accordance with the requirements of Section R315-264-1086 shall prepare and maintain records that include the following information:

(1) Records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure meets the criteria of a permanent total enclosure as specified in “Procedure T-Criteria for and Verification of a Permanent or Temporary Total Enclosure” under 40 CFR 52.741, appendix B.

(2) Records required for the closed-vent system and control device in accordance with the requirements of Subsection R315-264-1089(e).

(e) The owner or operator using a closed-vent system and control device in accordance with the requirements of Section R315-264-1087 shall prepare and maintain records that include the following information:

(1) Documentation for the closed-vent system and control device that includes:

(i) Certification that is signed and dated by the owner or operator stating that the control device is designed to operate at the performance level documented by a design analysis as specified in Subsection R315-264-1089(e)(1)(ii) or by performance tests as specified in Subsection R315-264-1089(e)(1)(iii) when the tank, surface impoundment, or container is or would be operating at capacity or the highest level reasonably expected to occur.

(ii) If a design analysis is used, then design documentation as specified in Subsection R315-264-1035(b)(4). The documentation shall include information prepared by the owner or operator or provided by the control device manufacturer or vendor that describes the control device design in accordance with Subsection R315-264-1035(b)(4)(iii) and certification by the owner or operator that the control equipment meets the applicable specifications.

(iii) If performance tests are used, then a performance test plan as specified in Subsection R315-264-1035(b)(3) and all test results.

(iv) Information as required by Subsection R315-264-1035(c)(1) and Subsection R315-264-1035(c)(2), as applicable.

(v) An owner or operator shall record, on a semiannual basis, the information specified in Subsections R315-264-1089(e)(1)(v)(A) and (e)(1)(v)(B) for those planned routine maintenance operations that would require the control device not to meet the requirements of Subsections R315-264-1087(c)(1)(i), (c)(1)(ii), or (c)(1)(iii), as applicable.

(A) A description of the planned routine maintenance that is anticipated to be performed for the control device during the next 6-month period. This description shall include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods.

(B) A description of the planned routine maintenance that was performed for the control device during the previous 6-month period. This description shall include the type of maintenance performed and the total number of hours during those 6 months that the control device did not meet the requirements of Subsections R315-264-1087 (c)(1)(i), (c)(1)(ii), or (c)(1)(iii), as applicable, due to planned routine maintenance.

(vi) An owner or operator shall record the information specified in Subsections R315-264-1089(e)(1)(vi)(A) through (e)(1)(vi)(C) for those unexpected control device system malfunctions that would require the control device not to meet the requirements of Subsections R315-264-1087 (c)(1)(i), (c)(1)(ii), or (c)(1)(iii), as applicable.

(A) The occurrence and duration of each malfunction of the control device system.

(B) The duration of each period during a malfunction when gases, vapors, or fumes are vented from the waste management unit through the closed-vent system to the control device while the control device is not properly functioning.

(C) Actions taken during periods of malfunction to restore a malfunctioning control device to its normal or usual manner of operation.

(vii) Records of the management of carbon removed from a carbon adsorption system conducted in accordance with Subsection R315-264-1087(c)(3)(ii).

(f) The owner or operator of a tank, surface impoundment, or container exempted from standards in accordance with the provisions of Subsection R315-264-1082(c) shall prepare and maintain the following records, as applicable:

(1) For tanks, surface impoundments, and containers exempted under the hazardous waste organic concentration conditions specified in Subsections R315-264-1082(c)(1) or 1082(c)(2)(i) through (c)(2)(vi), the owner or operator shall record the information used for each waste determination, e.g., test results, measurements, calculations, and other documentation, in the facility operating log. If analysis results for waste samples are used for the waste determination, then the owner or operator shall record the date, time, and location that each waste sample is collected in accordance with applicable requirements of Section R315-264-1083.

(2) For tanks, surface impoundments, or containers exempted under the provisions of Subsections R315-264-1082(c)(2)(vii) or (c)(2)(viii), the owner or operator shall record the identification number for the incinerator, boiler, or industrial furnace in which the hazardous waste is treated.

(g) An owner or operator designating a cover as “unsafe to inspect and monitor” pursuant to Subsections R315-264-1084(l) or 1085(g) shall record in a log that is kept in the facility operating record the following information: The identification numbers for waste management units with covers that are designated as “unsafe to inspect and monitor,” the explanation for each cover stating why the cover is unsafe to inspect and monitor, and the plan and schedule for inspecting and monitoring each cover.

(h) The owner or operator of a facility that is subject to Section R315-264-1080 through 1090 and to the control device standards in 40 CFR part 60, subpart VV, or 40 CFR part 61, subpart V, may elect to demonstrate compliance with the applicable sections of Section R315-264-1080 through 1090 by documentation either pursuant to Section R315-264-1080 through 1090, or pursuant to the provisions of 40 CFR part 60, subpart VV or 40 CFR part 61, subpart V, to the extent that the documentation required by 40 CFR parts 60 or 61 duplicates the documentation required by Section R315-264-1089.

(i) For each tank or container not using air emission controls specified in Sections R315-264-1084 through 1087 in accordance with the conditions specified in Subsection R315-264-1080(d), the owner or operator shall record and maintain the following information:

(1) A list of the individual organic peroxide compounds manufactured at the facility that meet the conditions specified in Subsection R315-264-1080(d)(1).

(2) A description of how the hazardous waste containing the organic peroxide compounds identified in Subsection R315-264-1089(i)(1) are managed at the facility in tanks and containers. This description shall include:

(i) For the tanks used at the facility to manage this hazardous waste, sufficient information shall be provided to describe for each tank: A facility identification number for the tank; the purpose and placement of this tank in the management train of this hazardous waste; and the procedures used to ultimately dispose of the hazardous waste managed in the tanks.

(ii) For containers used at the facility to manage these hazardous wastes, sufficient information shall be provided to describe: A facility identification number for the container or group of containers; the purpose and placement of this container, or group of containers, in the management train of this hazardous waste; and the procedures used to ultimately dispose of the hazardous waste handled in the containers.

(3) An explanation of why managing the hazardous waste containing the organic peroxide compounds identified in Subsection R315-264-1089(i)(1) in the tanks and containers as described in Subsection R315-264-1089(i)(2) would create an undue safety hazard if the air emission controls, as required under Sections R315-264-1084 through 1087, are installed and operated on these waste management units. This explanation shall include the following information:

(i) For tanks used at the facility to manage these hazardous wastes, sufficient information shall be provided to explain: How use of the required air emission controls on the tanks would affect the tank design features and facility operating procedures currently used to prevent an undue safety hazard during the management of this hazardous waste in the tanks; and why installation of safety devices on the required air emission controls, as allowed under Section R315-264-1080 through 1090, will not address those

situations in which evacuation of tanks equipped with these air emission controls is necessary and consistent with good engineering and safety practices for handling organic peroxides.

(ii) For containers used at the facility to manage these hazardous wastes, sufficient information shall be provided to explain: How use of the required air emission controls on the containers would affect the container design features and handling procedures currently used to prevent an undue safety hazard during the management of this hazardous waste in the containers; and why installation of safety devices on the required air emission controls, as allowed under Section R315-264-1080 through 1090, will not address those situations in which evacuation of containers equipped with these air emission controls is necessary and consistent with good engineering and safety practices for handling organic peroxides.

(j) For each hazardous waste management unit not using air emission controls specified in Sections R315-264-1084 through 1087 in accordance with the requirements of Subsection R315-264-1080(b)(7), the owner and operator shall record and maintain the following information:

(1) Certification that the waste management unit is equipped with and operating air emission controls in accordance with the requirements of an applicable regulation codified under the Utah Air Conservation Act.

(2) Identification of the specific requirements codified under the Utah Air Conservation Act with which the waste management unit is in compliance.

R315-264-1090. Reporting requirements.

(a) Each owner or operator managing hazardous waste in a tank, surface impoundment, or container exempted from using air emission controls under the provisions of Subsection R315-264-1082(c) shall report to the Director each occurrence when hazardous waste is placed in the waste management unit in noncompliance with the conditions specified in Subsection R315-264-1082(c)(1) or (c)(2), as applicable. Examples of such occurrences include placing in the waste management unit a hazardous waste having an average VO concentration equal to or greater than 500 ppmw at the point of waste origination; or placing in the waste management unit a treated hazardous waste of which the organic content has been reduced by an organic destruction or removal process that fails to achieve the applicable

conditions specified in Subsections R315-264-1082(c)(2)(i) through (c)(2)(vi). The owner or operator shall submit a written report within 15 calendar days of the time that the owner or operator becomes aware of the occurrence. The written report shall contain the EPA identification number, facility name and address, a description of the noncompliance event and the cause, the dates of the noncompliance, and the actions taken to correct the noncompliance and prevent recurrence of the noncompliance. The report shall be signed and dated by an authorized representative of the owner or operator.

(b) Each owner or operator using air emission controls on a tank in accordance with the requirements Subsection R315-264-1084(c) shall report to the Director each occurrence when hazardous waste is managed in the tank in noncompliance with the conditions specified in Subsection R315-264-1084(b). The owner or operator shall submit a written report within 15 calendar days of the time that the owner or operator becomes aware of the occurrence. The written report shall contain the EPA identification number, facility name and address, a description of the noncompliance event and the cause, the dates of the noncompliance, and the actions taken to correct the noncompliance and prevent recurrence of the noncompliance. The report shall be signed and dated by an authorized representative of the owner or operator.

(c) Each owner or operator using a control device in accordance with the requirements of Section R315-264-1087 shall submit a semiannual written report to the Director excepted as provided for in Subsection R315-264-1090(d). The report shall describe each occurrence during the previous 6-month period when either:

(1) A control device is operated continuously for 24 hours or longer in noncompliance with the applicable operating values defined in Subsection R315-264-1035(c)(4); or

(2) A flare is operated with visible emissions for 5 minutes or longer in a two-hour period, as defined in Subsection R315-264-1033(d). The written report shall include the EPA identification number, facility name and address, and an explanation why the control device could not be returned to compliance within 24 hours, and actions taken to correct the noncompliance. The report shall be signed and dated by an authorized representative of the owner or operator.

(d) A report to the Director in accordance with the requirements of Subsection R315-264-1090(c) is not required for a 6-month period during which all control devices subject to Section R316-264-1080 through 1090 are operated by the owner or operator such that:

(1) During no period of 24 hours or longer did a control device operate continuously in noncompliance with the applicable operating values defined in Subsection R315-264-1035(c)(4); and

(2) No flare was operated with visible emissions for 5 minutes or longer in a two-hour period, as defined in Subsection R315-264-1033(d).

R315-264-1100. Containment Buildings - Applicability. The requirements of Sections R315-264-1100 through 1102 apply to owners or operators who store or treat hazardous waste in units designed and operated under Section R315-264-1101. The owner or operator is not subject to the definition of land disposal in RCRA section 3004(k) provided that the unit:

(a) Is a completely enclosed, self-supporting structure that is designed and constructed of manmade materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the unit, and to prevent failure due to pressure gradients, settlement, compression, or uplift, physical contact with the hazardous wastes to which they are exposed; climatic conditions; and the stresses of daily operation, including the movement of heavy equipment within the unit and contact of such equipment with containment walls;

(b) Has a primary barrier that is designed to be sufficiently durable to withstand the movement of personnel, wastes, and handling equipment within the unit;

(c) If the unit is used to manage liquids, has:

(1) A primary barrier designed and constructed of materials to prevent migration of hazardous constituents into the barrier;

(2) A liquid collection system designed and constructed of materials to minimize the accumulation of liquid on the primary barrier; and

(3) A secondary containment system designed and constructed of materials to prevent migration of hazardous constituents into the barrier, with a leak detection and liquid collection system capable of detecting, collecting,

and removing leaks of hazardous constituents at the earliest practicable time, unless the unit has been granted a variance from the secondary containment system requirements under Subsection R315-264-1101(b)(4);

(d) Has controls sufficient to prevent fugitive dust emissions to meet the no visible emission standard in Subsection R315-264-1101(c)(1)(iv); and

(e) Is designed and operated to ensure containment and prevent the tracking of materials from the unit by personnel or equipment.

R315-264-1101. Design and operating standards.

(a) All containment buildings shall comply with the following design standards:

(1) The containment building shall be completely enclosed with a floor, walls, and a roof to prevent exposure to the elements, e.g., precipitation, wind, run-on, and to assure containment of managed wastes.

(2) The floor and containment walls of the unit, including the secondary containment system if required under Subsection R315-264-1101(b), shall be designed and constructed of materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the unit, and to prevent failure due to pressure gradients, settlement, compression, or uplift, physical contact with the hazardous wastes to which they are exposed; climatic conditions; and the stresses of daily operation, including the movement of heavy equipment within the unit and contact of such equipment with containment walls. The unit shall be designed so that it has sufficient structural strength to prevent collapse or other failure. All surfaces to be in contact with hazardous wastes shall be chemically compatible with those wastes. the Director shall consider standards established by professional organizations generally recognized by the industry such as the American Concrete Institute (ACI) and the American Society of Testing Materials (ASTM) in judging the structural integrity requirements of Subsection R315-264-1101(a). If appropriate to the nature of the waste management operation to take place in the unit, an exception to the structural strength requirement may be made for light-weight doors and windows that meet these criteria:

(i) They provide an effective barrier against fugitive dust emissions under Subsection R315-264-1101(c)(1)(iv); and

(ii) The unit is designed and operated in a fashion that assures that wastes will not actually come in contact with these openings.

(3) Incompatible hazardous wastes or treatment reagents shall not be placed in the unit or its secondary containment system if they could cause the unit or secondary containment system to leak, corrode, or otherwise fail.

(4) A containment building shall have a primary barrier designed to withstand the movement of personnel, waste, and handling equipment in the unit during the operating life of the unit and appropriate for the physical and chemical characteristics of the waste to be managed.

(b) For a containment building used to manage hazardous wastes containing free liquids or treated with free liquids, the presence of which is determined by the paint filter test, a visual examination, or other appropriate means, the owner or operator shall include:

(1) A primary barrier designed and constructed of materials to prevent the migration of hazardous constituents into the barrier, e.g., a geomembrane covered by a concrete wear surface.

(2) A liquid collection and removal system to minimize the accumulation of liquid on the primary barrier of the containment building:

(i) The primary barrier shall be sloped to drain liquids to the associated collection system; and

(ii) Liquids and waste shall be collected and removed to minimize hydraulic head on the containment system at the earliest practicable time.

(3) A secondary containment system including a secondary barrier designed and constructed to prevent migration of hazardous constituents into the barrier, and a leak detection system that is capable of detecting failure of the primary barrier and collecting accumulated hazardous wastes and liquids at the earliest practicable time.

(i) The requirements of the leak detection component of the secondary containment system are satisfied by installation of a system that is, at a minimum:

(A) Constructed with a bottom slope of 1 percent or more; and

(B) Constructed of a granular drainage material with a hydraulic conductivity of 1× 10−2 cm/sec or more and a thickness of 30.5 cm (12 inches) or more, or constructed of synthetic or geonet drainage materials with a transmissivity of 3 × 10−5 m2/sec or more.

(ii) If treatment is to be conducted in the building, an area in which such treatment will be conducted shall be designed to prevent the release of liquids, wet materials, or liquid aerosols to other portions of the building.

(iii) The secondary containment system shall be constructed of materials that are chemically resistant to the waste and liquids managed in the containment building and of sufficient strength and thickness to prevent collapse under the pressure exerted by overlaying materials and by any equipment used in the containment building. Containment buildings can serve as secondary containment systems for tanks placed within the building under certain conditions. A containment building can serve as an external liner system for a tank, provided it meets the requirements of Subsection R315-264-193(e)(1). In addition, the containment building shall meet the requirements of Subsections R315-264-193(b) and 193(c)(1) and (2) to be considered an acceptable secondary containment system for a tank.

(4) For existing units other than 90-day generator units, the Director may delay the secondary containment requirement for up to two years, based on a demonstration by the owner or operator that the unit substantially meets the standards of Sections R315-264-1100 and 1102. In making this demonstration, the owner or operator shall:

(i) Provide written notice to the Director of their request by November 16, 1992. This notification shall describe the unit and its operating practices with specific reference to the performance of existing containment systems, and specific plans for retrofitting the unit with secondary containment;

(ii) Respond to any comments from the Director on these plans within 30 days; and

(iii) Fulfill the terms of the revised plans, if such plans are approved by the Director.

(c) Owners or operators of all containment buildings shall:

(1) Use controls and practices to ensure containment of the hazardous waste within the unit; and, at a minimum:

(i) Maintain the primary barrier to be free of significant cracks, gaps, corrosion, or other deterioration that could cause hazardous waste to be released from the primary barrier;

(ii) Maintain the level of the stored/treated hazardous waste within the containment walls of the unit so that the height of any containment wall is not exceeded;

(iii) Take measures to prevent the tracking of hazardous waste out of the unit by personnel or by equipment used in handling the waste. An area shall be designated to decontaminate equipment and any rinsate shall be collected and properly managed; and

(iv) Take measures to control fugitive dust emissions such that any openings, doors, windows, vents, cracks, etc., exhibit no visible emissions, see 40 CFR part 60, appendix A, Method 22-Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares. In addition, all associated particulate collection devices, e.g., fabric filter, electrostatic precipitator, shall be operated and maintained with sound air pollution control practices, see 40 CFR part 60 subpart 292 for guidance. This state of no visible emissions shall be maintained effectively at all times during routine operating and maintenance conditions, including when vehicles and personnel are entering and exiting the unit.

(2) Obtain and keep on-site a certification by a qualified Professional Engineer that the containment building design meets the requirements of Subsections R315-264-1101(a), (b), and (c).

(3) Throughout the active life of the containment building, if the owner or operator detects a condition that could lead to or has caused a release of hazardous waste, the owner or operator shall repair the condition promptly, in accordance with the following procedures.

(i) Upon detection of a condition that has led to a release of hazardous waste, e.g., upon detection of leakage from the primary barrier, the owner or operator shall:

(A) Enter a record of the discovery in the facility operating record;

(B) Immediately remove the portion of the containment building affected by the condition from service;

(C) Determine what steps shall be taken to repair the containment building, remove any leakage from the secondary collection system, and establish a schedule for accomplishing the cleanup and repairs; and

(D) Within 7 days after the discovery of the condition, notify the Director of the condition, and within 14 working days, provide a written notice to the Director with a description of the steps taken to repair the containment building, and the schedule for accomplishing the work.

(ii) The Director shall review the information submitted, make a determination regarding whether the containment building shall be removed from service completely or partially until repairs and cleanup are complete, and notify the owner or operator of the determination and the underlying rationale in writing.

(iii) Upon completing all repairs and cleanup the owner or operator shall notify the Director in writing and provide a verification, signed by a qualified, registered professional engineer, that the repairs and cleanup have been completed according to the written plan submitted in accordance with Subsection R315-264-1101(c)(3)(i)(D).

(4) Inspect and record in the facility's operating record, at least once every seven days, data gathered from monitoring and leak detection equipment as well as the containment building and the area immediately surrounding the containment building to detect signs of releases of hazardous waste.

(d) For a containment building that contains both areas with and without secondary containment, the owner or operator shall:

(1) Design and operate each area in accordance with the requirements enumerated in Subsections R315-264-1101(a) through (c);

(2) Take measures to prevent the release of liquids or wet materials into areas without secondary containment; and

(3) Maintain in the facility's operating log a written description of the operating procedures used to maintain the integrity of areas without secondary containment.

(e) Notwithstanding any other provision of Subsection R315-264-1100 through 1102 the Director may waive requirements for secondary containment for a permitted containment building where the owner operator demonstrates that the only free liquids in the unit are limited amounts of dust suppression liquids required to meet occupational health and safety requirements, and where containment of

managed wastes and liquids can be assured without a secondary containment system.

R315-264-1102. Closure and post-closure care.

(a) At closure of a containment building, the owner or operator shall remove or decontaminate all waste residues, contaminated containment system components, liners, etc.; contaminated subsoils; and structures and equipment contaminated with waste and leachate; and manage them as hazardous waste unless Subsection R315-261-3(d) applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for containment buildings shall meet all of the requirements specified in Sections R315-264-110 through 120 and 140 through 151.

(b) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in Subsection R315-264-1102(a), the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he shall close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills, Section R315-264-310. In addition, for the purposes of closure, post-closure, and financial responsibility, such a containment building is then considered to be a landfill, and the owner or operator shall meet all of the requirements for landfills specified in Sections R315-264-110 through 120 and 140 through 151.

Appendix I to Rule R315-264 - Recordkeeping Instructions

The recordkeeping provisions of Section R315-264-73 specify that an owner or operator shall keep a written operating record at his facility. This appendix provides additional instructions for keeping portions of the operating record. See Subsection R315-264-73(b) for additional recordkeeping requirements.

The following information shall be recorded, as it becomes available, and maintained in the operating record until closure of the facility in the following manner:

Records of each hazardous waste received, treated, stored, or disposed of at the facility which include the following:

(1) A description by its common name and the EPA Hazardous Waste Number(s) from Rule R315-261 which apply to the waste. The waste description also shall include the waste's physical form, i.e., liquid, sludge, solid, or contained gas. If the waste is not listed in Sections R315-261-30 through 35, the description also shall include the process that produced it, for example, solid filter cake from production of ----, EPA Hazardous Waste Number W051.

Each hazardous waste listed in Sections R315-261-30 through 35, and each hazardous waste characteristic defined in Sections R315-261-20 through 24, has a four-digit EPA Hazardous Waste Number assigned to it. This number shall be used for recordkeeping and reporting purposes. Where a hazardous waste contains more than one listed hazardous waste, or where more than one hazardous waste characteristic applies to the waste, the waste description shall include all applicable EPA Hazardous Waste Numbers.

(2) The estimated or manifest-reported weight, or volume and density, where applicable, in one of the units of measure specified in Table 1;

Table 1

Unit of measure	Code[1]
Gallons	G
Gallons per Hour	E
Gallons per Day	U
Liters	L
Liters per Hour	H
Liters per Day	V
Short Tons per Hour	D
Metric Tons per Hour	W
Short Tons per Day	N
Metric Tons per Day	S
Pounds per Hour	J
Kilograms per Hour	R
Cubic Yards	Y
Cubic Meters	C
Acres	B
Acre-feet	A

Hectares	Q
Hectare-meter	F
Btu's per Hour	I
Pounds	P
Short tons	T
Kilograms	K
Tons	M

[1]Single digit symbols are used here for data processing purposes.

(3) The method(s), by handling code(s) as specified in Table 2, and date(s) of treatment, storage, or disposal.

Table 2-Handling Codes for Treatment, Storage and Disposal Methods

Enter the handling code(s) listed below that most closely represents the technique(s) used at the facility to treat, store or dispose of each quantity of hazardous waste received.

For Storage

Code	Storage type
S01	Container (barrel, drum, etc.)
S02	Tank
S03	Waste Pile
S04	Surface Impoundment
S05	Drip Pad
S06	Containment Building (Storage)
S99	Other Storage (specify)

For Treatment

(a) Thermal Treatment-

Code	Type of Thermal Treatment
T06	Liquid injection incinerator
T07	Rotary kiln incinerator
T08	Fluidized bed incinerator
T09	Multiple hearth incinerator
T10	Infrared furnace incinerator
T11	Molten salt destructor

T12	Pyrolysis
T13	Wet air oxidation
T14	Calcination
T15	Microwave discharge
T18	Other (specify)

(b) Chemical Treatment-

Code	Type of Chemical Treatment
T19	Absorption mound
T20	Absorption field
T21	Chemical fixation
T22	Chemical oxidation
T23	Chemical precipitation
T24	Chemical reduction
T25	Chlorination
T26	Chlorinolysis
T27	Cyanide destruction
T28	Degradation
T29	Detoxification
T30	Ion exchange
T31	Neutralization
T32	Ozonation
T33	Photolysis
T34	Other (specify)

(c) Physical Treatment-

(1) Separation of components:

Code	Type of Separation treatmen
T35	Centrifugation
T36	Clarification
T37	Coagulation
T38	Decanting
T39	Encapsulation
T40	Filtration
T41	Flocculation
T42	Flotation
T43	Foaming
T44	Sedimentation
T45	Thickening
T46	Ultrafiltration
T47	Other (specify)

(2) Removal of Specific Components:

Code	Type of Removal Treatment
T48	Absorption-molecular sieve

T49	Activated carbon
T50	Blending
T51	Catalysis
T52	Crystallization
T53	Dialysis
T54	Distillation
T55	Electrodialysis
T56	Electrolysis
T57	Evaporation
T58	High gradient magnetic separation
T59	Leaching
T60	Liquid ion exchange
T61	Liquid-liquid extraction
T62	Reverse osmosis
T63	Solvent recovery
T64	Stripping
T65	Sand filter
T66	Other (specify)

(d) Biological Treatment

Code	Type of Biological Treatment
T67	Activated sludge
T68	Aerobic lagoon
T69	Aerobic tank
T70	Anaerobic tank
T71	Composting
T72	Septic tank
T73	Spray irrigation
T74	Thickening filter
T75	Trickling filter
T76	Waste stabilization pond
T77	Other (specify)

(e) Boilers and Industrial Furnaces

Code	Type of Boiler or Industrial Furnace
T80	Boiler
T81	Cement Kiln
T82	Lime Kiln
T83	Aggregate Kiln
T84	Phosphate Kiln
T85	Coke Oven
T86	Blast Furnace
T87	Smelting, Melting, or Refining Furnace
T88	Titanium Dioxide Chloride Process Oxidation Reactor
T89	Methane Reforming Furnace

T90	Pulping Liquor Recovery Furnace
T91	Combustion Device Used in the Recovery of Sulfur Values from Spent Sulfuric Acid
T92	Halogen Acid Furnaces
T93	Other Industrial Furnaces Listed in Section R315-260.10 (specify)

(f) Other Treatment

Code	Other type of Treatment
T94	Containment Building (Treatment)

For Disposal

Code	Type of Disposal
D79	Underground Injection
D80	Landfill
D81	Land Treatment
D82	Ocean Disposal
D83	Surface Impoundment (to be closed as a landfill)
D99	Other Disposal (specify)

For Miscellaneous Sections R315-264-600 through 603 Units

Code	Unit type
X01	Open Burning/Open Detonation
X02	Mechanical Processing
X03	Thermal Unit
X04	Geologic Repository
X99	Other Sections R315-264-600 through 603 Units (specify)

Appendix IV to Rule R315-264-Cochran's Approximation to the Behrens-Fisher Students' t-test

40 CFR 264 Appendix IV, 2015 edition, is adopted and incorporated by reference.

Appendix V to Rule R315-264 - Examples of Potentially Incompatible Waste

Many hazardous wastes, when mixed with other waste or materials at a hazardous waste facility, can produce effects which are harmful to human health and the environment, such as (1) heat or pressure, (2) fire or explosion, (3) violent reaction, (4) toxic dusts, mists, fumes, or gases, or (5) flammable fumes or gases.

Below are examples of potentially incompatible wastes, waste components, and materials, along with the harmful consequences which result from mixing materials in one group with materials in another group. The list is intended as a guide to owners or operators of treatment, storage, and disposal facilities, and to enforcement and permit granting officials, to indicate the need for special precautions when managing these potentially incompatible waste materials or components.

This list is not intended to be exhaustive. An owner or operator shall, as the regulations require, adequately analyze his wastes so that he can avoid creating uncontrolled substances or reactions of the type listed below, whether they are listed below or not.

It is possible for potentially incompatible wastes to be mixed in a way that precludes a reaction, e.g., adding acid to water rather than water to acid, or that neutralizes them, e.g., a strong acid mixed with a strong base, or that controls substances produced, e.g., by generating flammable gases in a closed tank equipped so that ignition cannot occur, and burning the gases in an incinerator.

In the lists below, the mixing of a Group A material with a Group B material may have the potential consequence as noted.

Group 1-A

Acetylene sludge

Alkaline caustic liquids

Alkaline cleaner

Alkaline corrosive liquids

Alkaline corrosive battery fluid

Caustic wastewater

Lime sludge and other corrosive alkalies

Lime wastewater

Lime and water

Spent caustic

Group 1-B

Acid sludge

Acid and water

Battery acid

Chemical cleaners

Electrolyte, acid

Etching acid liquid or solvent

Pickling liquor and other corrosive acids

Spent acid

Spent mixed acid

Spent sulfuric acid

Potential consequences: Heat generation; violent reaction.

Group 2-A

Aluminum

Beryllium

Calcium

Lithium

Magnesium

Potassium

Sodium

Zinc powder

Other reactive metals and metal hydrides

Group 2-B

Any waste in Group 1-A or

1-B

Potential consequences: Fire or explosion; generation of flammable hydrogen gas.

Group 3-A

Alcohols

Water

Group 3-B

Any concentrated waste in Groups 1-A or 1-B

Calcium

Lithium

Metal hydrides

Potassium

SO_2Cl_2, $SOCl_2$, PCl_3, CH_3SiCl_3

Other water-reactive waste

Potential consequences: Fire, explosion, or heat generation; generation of flammable or toxic gases.

Group 4-A

Alcohols

Aldehydes

Halogenated hydrocarbons

Nitrated hydrocarbons

Unsaturated hydrocarbons

Other reactive organic compounds and solvents

Group 4-B

Concentrated Group 1-A or 1-B wastes

Group 2-A wastes

Potential consequences: Fire, explosion, or violent reaction.

Group 5-A

Spent cyanide and sulfide solutions

Group 5-B

Group 1-B wastes

Potential consequences: Generation of toxic hydrogen cyanide or hydrogen sulfide gas.

Group 6-A

Chlorates

Chlorine

Chlorites

Chromic acid

Hypochlorites

Nitrates

Nitric acid, fuming

Perchlorates

Permanganates

Peroxides

Other strong oxidizers

Group 6-B

Acetic acid and other organic acids

Concentrated mineral acids

Group 2-A wastes

Group 4-A wastes

Other flammable and combustible wastes

Potential consequences: Fire, explosion, or violent reaction.

Source: “Law, Regulations, and Guidelines for Handling of Hazardous Waste.” California Department of Health, February 1975.

1These include counties, city-county consolidations, and independent cities. In the case of Alaska, the political jurisdictions are election districts, and, in the case of Hawaii, the political jurisdiction listed is the island of Hawaii.

Appendix VI to Rule R315-264 - Political Jurisdictions within Utah in Which Compliance With Subsection R315-264-18(a) Shall Be Demonstrated

Beaver
Box Elder
Cache
Carbon
Daggett
Davis
Duchesne
Emery
Garfield
Grand

Iron
Juab
Kane
Millard
Morgan
Piute
Rich
Salt Lake
San Juan
Sanpete
Sevier
Summit
Tooele
Uintah
Utah
Wasatch
Washington
Wayne
Weber

Appendix IX to Rule R315-264 - Ground-Water Monitoring List
40 CFR 264 Appendix IX, 2015 edition, is adopted and incorporated by reference.

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.

Rule R315-265. Interim Status Standards For Owners And Operators Of Hazardous Waste Treatment, Storage, And Disposal Facilities.

R315-265-1. Incorporation.

40 CFR 265, 2015 edition, is adopted and incorporated by reference with the following exceptions:

(a) Substitute "Director" for all references to "Regional Administrator:"

(b) Substitute "Director" or " Board" for EPA as appropriate except for references to "EPA identification number and where EPA is used in reference to actions under 40 CFR 268.42(b) and in 265.71(a)(3);

(c) Substitute "Utah Division of Waste Management and Radiation Control " or "Director" as appropriate for "Environmental Protection Agency;" and

(d) The language that reads "If the facilities covered by the mechanism are in more than one Region, identical evidence of financial assurance must be submitted to and maintained with the Regional Administrators of all such Regions" in 40 CFR 265.143(g) and 256.145(g) is changed to read as follows: If the facilities covered by the mechanism are in more than one State, identical evidence of financial assurance must be submitted to the Director as is submitted to all other states and to all appropriate EPA Regional Administrators.

(e) Add, following December 6, 1990, in 40 CFR 265.440(a), "for all HSWA drip pads or January 31, 1992 for all non-HSWA drip pads."

(f) Add, following December 24, 1992, in 40 CFR 265-440(a), "for all HSWA drip pads or July 30, 1993 for all non-HSWA drip pads."

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.
Rule R315-266. Standards For The Management Of Specific Hazardous Wastes And Specific Types Of Hazardous Waste Management Facilities.
R315-266-20. Recyclable Materials Used in a Manner Constituting Disposal - Applicability.

(a) The regulations of Sections R315-266-20 through 23 apply to recyclable materials that are applied to or placed on the land:

(1) Without mixing with any other substance(s); or

(2) After mixing or combination with any other substance(s). These materials shall be referred to throughout Sections R315-266-20 through 23 as “materials used in a manner that constitutes disposal.”

(b) Products produced for the general public's use that are used in a manner that constitutes disposal and that contain recyclable materials are not presently subject to regulation if the recyclable materials have undergone a chemical reaction in the course of producing the products so as to become inseparable by physical means and if such products meet the applicable treatment standards in Sections R315-268-40 through 49, or applicable prohibition levels in Section R315-268-32 or RCRA section 3004(d), where no treatment standards have been established, for each recyclable material, i.e., hazardous waste, that they contain, and the recycler complies with Subsection R315-268-7(b)(6).

(c) Anti-skid/deicing uses of slags, which are generated from high temperature metals recovery (HTMR) processing of hazardous waste K061, K062, and F006, in a manner constituting disposal are not covered by the exemption in Subsection R315-266-20(b) and remain subject to regulation.

(d) Fertilizers that contain recyclable materials are not subject to regulation provided that:

(1) They are zinc fertilizers excluded from the definition of solid waste according to Subsection R315-261-4(a)(21); or

(2) They meet the applicable treatment standards in Sections R315-268-40 through 49 for each hazardous waste that they contain.

R315-266-21. Recyclable Materials Used in a Manner Constituting Disposal - Standards applicable to generators

and transporters of materials used in a manner that constitutes disposal.
Generators and transporters of materials that are used in a manner that constitutes disposal are subject to the applicable requirements of Rules R315-262 and 263, and the notification requirement under section 3010 of RCRA.

R315-266-22. Recyclable Materials Used in a Manner Constituting Disposal - Standards applicable to storers of materials that are to be used in a manner that constitutes disposal who are not the ultimate users.
Owners or operators of facilities that store recyclable materials that are to be used in a manner that constitutes disposal, but who are not the ultimate users of the materials, are regulated under all applicable provisions of Sections R315-264-1 through 259; 40 CFR 265.1 through 260, which are adopted by reference; and Rules R315-270 and 124 and the notification requirement under section 3010 of RCRA.

R315-266-23. Recyclable Materials Used in a Manner Constituting Disposal - Standards applicable to users of materials that are used in a manner that constitutes disposal.
(a) Owners or operators of facilities that use recyclable materials in a manner that constitutes disposal are regulated under all applicable provisions of Rules R315-124, 264, 265, 268, and 270 and the notification requirement under section 3010 of RCRA. These requirements do not apply to products which contain these recyclable materials under the provisions of Subsection R315-266-20(b).
(b) The use of waste or used oil or other material, which is contaminated with dioxin or any other hazardous waste, other than a waste identified solely on the basis of ignitability, for dust suppression or road treatment is prohibited.

R315-266-70. Recyclable Materials Utilized for Precious Metal Recovery - Applicability and requirements.
(a) The regulations of Section R315-266-70 apply to recyclable materials that are reclaimed to recover economically significant amounts of gold, silver, platinum, palladium, iridium, osmium, rhodium, ruthenium, or any combination of these.

(b) Persons who generate, transport, or store recyclable materials that are regulated under Section R315-266-70 are subject to the following requirements:

(1) Notification requirements under section 3010 of RCRA;

(2) Sections R315-262-20 through 27, for generators; Sections R315-263-20 and 21, for transporters; and 40 CFR 265.71 and 72, which are adopted by reference, for persons who store; and

(3) For precious metals exported to or imported from designated OECD member countries for recovery, Sections R315-262-80 through 89 and 40 CFR 265.12(a)(2), which is adopted by reference. For precious metals exported to or imported from non-OECD countries for recovery, Sections R315-262-50 through 58 and 60.

(c) Persons who store recycled materials that are regulated under Section R315-266-70 shall keep the following records to document that they are not accumulating these materials speculatively, as defined in Subsection R315-261-1(c);

(1) Records showing the volume of these materials stored at the beginning of the calendar year;

(2) The amount of these materials generated or received during the calendar year; and

(3) The amount of materials remaining at the end of the calendar year.

(d) Recyclable materials that are regulated under Section R315-266-70 that are accumulated speculatively, as defined in Subsection R315-261-1(c), are subject to all applicable provisions of Rules R315-262 through 265, 270, and 124.

R315-266-80. Spent Lead-Acid Batteries Being Reclaimed - Applicability and requirements.

(a) Are spent lead-acid batteries exempt from hazardous waste management requirements? If you generate, collect, transport, store, or regenerate lead-acid batteries for reclamation purposes, you may be exempt from certain hazardous waste management requirements. Use Subsections R315-266-80(a)(1) through (7) to determine which requirements apply to you. Alternatively, you may choose to manage your spent lead-acid batteries under the “Universal Waste” rule in Rule R315-273.

(1) If your batteries will be reclaimed through regeneration, such as by electrolyte replacement, then you

are exempt from Rules R315-262, except for Section R315-262-11; 263; 264; 265; 266; 268; 270; and 124, and the notification requirements at section 3010 of RCRA and you are subject to Rule R315-261 and Section R315-262-11.

(2) If your batteries will be reclaimed other than through regeneration and if you generate, collect, and/or transport these batteries then you are exempt from Rule R315-262, except for Section R315-262-11; 263; 264; 265; 266; 270; and 124, and the notification requirements at section 3010 of RCRA and you are subject to Rule R315-261 and Section R315-262-11, and applicable provisions under Rule R315-268.

(3) If your batteries will be reclaimed other than through regeneration and if you store these batteries but you aren't the reclaimer then you are exempt from Rule R315-262, except for Section R315-262-11; 263; 264; 265; 266; 270; and 124, and the notification requirements at section 3010 of RCRA and you are subject to Rule R315-261 and Section R315-262-11, and applicable provisions under Rule R315-268.

(4) If your batteries will be reclaimed other than through regeneration and if you store these batteries before you reclaim them then you shall comply with Subsection R315-266-80(b) and as appropriate other regulatory provisions described in Subsection R315-266-80(b) and you are subject to Rule R315-261 and Section R315-262-11, and applicable provisions under Rule R315-268.

(5) If your batteries will be reclaimed other than through regeneration and if you don't store these batteries before you reclaim them then you are exempt from Rule R315-262, except for Section R315-262-11; 263; 264; 265; 266; 270; and 124, and the notification requirements at section 3010 of RCRA and you are subject to Rule R315-261 and Section R315-262-11, and applicable provisions under Rule R315-268.

(6) If your batteries will be reclaimed through regeneration or any other means and if you export these batteries for reclamation in a foreign country the you are exempt from Rules R315-263, 264, 265, 266, 268, 270, 124, and the notification requirements at section 3010 of RCRA. You are also exempt from Rule R315-262, except for Section R315-262-11, and except for the applicable requirements in either: Sections R315-262-80 through 89; or Section R315-262-53 “Notification of Intent to Export, Subsection R315-262-56(a)(1) through (4)(6) and (b) “Annual Reports,” and

Section R315-262-57 “Recordkeeping” and you are subject to Rule R315-261 and Section R315-262-11, and either shall comply with Sections R315-262-80 through 89, , if shipping to one of the OECD countries specified in Subsection R315-262-58(a)(1)), or shall:

(i) Comply with the requirements applicable to a primary exporter in Subsections R315-262-53, 56(a)(1) through (4), (6), and (b) and Section R315-262-57; and

(ii) Export these batteries only upon consent of the receiving country and in conformance with the EPA Acknowledgement of Consent as defined in Sections R315-262-50 through 58; and

(iii) Provide a copy of the EPA Acknowledgment of Consent for the shipment to the transporter transporting the shipment for export.

(7) If your batteries will be reclaimed through regeneration or any other means and if you transport these batteries in the U.S. to export them for reclamation in a foreign country then you are exempt from Rules R315-263, 264, 265, 266, 268, 270, 124, and the notification requirements at section 3010 of RCRA and you shall comply with applicable requirements in Sections R315-262-80 through 89, if shipping to one of the OECD countries specified in Subsection R315-262-58(a)(1), or shall comply with the following:

(i) you may not accept a shipment if you know the shipment does not conform to the EPA Acknowledgment of Consent;

(ii) you shall ensure that a copy of the EPA Acknowledgment of Consent accompanies the shipment; and

(iii) you shall ensure that the shipment is delivered to the facility designated by the person initiating the shipment.

(b) If I store spent lead-acid batteries before I reclaim them but not through regeneration, which requirements apply? The requirements of Subsection R315-266-80(b) apply to you if you store spent lead-acid batteries before you reclaim them, but you don't reclaim them through regeneration. The requirements are slightly different depending on your permit status.

(1) For Interim Status Facilities, you shall comply with:

(i) Notification requirements under section 3010 of RCRA.

(ii) All applicable provisions in 40 CFR 265.1 through 4, which are adopted by reference.

(iii) All applicable provisions in 40 CFR 265.10 through 19, which are adopted by reference, except 265.13, waste analysis.

(iv) All applicable provisions in 40 CFR 265.30 through 56, which is adopted by reference.

(v) All applicable provisions in 40 CFR 265.70 through 77, which are adopted by reference, except 265.71 and 72, dealing with the use of the manifest and manifest discrepancies.

(vi) All applicable provisions in 40 CFR 265.90 through 260, which are adopted by reference.

(vii) All applicable provisions in Rules R315-270 and 124.

(2) For Permitted Facilities:

(i) Notification requirements under section 3010 of RCRA.

(ii) All applicable provisions in Sections R315-264-1 through 4.

(iii) All applicable provisions in Sections R315-264-10 through 19, but not Section R315-264-13, waste analysis.

(iv) All applicable provisions in Sections R315-264-30 through 56.

(v) All applicable provisions in Sections R315-264-70 through 77, but not Sections R315-264-71 or 72, dealing with the use of the manifest and manifest discrepancies.

(vi) All applicable provisions in Sections R315-264-90 through 259.

(vii) All applicable provisions in Rules R315-270 and 124.

R315-266-100. Hazardous Waste Burned in Boilers and Industrial Furnaces - Applicability.

(a) The regulations of Sections R315-266-100 through 112 apply to hazardous waste burned or processed in a boiler or industrial furnace, as defined in Section R315-260-10, irrespective of the purpose of burning or processing, except as provided by Subsections R315-266-100(b), (c), (d), (g), and (h). In Sections R315-266-100 through 112, the term “burn” means burning for energy recovery or destruction, or processing for materials recovery or as an ingredient. The emissions standards of Subsections R315-266-104, 105 through 107 apply to

facilities operating under interim status or under a RCRA permit as specified in Subsections R315-266-102 and 103.

(b) Integration of the MACT standards.

(1) Except as provided by Subsections R315-266-100(b)(2), (b)(3), and (b)(4), the standards of Rule R315-266 do not apply to a new hazardous waste boiler or industrial furnace unit that becomes subject to RCRA permit requirements after October 12, 2005; or no longer apply when an owner or operator of an existing hazardous waste boiler or industrial furnace unit demonstrates compliance with the maximum achievable control technology (MACT) requirements of Subsection R307-214-2(39), which incorporates 40 CFR 63, subpart EEE, by conducting a comprehensive performance test and submitting to the Director a Notification of Compliance under 40 CFR 63.1207(j) and 63.1210(d),which are incorporated by Subsection R307-214-2(29), documenting compliance with the requirements of Subsection R307-214-2(29), which incorporates 40 CFR 63, subpart EEE. Nevertheless, even after this demonstration of compliance with the MACT standards, RCRA permit conditions that were based on the standards of Rule R315-266 shall continue to be in effect until they are removed from the permit or the permit is terminated or revoked, unless the permit expressly provides otherwise.

(2) The following standards continue to apply:

(i) If you elect to comply with Subsection R315-270-235(a)(1)(i) to minimize emissions of toxic compounds from startup, shutdown, and malfunction events, Subsection R315-266-102(e)(1) requiring operations in accordance with the operating requirements specified in the permit at all times that hazardous waste is in the unit, and Subsection R315-266-102(e)(2)(iii) requiring compliance with the emission standards and operating requirements during startup and shutdown if hazardous waste is in the combustion chamber, except for particular hazardous wastes. These provisions apply only during startup, shutdown, and malfunction events;

(ii) The closure requirements of Subsections R315-266-102(e)(11) and 103(l);

(iii) The standards for direct transfer of Section R315-266-111;

(iv) The standards for regulation of residues of Section R315-266-112; and

(v) The applicable requirements of Sections R315-264-1 through 151, 1050 through 1065 and 1080 through 1090 and 40 CFR 265.1 through 150, 1050 through 1064, and 1080 through 1090, which are adopted by reference.

(3) If you own or operate a boiler or hydrochloric acid production furnace that is an area source under 40 CFR 63.2 and you elect not to comply with the emission standards under 40 CFR 63.1216, 63.1217, and 63.1218 for particulate matter, semivolatile and low volatile metals, and total chlorine, you also remain subject to:

(i) Section R315-266-105-Standards to control particulate matter;

(ii) Section R315-266-106-Standards to control metals emissions, except for mercury; and

(iii) Section R315-266-107-Standards to control hydrogen chloride and chlorine gas.

(4) The particulate matter standard of Section R315-266-105 remains in effect for boilers that elect to comply with the alternative to the particulate matter standard under 40 CFR 63.1216(e) and 63.1217(e).

(c) The following hazardous wastes and facilities are not subject to regulation under Sections R315-266-100 through 112:

(1) Used oil burned for energy recovery that is also a hazardous waste solely because it exhibits a characteristic of hazardous waste identified in Sections R315-261-20 through 24. Such used oil is subject to regulation under Rule R315-15;

(2) Gas recovered from hazardous or solid waste landfills when such gas is burned for energy recovery;

(3) Hazardous wastes that are exempt from regulation under Section R315-261-4 and Subsections R315-261-6(a)(3)(iii) and (iv), and hazardous wastes that are subject to the special requirements for conditionally exempt small quantity generators under Section R315-261-5; and

(4) Coke ovens, if the only hazardous waste burned is EPA Hazardous Waste No. K087, decanter tank tar sludge from coking operations.

(d) Owners and operators of smelting, melting, and refining furnaces, including pyrometallurgical devices such as cupolas, sintering machines, roasters, and foundry furnaces, but not including cement kilns, aggregate kilns, or halogen acid furnaces burning hazardous waste, that process hazardous waste solely for metal recovery are

conditionally exempt from regulation under Sections R315-266-100 through 112, except for Sections R315-266-101 and 266-112.

(1) To be exempt from Sections R315-266-102 through 111, an owner or operator of a metal recovery furnace or mercury recovery furnace shall comply with the following requirements, except that an owner or operator of a lead or a nickel-chromium recovery furnace, or a metal recovery furnace that burns baghouse bags used to capture metallic dusts emitted by steel manufacturing, shall comply with the requirements of Subsection R315-266-100(d)(3), and owners or operators of lead recovery furnaces that are subject to regulation under the Secondary Lead Smelting NESHAP shall comply with the requirements of Subsection R315-266-100(h).

(i) Provide a one-time written notice to the Director indicating the following:

(A) The owner or operator claims exemption under Subsection R315-266-100(d);

(B) The hazardous waste is burned solely for metal recovery consistent with the provisions of Subsection R315-266-100(d)(2);

(C) The hazardous waste contains recoverable levels of metals; and

(D) The owner or operator shall comply with the sampling and analysis and recordkeeping requirements of Subsection R315-266-100(d);

(ii) Sample and analyze the hazardous waste and other feedstocks as necessary to comply with the requirements of Subsection R315-266-100(d) by using appropriate methods; and

(iii) Maintain at the facility for at least three years records to document compliance with the provisions of Subsection R315-266-100(d) including limits on levels of toxic organic constituents and Btu value of the waste, and levels of recoverable metals in the hazardous waste compared to normal nonhazardous waste feedstocks.

(2) A hazardous waste meeting either of the following criteria is not processed solely for metal recovery:

(i) The hazardous waste has a total concentration of organic compounds listed in Rule R315-261, appendix VIII, exceeding 500 ppm by weight, as-fired, and so is considered to be burned for destruction. The concentration of organic compounds in a waste as-generated may be reduced to the 500 ppm limit by bona fide treatment that removes or destroys organic constituents. Blending for dilution to meet the 500

ppm limit is prohibited and documentation that the waste has not been impermissibly diluted shall be retained in the records required by Subsection R315-266-100(d)(1)(iii); or

(ii) The hazardous waste has a heating value of 5,000 Btu/lb or more, as-fired, and so is considered to be burned as fuel. The heating value of a waste as-generated may be reduced to below the 5,000 Btu/lb limit by bona fide treatment that removes or destroys organic constituents. Blending for dilution to meet the 5,000 Btu/lb limit is prohibited and documentation that the waste has not been impermissibly diluted shall be retained in the records required by Subsection R315-266-100(d)(1)(iii).

(3) To be exempt from Sections R315-266-102 through 111, an owner or operator of a lead or nickel-chromium or mercury recovery furnace, except for owners or operators of lead recovery furnaces subject to regulation under the Secondary Lead Smelting NESHAP, or a metal recovery furnace that burns baghouse bags used to capture metallic dusts emitted by steel manufacturing, shall provide a one-time written notice to the Director identifying each hazardous waste burned and specifying whether the owner or operator claims an exemption for each waste under Subsection R315-266-100(d)(3) or Subsection R315-266-100(d)(1). The owners or operator shall comply with the requirements of Subsection R315-266-100(d)(1) for those wastes claimed to be exempt under Subsection R315-266-100(d)(1) and shall comply with the requirements below for those wastes claimed to be exempt under Subsection R315-266-100(d)(3).

(i) The hazardous wastes listed in appendices XI, XII, and XIII, of Rule R315-266, and baghouse bags used to capture metallic dusts emitted by steel manufacturing are exempt from the requirements of Subsection R315-266-100(d)(1), provided that:

(A) A waste listed in appendix XI of Rule R315-266 shall contain recoverable levels of lead, a waste listed in appendix XII of Rule R315-266 shall contain recoverable levels of nickel or chromium, a waste listed in appendix XIII of Rule R315-266 shall contain recoverable levels of mercury and contain less than 500 ppm of Rule R315-261, appendix VIII organic constituents, and baghouse bags used to capture metallic dusts emitted by steel manufacturing shall contain recoverable levels of metal; and

(B) The waste does not exhibit the Toxicity Characteristic of Section R315-261-24 for an organic constituent; and

(C) The waste is not a hazardous waste listed in Sections R315-261-30 through 35 because it is listed for an organic constituent as identified in appendix VII of Rule R315-261; and

(D) The owner or operator certifies in the one-time notice that hazardous waste is burned under the provisions of Subsection R315-266-100(d)(3) and that sampling and analysis will be conducted or other information will be obtained as necessary to ensure continued compliance with these requirements. Sampling and analysis shall be conducted according to Subsection R315-266-100(d)(1)(ii) and records to document compliance with Subsection R315-266-100(d)(3) shall be kept for at least three years.

(ii) The Director may decide on a case-by-case basis that the toxic organic constituents in a material listed in appendix XI, XII, or XIII of Rule R315-266 that contains a total concentration of more than 500 ppm toxic organic compounds listed in appendix VIII, of Rule R315-261, may pose a hazard to human health and the environment when burned in a metal recovery furnace exempt from the requirements of Sections R315-266-100 through 112. In that situation, after adequate notice and opportunity for comment, the metal recovery furnace shall become subject to the requirements of Sections R315-266-100 through 112 when burning that material. In making the hazard determination, the Director shall consider the following factors:

(A) The concentration and toxicity of organic constituents in the material; and

(B) The level of destruction of toxic organic constituents provided by the furnace; and

(C) Whether the acceptable ambient levels established in appendices IV or V of Rule R315-266 may be exceeded for any toxic organic compound that may be emitted based on dispersion modeling to predict the maximum annual average off-site ground level concentration.

(e) The standards for direct transfer operations under Section R315-266-111 apply only to facilities subject to the permit standards of Section R315-266-102 or the interim status standards of Section R315-266-103.

(f) The management standards for residues under Section R315-266-112 apply to any boiler or industrial furnace burning hazardous waste.

(g) Owners and operators of smelting, melting, and refining furnaces, including pyrometallurgical devices such as cupolas, sintering machines, roasters, and foundry

furnaces, that process hazardous waste for recovery of economically significant amounts of the precious metals gold, silver, platinum, palladium, iridium, osmium, rhodium, or ruthenium, or any combination of these are conditionally exempt from regulation under Sections R315-266-100 through 111. To be exempt from Sections R315-266-101 through 111, an owner or operator shall:

(1) Provide a one-time written notice to the Director indicating the following:

(i) The owner or operator claims exemption under Subsection R315-266-100(g);

(ii) The hazardous waste is burned for legitimate recovery of precious metal; and

(iii) The owner or operator shall comply with the sampling and analysis and recordkeeping requirements of Subsection R315-266-100(g); and

(2) Sample and analyze the hazardous waste as necessary to document that the waste contains economically significant amounts of the metals and that the treatment recovers economically significant amounts of precious metal; and

(3) Maintain at the facility for at least three years records to document that all hazardous wastes burned are burned for recovery of economically significant amounts of precious metal.

(h) Starting June 23, 1997, owners or operators of lead recovery furnaces that process hazardous waste for recovery of lead and that are subject to regulation under the Secondary Lead Smelting NESHAP, are conditionally exempt from regulation under Section R315-266-100 through 112, except for Subsection R315-266-101. To be exempt, an owner or operator shall provide a one-time notice to the Director identifying each hazardous waste burned and specifying that the owner or operator claims an exemption under Subsection R315-266-100(h). The notice also shall state that the waste burned has a total concentration of non-metal compounds listed in Rule R315-261, appendix VIII, of less than 500 ppm by weight, as fired and as provided in Subsection R315-266-100(d)(2)(i), or is listed in appendix XI to Rule R315-266.

R315-266-101. Hazardous Waste Burned in Boilers and Industrial Furnaces - Management prior to burning.

(a) Generators. Generators of hazardous waste that is burned in a boiler or industrial furnace are subject to Rule R315-262.

(b) Transporters. Transporters of hazardous waste that is burned in a boiler or industrial furnace are subject to Rule R315-263.

(c) Storage and treatment facilities.

(1) Owners and operators of facilities that store or treat hazardous waste that is burned in a boiler or industrial furnace are subject to the applicable provisions of Rules R315-264, 265 and 270, except as provided by Subsection R315-266-101(c)(2). These standards apply to storage and treatment by the burner as well as to storage and treatment facilities operated by intermediaries, processors, blenders, distributors, etc., between the generator and the burner.

(2) Owners and operators of facilities that burn, in an onsite boiler or industrial furnace exempt from regulation under the small quantity burner provisions of Section R315-266-108, hazardous waste that they generate are exempt from the regulations of Rules R315-264, 265 and 270 applicable to storage units for those storage units that store mixtures of hazardous waste and the primary fuel to the boiler or industrial furnace in tanks that feed the fuel mixture directly to the burner. Storage of hazardous waste prior to mixing with the primary fuel is subject to regulation as prescribed in Subsection R315-266-101(c)(1).

R315-266-102. Hazardous Waste Burned in Boilers and Industrial Furnaces - Permit standards for burners.

(a) Applicability

(1) General. Owners and operators of boilers and industrial furnaces burning hazardous waste and not operating under interim status shall comply with the requirements of Section R315-266-102 and Sections R315-270-22 and 66, unless exempt under the small quantity burner exemption of Subsections R315-266-108.

(2) Applicability of Rule R315-264 standards. Owners and operators of boilers and industrial furnaces that burn hazardous waste are subject to the following provisions of Rule R315-264, except as provided otherwise by Sections R315-266-100 through 112:

(i) Section R315-264-4, General;

(ii) Sections R315-264-11 through 18, General facility standards;

(iii) Sections R315-264-31 through 37, Preparedness and prevention;

(iv) Sections R315-264-51 through 56, Contingency plan and emergency procedures;

(v) The applicable provisions of Sections R315-264-71 through 77, Manifest system, recordkeeping, and reporting;

(vi) Sections R315-264-90 and 101, Releases from Solid Waste Management Units;

(vii) Sections R315-264-111 through 115, Closure and post-closure;

(viii) Sections R315-264-141 through 143 and 147 through 151, Financial requirements; except that States and the Federal government are exempt from the requirements of Sections R315-264-140 through 151; and

(ix) Sections R315-264-1050 through 1065, Air emission standards for equipment leaks, except Subsections R315-264-1050(a).

(b) Hazardous waste analysis.

(1) The owner or operator shall provide an analysis of the hazardous waste that quantifies the concentration of any constituent identified in appendix VIII of Rule R315-261 that may reasonably be expected to be in the waste. Such constituents shall be identified and quantified if present, at levels detectable by using appropriate analytical procedures. The appendix VIII, Rule R315-261 constituents excluded from this analysis shall be identified and the basis for their exclusion explained. This analysis shall be used to provide all information required by Sections R315-266-100 through 112 and Subsections R315-270-22 and 66 and to enable the permit writer to prescribe such permit conditions as necessary to protect human health and the environment. Such analysis shall be included as a portion of the part B permit application, or, for facilities operating under the interim status standards of Sections R315-266-100 through 112, as a portion of the trial burn plan that may be submitted before the part B application under provisions of Subsections R315-270-66(g) as well as any other analysis required by the permit authority in preparing the permit. Owners and operators of boilers and industrial furnaces not operating under the interim status standards shall provide the information required by Subsections R315-270-22 or 66(c) in the part B application to the greatest extent possible.

(2) Throughout normal operation, the owner or operator shall conduct sampling and analysis as necessary

to ensure that the hazardous waste, other fuels, and industrial furnace feedstocks fired into the boiler or industrial furnace are within the physical and chemical composition limits specified in the permit.

(c) Emissions standards. Owners and operators shall comply with emissions standards provided by Subsections R315-266-104 through 107.

(d) Permits.

(1) The owner or operator may burn only hazardous wastes specified in the facility permit and only under the operating conditions specified under Subsection R315-266-102(e), except in approved trial burns under the conditions specified in Section R315-270-66.

(2) Hazardous wastes not specified in the permit may not be burned until operating conditions have been specified under a new permit or permit modification, as applicable. Operating requirements for new wastes may be based on either trial burn results or alternative data included with part B of a permit application under Section R315-270-22.

(3) Boilers and industrial furnaces operating under the interim status standards of Section R315-266-103 are permitted under procedures provided by Subsections R315-270-66(g).

(4) A permit for a new boiler or industrial furnace, those boilers and industrial furnaces not operating under the interim status standards, shall establish appropriate conditions for each of the applicable requirements of Section R315-266-102, including but not limited to allowable hazardous waste firing rates and operating conditions necessary to meet the requirements of Subsection R315-266-102(e), in order to comply with the following standards:

(i) For the period beginning with initial introduction of hazardous waste and ending with initiation of the trial burn, and only for the minimum time required to bring the device to a point of operational readiness to conduct a trial burn, not to exceed a duration of 720 hours operating time when burning hazardous waste, the operating requirements shall be those most likely to ensure compliance with the emission standards of Sections R315-266-104 through 107, based on the Director's engineering judgment. If the applicant is seeking a waiver from a trial burn to demonstrate conformance with a particular emission standard, the operating requirements during this initial

period of operation shall include those specified by the applicable provisions of Sections R315-266-104, 105, 106, or 107. The Director may extend the duration of this period for up to 720 additional hours when good cause for the extension is demonstrated by the applicant.

(ii) For the duration of the trial burn, the operating requirements shall be sufficient to demonstrate compliance with the emissions standards of Sections R315-266-104 through 107 and shall be in accordance with the approved trial burn plan;

(iii) For the period immediately following completion of the trial burn, and only for the minimum period sufficient to allow sample analysis, data computation, submission of the trial burn results by the applicant, review of the trial burn results and modification of the facility permit by the Director to reflect the trial burn results, the operating requirements shall be those most likely to ensure compliance with the emission standards Sections R315-266-104 through 107 based on the Director's engineering judgment.

(iv) For the remaining duration of the permit, the operating requirements shall be those demonstrated in a trial burn or by alternative data specified in Section R315-270-22, as sufficient to ensure compliance with the emissions standards of Sections R315-266-104 through 107.

(e) Operating requirements

(1) General. A boiler or industrial furnace burning hazardous waste shall be operated in accordance with the operating requirements specified in the permit at all times where there is hazardous waste in the unit.

(2) Requirements to ensure compliance with the organic emissions standards

(i) DRE standard. Operating conditions shall be specified either on a case-by-case basis for each hazardous waste burned as those demonstrated, in a trial burn or by alternative data as specified in Sections R315-270-22, to be sufficient to comply with the destruction and removal efficiency (DRE) performance standard of Subsection R315-266-104(a) or as those special operating requirements provided by Subsection R315-266-104(a)(4) for the waiver of the DRE trial burn. When the DRE trial burn is not waived under Subsection R315-266-104(a)(4), each set of operating requirements shall specify the composition of the hazardous waste, including acceptable variations in the physical and chemical properties of the hazardous waste which will not

affect compliance with the DRE performance standard, to which the operating requirements apply. For each such hazardous waste, the permit shall specify acceptable operating limits including, but not limited to, the following conditions as appropriate:

(A) Feed rate of hazardous waste and other fuels measured and specified as prescribed in Subsection R315-266-102(e)(6);

(B) Minimum and maximum device production rate when producing normal product expressed in appropriate units, measured and specified as prescribed in Subsection R315-266-102(e)(6);

(C) Appropriate controls of the hazardous waste firing system;

(D) Allowable variation in boiler and industrial furnace system design or operating procedures;

(E) Minimum combustion gas temperature measured at a location indicative of combustion chamber temperature, measured and specified as prescribed in Subsection R315-266-102(e)(6);

(F) An appropriate indicator of combustion gas velocity, measured and specified as prescribed in Subsection R315-266-102(e)(6), unless documentation is provided under Section R315-270-66 demonstrating adequate combustion gas residence time; and

(G) Such other operating requirements as are necessary to ensure that the DRE performance standard of Subsection R315-266-104(a) is met.

(ii) Carbon monoxide and hydrocarbon standards. The permit shall incorporate a carbon monoxide (CO) limit and, as appropriate, a hydrocarbon (HC) limit as provided by Subsections R315-266-104(b), (c), (d), (e) and (f). The permit limits shall be specified as follows:

(A) When complying with the CO standard of Subsections R315-266-104(b)(1), the permit limit is 100 ppmv;

(B) When complying with the alternative CO standard under Subsection R315-266-104(c), the permit limit for CO is based on the trial burn and is established as the average over all valid runs of the highest hourly rolling average CO level of each run, and the permit limit for HC is 20 ppmv, as defined in Subsection R315-266-104(c)(1), except as provided in Subsection R315-266-104(f).

(C) When complying with the alternative HC limit for industrial furnaces under Subsection R315-266-104(f), the

permit limit for HC and CO is the baseline level when hazardous waste is not burned as specified by Subsection R315-266-104(f).

(iii) Start-up and shut-down. During start-up and shut-down of the boiler or industrial furnace, hazardous waste, except waste fed solely as an ingredient under the Tier I, or adjusted Tier I, feed rate screening limits for metals and chloride/chlorine, and except low risk waste exempt from the trial burn requirements under Subsections R315-266-104(a)(5) and R315-266-105through 107, shall not be fed into the device unless the device is operating within the conditions of operation specified in the permit.

(3) Requirements to ensure conformance with the particulate standard.

(i) Except as provided in Subsections R315-266-102(e)(3)(ii) and (iii), the permit shall specify the following operating requirements to ensure conformance with the particulate standard specified in Section R315-266-105:

(A) Total ash feed rate to the device from hazardous waste, other fuels, and industrial furnace feedstocks, measured and specified as prescribed in Subsection R315-266-102(e)(6);

(B) Maximum device production rate when producing normal product expressed in appropriate units, and measured and specified as prescribed in Subsection R315-266-102(e)(6);

(C) Appropriate controls on operation and maintenance of the hazardous waste firing system and any air pollution control system;

(D) Allowable variation in boiler and industrial furnace system design including any air pollution control system or operating procedures; and

(E) Such other operating requirements as are necessary to ensure that the particulate standard in Subsection R315-266-105(a) is met.

(ii) Permit conditions to ensure conformance with the particulate matter standard shall not be provided for facilities exempt from the particulate matter standard under Subsection R315-266-105(b);

(iii) For cement kilns and light-weight aggregate kilns, permit conditions to ensure compliance with the particulate standard shall not limit the ash content of hazardous waste or other feed materials.

(4) Requirements to ensure conformance with the metals emissions standard.

(i) For conformance with the Tier I, or adjusted Tier I, metals feed rate screening limits of Subsections R315-266-106(b) or (e), the permit shall specify the following operating requirements:

(A) Total feed rate of each metal in hazardous waste, other fuels, and industrial furnace feedstocks measured and specified under provisions of Subsection R315-266-102(e)(6);

(B) Total feed rate of hazardous waste measured and specified as prescribed in Subsection R315-266-102(e)(6);

(C) A sampling and metals analysis program for the hazardous waste, other fuels, and industrial furnace feedstocks;

(ii) For conformance with the Tier II metals emission rate screening limits under Subsection R315-266-106(c) and the Tier III metals controls under Subsection R315-266-106(d), the permit shall specify the following operating requirements:

(A) Maximum emission rate for each metal specified as the average emission rate during the trial burn;

(B) Feed rate of total hazardous waste and pumpable hazardous waste, each measured and specified as prescribed in Subsection R315-266-102(e)(6)(i);

(C) Feed rate of each metal in the following feedstreams, measured and specified as prescribed in Subsection R315-266-102(e)(6):

(I) Total feedstreams;

(II) Total hazardous waste feed; and

(III) Total pumpable hazardous waste feed;

(D) Total feed rate of chlorine and chloride in total feedstreams measured and specified as prescribed in Subsection R315-266-102(e)(6);

(E) Maximum combustion gas temperature measured at a location indicative of combustion chamber temperature, and measured and specified as prescribed in Subsection R315-266-102(e)(6);

(F) Maximum flue gas temperature at the inlet to the particulate matter air pollution control system measured and specified as prescribed in Subsection R315-266-102(e)(6);

(G) Maximum device production rate when producing normal product expressed in appropriate units and measured and specified as prescribed in Subsection R315-266-102(e)(6);

(H) Appropriate controls on operation and maintenance of the hazardous waste firing system and any air pollution control system;

(I) Allowable variation in boiler and industrial furnace system design including any air pollution control system or operating procedures; and

(J) Such other operating requirements as are necessary to ensure that the metals standards under Subsections R315-266-106(c) or 106(d) are met.

(iii) For conformance with an alternative implementation approach approved by the Director under Subsection R315-266-106(f), the permit shall specify the following operating requirements:

(A) Maximum emission rate for each metal specified as the average emission rate during the trial burn;

(B) Feed rate of total hazardous waste and pumpable hazardous waste, each measured and specified as prescribed in Subsection R315-266-102(e)(6)(i);

(C) Feed rate of each metal in the following feedstreams, measured and specified as prescribed in Subsection R315-266-102(e)(6):

(I) Total hazardous waste feed; and

(II) Total pumpable hazardous waste feed;

(D) Total feed rate of chlorine and chloride in total feedstreams measured and specified prescribed in Subsection R315-266-102(e)(6);

(E) Maximum combustion gas temperature measured at a location indicative of combustion chamber temperature, and measured and specified as prescribed in Subsection R315-266-102(e)(6);

(F) Maximum flue gas temperature at the inlet to the particulate matter air pollution control system measured and specified as prescribed in Subsection R315-266-102(e)(6);

(G) Maximum device production rate when producing normal product expressed in appropriate units and measured and specified as prescribed in Subsection R315-266-102(e)(6);

(H) Appropriate controls on operation and maintenance of the hazardous waste firing system and any air pollution control system;

(I) Allowable variation in boiler and industrial furnace system design including any air pollution control system or operating procedures; and

(J) Such other operating requirements as are necessary to ensure that the metals standards under Subsections R315-266-106(c) or 106(d) are met.

(5) Requirements to ensure conformance with the hydrogen chloride and chlorine gas standards.

(i) For conformance with the Tier I total chloride and chlorine feed rate screening limits of Subsection R315-266-107(b)(1), the permit shall specify the following operating requirements:

(A) Feed rate of total chloride and chlorine in hazardous waste, other fuels, and industrial furnace feedstocks measured and specified as prescribed in Subsection R315-266-102(e)(6);

(B) Feed rate of total hazardous waste measured and specified as prescribed in Subsection R315-266-102(e)(6);

(C) A sampling and analysis program for total chloride and chlorine for the hazardous waste, other fuels, and industrial furnace feedstocks;

(ii) For conformance with the Tier II HCl and Cl_2 emission rate screening limits under Subsection R315-266-107(b)(2) and the Tier III HCl and Cl_2 controls under Subsection R315-266-107(c), the permit shall specify the following operating requirements:

(A) Maximum emission rate for HCl and for Cl_2 specified as the average emission rate during the trial burn;

(B) Feed rate of total hazardous waste measured and specified as prescribed in Subsection R315-266-102(e)(6);

(C) Total feed rate of chlorine and chloride in total feedstreams, measured and specified as prescribed in Subsection R315-266-102(e)(6);

(D) Maximum device production rate when producing normal product expressed in appropriate units, measured and specified as prescribed in Subsection R315-266-102(e)(6);

(E) Appropriate controls on operation and maintenance of the hazardous waste firing system and any air pollution control system;

(F) Allowable variation in boiler and industrial furnace system design including any air pollution control system or operating procedures; and

(G) Such other operating requirements as are necessary to ensure that the HCl and Cl_2 standards under Subsections R315-266-107 (b)(2) or (c) are met.

(6) Measuring parameters and establishing limits based on trial burn data

(i) General requirements. As specified in Subsections R315-266-102(e)(2) through (e)(5), each operating parameter shall be measured, and permit limits on the parameter shall be established, according to either of the following procedures:

(A) Instantaneous limits. A parameter may be measured and recorded on an instantaneous basis, i.e., the value that occurs at any time, and the permit limit specified as the time-weighted average during all valid runs of the trial burn; or

(B) Hourly rolling average. The limit for a parameter may be established and continuously monitored on an hourly rolling average basis defined as follows:

(I) A continuous monitor is one which continuously samples the regulated parameter without interruption, and evaluates the detector response at least once each 15 seconds, and computes and records the average value at least every 60 seconds.

(II) An hourly rolling average is the arithmetic mean of the 60 most recent 1-minute average values recorded by the continuous monitoring system.

(III) The permit limit for the parameter shall be established based on trial burn data as the average over all valid test runs of the highest hourly rolling average value for each run.

(ii) Rolling average limits for carcinogenic metals and lead. Feed rate limits for the carcinogenic metals, i.e., arsenic, beryllium, cadmium and chromium, and lead may be established either on an hourly rolling average basis as prescribed by Subsection R315-266-102(e)(6)(i) or on, up to, a 24 hour rolling average basis. If the owner or operator elects to use an average period from 2 to 24 hours:

(A) The feed rate of each metal shall be limited at any time to ten times the feed rate that would be allowed on an hourly rolling average basis;

(B) The continuous monitor shall meet the following specifications:

(I) A continuous monitor is one which continuously samples the regulated parameter without interruption, and evaluates the detector response at least once each 15 seconds, and computes and records the average value at least every 60 seconds.

(I) The rolling average for the selected averaging period is defined as the arithmetic mean of one hour block

averages for the averaging period. A one hour block average is the arithmetic mean of the one minute averages recorded during the 60-minute period beginning at one minute after the beginning of the preceding clock hour; and

(C) The permit limit for the feed rate of each metal shall be established based on trial burn data as the average over all valid test runs of the highest hourly rolling average feed rate for each run.

(iii) Feed rate limits for metals, total chloride and chlorine, and ash. Feed rate limits for metals, total chlorine and chloride, and ash are established and monitored by knowing the concentration of the substance, i.e., metals, chloride/chlorine, and ash, in each feedstream and the flow rate of the feedstream. To monitor the feed rate of these substances, the flow rate of each feedstream shall be monitored under the continuous monitoring requirements of Subsections R315-266-102(e)(6)(i) and (ii).

(iv) Conduct of trial burn testing.

(A) If compliance with all applicable emissions standards of Sections R315-266-104 through 107 is not demonstrated simultaneously during a set of test runs, the operating conditions of additional test runs required to demonstrate compliance with remaining emissions standards shall be as close as possible to the original operating conditions.

(B) Prior to obtaining test data for purposes of demonstrating compliance with the emissions standards of Sections R315-266-104 through 107 or establishing limits on operating parameters under Section R315-266-102, the facility shall operate under trial burn conditions for a sufficient period to reach steady-state operations. The Director may determine, however, that industrial furnaces that recycle collected particulate matter back into the furnace and that comply with an alternative implementation approach for metals under Subsection R315-266-106(f) need not reach steady state conditions with respect to the flow of metals in the system prior to beginning compliance testing for metals emissions.

(C) Trial burn data on the level of an operating parameter for which a limit shall be established in the permit shall be obtained during emissions sampling for the pollutant(s), i.e., metals, PM, HCl/Cl_2, organic compounds, for which the parameter shall be established as specified by Subsection R315-266-102(e).

(7) General requirements

(i) Fugitive emissions. Fugitive emissions shall be controlled by:

(A) Keeping the combustion zone totally sealed against fugitive emissions; or

(B) Maintaining the combustion zone pressure lower than atmospheric pressure; or

(C) An alternate means of control demonstrated, with part B of the permit application, to provide fugitive emissions control equivalent to maintenance of combustion zone pressure lower than atmospheric pressure.

(ii) Automatic waste feed cutoff. A boiler or industrial furnace shall be operated with a functioning system that automatically cuts off the hazardous waste feed when operating conditions deviate from those established under Section R315-266-102. The Director may limit the number of cutoffs per an operating period on a case-by-case basis. In addition:

(A) The permit limit for, the indicator of, minimum combustion chamber temperature shall be maintained while hazardous waste or hazardous waste residues remain in the combustion chamber,

(B) Exhaust gases shall be ducted to the air pollution control system operated in accordance with the permit requirements while hazardous waste or hazardous waste residues remain in the combustion chamber; and

(C) Operating parameters for which permit limits are established shall continue to be monitored during the cutoff, and the hazardous waste feed shall not be restarted until the levels of those parameters comply with the permit limits. For parameters that may be monitored on an instantaneous basis, the Director shall establish a minimum period of time after a waste feed cutoff during which the parameter shall not exceed the permit limit before the hazardous waste feed may be restarted.

(iii) Changes. A boiler or industrial furnace shall cease burning hazardous waste when changes in combustion properties, or feed rates of the hazardous waste, other fuels, or industrial furnace feedstocks, or changes in the boiler or industrial furnace design or operating conditions deviate from the limits as specified in the permit.

(8) Monitoring and Inspections.

(i) The owner or operator shall monitor and record the following, at a minimum, while burning hazardous waste:

(A) If specified by the permit, feed rates and composition of hazardous waste, other fuels, and industrial furnace feedstocks, and feed rates of ash, metals, and total chloride and chlorine;

(B) If specified by the permit, carbon monoxide (CO), hydrocarbons (HC), and oxygen on a continuous basis at a common point in the boiler or industrial furnace downstream of the combustion zone and prior to release of stack gases to the atmosphere in accordance with operating requirements specified in Subsection R315-266-102(e)(2)(ii). CO, HC, and oxygen monitors shall be installed, operated, and maintained in accordance with methods specified in appendix IX of Rule R315-266.

(C) Upon the request of the Director, sampling and analysis of the hazardous waste, and other fuels and industrial furnace feedstocks as appropriate, residues, and exhaust emissions shall be conducted to verify that the operating requirements established in the permit achieve the applicable standards of Sections R315-266-104 through 107.

(ii) All monitors shall record data in units corresponding to the permit limit unless otherwise specified in the permit.

(iii) The boiler or industrial furnace and associated equipment, pumps, valves, pipes, fuel storage tanks, etc., shall be subjected to thorough visual inspection when it contains hazardous waste, at least daily for leaks, spills, fugitive emissions, and signs of tampering.

(iv) The automatic hazardous waste feed cutoff system and associated alarms shall be tested at least once every 7 days when hazardous waste is burned to verify operability, unless the applicant demonstrates to the Director that weekly inspections will unduly restrict or upset operations and that less frequent inspections will be adequate. At a minimum, operational testing shall be conducted at least once every 30 days.

(v) These monitoring and inspection data shall be recorded and the records shall be placed in the operating record required by Section R315-264-73.

(9) Direct transfer to the burner. If hazardous waste is directly transferred from a transport vehicle to a boiler or industrial furnace without the use of a storage unit, the owner and operator shall comply with Section R315-266-111.

(10) Recordkeeping. The owner or operator shall maintain in the operating record of the facility all information and data required by Section R315-266-102 for five years.

(11) Closure. At closure, the owner or operator shall remove all hazardous waste and hazardous waste residues, including, but not limited to, ash, scrubber waters, and scrubber sludges, from the boiler or industrial furnace.

R315-266-103. Hazardous Waste Burned in Boilers and Industrial Furnaces - Interim status standards for burners.

(a) Purpose, scope, applicability

(1) General.

(i) The purpose of Section R315-266-103 is to establish minimum national standards for owners and operators of “existing” boilers and industrial furnaces that burn hazardous waste where such standards define the acceptable management of hazardous waste during the period of interim status. The standards of Section R315-266-103 apply to owners and operators of existing facilities until either a permit is issued under Section R315-266-102(d) or until closure responsibilities identified in Section R315-266-103 are fulfilled.

(ii) Existing or in existence means a boiler or industrial furnace that on or before August 21, 1991 is either in operation burning or processing hazardous waste or for which construction, including the ancillary facilities to burn or to process the hazardous waste, has commenced. A facility has commenced construction if the owner or operator has obtained the Federal, State, and local approvals or permits necessary to begin physical construction; and either:

(A) A continuous on-site, physical construction program has begun; or

(B) The owner or operator has entered into contractual obligations-which cannot be canceled or modified without substantial loss-for physical construction of the facility to be completed within a reasonable time.

(iii) If a boiler or industrial furnace is located at a facility that already has a permit or interim status, then the facility shall comply with the applicable regulations dealing with permit modifications in Section R315-270-42 or changes in interim status in Section R315-270-72.

(2) Exemptions. The requirements of Section R315-266-103 do not apply to hazardous waste and facilities exempt under Subsection R315-266-100(b), or Section R315-266-108.

(3) Prohibition on burning dioxin-listed wastes. The following hazardous waste listed for dioxin and hazardous waste derived from any of these wastes may not be burned in a boiler or industrial furnace operating under interim status: F020, F021, F022, F023, F026, and F027.

(4) Applicability of Rule R315-265 standards. Owners and operators of boilers and industrial furnaces that burn hazardous waste and are operating under interim status are subject to the following provisions of Rule R315-265, except as provided otherwise by Section R315-266-103:

(i) 40 CFR 265.4, which is adopted by reference, General;

(ii) 40 CFR 265.11 through 17, which are adopted by reference, General facility standards;

(iii) 40 CFR 265.31 through 37, which are adopted by reference, Preparedness and prevention;

(iv) 40 CFR 265.51 through 56, which are adopted by reference, Contingency plan and emergency procedures;

(v) 40 CFR 265.71 through 77, which are adopted by reference, Manifest system, recordkeeping, and reporting, except that 40 CFR 265.265.71, 72, and 76, which are incorporated by reference in Rule R315-265, do not apply to owners and operators of on-site facilities that do not receive any hazardous waste from off-site sources;

(vi) 40 CFR 265.111 through 115, which are adopted by reference, Closure and post-closure;

(vii) 40 CFR 265.141, 142, 143, and 147 through 150, which are adopted by reference, Financial requirements, except that States and the Federal government are exempt from the requirements of 40 CFR 265.140 through 150, which are adopted by reference; and

(viii) 40 CFR 265.1050 through 1064, which are adopted by reference, Air emission standards for equipment leaks, except 265-1050(a).

(5) Special requirements for furnaces. The following controls apply during interim status to industrial furnaces, e.g., kilns, cupolas, that feed hazardous waste for a purpose other than solely as an ingredient, see Subsection R315-266-103(a)(5)(ii), at any location other than the hot end where products are normally discharged or where fuels are normally fired:

(i) Controls.

(A) The hazardous waste shall be fed at a location where combustion gas temperatures are at least 1800 °F;

(B) The owner or operator shall determine that adequate oxygen is present in combustion gases to combust organic constituents in the waste and retain documentation of such determination in the facility record;

(C) For cement kiln systems, the hazardous waste shall be fed into the kiln; and

(D) The hydrocarbon controls of Subsections R315-266-104(c) or 103(c)(5) apply upon certification of compliance under Subsection R315-266-103(c) irrespective of the CO level achieved during the compliance test.

(ii) Burning hazardous waste solely as an ingredient. A hazardous waste is burned for a purpose other than solely as an ingredient if it meets either of these criteria:

(A) The hazardous waste has a total concentration of nonmetal compounds listed in Rule R315-261, appendix VIII, exceeding 500 ppm by weight, as-fired, and so is considered to be burned for destruction. The concentration of nonmetal compounds in a waste as-generated may be reduced to the 500 ppm limit by bona fide treatment that removes or destroys nonmetal constituents. Blending for dilution to meet the 500 ppm limit is prohibited and documentation that the waste has not been impermissibly diluted shall be retained in the facility record; or

(B) The hazardous waste has a heating value of 5,000 Btu/lb or more, as-fired, and so is considered to be burned as fuel. The heating value of a waste as-generated may be reduced to below the 5,000 Btu/lb limit by bona fide treatment that removes or destroys organic constituents. Blending to augment the heating value to meet the 5,000 Btu/lb limit is prohibited and documentation that the waste has not been impermissibly blended shall be retained in the facility record.

(6) Restrictions on burning hazardous waste that is not a fuel. Prior to certification of compliance under Subsection R315-266-103(c), owners and operators shall not feed hazardous waste that has a heating value less than 5,000 Btu/lb, as-generated, except that the heating value of a waste as-generated may be increased to above the 5,000 Btu/lb limit by bona fide treatment; however, blending to augment the heating value to meet the 5,000 Btu/lb limit is prohibited and records shall be kept to document that impermissible blending has not occurred, in a boiler or industrial furnace, except that:

(i) Hazardous waste may be burned solely as an ingredient; or

(ii) Hazardous waste may be burned for purposes of compliance testing, or testing prior to compliance testing, for a total period of time not to exceed 720 hours; or

(iii) Such waste may be burned if the Director has documentation to show that, prior to August 21, 1991:

(A) The boiler or industrial furnace is operating under the interim status standards for incinerators provided by 40 CFR 265.340 through 352, which are adopted by reference, or the interim status standards for thermal treatment units provided by 40 CFR 265.370 through 383, which are adopted by reference; and

(B) The boiler or industrial furnace met the interim status eligibility requirements under Section R315-270-70 for 40 CFR 265.340 through 383, which are adopted by reference; and

(C) Hazardous waste with a heating value less than 5,000 Btu/lb was burned prior to that date; or

(iv) Such waste may be burned in a halogen acid furnace if the waste was burned as an excluded ingredient under Section R315-261-2(e) prior to February 21, 1991 and documentation is kept on file supporting this claim.

(7) Direct transfer to the burner. If hazardous waste is directly transferred from a transport vehicle to a boiler or industrial furnace without the use of a storage unit, the owner and operator shall comply with Section R315-266-111.

(b) Certification of precompliance

(1) General. The owner or operator shall provide complete and accurate information specified in Subsection R315-266-103(b)(2) to the Director on or before August 21, 1991, and shall establish limits for the operating parameters specified in Subsection R315-266-103(b)(3). Such information is termed a “certification of precompliance” and constitutes a certification that the owner or operator has determined that, when the facility is operated within the limits specified in Subsection R315-266-103(b)(3), the owner or operator believes that, using best engineering judgment, emissions of particulate matter, metals, and HCl and Cl_2 are not likely to exceed the limits provided by Sections R315-266-105 through 107. The facility may burn hazardous waste only under the operating conditions that the owner or operator establishes under Subsection R315-266-103(b)(3) until the owner or operator submits a revised

certification of precompliance under Subsection R315-266-103(b)(8) or a certification of compliance under Subsection R315-266-103(c), or until a permit is issued.

(2) Information required. The following information shall be submitted with the certification of precompliance to support the determination that the limits established for the operating parameters identified in Subsection R315-266-103(b)(3) are not likely to result in an exceedance of the allowable emission rates for particulate matter, metals, and HCl and Cl_2.

(i) General facility information:

(A) EPA facility ID number;

(B) Facility name, contact person, telephone number, and address;

(C) Description of boilers and industrial furnaces burning hazardous waste, including type and capacity of device;

(D) A scaled plot plan showing the entire facility and location of the boilers and industrial furnaces burning hazardous waste; and

(E) A description of the air pollution control system on each device burning hazardous waste, including the temperature of the flue gas at the inlet to the particulate matter control system.

(ii) Except for facilities complying with the Tier I or Adjusted Tier I feed rate screening limits for metals or total chlorine and chloride provided by Subsections R315-266-106(b) or (e) and 107(b)(1) or (e), respectively, the estimated uncontrolled, at the inlet to the air pollution control system, emissions of particulate matter, each metal controlled by Section R315-266-106, and hydrogen chloride and chlorine, and the following information to support such determinations:

(A) The feed rate (lb/hr) of ash, chlorine, antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, and thallium in each feedstream, hazardous waste, other fuels, industrial furnace feedstocks;

(B) The estimated partitioning factor to the combustion gas for the materials identified in Subsection R315-266-103(b)(2)(ii)(A) and the basis for the estimate and an estimate of the partitioning to HCl and Cl_2 of total chloride and chlorine in feed materials. To estimate the partitioning factor, the owner or operator shall use either best engineering judgment or the procedures specified in appendix IX of Rule R315-266.

(C) For industrial furnaces that recycle collected particulate matter (PM) back into the furnace and that will certify compliance with the metals emissions standards under Subsection R315-266-103(c)(3)(ii)(A), the estimated enrichment factor for each metal. To estimate the enrichment factor, the owner or operator shall use either best engineering judgment or the procedures specified in "Alternative Methodology for Implementing Metals Controls" in appendix IX Rule R315-266.

(D) If best engineering judgment is used to estimate partitioning factors or enrichment factors under Subsections R315-266-103(b)(2)(ii)(B) or (b)(2)(ii)(C) respectively, the basis for the judgment. When best engineering judgment is used to develop or evaluate data or information and make determinations under Section R315-266-103, the determinations shall be made by a qualified, registered professional engineer and a certification of his/her determinations in accordance with Subsection R315-270-11(d) shall be provided in the certification of precompliance.

(iii) For facilities complying with the Tier I or Adjusted Tier I feed rate screening limits for metals or total chlorine and chloride provided by Subsections R315-266-106(b) or (e) and 107(b)(1) or (e), the feed rate (lb/hr) of total chloride and chlorine, antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, and thallium in each feed stream, hazardous waste, other fuels, industrial furnace feedstocks.

(iv) For facilities complying with the Tier II or Tier III emission limits for metals or HCl and Cl_2, under Subsections R315-266-106(c) or (d) or 107(b)(2) or (c), the estimated controlled, outlet of the air pollution control system, emissions rates of particulate matter, each metal controlled by Section R315-266-106, and HCl and Cl_2, and the following information to support such determinations:

(A) The estimated air pollution control system (APCS) removal efficiency for particulate matter, HCl, Cl_2, antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, and thallium.

(B) To estimate APCS removal efficiency, the owner or operator shall use either best engineering judgment or the procedures prescribed in appendix IX of Rule R315-266.

(C) If best engineering judgment is used to estimate APCS removal efficiency, the basis for the judgment. Use of

best engineering judgment shall be in conformance with provisions of Subsection R315-266-103(b)(2)(ii)(D).

(v) Determination of allowable emissions rates for HCl, Cl_2, antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, and thallium, and the following information to support such determinations:

(A) For all facilities:

(I) Physical stack height;

(II) Good engineering practice stack height as defined by 40 CFR 51.100(ii);

(III) Maximum flue gas flow rate;

(IV) Maximum flue gas temperature;

(V) Attach a US Geological Service topographic map, or equivalent, showing the facility location and surrounding land within 5 km of the facility;

(VI) Identify terrain type: complex or noncomplex; and

(VII) Identify land use: urban or rural.

(B) For owners and operators using Tier III site specific dispersion modeling to determine allowable levels under Subsection R315-266-106(d) or 107(c), or adjusted Tier I feed rate screening limits under Subsections R315-266-106(e) or 107(e):

(I) Dispersion model and version used;

(II) Source of meteorological data;

(III) The dilution factor in micrograms per cubic meter per gram per second of emissions for the maximum annual average off-site, unless on-site is required, ground level concentration (MEI location); and

(IV) Indicate the MEI location on the map required under Subsection R315-266-103(b)(2)(v)(A)(5);

(vi) For facilities complying with the Tier II or III emissions rate controls for metals or HCl and Cl_2, a comparison of the estimated controlled emissions rates determined under Subsection R315-266-103(b)(2)(iv) with the allowable emission rates determined under Subsection R315-266-103(b)(2)(v);

(vii) For facilities complying with the Tier I, or adjusted Tier I, feed rate screening limits for metals or total chloride and chlorine, a comparison of actual feed rates of each metal and total chlorine and chloride determined under Subsection R315-266-103(b)(2)(iii) to the Tier I allowable feed rates; and

(viii) For industrial furnaces that feed hazardous waste for any purpose other than solely as an ingredient,

as defined by Subsection R315-266-103(a)(5)(ii), at any location other than the product discharge end of the device, documentation of compliance with the requirements of Subsections R315-266-103(a)(5)(i)(A), (B), and (C).

(ix) For industrial furnaces that recycle collected particulate matter (PM) back into the furnace and that will certify compliance with the metals emissions standards under Subsection R315-266-103(c)(3)(ii)(A):

(A) The applicable particulate matter standard in lb/hr; and

(B) The precompliance limit on the concentration of each metal in collected PM.

(3) Limits on operating conditions. The owner and operator shall establish limits on the following parameters consistent with the determinations made under Subsection R315-266-103(b)(2) and certify, under provisions of Subsection R315-266-103(b)(9), to the Director that the facility will operate within the limits during interim status when there is hazardous waste in the unit until revised certification of precompliance under Subsection R315-266-103(b)(8) or certification of compliance under Subsection R315-266-103(c):

(i) Feed rate of total hazardous waste and, unless complying with the Tier I or adjusted Tier I metals feed rate screening limits under Subsections R315-266-106(b) or (e), pumpable hazardous waste;

(ii) Feed rate of each metal in the following feed streams:

(A) Total feed streams, except that industrial furnaces that comply with the alternative metals implementation approach under Subsection R315-266-103(b)(4) shall specify limits on the concentration of each metal in collected particulate matter in lieu of feed rate limits for total feedstreams;

(B) Total hazardous waste feed, unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under Subsections R315-266-106(b) or (e); and

(C) Total pumpable hazardous waste feed, unless complying with the Tier I or adjusted Tier I metals feed rate screening limits under Subsections R315-266-106(b) or (e);

(iii) Total feed rate of chlorine and chloride in total feed streams;

(iv) Total feed rate of ash in total feed streams, except that the ash feed rate for cement kilns and light-weight aggregate kilns is not limited; and

(v) Maximum production rate of the device in appropriate units when producing normal product, unless complying with the Tier I or Adjusted Tier I feed rate screening limits for chlorine under Subsections R315-266-107(b)(1) or (e) and for all metals under Subsections R315-266-106(b) or (e), and the uncontrolled particulate emissions do not exceed the standard under Subsection R315-266-105.

(4) Operating requirements for furnaces that recycle PM. Owners and operators of furnaces that recycle collected particulate matter (PM) back into the furnace and that will certify compliance with the metals emissions controls under Subsection R315-266-103(c)(3)(ii)(A) shall comply with the special operating requirements provided in “Alternative Methodology for Implementing Metals Controls” in appendix IX of Rule R315-266.

(5) Measurement of feed rates and production rate

(i) General requirements. Limits on each of the parameters specified in Subsection R315-266-103(b)(3), except for limits on metals concentrations in collected particulate matter (PM) for industrial furnaces that recycle collected PM, shall be established and continuously monitored under either of the following methods:

(A) Instantaneous limits. A limit for a parameter may be established and continuously monitored and recorded on an instantaneous basis, i.e., the value that occurs at any time, not to be exceeded at any time; or

(B) Hourly rolling average limits. A limit for a parameter may be established and continuously monitored on an hourly rolling average basis defined as follows:

(I) A continuous monitor is one which continuously samples the regulated parameter without interruption, and evaluates the detector response at least once each 15 seconds, and computes and records the average value at least every 60 seconds.

(II) An hourly rolling average is the arithmetic mean of the 60 most recent 1-minute average values recorded by the continuous monitoring system.

(ii) Rolling average limits for carcinogenic metals and lead. Feed rate limits for the carcinogenic metals, arsenic, beryllium, cadmium, and chromium, and lead may be established either on an hourly rolling average basis as

prescribed by Subsection R315-266-103(b)(5)(i)(B) or on, up to, a 24 hour rolling average basis. If the owner or operator elects to use an averaging period from 2 to 24 hours:

(A) The feed rate of each metal shall be limited at any time to ten times the feed rate that would be allowed on an hourly rolling average basis;

(B) The continuous monitor shall meet the following specifications:

(I) A continuous monitor is one which continuously samples the regulated parameter without interruption, and evaluates the detector response at least once each 15 seconds, and computes and records the average value at least every 60 seconds.

(II) The rolling average for the selected averaging period is defined as the arithmetic mean of one hour block averages for the averaging period. A one hour block average is the arithmetic mean of the one minute averages recorded during the 60-minute period beginning at one minute after the beginning of preceding clock hour.

(iii) Feed rate limits for metals, total chloride and chlorine, and ash. Feed rate limits for metals, total chlorine and chloride, and ash are established and monitored by knowing the concentration of the substance, i.e., metals, chloride/chlorine, and ash, in each feedstream and the flow rate of the feedstream. To monitor the feed rate of these substances, the flow rate of each feedstream shall be monitored under the continuous monitoring requirements of Subsections R315-266-103(b)(5)(i) and (ii).

(6) Public notice requirements at precompliance. On or before August 21, 1991 the owner or operator shall submit a notice with the following information for publication in a major local newspaper of general circulation and send a copy of the notice to the appropriate units of State and local government. The owner and operator shall provide to the Director with the certification of precompliance evidence of submitting the notice for publication. The notice, which shall be entitled “Notice of Certification of Precompliance with Hazardous Waste Burning Requirements of Subsection R315-266-103(b)”, shall include:

(i) Name and address of the owner and operator of the facility as well as the location of the device burning hazardous waste;

(ii) Date that the certification of precompliance is submitted to the Director;

(iii) Brief description of the regulatory process required to comply with the interim status requirements of Section R315-266-103 including required emissions testing to demonstrate conformance with emissions standards for organic compounds, particulate matter, metals, and HCl and Cl_2;

(iv) Types and quantities of hazardous waste burned including, but not limited to, source, whether solids or liquids, as well as an appropriate description of the waste;

(v) Type of device(s) in which the hazardous waste is burned including a physical description and maximum production rate of each device;

(vi) Types and quantities of other fuels and industrial furnace feedstocks fed to each unit;

(vii) Brief description of the basis for this certification of precompliance as specified in Subsection R315-266-103(b)(2);

(viii) Locations where the record for the facility can be viewed and copied by interested parties. These records and locations shall at a minimum include:

(A) The administrative record kept by the Agency office where the supporting documentation was submitted or another location designated by the Director; and

(B) The BIF correspondence file kept at the facility site where the device is located. The correspondence file shall include all correspondence between the facility and the Director and local regulatory officials, including copies of all certifications and notifications, such as the precompliance certification, precompliance public notice, notice of compliance testing, compliance test report, compliance certification, time extension requests and approvals or denials, enforcement notifications of violations, and copies of EPA and State site visit reports submitted to the owner or operator.

(ix) Notification of the establishment of a facility mailing list whereby interested parties shall notify the Director that they wish to be placed on the mailing list to receive future information and notices about this facility; and

(x) Location, mailing address, of the Division of Waste Management and Radiation Control, where further

information can be obtained on regulation of hazardous waste burning.

(7) Monitoring other operating parameters. When the monitoring systems for the operating parameters listed in Subsections R315-266-103(c)(1)(v) through (xiii) are installed and operating in conformance with vendor specifications or, for CO, HC, and oxygen, specifications provided by appendix IX of Rule R315-266, as appropriate, the parameters shall be continuously monitored and records shall be maintained in the operating record.

(8) Revised certification of precompliance. The owner or operator may revise at any time the information and operating conditions documented under Subsections R315-266-103(b)(2) and (b)(3) in the certification of precompliance by submitting a revised certification of precompliance under procedures provided by Subsections R315-266-103(b)(2) and (b)(3).

(i) The public notice requirements of Subsection R315-266-103(b)(6) do not apply to recertifications.

(ii) The owner and operator shall operate the facility within the limits established for the operating parameters under Subsection R315-266-103(b)(3) until a revised certification is submitted under Subsection R315-266-103(b)(8) or a certification of compliance is submitted under Subsection R315-266-103(c).

(9) Certification of precompliance statement. The owner or operator shall include the following signed statement with the certification of precompliance submitted to the Director:

"I certify under penalty of law that this information was prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information and supporting documentation. Copies of all emissions tests, dispersion modeling results and other information used to determine conformance with the requirements of Subsection R315-266-103(b) are available at the facility and can be obtained from the facility contact person listed above. Based on my inquiry of the person or persons who manages the facility, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties

for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I also acknowledge that the operating limits established in this certification pursuant to Subsections R315-266-103(b)(3) and (4) are enforceable limits at which the facility can legally operate during interim status until: (1) A revised certification of precompliance is submitted, (2) a certification of compliance is submitted, or (3) an operating permit is issued."

(c) Certification of compliance. The owner or operator shall conduct emissions testing to document compliance with the emissions standards of Subsections R315-266-104(b) through (e) and 103(a)(5)(i)(D) and Sections R315-266-105, 106, 107, and, under the procedures prescribed by Subsection R315-266-103(c), except under extensions of time provided by Subsection R315-266-103(c)(7). Based on the compliance test, the owner or operator shall submit to the Director on or before August 21, 1992 a complete and accurate "certification of compliance," under Subsection R315-266-103(c)(4), with those emission standards establishing limits on the operating parameters specified in Subsection R315-266-103(c)(1).

(1) Limits on operating conditions. The owner or operator shall establish limits on the following parameters based on operations during the compliance test, under procedures prescribed in Subsection R315-266-103(c)(4)(iv), or as otherwise specified and include these limits with the certification of compliance. The boiler or industrial furnace shall be operated in accordance with these operating limits and the applicable emissions standards of Subsections R315-266-104(b) through (e) and 103(a)(5)(i)(D) and Sections R315-266-105, 106, and 107, at all times when there is hazardous waste in the unit.

(i) Feed rate of total hazardous waste and, unless complying with the Tier I or adjusted Tier I metals feed rate screening limits under Subsection R315-266-106(b) or (e), pumpable hazardous waste;

(ii) Feed rate of each metal in the following feedstreams:

(A) Total feedstreams, except that:

(I) Facilities that comply with Tier I or Adjusted Tier I metals feed rate screening limits may set their

operating limits at the metals feed rate screening limits determined under Subsections R315-266-106(b) or (e); and

(II) Industrial furnaces that shall comply with the alternative metals implementation approach under Subsection R315-266-103(c)(3)(ii) shall specify limits on the concentration of each metal in the collected particulate matter in lieu of feed rate limits for total feedstreams;

(B) Total hazardous waste feed, unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under Subsections R315-266-106(b) or (e); and

(C) Total pumpable hazardous waste feed, unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under Subsection R315-266-106(b) or (e);

(iii) Total feed rate of chlorine and chloride in total feed streams, except that facilities that comply with Tier I or Adjusted Tier I feed rate screening limits may set their operating limits at the total chlorine and chloride feed rate screening limits determined under Subsections R315-266-107(b)(1) or (e);

(iv) Total feed rate of ash in total feed streams, except that the ash feed rate for cement kilns and light-weight aggregate kilns is not limited;

(v) Carbon monoxide concentration, and where required, hydrocarbon concentration in stack gas. When complying with the CO controls of Subsection R315-266-104(b), the CO limit is 100 ppmv, and when complying with the HC controls of Subsection R315-266-104(c), the HC limit is 20 ppmv. When complying with the CO controls of Subsection R315-266-104(c), the CO limit is established based on the compliance test;

(vi) Maximum production rate of the device in appropriate units when producing normal product, unless complying with the Tier I or Adjusted Tier I feed rate screening limits for chlorine under Subsections R315-266-107(b)(1) or (e) and for all metals under Subsections R315-266-106(b) or (e), and the uncontrolled particulate emissions do not exceed the standard under Section R315-266-105;

(vii) Maximum combustion chamber temperature where the temperature measurement is as close to the combustion zone as possible and is upstream of any quench water injection, unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under Subsections R315-266-106(b) or (e);

(viii) Maximum flue gas temperature entering a particulate matter control device, unless complying with Tier I or Adjusted Tier I metals feed rate screening limits under Subsections R315-266-106(b) or (e) and the total chlorine and chloride feed rate screening limits under Subsections R315-266-107(b) or (e);

(ix) For systems using wet scrubbers, including wet ionizing scrubbers, unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under Subsections R315-266-106(b) or (e) and the total chlorine and chloride feed rate screening limits under Subsections R315-266-107(b)(1) or (e):

(A) Minimum liquid to flue gas ratio;

(B) Minimum scrubber blowdown from the system or maximum suspended solids content of scrubber water; and

(C) Minimum pH level of the scrubber water;

(x) For systems using venturi scrubbers, the minimum differential gas pressure across the venture, unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under Subsections R315-266-106(b) or (e) and the total chlorine and chloride feed rate screening limits under Subsections R315-266-107(b)(1) or (e);

(xi) For systems using dry scrubbers, unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under Subsections R315-266-106(b) or (e) and the total chlorine and chloride feed rate screening limits under Subsections R315-266-107(b)(1) or (e):

(A) Minimum caustic feed rate; and

(B) Maximum flue gas flow rate;

(xii) For systems using wet ionizing scrubbers or electrostatic precipitators, unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under Subsections R315-266-106(b) or (e) and the total chlorine and chloride feed rate screening limits under Subsections R315-266-107(b)(1) or (e):

(A) Minimum electrical power in kilovolt amperes (kVA) to the precipitator plates; and

(B) Maximum flue gas flow rate;

(xiii) For systems using fabric filters (baghouses), the minimum pressure drop, unless complying with the Tier I or Adjusted Tier I metal feed rate screening limits under Subsections R315-266-106(b) or (e) and the total chlorine and chloride feed rate screening limits under Subsections R315-266-107(b)(1) or (e).

(2) Prior notice of compliance testing. At least 30 days prior to the compliance testing required by Subsection R315-266-103(c)(3), the owner or operator shall notify the Director and submit the following information:

(i) General facility information including:

(A) EPA facility ID number;

(B) Facility name, contact person, telephone number, and address;

(C) Person responsible for conducting compliance test, including company name, address, and telephone number, and a statement of qualifications;

(D) Planned date of the compliance test;

(ii) Specific information on each device to be tested including:

(A) Description of boiler or industrial furnace;

(B) A scaled plot plan showing the entire facility and location of the boiler or industrial furnace;

(C) A description of the air pollution control system;

(D) Identification of the continuous emission monitors that are installed, including:

(I) Carbon monoxide monitor;

(II) Oxygen monitor;

(III) Hydrocarbon monitor, specifying the minimum temperature of the system and, if the temperature is less than 150 °C, an explanation of why a heated system is not used, see Subsection R315-266-103(c)(5), and a brief description of the sample gas conditioning system;

(E) Indication of whether the stack is shared with another device that will be in operation during the compliance test;

(F) Other information useful to an understanding of the system design or operation.

(iii) Information on the testing planned, including a complete copy of the test protocol and Quality Assurance/Quality Control (QA/QC) plan, and a summary description for each test providing the following information at a minimum:

(A) Purpose of the test, e.g., demonstrate compliance with emissions of particulate matter; and

(B) Planned operating conditions, including levels for each pertinent parameter specified in Subsection R315-266-103(c)(1).

(3) Compliance testing

(i) General. Compliance testing shall be conducted under conditions for which the owner or operator has submitted a certification of precompliance under Subsection R315-266-103(b) and under conditions established in the notification of compliance testing required by Subsection R315-266-103(c)(2). The owner or operator may seek approval on a case-by-case basis to use compliance test data from one unit in lieu of testing a similar onsite unit. To support the request, the owner or operator shall provide a comparison of the hazardous waste burned and other feedstreams, and the design, operation, and maintenance of both the tested unit and the similar unit. The Director shall provide a written approval to use compliance test data in lieu of testing a similar unit if he finds that the hazardous wastes, the devices, and the operating conditions are sufficiently similar, and the data from the other compliance test is adequate to meet the requirements of Subsection R315-266-103(c).

(ii) Special requirements for industrial furnaces that recycle collected PM. Owners and operators of industrial furnaces that recycle back into the furnace particulate matter (PM) from the air pollution control system shall comply with one of the following procedures for testing to determine compliance with the metals standards of Subsections R315-266-106(c) or (d):

(A) The special testing requirements prescribed in “Alternative Method for Implementing Metals Controls” in appendix IX of Rule R315-266; or

(B) Stack emissions testing for a minimum of 6 hours each day while hazardous waste is burned during interim status. The testing shall be conducted when burning normal hazardous waste for that day at normal feed rates for that day and when the air pollution control system is operated under normal conditions. During interim status, hazardous waste analysis for metals content shall be sufficient for the owner or operator to determine if changes in metals content may affect the ability of the facility to meet the metals emissions standards established under Subsections R315-266-106(c) or (d). Under this option, operating limits, under Subsection R315-266-103(c)(1), shall be established during compliance testing under Subsection R315-266-103(c)(3) only on the following parameters;

(I) Feed rate of total hazardous waste;

(II) Total feed rate of chlorine and chloride in total feed streams;

(III) Total feed rate of ash in total feed streams, except that the ash feed rate for cement kilns and light-weight aggregate kilns is not limited;

(IV) Carbon monoxide concentration, and where required, hydrocarbon concentration in stack gas;

(V) Maximum production rate of the device in appropriate units when producing normal product; or

(C) Conduct compliance testing to determine compliance with the metals standards to establish limits on the operating parameters of Subsection R315-266-103(c)(1) only after the kiln system has been conditioned to enable it to reach equilibrium with respect to metals fed into the system and metals emissions. During conditioning, hazardous waste and raw materials having the same metals content as will be fed during the compliance test shall be fed at the feed rates that will be fed during the compliance test.

(iii) Conduct of compliance testing.

(A) If compliance with all applicable emissions standards of Sections R315-266-104 through 107 is not demonstrated simultaneously during a set of test runs, the operating conditions of additional test runs required to demonstrate compliance with remaining emissions standards shall be as close as possible to the original operating conditions.

(B) Prior to obtaining test data for purposes of demonstrating compliance with the applicable emissions standards of Sections R315-266-104 through 107 or establishing limits on operating parameters under Section R315-266-103, the facility shall operate under compliance test conditions for a sufficient period to reach steady-state operations. Industrial furnaces that recycle collected particulate matter back into the furnace and that comply with Subsections R315-266-103(c)(3)(ii)(A) or (B), however, need not reach steady state conditions with respect to the flow of metals in the system prior to beginning compliance testing for metals.

(C) Compliance test data on the level of an operating parameter for which a limit shall be established in the certification of compliance shall be obtained during emissions sampling for the pollutant(s), i.e., metals, PM, HCl/Cl2, organic compounds, for which the parameter shall be established as specified by Subsection R315-266-103(c)(1).

(4) Certification of compliance. Within 90 days of completing compliance testing, the owner or operator shall

certify to the Director compliance with the emissions standards of Subsections R315-266-104 (b), (c), and (e), and Sections R315-266-105, 106, and 107, and Subsection R315-266-103(a)(5)(i)(D). The certification of compliance shall include the following information:

(i) General facility and testing information including:

(A) EPA facility ID number;

(B) Facility name, contact person, telephone number, and address;

(C) Person responsible for conducting compliance testing, including company name, address, and telephone number, and a statement of qualifications;

(D) Date(s) of each compliance test;

(E) Description of boiler or industrial furnace tested;

(F) Person responsible for quality assurance/quality control (QA/QC), title, and telephone number, and statement that procedures prescribed in the QA/QC plan submitted under Subsection R315-266-103(c)(2)(iii) have been followed, or a description of any changes and an explanation of why changes were necessary.

(G) Description of any changes in the unit configuration prior to or during testing that would alter any of the information submitted in the prior notice of compliance testing under Subsection R315-266-103(c)(2), and an explanation of why the changes were necessary;

(H) Description of any changes in the planned test conditions prior to or during the testing that alter any of the information submitted in the prior notice of compliance testing under Subsection R315-266-103(c)(2), and an explanation of why the changes were necessary; and

(I) The complete report on results of emissions testing.

(ii) Specific information on each test including:

(A) Purpose(s) of test, e.g., demonstrate conformance with the emissions limits for particulate matter, metals, HCl, Cl_2, and CO;

(B) Summary of test results for each run and for each test including the following information:

(I) Date of run;

(II) Duration of run;

(III) Time-weighted average and highest hourly rolling average CO level for each run and for the test;

(IV) Highest hourly rolling average HC level, if HC monitoring is required for each run and for the test;

(V) If dioxin and furan testing is required under Subsection R315-266-104(e), time-weighted average emissions for each run and for the test of chlorinated dioxin and furan emissions, and the predicted maximum annual average ground level concentration of the toxicity equivalency factor;

(VI) Time-weighted average particulate matter emissions for each run and for the test;

(VII) Time-weighted average HCl and Cl2 emissions for each run and for the test;

(VIII) Time-weighted average emissions for the metals subject to regulation under Subsection R315-266-106 for each run and for the test; and

(IX) QA/QC results.

(iii) Comparison of the actual emissions during each test with the emissions limits prescribed by Subsections R315-266-104(b), (c), and (e), and Sections R315-266-105, through 107 and established for the facility in the certification of precompliance under Subsection R315-266-103(b).

(iv) Determination of operating limits based on all valid runs of the compliance test for each applicable parameter listed in Subsection R315-266-103(c)(1) using either of the following procedures:

(A) Instantaneous limits. A parameter may be measured and recorded on an instantaneous basis, i.e., the value that occurs at any time, and the operating limit specified as the time-weighted average during all runs of the compliance test; or

(B) Hourly rolling average basis. The limit for a parameter may be established and continuously monitored on an hourly rolling average basis defined as follows:

(I) A continuous monitor is one which continuously samples the regulated parameter without interruption, and evaluates the detector response at least once each 15 seconds, and computes and records the average value at least every 60 seconds; and

(II) An hourly rolling average is the arithmetic mean of the 60 most recent 1-minute average values recorded by the continuous monitoring system.

(III) The operating limit for the parameter shall be established based on compliance test data as the average

over all test runs of the highest hourly rolling average value for each run.

(C) Rolling average limits for carcinogenic metals and lead. Feed rate limits for the carcinogenic metals, i.e., arsenic, beryllium, cadmium and chromium, and lead may be established either on an hourly rolling average basis as prescribed by Subsection R315-266-103(c)(4)(iv)(B) or on,up to, a 24 hour rolling average basis. If the owner or operator elects to use an averaging period from 2 to 24 hours:

(I) The feed rate of each metal shall be limited at any time to ten times the feed rate that would be allowed on an hourly rolling average basis;

(II) The continuous monitor shall meet the following specifications:

(i) A continuous monitor is one which continuously samples the regulated parameter without interruption, and evaluates the detector response at least once each 15 seconds, and computes and records the average value at least every 60 seconds.

(ii) The rolling average for the selected averaging period is defined as arithmetic mean of one hour block averages for the averaging period. A one hour block average is the arithmetic mean of the one minute averages recorded during the 60-minute period beginning at one minute after the beginning of preceding clock hour; and

(III) The operating limit for the feed rate of each metal shall be established based on compliance test data as the average over all test runs of the highest hourly rolling average feed rate for each run.

(D) Feed rate limits for metals, total chloride and chlorine, and ash. Feed rate limits for metals, total chlorine and chloride, and ash are established and monitored by knowing the concentration of the substance, i.e., metals, chloride/chlorine, and ash, in each feedstream and the flow rate of the feedstream. To monitor the feed rate of these substances, the flow rate of each feedstream shall be monitored under the continuous monitoring requirements of Subsections R315-266-103(c)(4)(iv)(A) through (C).

(v) Certification of compliance statement. The following statement shall accompany the certification of compliance:

“I certify under penalty of law that this information was prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information and supporting documentation. Copies of all emissions tests, dispersion modeling results and other information used to determine conformance with the requirements of Subsection R315-266-103(c) are available at the facility and can be obtained from the facility contact person listed above. Based on my inquiry of the person or persons who manages the facility, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I also acknowledge that the operating conditions established in this certification pursuant to Subsection R315-266-103(c)(4)(iv) are enforceable limits at which the facility can legally operate during interim status until a revised certification of compliance is submitted.”

(5) Special requirements for HC monitoring systems. When an owner or operator is required to comply with the hydrocarbon (HC) controls provided by Subsections R315-266-104(c) or 103(a)(5)(i)(D), a conditioned gas monitoring system may be used in conformance with specifications provided in appendix IX of Rule R315-266 provided that the owner or operator submits a certification of compliance without using extensions of time provided by Subsection R315-266-103(c)(7).

(6) Special operating requirements for industrial furnaces that recycle collected PM. Owners and operators of industrial furnaces that recycle back into the furnace particulate matter (PM) from the air pollution control system shall:

(i) When complying with the requirements of Subsection R315-266-103(c)(3)(ii)(A), comply with the operating requirements prescribed in “Alternative Method to Implement the Metals Controls” in appendix IX of Rule R315-266; and

(ii) When complying with the requirements of Subsection R315-266-103(c)(3)(ii)(B), comply with the operating requirements prescribed by Subsection R315-266-103(c).

(7) Extensions of time.

(i) If the owner or operator does not submit a complete certification of compliance for all of the applicable emissions standards of Sections R315-266-104, through 107 by August 21, 1992, he/she shall either:

(A) Stop burning hazardous waste and begin closure activities under Subsection R315-266-103(l) for the hazardous waste portion of the facility; or

(B) Limit hazardous waste burning only for purposes of compliance testing, and pretesting to prepare for compliance testing, a total period of 720 hours for the period of time beginning August 21, 1992, submit a notification to the Director by August 21, 1992 stating that the facility is operating under restricted interim status and intends to resume burning hazardous waste, and submit a complete certification of compliance by August 23, 1993; or

(C) Obtain a case-by-case extension of time under Subsection R315-266-103(c)(7)(ii).

(ii) The owner or operator may request a case-by-case extension of time to extend any time limit provided by Subsection R315-266-103(c) if compliance with the time limit is not practicable for reasons beyond the control of the owner or operator.

(A) In granting an extension, the Director may apply conditions as the facts warrant to ensure timely compliance with the requirements of Section R315-266-103 and that the facility operates in a manner that does not pose a hazard to human health and the environment;

(B) When an owner or operator requests an extension of time to enable the facility to comply with the alternative hydrocarbon provisions of Subsection R315-266-104(f) and obtain a RCRA operating permit because the facility cannot meet the HC limit of Subsection R315-266-104(c):

(1) The Director shall, in considering whether to grant the extension:

(i) Determine whether the owner and operator have submitted in a timely manner a complete part B permit application that includes information required under Subsection R315-270-22(b); and

(ii) Consider whether the owner and operator have made a good faith effort to certify compliance with all other emission controls, including the controls on dioxins

and furans of Subsection R315-266-104(e) and the controls on PM, metals, and HCl/Cl_2.

(2) If an extension is granted, the Director shall, as a condition of the extension, require the facility to operate under flue gas concentration limits on CO and HC that, based on available information, including information in the part B permit application, are baseline CO and HC levels as defined by Subsection R315-266-104(f)(1).

(8) Revised certification of compliance. The owner or operator may submit at any time a revised certification of compliance, recertification of compliance, under the following procedures:

(i) Prior to submittal of a revised certification of compliance, hazardous waste may not be burned for more than a total of 720 hours under operating conditions that exceed those established under a current certification of compliance, and such burning may be conducted only for purposes of determining whether the facility can operate under revised conditions and continue to meet the applicable emissions standards of Sections R315-266-104 through 107;

(ii) At least 30 days prior to first burning hazardous waste under operating conditions that exceed those established under a current certification of compliance, the owner or operator shall notify the Director and submit the following information:

(A) EPA facility ID number, and facility name, contact person, telephone number, and address;

(B) Operating conditions that the owner or operator is seeking to revise and description of the changes in facility design or operation that prompted the need to seek to revise the operating conditions;

(C) A determination that when operating under the revised operating conditions, the applicable emissions standards of Sections R315-266-104 through 107 are not likely to be exceeded. To document this determination, the owner or operator shall submit the applicable information required under Subsection R315-266-103(b)(2); and

(D) Complete emissions testing protocol for any pretesting and for a new compliance test to determine compliance with the applicable emissions standards of Sections R315-266-104 through 107 when operating under revised operating conditions. The protocol shall include a schedule of pre-testing and compliance testing. If the owner and operator revises the scheduled date for the

compliance test, he/she shall notify the Director in writing at least 30 days prior to the revised date of the compliance test;

(iii) Conduct a compliance test under the revised operating conditions and the protocol submitted to the Director to determine compliance with the applicable emissions standards of Sections R315-266-104 through 107; and

(iv) Submit a revised certification of compliance under Subsection R315-266-103(c)(4).

(d) Periodic Recertifications. The owner or operator shall conduct compliance testing and submit to the Director a recertification of compliance under provisions of Subsection R315-266-103(c) within five years from submitting the previous certification or recertification. If the owner or operator seeks to recertify compliance under new operating conditions, he/she shall comply with the requirements of Subsection R315-266-103(c)(8).

(e) Noncompliance with certification schedule. If the owner or operator does not comply with the interim status compliance schedule provided by Subsections R315-266-103(b), (c), and (d), hazardous waste burning shall terminate on the date that the deadline is missed, closure activities shall begin under Subsection R315-266-103(l), and hazardous waste burning may not resume except under an operating permit issued under Section R315-270-66. For purposes of compliance with the closure provisions of Subsection R315-266-103(l) and 40 CFR 265.112(d)(2) and 113, which are adopted by reference, the boiler or industrial furnace has received “the known final volume of hazardous waste” on the date that the deadline is missed.

(f) Start-up and shut-down. Hazardous waste, except waste fed solely as an ingredient under the Tier I, or adjusted Tier I, feed rate screening limits for metals and chloride/chlorine, shall not be fed into the device during start-up and shut-down of the boiler or industrial furnace, unless the device is operating within the conditions of operation specified in the certification of compliance.

(g) Automatic waste feed cutoff. During the compliance test required by Subsection R315-266-103(c)(3), and upon certification of compliance under Subsection R315-266-103(c), a boiler or industrial furnace shall be operated with a functioning system that automatically cuts off the hazardous waste feed when the applicable operating conditions specified in Subsections R315-266-103(c)(1)(i)

and (v) through (xiii) deviate from those established in the certification of compliance. In addition:

(1) To minimize emissions of organic compounds, the minimum combustion chamber temperature, or the indicator of combustion chamber temperature, that occurred during the compliance test shall be maintained while hazardous waste or hazardous waste residues remain in the combustion chamber, with the minimum temperature during the compliance test defined as either:

(i) If compliance with the combustion chamber temperature limit is based on an hourly rolling average, the minimum temperature during the compliance test is considered to be the average over all runs of the lowest hourly rolling average for each run; or

(ii) If compliance with the combustion chamber temperature limit is based on an instantaneous temperature measurement, the minimum temperature during the compliance test is considered to be the time-weighted average temperature during all runs of the test; and

(2) Operating parameters limited by the certification of compliance shall continue to be monitored during the cutoff, and the hazardous waste feed shall not be restarted until the levels of those parameters comply with the limits established in the certification of compliance.

(h) Fugitive emissions. Fugitive emissions shall be controlled by:

(1) Keeping the combustion zone totally sealed against fugitive emissions; or

(2) Maintaining the combustion zone pressure lower than atmospheric pressure; or

(3) An alternate means of control that the owner or operator can demonstrate provide fugitive emissions control equivalent to maintenance of combustion zone pressure lower than atmospheric pressure. Support for such demonstration shall be included in the operating record.

(i) Changes. A boiler or industrial furnace shall cease burning hazardous waste when changes in combustion properties, or feed rates of the hazardous waste, other fuels, or industrial furnace feedstocks, or changes in the boiler or industrial furnace design or operating conditions deviate from the limits specified in the certification of compliance.

(j) Monitoring and Inspections.

(1) The owner or operator shall monitor and record the following, at a minimum, while burning hazardous waste:

(i) Feed rates and composition of hazardous waste, other fuels, and industrial furnace feed stocks, and feed rates of ash, metals, and total chloride and chlorine as necessary to ensure conformance with the certification of precompliance or certification of compliance;

(ii) Carbon monoxide (CO), oxygen, and if applicable, hydrocarbons (HC), on a continuous basis at a common point in the boiler or industrial furnace downstream of the combustion zone and prior to release of stack gases to the atmosphere in accordance with the operating limits specified in the certification of compliance. CO, HC, and oxygen monitors shall be installed, operated, and maintained in accordance with methods specified in appendix IX of Rule R315-266.

(iii) Upon the request of the Director, sampling and analysis of the hazardous waste, and other fuels and industrial furnace feed stocks as appropriate, and the stack gas emissions shall be conducted to verify that the operating conditions established in the certification of precompliance or certification of compliance achieve the applicable standards of Sections R315-266-104 through 107.

(2) The boiler or industrial furnace and associated equipment, pumps, valves, pipes, fuel storage tanks, etc., shall be subjected to thorough visual inspection when they contain hazardous waste, at least daily for leaks, spills, fugitive emissions, and signs of tampering.

(3) The automatic hazardous waste feed cutoff system and associated alarms shall be tested at least once every 7 days when hazardous waste is burned to verify operability, unless the owner or operator can demonstrate that weekly inspections will unduly restrict or upset operations and that less frequent inspections will be adequate. Support for such demonstration shall be included in the operating record. At a minimum, operational testing shall be conducted at least once every 30 days.

(4) These monitoring and inspection data shall be recorded and the records shall be placed in the operating log.

(k) Recordkeeping. The owner or operator shall keep in the operating record of the facility all information and data required by Section R315-266-103 for five years.

(l) Closure. At closure, the owner or operator shall remove all hazardous waste and hazardous waste residues, including, but not limited to, ash, scrubber waters, and scrubber sludges, from the boiler or industrial furnace and

shall comply with 40 CFR 265.111 through 115, which are adopted by reference.

R315-266-104. Hazardous Waste Burned in Boilers and Industrial Furnaces - Standards to control organic emissions.

(a) DRE standard

(1) General. Except as provided in Subsection R315-266-104(a)(3), a boiler or industrial furnace burning hazardous waste shall achieve a destruction and removal efficiency (DRE) of 99.99% for all organic hazardous constituents in the waste feed. To demonstrate conformance with this requirement, 99.99% DRE shall be demonstrated during a trial burn for each principal organic hazardous constituent (POHC) designated, under Subsection R315-266-104(a)(2), in its permit for each waste feed. DRE is determined for each POHC from the following equation:

$$DRE=(1-W_{out}/W_{in})X100$$

where:

W_{in}= Mass feed rate of one principal organic hazardous constituent (POHC) in the hazardous waste fired to the boiler or industrial furnace; and

W_{out}= Mass emission rate of the same POHC present in stack gas prior to release to the atmosphere.

(2) Designation of POHCs. Principal organic hazardous constituents (POHCs) are those compounds for which compliance with the DRE requirements of Section R315-266-104 shall be demonstrated in a trial burn in conformance with procedures prescribed in Section R315-270-66. One or more POHCs shall be designated by the Director for each waste feed to be burned. POHCs shall be designated based on the degree of difficulty of destruction of the organic constituents in the waste and on their concentrations or mass in the waste feed considering the results of waste analyses submitted with part B of the permit application. POHCs are most likely to be selected from among those compounds listed in Rule R315-261, appendix VIII that are also present in the normal waste feed. However, if the applicant demonstrates to the Director's satisfaction that a compound not listed in Rule R315-261, appendix VIII or not present in the normal waste feed is a suitable indicator of compliance with the DRE requirements of

Section R315-266-104, that compound may be designated as a POHC. Such POHCs need not be toxic or organic compounds.

(3) Dioxin-listed waste. A boiler or industrial furnace burning hazardous waste containing, or derived from, EPA Hazardous Wastes Nos. F020, F021, F022, F023, F026, or F027 shall achieve a destruction and removal efficiency (DRE) of 99.9999% for each POHC designated, under Subsection R315-266-104(a)(2), in its permit. This performance shall be demonstrated on POHCs that are more difficult to burn than tetra-, penta-, and hexachlorodibenzo-p-dioxins and dibenzofurans. DRE is determined for each POHC from the equation in Subsection R315-266-104(a)(1). In addition, the owner or operator of the boiler or industrial furnace shall notify the Director of intent to burn EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, or F027.

(4) Automatic waiver of DRE trial burn. Owners and operators of boilers operated under the special operating requirements provided by Section R315-266-110 are considered to be in compliance with the DRE standard of Subsection R315-266-104(a)(1) and are exempt from the DRE trial burn.

(5) Low risk waste. Owners and operators of boilers or industrial furnaces that burn hazardous waste in compliance with the requirements of Subsection R315-266-109(a) are considered to be in compliance with the DRE standard of Subsection R315-266-104(a)(1) and are exempt from the DRE trial burn.

(b) Carbon monoxide standard.

(1) Except as provided in Subsection R315-266-104(c), the stack gas concentration of carbon monoxide (CO) from a boiler or industrial furnace burning hazardous waste cannot exceed 100 ppmv on an hourly rolling average basis, i.e., over any 60 minute period, continuously corrected to 7 percent oxygen, dry gas basis.

(2) CO and oxygen shall be continuously monitored in conformance with “Performance Specifications for Continuous Emission Monitoring of Carbon Monoxide and Oxygen for Incinerators, Boilers, and Industrial Furnaces Burning Hazardous Waste” in appendix IX of Rule R315-266.

(3) Compliance with the 100 ppmv CO limit shall be demonstrated during the trial burn, for new facilities or an interim status facility applying for a permit, or the compliance test, for interim status facilities. To demonstrate compliance, the highest hourly rolling average

CO level during any valid run of the trial burn or compliance test shall not exceed 100 ppmv.

(c) Alternative carbon monoxide standard.

(1) The stack gas concentration of carbon monoxide (CO) from a boiler or industrial furnace burning hazardous waste may exceed the 100 ppmv limit provided that stack gas concentrations of hydrocarbons (HC) do not exceed 20 ppmv, except as provided by Subsection R315-266-104(f) for certain industrial furnaces.

(2) HC limits shall be established under Section R315-266-104 on an hourly rolling average basis, i.e., over any 60 minute period, reported as propane, and continuously corrected to 7 percent oxygen, dry gas basis.

(3) HC shall be continuously monitored in conformance with “Performance Specifications for Continuous Emission Monitoring of Hydrocarbons for Incinerators, Boilers, and Industrial Furnaces Burning Hazardous Waste” in appendix IX of Rule R315-266. CO and oxygen shall be continuously monitored in conformance with Subsection R315-266-104(b)(2).

(4) The alternative CO standard is established based on CO data during the trial burn, for a new facility, and the compliance test, for an interim status facility. The alternative CO standard is the average over all valid runs of the highest hourly average CO level for each run. The CO limit is implemented on an hourly rolling average basis, and continuously corrected to 7 percent oxygen, dry gas basis.

(d) Special requirements for furnaces. Owners and operators of industrial furnaces, e.g., kilns or cupolas, that feed hazardous waste for a purpose other than solely as an ingredient, see Section R315-266-103(a)(5)(ii), at any location other than the end where products are normally discharged and where fuels are normally fired shall comply with the hydrocarbon limits provided by Subsections R315-266-104(c) or (f) irrespective of whether stack gas CO concentrations meet the 100 ppmv limit of Subsection R315-266-104(b).

(e) Controls for dioxins and furans. Owners and operators of boilers and industrial furnaces that are equipped with a dry particulate matter control device that operates within the temperature range of 450-750 °F, and industrial furnaces operating under an alternative hydrocarbon limit established under Subsection R315-266-104(f) shall conduct a site-specific risk assessment as

follows to demonstrate that emissions of chlorinated dibenzo-p-dioxins and dibenzofurans do not result in an increased lifetime cancer risk to the hypothetical maximum exposed individual (MEI) exceeding 1 in 100,000:

(1) During the trial burn, for new facilities or an interim status facility applying for a permit, or compliance test, for interim status facilities, determine emission rates of the tetra-octa congeners of chlorinated dibenzo-p-dioxins and dibenzofurans (CDDs/CDFs) using Method 0023A, Sampling Method for Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans Emissions from Stationary Sources, EPA Publication SW-846, as incorporated by reference in Section R315-260-11.

(2) Estimate the 2,3,7,8-TCDD toxicity equivalence of the tetra-octa CDDs/CDFs congeners using “Procedures for Estimating the Toxicity Equivalence of Chlorinated Dibenzo-p-Dioxin and Dibenzofuran Congeners” in appendix IX of Rule R315-266. Multiply the emission rates of CDD/CDF congeners with a toxicity equivalence greater than zero, see the procedure, by the calculated toxicity equivalence factor to estimate the equivalent emission rate of 2,3,7,8-TCDD;

(3) Conduct dispersion modeling using methods recommended in appendix W of 40 CFR 51 (“Guideline on Air Quality Models (Revised)” (1986) and its supplements), the “Hazardous Waste Combustion Air Quality Screening Procedure”, provided in appendix IX of Rule R315-266, or in Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, Revised, incorporated by reference in R315-260-11, to predict the maximum annual average off-site ground level concentration of 2,3,7,8-TCDD equivalents determined under Subsection R315-266-104(e)(2). The maximum annual average concentration shall be used when a person resides on-site; and

(4) The ratio of the predicted maximum annual average ground level concentration of 2,3,7,8-TCDD equivalents to the risk-specific dose for 2,3,7,8-TCDD provided in appendix V of Rule R315-266, 2.2×10^{-7}, shall not exceed 1.0.

(f) Monitoring CO and HC in the by-pass duct of a cement kiln. Cement kilns may comply with the carbon monoxide and hydrocarbon limits provided by Subsections R315-266-104(b), (c), and (d) by monitoring in the by-pass duct provided that:

(1) Hazardous waste is fired only into the kiln and not at any location downstream from the kiln exit relative to the direction of gas flow; and

(2) The by-pass duct diverts a minimum of 10% of kiln off-gas into the duct.

(g) Use of emissions test data to demonstrate compliance and establish operating limits. Compliance with the requirements of Section R315-266-104 shall be demonstrated simultaneously by emissions testing or during separate runs under identical operating conditions. Further, data to demonstrate compliance with the CO and HC limits of Section R315-266-104 or to establish alternative CO or HC limits under Section R315-266-104 shall be obtained during the time that DRE testing, and where applicable, CDD/CDF testing under Subsection R315-266-104(e) and comprehensive organic emissions testing under Subsection R315-266-104(f) is conducted.

(h) Enforcement. For the purposes of permit enforcement, compliance with the operating requirements specified in the permit, under Section R315-266-102, shall be regarded as compliance with Section R315-266-104. However, evidence that compliance with those permit conditions is insufficient to ensure compliance with the requirements of Section R315-266-104 may be “information” justifying modification or revocation and re-issuance of a permit under Section R315-270-41.

R315-266-105. Hazardous Waste Burned in Boilers and Industrial Furnaces - Standards to control particulate matter.

(a) A boiler or industrial furnace burning hazardous waste may not emit particulate matter in excess of 180 milligrams per dry standard cubic meter, 0.08 grains per dry standard cubic foot, after correction to a stack gas concentration of 7% oxygen, using procedures prescribed in 40 CFR part 60, appendix A, methods 1 through 5, and appendix IX of Rule R315-266.

(b) An owner or operator meeting the requirements of Subsection Rule R315-266-109(b) for the low risk waste exemption is exempt from the particulate matter standard.

(c) Oxygen correction.

(1) Measured pollutant levels shall be corrected for the amount of oxygen in the stack gas according to the formula:

$P_c = P_m x 14/(E-Y)$

Where:
P_c is the corrected concentration of the pollutant in the stack gas, P_m is the measured concentration of the pollutant in the stack gas, E is the oxygen concentration on a dry basis in the combustion air fed to the device, and Y is the measured oxygen concentration on a dry basis in the stack.

(2) For devices that feed normal combustion air, E will equal 21 percent. For devices that feed oxygen-enriched air for combustion, that is, air with an oxygen concentration exceeding 21 percent, the value of E will be the concentration of oxygen in the enriched air.

(3) Compliance with all emission standards provided by Sections R315-266-100 through 112 shall be based on correcting to 7 percent oxygen using this procedure.

(d) For the purposes of permit enforcement, compliance with the operating requirements specified in the permit, under Section R315-266-102, shall be regarded as compliance with Section R315-266-105. However, evidence that compliance with those permit conditions is insufficient to ensure compliance with the requirements of Section R315-266-105 may be “information” justifying modification or revocation and re-issuance of a permit under Section R315-270-41.

R315-266-106. Hazardous Waste Burned in Boilers and Industrial Furnaces - Standards to control metals emissions.

(a) General. The owner or operator shall comply with the metals standards provided by Subsections R315-266-106(b), (c), (d), (e), or (f) for each metal listed in Subsection R315-266-106(b) that is present in the hazardous waste at detectable levels by using appropriate analytical procedures.

(b) Tier I feed rate screening limits. Feed rate screening limits for metals are specified in appendix I of Rule R315-266 as a function of terrain-adjusted effective stack height and terrain and land use in the vicinity of the facility. Criteria for facilities that are not eligible to comply with the screening limits are provided in Subsection R315-266-106(b)(7).

(1) Noncarcinogenic metals. The feed rates of antimony, barium, lead, mercury, thallium, and silver in

all feed streams, including hazardous waste, fuels, and industrial furnace feed stocks shall not exceed the screening limits specified in appendix I of Rule R315-266.

(i) The feed rate screening limits for antimony, barium, mercury, thallium, and silver are based on either:

(A) An hourly rolling average as defined in Subsection R315-266-102(e)(6)(i)(B); or

(B) An instantaneous limit not to be exceeded at any time.

(ii) The feed rate screening limit for lead is based on one of the following:

(A) An hourly rolling average as defined in Subsection R315-266-102(e)(6)(i)(B);

(B) An averaging period of 2 to 24 hours as defined in Subsection R315-266-102(e)(6)(ii) with an instantaneous feed rate limit not to exceed 10 times the feed rate that would be allowed on an hourly rolling average basis; or

(C) An instantaneous limit not to be exceeded at any time.

(2) Carcinogenic metals.

(i) The feed rates of arsenic, cadmium, beryllium, and chromium in all feed streams, including hazardous waste, fuels, and industrial furnace feed stocks shall not exceed values derived from the screening limits specified in appendix I of Rule R315-266. The feed rate of each of these metals is limited to a level such that the sum of the ratios of the actual feed rate to the feed rate screening limit specified in appendix I shall not exceed 1.0, as provided by the following equation:

The summation of $AFR_{(i)}/FRSL_{(i)}$ for i=1 to n is less than or equal to 1.0

where:

n=number of carcinogenic metals
AFR=actual feed rate to the device for metal “i”
FRSL=feed rate screening limit provided by appendix I of Rule R315-266 for metal “i”.

(ii) The feed rate screening limits for the carcinogenic metals are based on either:

(A) An hourly rolling average; or

(B) An averaging period of 2 to 24 hours as defined in Subsection R315-266-102(e)(6)(ii) with an instantaneous

feed rate limit not to exceed 10 times the feed rate that would be allowed on an hourly rolling average basis.

(3) TESH.

(i) The terrain-adjusted effective stack height is determined according to the following equation:

$$TESH=Ha+H1-Tr$$

where:

Ha=Actual physical stack height

H1=Plume rise as determined from appendix VI of Rule R315-266 as a function of stack flow rate and stack gas exhaust temperature.

Tr=Terrain rise within five kilometers of the stack.

(ii) The stack height (Ha) may not exceed good engineering practice as specified in 40 CFR 51.100(ii).

(iii) If the TESH for a particular facility is not listed in the table in the appendices, the nearest lower TESH listed in the table shall be used. If the TESH is four meters or less, a value of four meters shall be used.

(4) Terrain type. The screening limits are a function of whether the facility is located in noncomplex or complex terrain. A device located where any part of the surrounding terrain within 5 kilometers of the stack equals or exceeds the elevation of the physical stack height (Ha) is considered to be in complex terrain and the screening limits for complex terrain apply. Terrain measurements are to be made from U.S. Geological Survey 7.5-minute topographic maps of the area surrounding the facility.

(5) Land use. The screening limits are a function of whether the facility is located in an area where the land use is urban or rural. To determine whether land use in the vicinity of the facility is urban or rural, procedures provided in appendices IX or X of Rule R315-266 shall be used.

(6) Multiple stacks. Owners and operators of facilities with more than one on-site stack from a boiler, industrial furnace, incinerator, or other thermal treatment unit subject to controls of metals emissions under a RCRA operating permit or interim status controls shall comply with the screening limits for all such units assuming all hazardous waste is fed into the device with the worst-case stack based on dispersion characteristics. The worst-case

stack is determined from the following equation as applied to each stack:

K=HVT

Where:
K=a parameter accounting for relative influence of stack height and plume rise;
H=physical stack height (meters);
V=stack gas flow rate (m3/second); and
T=exhaust temperature (°K).
The stack with the lowest value of K is the worst-case stack.

(7) Criteria for facilities not eligible for screening limits. If any criteria below are met, the Tier I and Tier II screening limits do not apply. Owners and operators of such facilities shall comply with either the Tier III standards provided by Subsection R315-266-106(d) or with the adjusted Tier I feed rate screening limits provided by Subsection R315-266-106(e).

(i) The device is located in a narrow valley less than one kilometer wide;

(ii) The device has a stack taller than 20 meters and is located such that the terrain rises to the physical height within one kilometer of the facility;

(iii) The device has a stack taller than 20 meters and is located within five kilometers of a shoreline of a large body of water such as an ocean or large lake;

(iv) The physical stack height of any stack is less than 2.5 times the height of any building within five building heights or five projected building widths of the stack and the distance from the stack to the closest boundary is within five building heights or five projected building widths of the associated building; or

(v) The Director determines that standards based on site-specific dispersion modeling are required.

(8) Implementation. The feed rate of metals in each feedstream shall be monitored to ensure that the feed rate screening limits are not exceeded.

(c) Tier II emission rate screening limits. Emission rate screening limits are specified in appendix I as a function of terrain-adjusted effective stack height and terrain and land use in the vicinity of the facility. Criteria for facilities that are not eligible to comply

with the screening limits are provided in Subsection R315-266-106(b)(7).

(1) Noncarcinogenic metals. The emission rates of antimony, barium, lead, mercury, thallium, and silver shall not exceed the screening limits specified in appendix I of Rule R315-266.

(2) Carcinogenic metals. The emission rates of arsenic, cadmium, beryllium, and chromium shall not exceed values derived from the screening limits specified in appendix I of Rule R315-266. The emission rate of each of these metals is limited to a level such that the sum of the ratios of the actual emission rate to the emission rate screening limit specified in appendix I shall not exceed 1.0, as provided by the following equation:

The summation of $AER_{(i)}/ERSL_{(i)}$ for i=1 to n is less than or equal to 1.0

where:
n=number of carcinogenic metals
AER=actual emission rate for metal “i”
ERSL=emission rate screening limit provided by appendix I of Rule R315-266 for metal “i”.

(3) Implementation. The emission rate limits shall be implemented by limiting feed rates of the individual metals to levels during the trial burn, for new facilities or an interim status facility applying for a permit, or the compliance test, for interim status facilities. The feed rate averaging periods are the same as provided by Subsections R315-266-106(b)(1)(i) and (ii) and (b)(2)(ii). The feed rate of metals in each feedstream shall be monitored to ensure that the feed rate limits for the feedstreams specified under Sections R315-266-102 or 103 are not exceeded.

(4) Definitions and limitations. The definitions and limitations provided by Subsection R315-266-106(b) for the following terms also apply to the Tier II emission rate screening limits provided by Subsection R315-266-106(c): terrain-adjusted effective stack height, good engineering practice stack height, terrain type, land use, and criteria for facilities not eligible to use the screening limits.

(5) Multiple stacks.

(i) Owners and operators of facilities with more than one onsite stack from a boiler, industrial furnace, incinerator, or other thermal treatment unit subject to

controls on metals emissions under a RCRA operating permit or interim status controls shall comply with the emissions screening limits for any such stacks assuming all hazardous waste is fed into the device with the worst-case stack based on dispersion characteristics.

(ii) The worst-case stack is determined by procedures provided in Subsection R315-266-106(b)(6).

(iii) For each metal, the total emissions of the metal from those stacks shall not exceed the screening limit for the worst-case stack.

(d) Tier III and Adjusted Tier I site-specific risk assessment. The requirements of Subsection R315-266-106(d) apply to facilities complying with either the Tier III or Adjusted Tier I controls, except where specified otherwise.

(1) General. Conformance with the Tier III metals controls shall be demonstrated by emissions testing to determine the emission rate for each metal. In addition, conformance with either the Tier III or Adjusted Tier I metals controls shall be demonstrated by air dispersion modeling to predict the maximum annual average off-site ground level concentration for each metal, and a demonstration that acceptable ambient levels are not exceeded.

(2) Acceptable ambient levels. Appendices IV and V of Rule R315-266 list the acceptable ambient levels for purposes of Rule R315-266. Reference air concentrations (RACs) are listed for the noncarcinogenic metals and 10^{-5} risk-specific doses (RSDs) are listed for the carcinogenic metals. The RSD for a metal is the acceptable ambient level for that metal provided that only one of the four carcinogenic metals is emitted. If more than one carcinogenic metal is emitted, the acceptable ambient level for the carcinogenic metals is a fraction of the RSD as described in Subsection R315-266-106(d)(3).

(3) Carcinogenic metals. For the carcinogenic metals, arsenic, cadmium, beryllium, and chromium, the sum of the ratios of the predicted maximum annual average off-site ground level concentrations, except that on-site concentrations shall be considered if a person resides on site, to the risk-specific dose (RSD) for all carcinogenic metals emitted shall not exceed 1.0 as determined by the following equation:

The summation of Predicted Ambient Concentration$_{(i)}$/Risk-Specific Dose$_{(i)}$ for i=1 to n is less than or equal to 1.0

where: n=number of carcinogenic metals

(4) Noncarcinogenic metals. For the noncarcinogenic metals, the predicted maximum annual average off-site ground level concentration for each metal shall not exceed the reference air concentration (RAC).

(5) Multiple stacks. Owners and operators of facilities with more than one on-site stack from a boiler, industrial furnace, incinerator, or other thermal treatment unit subject to controls on metals emissions under a RCRA operating permit or interim status controls shall conduct emissions testing, except that facilities complying with Adjusted Tier I controls need not conduct emissions testing, and dispersion modeling to demonstrate that the aggregate emissions from all such on-site stacks do not result in an exceedance of the acceptable ambient levels.

(6) Implementation. Under Tier III, the metals controls shall be implemented by limiting feed rates of the individual metals to levels during the trial burn, for new facilities or an interim status facility applying for a permit, or the compliance test, for interim status facilities. The feed rate averaging periods are the same as provided by Subsections R315-266-106(b)(1)(i) and (ii) and (b)(2)(ii). The feed rate of metals in each feedstream shall be monitored to ensure that the feed rate limits for the feedstreams specified under Sections R315-266-102 or 103 are not exceeded.

(e) Adjusted Tier I feed rate screening limits. The owner or operator may adjust the feed rate screening limits provided by appendix I of Rule R315-266 to account for site-specific dispersion modeling. Under this approach, the adjusted feed rate screening limit for a metal is determined by back-calculating from the acceptable ambient level provided by appendices IV and V of Rule R315-266 using dispersion modeling to determine the maximum allowable emission rate. This emission rate becomes the adjusted Tier I feed rate screening limit. The feed rate screening limits for carcinogenic metals are implemented as prescribed in Subsection R315-266-106(b)(2).

(f) Alternative implementation approaches.

(1) The Director may approve on a case-by-case basis approaches to implement the Tier II or Tier III metals emission limits provided by Subsections R315-266-106(c) or

(d) alternative to monitoring the feed rate of metals in each feedstream.

(2) The emission limits provided by Subsection R315-266-106(d) shall be determined as follows:

(i) For each noncarcinogenic metal, by back-calculating from the RAC provided in appendix IV of Rule R315-266 to determine the allowable emission rate for each metal using the dilution factor for the maximum annual average ground level concentration predicted by dispersion modeling in conformance with Subsection R315-266-106(h); and

(ii) For each carcinogenic metal by:

(A) Back-calculating from the RSD provided in appendix V of Rule R315-266 to determine the allowable emission rate for each metal if that metal were the only carcinogenic metal emitted using the dilution factor for the maximum annual average ground level concentration predicted by dispersion modeling in conformance with Subsection R315-266-106(h); and

(B) If more than one carcinogenic metal is emitted, selecting an emission limit for each carcinogenic metal not to exceed the emission rate determined by Subsection R315-266-106(f)(2)(ii)(A) such that the sum for all carcinogenic metals of the ratios of the selected emission limit to the emission rate determined by Subsection R315-266-106(f)(2)(ii)(A) does not exceed 1.0.

(g) Emission testing

(1) General. Emission testing for metals shall be conducted using Method 0060, Determinations of Metals in Stack Emissions, EPA Publication SW-846, as incorporated by reference in Section R315-260-11.

(2) Hexavalent chromium. Emissions of chromium are assumed to be hexavalent chromium unless the owner or operator conducts emissions testing to determine hexavalent chromium emissions using procedures prescribed in Method 0061, Determination of Hexavalent Chromium Emissions from Stationary Sources, EPA Publication SW-846, as incorporated by reference in Section R315-260-11.

(h) Dispersion Modeling. Dispersion modeling required under Section R315-266-106 shall be conducted according to methods recommended in appendix W of 40 CFR 51, “Guideline on Air Quality Models (Revised)” (1986) and its supplements, the “Hazardous Waste Combustion Air Quality Screening Procedure”, provided in appendix IX of Rule R315-266, or in Screening Procedures for Estimating the Air

Quality Impact of Stationary Sources, Revised, incorporated by reference in Section R315-260-11, to predict the maximum annual average off-site ground level concentration. However, on-site concentrations shall be considered when a person resides on-site.

(i) Enforcement. For the purposes of permit enforcement, compliance with the operating requirements specified in the permit, under Section R315-266-102, shall be regarded as compliance with Section R315-266-106. However, evidence that compliance with those permit conditions is insufficient to ensure compliance with the requirements of Section R315-266-106 may be "information" justifying modification or revocation and re-issuance of a permit under Section R315-270-41.

R315-266-107. Hazardous Waste Burned in Boilers and Industrial Furnaces - Standards to control hydrogen chloride (HCl) and chlorine gas (Cl_2) emissions.

(a) General. The owner or operator shall comply with the hydrogen chloride (HCl) and chlorine (Cl_2) controls provided by Subsection R315-266-107(b), (c), or (e).

(b) Screening limits

(1) Tier I feed rate screening limits. Feed rate screening limits are specified for total chlorine in appendix II of Rule R315-266 as a function of terrain-adjusted effective stack height and terrain and land use in the vicinity of the facility. The feed rate of total chlorine and chloride, both organic and inorganic, in all feed streams, including hazardous waste, fuels, and industrial furnace feed stocks shall not exceed the levels specified.

(2) Tier II emission rate screening limits. Emission rate screening limits for HCl and Cl_2 are specified in appendix III of Rule R315-266 as a function of terrain-adjusted effective stack height and terrain and land use in the vicinity of the facility. The stack emission rates of HCl and Cl_2 shall not exceed the levels specified.

(3) Definitions and limitations. The definitions and limitations provided by Subsection R315-266-106(b) for the following terms also apply to the screening limits provided by Subsection R315-266-107(b): terrain-adjusted effective stack height, good engineering practice stack height, terrain type, land use, and criteria for facilities not eligible to use the screening limits.

(4) Multiple stacks. Owners and operators of facilities with more than one on-site stack from a boiler, industrial furnace, incinerator, or other thermal treatment unit subject to controls on HCl or Cl_2 emissions under a RCRA operating permit or interim status controls shall comply with the Tier I and Tier II screening limits for those stacks assuming all hazardous waste is fed into the device with the worst-case stack based on dispersion characteristics.

(i) The worst-case stack is determined by procedures provided in Subsection R315-266-106(b)(6).

(ii) Under Tier I, the total feed rate of chlorine and chloride to all subject devices shall not exceed the screening limit for the worst-case stack.

(iii) Under Tier II, the total emissions of HCl and Cl_2 from all subject stacks shall not exceed the screening limit for the worst-case stack.

(c) Tier III site-specific risk assessments

(1) General. Conformance with the Tier III controls shall be demonstrated by emissions testing to determine the emission rate for HCl and Cl_2, air dispersion modeling to predict the maximum annual average off-site ground level concentration for each compound, and a demonstration that acceptable ambient levels are not exceeded.

(2) Acceptable ambient levels. Appendix IV of Rule R315-266 lists the reference air concentrations (RACs) for HCl, 7 micrograms per cubic meter, and Cl_2, 0.4 micrograms per cubic meter.

(3) Multiple stacks. Owners and operators of facilities with more than one on-site stack from a boiler, industrial furnace, incinerator, or other thermal treatment unit subject to controls on HCl or Cl_2 emissions under a RCRA operating permit or interim status controls shall conduct emissions testing and dispersion modeling to demonstrate that the aggregate emissions from all such on-site stacks do not result in an exceedance of the acceptable ambient levels for HCl and Cl_2.

(d) Averaging periods. The HCl and Cl_2 controls are implemented by limiting the feed rate of total chlorine and chloride in all feedstreams, including hazardous waste, fuels, and industrial furnace feed stocks. Under Tier I, the feed rate of total chloride and chlorine is limited to the Tier I Screening Limits. Under Tier II and Tier III, the feed rate of total chloride and chlorine is limited to the feed rates during the trial burn, for new facilities or

an interim status facility applying for a permit, or the compliance test, for interim status facilities). The feed rate limits are based on either:

(1) An hourly rolling average as defined in Section R315-266-102(e)(6); or

(2) An instantaneous basis not to be exceeded at any time.

(e) Adjusted Tier I feed rate screening limits. The owner or operator may adjust the feed rate screening limit provided by appendix II of Rule R315-266 to account for site-specific dispersion modeling. Under this approach, the adjusted feed rate screening limit is determined by back-calculating from the acceptable ambient level for Cl_2 provided by appendix IV of Rule R315-266 using dispersion modeling to determine the maximum allowable emission rate. This emission rate becomes the adjusted Tier I feed rate screening limit.

(f) Emissions testing. Emissions testing for HCl and Cl_2 shall be conducted using the procedures described in Methods 0050 or 0051, EPA Publication SW-846, as incorporated by reference in Section R315-260-11.

(g) Dispersion modeling. Dispersion modeling shall be conducted according to the provisions of Subsection R315-266-106(h).

(h) Enforcement. For the purposes of permit enforcement, compliance with the operating requirements specified in the permit, under Section R315-266-102, shall be regarded as compliance with Section R315-266-107. However, evidence that compliance with those permit conditions is insufficient to ensure compliance with the requirements of Section R315-266-107 may be “information” justifying modification or revocation and re-issuance of a permit under Section R315-270-41.

R315-266-108. Hazardous Waste Burned in Boilers and Industrial Furnaces - Small quantity on-site burner exemption.

(a) Exempt quantities. Owners and operators of facilities that burn hazardous waste in an on-site boiler or industrial furnace are exempt from the requirements of Sections R315-266-100 through 112 provided that:

(1) The quantity of hazardous waste burned in a device for a calendar month does not exceed the limits provided in the following table based on the terrain-

adjusted effective stack height as defined in Subsection R315-266-106(b)(3):

Table - Exempt Quantities for Small Quantity Burner Exemption

Terrain-adjusted effective stack height of device (meters)	Allowable hazardous waste burning rate(gallons/month)
0 to 3.9	0
4.0 to 5.9	13
6.0 to 7.9	18
8.0 to 9.9	27
10.0 to 11.9	40
12.0 to 13.9	48
14.0 to 15.9	59
16.0 to 17.9	69
18.0 to 19.9	76
20.0 to 21.9	84
22.0 to 23.9	93
24.0 to 25.9	100
26.0 to 27.9	110
28.0 to 29.9	130
30.0 to 34.9	140
35.0 to 39.9	170
40.0 to 44.9	210
45.0 to 49.9	260
50.0 to 54.9	330
55.0 to 59.9	400
60.0 to 64.9	490
65.0 to 69.9	610
70.0 to 74.9	680
75.0 to 79.9	760
80.0 to 84.9	850
85.0 to 89.9	960
90.0 to 94.9	1,100
95.0 to 99.9	1,200
100.0 to 104.9	1,300
105.0 to 109.9	1,500
110.0 to 114.9	1,700
115.0 or greater	1,900

(2) The maximum hazardous waste firing rate does not exceed at any time 1 percent of the total fuel requirements

for the device, hazardous waste plus other fuel, on a total heat input or mass input basis, whichever results in the lower mass feed rate of hazardous waste.

(3) The hazardous waste has a minimum heating value of 5,000 Btu/lb, as generated; and

(4) The hazardous waste fuel does not contain, and is not derived from, EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, or F027.

(b) Mixing with nonhazardous fuels. If hazardous waste fuel is mixed with a nonhazardous fuel, the quantity of hazardous waste before such mixing is used to comply with Subsection R315-266-108(a).

(c) Multiple stacks. If an owner or operator burns hazardous waste in more than one on-site boiler or industrial furnace exempt under Section R315-266-108, the quantity limits provided by Subsection R315-266-108(a)(1) are implemented according to the following equation:

The summation of Actual Quantity $\text{Burned}_{(i)}$/Allowable quantity $\text{Burned}_{(i)}$ for i=1 to n is less than or equal to 1.0

where:

n means the number of stacks;

Actual Quantity Burned means the waste quantity burned per month in device “i”;

Allowable Quantity Burned means the maximum allowable exempt quantity for stack “i” from the table in Subsection R315-266-108(a)(1).

Hazardous wastes that are subject to the special requirements for small quantity generators under Section R315-261-5 may be burned in an off-site device under the exemption provided by Section R315-266-108, but shall be included in the quantity determination for the exemption.

(d) Notification requirements. The owner or operator of facilities qualifying for the small quantity burner exemption under Section R315-266-108 shall provide a one-time signed, written notice to the Director indicating the following:

(1) The combustion unit is operating as a small quantity burner of hazardous waste;

(2) The owner and operator are in compliance with the requirements of Section R315-266-108; and

(3) The maximum quantity of hazardous waste that the facility may burn per month as provided by Subsection R315-266-108(a)(1).

(e) Recordkeeping requirements. The owner or operator shall maintain at the facility for at least three years sufficient records documenting compliance with the hazardous waste quantity, firing rate, and heating value limits of Section R315-266-108. At a minimum, these records shall indicate the quantity of hazardous waste and other fuel burned in each unit per calendar month, and the heating value of the hazardous waste.

R315-266-109. Hazardous Waste Burned in Boilers and Industrial Furnaces - Low risk waste exemption.

(a) Waiver of DRE standard. The DRE standard of Subsection R315-266-104(a) does not apply if the boiler or industrial furnace is operated in conformance with Subsection R315-266-109(a)(1) and the owner or operator demonstrates by procedures prescribed in Subsection R315-266-109(a)(2) that the burning will not result in unacceptable adverse health effects.

(1) The device shall be operated as follows:

(i) A minimum of 50 percent of fuel fired to the device shall be fossil fuel, fuels derived from fossil fuel, tall oil, or, if approved by the Director on a case-by-case basis, other nonhazardous fuel with combustion characteristics comparable to fossil fuel. Such fuels are termed “primary fuel” for purposes of Section R315-266-109. Tall oil is a fuel derived from vegetable and rosin fatty acids. The 50 percent primary fuel firing rate shall be determined on a total heat or mass input basis, whichever results in the greater mass feed rate of primary fuel fired;

(ii) Primary fuels and hazardous waste fuels shall have a minimum as-fired heating value of 8,000 Btu/lb;

(iii) The hazardous waste is fired directly into the primary fuel flame zone of the combustion chamber; and

(iv) The device operates in conformance with the carbon monoxide controls provided by Subsection R315-266-104(b)(1). Devices subject to the exemption provided by Section R315-266-109 are not eligible for the alternative carbon monoxide controls provided by Subsection R315-266-104(c).

(2) Procedures to demonstrate that the hazardous waste burning will not pose unacceptable adverse public health effects are as follows:

(i) Identify and quantify those nonmetal compounds listed in appendix VIII, Rule R315-261 that could

reasonably be expected to be present in the hazardous waste. The constituents excluded from analysis shall be identified and the basis for their exclusion explained;

(ii) Calculate reasonable, worst case emission rates for each constituent identified in Subsection R315-266-109(a)(2)(i) by assuming the device achieves 99.9 percent destruction and removal efficiency. That is, assume that 0.1 percent of the mass weight of each constituent fed to the device is emitted.

(iii) For each constituent identified in Subsection R315-266-109(a)(2)(i), use emissions dispersion modeling to predict the maximum annual average ground level concentration of the constituent.

(A) Dispersion modeling shall be conducted using methods specified in Subsection R315-266-106(h).

(B) Owners and operators of facilities with more than one on-site stack from a boiler or industrial furnace that is exempt under Section R315-266-109 shall conduct dispersion modeling of emissions from all stacks exempt under Section R315-266-109 to predict ambient levels prescribed by Subsection R315-266-109(a).

(iv) Ground level concentrations of constituents predicted under Subsection R315-266-109(a)(2)(iii) shall not exceed the following levels:

(A) For the noncarcinogenic compounds listed in appendix IV of Rule R315-266, the levels established in appendix IV;

(B) For the carcinogenic compounds listed in appendix V of Rule R315-266, the sum for all constituents of the ratios of the actual ground level concentration to the level established in appendix V cannot exceed 1.0; and

(C) For constituents not listed in appendix IV or V, 0.1 micrograms per cubic meter.

(b) Waiver of particulate matter standard. The particulate matter standard of Section R315-266-105 does not apply if:

(1) The DRE standard is waived under Subsection R315-266-109(a); and

(2) The owner or operator complies with the Tier I or adjusted Tier I metals feed rate screening limits provided by Subsections R315-266-106(b) or (e).

R315-266-110. Hazardous Waste Burned in Boilers and Industrial Furnaces - Waiver of DRE trial burn for boilers.

Boilers that operate under the special requirements of Section R315-266-110, and that do not burn hazardous waste containing, or waste derived from, EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, or F027, are considered to be in conformance with the DRE standard of Subsection R315-266-104(a), and a trial burn to demonstrate DRE is waived. When burning hazardous waste:

(a) A minimum of 50 percent of fuel fired to the device shall be fossil fuel, fuels derived from fossil fuel, tall oil, or, if approved by the Director on a case-by-case basis, other nonhazardous fuel with combustion characteristics comparable to fossil fuel. Such fuels are termed “primary fuel” for purposes of Section R315-266-110. Tall oil is a fuel derived from vegetable and rosin fatty acids. The 50 percent primary fuel firing rate shall be determined on a total heat or mass input basis, whichever results in the greater mass feed rate of primary fuel fired;

(b) Boiler load shall not be less than 40 percent. Boiler load is the ratio at any time of the total heat input to the maximum design heat input;

(c) Primary fuels and hazardous waste fuels shall have a minimum as-fired heating value of 8,000 Btu/lb, and each material fired in a burner where hazardous waste is fired shall have a heating value of at least 8,000 Btu/lb, as-fired;

(d) The device shall operate in conformance with the carbon monoxide standard provided by Subsection R315-266-104(b)(1). Boilers subject to the waiver of the DRE trial burn provided by Section R315-266-110 are not eligible for the alternative carbon monoxide standard provided by Subsection R315-266-104(c);

(e) The boiler shall be a watertube type boiler that does not feed fuel using a stoker or stoker type mechanism; and

(f) The hazardous waste shall be fired directly into the primary fuel flame zone of the combustion chamber with an air or steam atomization firing system, mechanical atomization system, or a rotary cup atomization system under the following conditions:

(1) Viscosity. The viscosity of the hazardous waste fuel as-fired shall not exceed 300 SSU;

(2) Particle size. When a high pressure air or steam atomizer, low pressure atomizer, or mechanical atomizer is used, 70% of the hazardous waste fuel shall pass through a

200 mesh, 74 micron, screen, and when a rotary cup atomizer is used, 70% of the hazardous waste shall pass through a 100 mesh, 150 micron, screen;

(3) Mechanical atomization systems. Fuel pressure within a mechanical atomization system and fuel flow rate shall be maintained within the design range taking into account the viscosity and volatility of the fuel;

(4) Rotary cup atomization systems. Fuel flow rate through a rotary cup atomization system shall be maintained within the design range taking into account the viscosity and volatility of the fuel.

R315-266-111. Hazardous Waste Burned in Boilers and Industrial Furnaces - Standards for direct transfer.

(a) Applicability. The regulations in Section R315-266-111 apply to owners and operators of boilers and industrial furnaces subject to Sections R315-266-102 or 103 if hazardous waste is directly transferred from a transport vehicle to a boiler or industrial furnace without the use of a storage unit.

(b) Definitions.

(1) When used in Section R315-266-111, the following terms have the meanings given below:

Direct transfer equipment means any device, including but not limited to, such devices as piping, fittings, flanges, valves, and pumps, that is used to distribute, meter, or control the flow of hazardous waste between a container, i.e., transport vehicle, and a boiler or industrial furnace.

Container means any portable device in which hazardous waste is transported, stored, treated, or otherwise handled, and includes transport vehicles that are containers themselves, e.g., tank trucks, tanker-trailers, and rail tank cars, and containers placed on or in a transport vehicle.

(2) Section R315-266-111 references several requirements provided in Sections R315-264-170 through 200 and 40 CFR 265.170 through 202, which are adopted by reference. For purposes of Section R315-266-111, the term “tank systems” in those referenced requirements means direct transfer equipment as defined in Subsection R315-266-111(b)(1).

(c) General operating requirements.

(1) No direct transfer of a pumpable hazardous waste shall be conducted from an open-top container to a boiler or industrial furnace.

(2) Direct transfer equipment used for pumpable hazardous waste shall always be closed, except when necessary to add or remove the waste, and shall not be opened, handled, or stored in a manner that may cause any rupture or leak.

(3) The direct transfer of hazardous waste to a boiler or industrial furnace shall be conducted so that it does not:

(i) Generate extreme heat or pressure, fire, explosion, or violent reaction;

(ii) Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health;

(iii) Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;

(iv) Damage the structural integrity of the container or direct transfer equipment containing the waste;

(v) Adversely affect the capability of the boiler or industrial furnace to meet the standards provided by Sections R315-266-104 through 107; or

(vi) Threaten human health or the environment.

(4) Hazardous waste shall not be placed in direct transfer equipment, if it could cause the equipment or its secondary containment system to rupture, leak, corrode, or otherwise fail.

(5) The owner or operator of the facility shall use appropriate controls and practices to prevent spills and overflows from the direct transfer equipment or its secondary containment systems. These include at a minimum:

(i) Spill prevention controls, e.g., check valves, dry discount couplings; and

(ii) Automatic waste feed cutoff to use if a leak or spill occurs from the direct transfer equipment.

(d) Areas where direct transfer vehicles, containers, are located. Applying the definition of container under Section R315-266-111, owners and operators shall comply with the following requirements:

(1) The containment requirements of Section R315-264-175;

(2) The use and management requirements of 40 CFR 265.171 through 178, which are adopted by reference, except for 265-174, and except that in lieu of the special

requirements of 265-176 for ignitable or reactive waste, the owner or operator may comply with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys, or an adjacent property line that can be built upon as required in Tables 2-1 through 2-6 of the National Fire Protection Association's (NFPA) “Flammable and Combustible Liquids Code,” (1977 or 1981), incorporated by reference, see Section R315-260-11. The owner or operator shall obtain and keep on file at the facility a written certification by the local Fire Marshall that the installation meets the subject NFPA codes; and

(3) The closure requirements of Section R315-264-178.

(e) Direct transfer equipment. Direct transfer equipment shall meet the following requirements:

(1) Secondary containment. Owners and operators shall comply with the secondary containment requirements of 40 CFR 265.193, which are adopted by reference, except for 265-193(a), (d), (e), and (i) as follows:

(i) For all new direct transfer equipment, prior to their being put into service; and

(ii) For existing direct transfer equipment within 2 years after August 21, 1991.

(2) Requirements prior to meeting secondary containment requirements.

(i) For existing direct transfer equipment that does not have secondary containment, the owner or operator shall determine whether the equipment is leaking or is unfit for use. The owner or operator shall obtain and keep on file at the facility a written assessment reviewed and certified by a qualified, registered professional engineer in accordance with Subsection R315-270-11(d) that attests to the equipment's integrity by August 21, 1992.

(ii) This assessment shall determine whether the direct transfer equipment is adequately designed and has sufficient structural strength and compatibility with the waste(s) to be transferred to ensure that it will not collapse, rupture, or fail. At a minimum, this assessment shall consider the following:

(A) Design standard(s), if available, according to which the direct transfer equipment was constructed;

(B) Hazardous characteristics of the waste(s) that have been or will be handled;

(C) Existing corrosion protection measures;

(D) Documented age of the equipment, if available, otherwise, an estimate of the age; and

(E) Results of a leak test or other integrity examination such that the effects of temperature variations, vapor pockets, cracks, leaks, corrosion, and erosion are accounted for.

(iii) If, as a result of the assessment specified above, the direct transfer equipment is found to be leaking or unfit for use, the owner or operator shall comply with the requirements of 40 CFR 265.196(a) and (b), which are adopted by reference.

(3) Inspections and recordkeeping.

(i) The owner or operator shall inspect at least once each operating hour when hazardous waste is being transferred from the transport vehicle, container, to the boiler or industrial furnace:

(A) Overfill/spill control equipment, e.g., waste-feed cutoff systems, bypass systems, and drainage systems, to ensure that it is in good working order;

(B) The above ground portions of the direct transfer equipment to detect corrosion, erosion, or releases of waste, e.g., wet spots, dead vegetation; and

(C) Data gathered from monitoring equipment and leak-detection equipment, e.g., pressure and temperature gauges, to ensure that the direct transfer equipment is being operated according to its design.

(ii) The owner or operator shall inspect cathodic protection systems, if used, to ensure that they are functioning properly according to the schedule provided by 40 CFR 265.195(b), which is adopted by reference:

(iii) Records of inspections made under Subsection R315-266-11(e)(3) shall be maintained in the operating record at the facility, and available for inspection for at least 3 years from the date of the inspection.

(4) Design and installation of new ancillary equipment. Owners and operators shall comply with the requirements of 40 CFR 265.192, which is adopted by reference.

(5) Response to leaks or spills. Owners and operators shall comply with the requirements of 40 CFR 265.196, which is adopted by reference.

(6) Closure. Owners and operators shall comply with the requirements of 40 CFR 265.197, which are adopted by reference, except for 265-197(c)(2) through (c)(4).

R315-266-112. Hazardous Waste Burned in Boilers and Industrial Furnaces - Regulation of residues.

A residue derived from the burning or processing of hazardous waste in a boiler or industrial furnace is not excluded from the definition of a hazardous waste under Subsections R315-261-4(b)(4), (7), or (8) unless the device and the owner or operator meet the following requirements:

(a) The device meets the following criteria:

(1) Boilers. Boilers shall burn at least 50% coal on a total heat input or mass input basis, whichever results in the greater mass feed rate of coal;

(2) Ore or mineral furnaces. Industrial furnaces subject to Subsection R315-261-4(b)(7) shall process at least 50% by weight normal, nonhazardous raw materials;

(3) Cement kilns. Cement kilns shall process at least 50% by weight normal cement-production raw materials;

(b) The owner or operator demonstrates that the hazardous waste does not significantly affect the residue by demonstrating conformance with either of the following criteria:

(1) Comparison of waste-derived residue with normal residue. The waste-derived residue shall not contain appendix VIII, Rule R315-261 constituents, toxic constituents, that could reasonably be attributable to the hazardous waste at concentrations significantly higher than in residue generated without burning or processing of hazardous waste, using the following procedure. Toxic compounds that could reasonably be attributable to burning or processing the hazardous waste, constituents of concern, include toxic constituents in the hazardous waste, and the organic compounds listed in appendix VIII of Rule R315-266 that may be generated as products of incomplete combustion. For polychlorinated dibenzo-p-dioxins and polychlorinated dibenzo-furans, analyses shall be performed to determine specific congeners and homologues, and the results converted to 2,3,7,8-TCDD equivalent values using the procedure specified in section 4.0 of appendix IX of Rule R315-266.

(i) Normal residue. Concentrations of toxic constituents of concern in normal residue shall be determined based on analyses of a minimum of 10 samples representing a minimum of 10 days of operation. Composite samples may be used to develop a sample for analysis provided that the compositing period does not exceed 24 hours. The upper tolerance limit, at 95% confidence with a

95% proportion of the sample distribution, of the concentration in the normal residue shall be considered the statistically-derived concentration in the normal residue. If changes in raw materials or fuels reduce the statistically-derived concentrations of the toxic constituents of concern in the normal residue, the statistically-derived concentrations shall be revised or statistically-derived concentrations of toxic constituents in normal residue shall be established for a new mode of operation with the new raw material or fuel. To determine the upper tolerance limit in the normal residue, the owner or operator shall use statistical procedures prescribed in "Statistical Methodology for Bevill Residue Determinations" in appendix IX of Rule R315-266.

(ii) Waste-derived residue. Waste-derived residue shall be sampled and analyzed as often as necessary to determine whether the residue generated during each 24-hour period has concentrations of toxic constituents that are higher than the concentrations established for the normal residue under Subsection R315-266-112(b)(1)(i). If so, hazardous waste burning has significantly affected the residue and the residue shall not be excluded from the definition of a hazardous waste. Concentrations of toxic constituents of concern in the waste-derived residue shall be determined based on analysis of one or more samples obtained over a 24-hour period. Multiple samples may be analyzed, and multiple samples may be taken to form a composite sample for analysis provided that the sampling period does not exceed 24 hours. If more than one sample is analyzed to characterize waste-derived residues generated over a 24-hour period, the concentration of each toxic constituent shall be the arithmetic mean of the concentrations in the samples. No results may be disregarded; or

(2) Comparison of waste-derived residue concentrations with health-based limits

(i) Nonmetal constituents: The concentration of each nonmetal toxic constituent of concern, specified in Subsection R315-266-112(b)(1), in the waste-derived residue shall not exceed the health-based level specified in appendix VII of Rule R315-266, or the level of detection, whichever is higher. If a health-based limit for a constituent of concern is not listed in appendix VII of Rule R315-266, then a limit of 0.002 micrograms per kilogram or the level of detection, which shall be

determined by using appropriate analytical procedures, whichever is higher, shall be used. The levels specified in appendix VII of Rule R315-266, and the default level of 0.002 micrograms per kilogram or the level of detection for constituents as identified in Note 1 of appendix VII of Rule R315-266, are administratively stayed under the condition, for those constituents specified in Subsection R315-266-112(b)(1), that the owner or operator complies with alternative levels defined as the land disposal restriction limits specified in Section R315-268-43 for F039 nonwastewaters. In complying with those alternative levels, if an owner or operator is unable to detect a constituent despite documenting use of best good-faith efforts as defined by applicable guidance or standards, the owner or operator is deemed to be in compliance for that constituent. Until new guidance or standards are developed, the owner or operator may demonstrate such good-faith efforts by achieving a detection limit for the constituent that does not exceed an order of magnitude above the level provided by Section R315-268-43 for F039 nonwastewaters. In complying with the Section R315-268-43 F039 nonwastewater levels for polychlorinated dibenzo-p-dioxins and polychlorinated dibenzo-furans, analyses shall be performed for total hexachlorodibenzo-p-dioxins, total hexachlorodibenzofurans, total pentachlorodibenzo-p-dioxins, total pentachlorodibenzofurans, total tetrachlorodibenzo-p-dioxins, and total tetrachlorodibenzofurans.

Note to Subsection R315-266-112(b)(2)(i): The administrative stay, under the condition that the owner or operator complies with alternative levels defined as the land disposal restriction limits specified in Section R315-268-43 for F039 nonwastewaters, remains in effect until further administrative action is taken and notice is published.

(ii) Metal constituents. The concentration of metals in an extract obtained using the Toxicity Characteristic Leaching Procedure of Section R315-261-24 shall not exceed the levels specified in appendix VII of Rule R315-266; and

(iii) Sampling and analysis. Waste-derived residue shall be sampled and analyzed as often as necessary to determine whether the residue generated during each 24-hour period has concentrations of toxic constituents that are higher than the health-based levels. Concentrations of toxic constituents of concern in the waste-derived residue

shall be determined based on analysis of one or more samples obtained over a 24-hour period. Multiple samples may be analyzed, and multiple samples may be taken to form a composite sample for analysis provided that the sampling period does not exceed 24 hours. If more than one sample is analyzed to characterize waste-derived residues generated over a 24-hour period, the concentration of each toxic constituent shall be the arithmetic mean of the concentrations in the samples. No results may be disregarded; and

(c) Records sufficient to document compliance with the provisions of Section R315-266-112 shall be retained until closure of the boiler or industrial furnace unit. At a minimum, the following shall be recorded.

(1) Levels of constituents in appendix VIII, Rule R315-261, that are present in waste-derived residues;

(2) If the waste-derived residue is compared with normal residue under Subsection R315-266-112(b)(1):

(i) The levels of constituents in appendix VIII, Rule R315-261, that are present in normal residues; and

(ii) Data and information, including analyses of samples as necessary, obtained to determine if changes in raw materials or fuels would reduce the concentration of toxic constituents of concern in the normal residue.

R315-266-202. Military Munitions - Definition of solid waste.

(a) Reserved.

(b) Reserved.

(c) Reserved.

(d) For purposes of Subsection 19-6-102(19)(a), a used or fired military munition is a solid waste, and, therefore, is potentially subject to RCRA corrective action authorities under sections 3004(u) and (v), and 3008(h), or imminent and substantial endangerment authorities under section 7003, if the munition lands off-range and is not promptly rendered safe and/or retrieved. Any imminent and substantial threats associated with any remaining material shall be addressed. If remedial action is infeasible, the operator of the range shall maintain a record of the event for as long as any threat remains. The record shall include the type of munition and its location, to the extent the location is known.

Appendix I to Rule R315-266 - Tier I and Tier II Feed Rate and Emissions Screening Limits for Metals.

Appendix I of 40 CFR 266, 2015 edition, is adopted and incorporated by reference.

Appendix II to Rule R315-266 - Tier I Feed Rate Screening Limits for Total Chlorine.

Terrain-adjusted effective stack height (m)	Noncomplex Terrain Urban (g/hr)	Noncomplex Terrain Rural (g/hr)	Complex Terrain (g/hr)
4	8.2E+01	4.2E+01	1.9E+01
6	9.1E+01	4.8E+01	2.8E+01
8	1.0E+02	5.3E+01	4.1E+01
10	1.2E+02	6.2E+01	5.8E+01
12	1.3E+02	7.7E+01	7.2E+01
14	1.5E+02	9.1E+01	9.1E+01
16	1.7E+02	1.2E+02	1.1E+02
18	1.9E+02	1.4E+02	1.2E+02
20	2.1E+02	1.8E+02	1.3E+02
22	2.4E+02	2.3E+02	1.4E+02
24	2.7E+02	2.9E+02	1.6E+02
26	3.1E+02	3.7E+02	1.7E+02
28	3.5E+02	4.7E+02	1.9E+02
30	3.9E+02	5.8E+02	2.1E+02
35	5.3E+02	9.6E+02	2.6E+02
40	6.2E+02	1.4E+03	3.3E+02
45	8.2E+02	2.0E+03	4.0E+02
50	1.1E+03	2.6E+03	4.8E+02
55	1.3E+03	3.5E+03	6.2E+02
60	1.6E+03	4.6E+03	7.7E+02
65	2.0E+03	6.2E+03	9.1E+02
70	2.3E+03	7.2E+03	1.1E+03
75	2.5E+03	8.6E+03	1.2E+03
80	2.9E+03	1.0E+04	1.3E+03
85	3.3E+03	1.2E+04	1.4E+03
90	3.7E+03	1.4E+04	1.6E+03
95	4.2E+03	1.7E+04	1.8E+03
100	4.8E+03	2.1E+04	2.0E+03
105	5.3E+03	2.4E+04	2.3E+03
110	6.2E+03	2.9E+04	2.5E+03
115	7.2E+03	3.5E+04	2.8E+03
120	8.2E+03	4.1E+04	3.2E+03

Appendix III to Rule R315-266 - Tier II Emission Rate Screening Limits for Free Chlorine and Hydrogen Chloride.

Appendix III of 40 CFR 266, 2015 edition, is adopted and incorporated by reference.

Appendix IV to Rule R315-266 - Reference Air Concentrations*.

Constituent	CAS No.	RAC (ug/m^3)
Acetaldehyde	75-07-0	10
Acetonitrile	75-05-8	10
Acetophenone	98-86-2	100
Acrolein	107-02-8	20
Aldicarb	116-06-3	1
Aluminum Phosphide	20859-73-8	0.3
Allyl Alcohol	107-18-6	5
Antimony	7440-36-0	0.3
Barium	7440-39-3	50
Barium Cyanide	542-62-1	50
Bromomethane	74-83-9	0.8
Calcium Cyanide	592-01-8	30
Carbon Disulfide	75-15-0	200
Chloral	75-87-6	2
Chlorine (free)		0.4
2-Chloro-1,3-butadiene	126-99-8	3
Chromium III	16065-83-1	1000
Copper Cyanide	544-92-3	5
Cresols	1319-77-3	50
Cumene	98-82-8	1
Cyanide (free)	57-12-15	20
Cyanogen	460-19-5	30
Cyanogen Bromide	506-68-3	80
Di-n-butyl Phthalate	84-74-2	100
o-Dichlorobenzene	95-50-1	10
p-Dichlorobenzene	106-46-7	10
Dichlorodifluoromethane	75-71-8	200
2,4-Dichlorophenol	120-83-2	3
Diethyl Phthalate	84-66-2	800
Dimethoate	60-51-5	0.8
2,4-Dinitrophenol	51-28-5	2
Dinoseb	88-85-7	0.9
Diphenylamine	122-39-4	20
Endosulfan	115-29-1	0.05
Endrin	72-20-8	0.3
Fluorine	7782-41-4	50
Formic Acid	64-18-6	2000
Glycidyaldehyde	765-34-4	0.3
Hexachlorocyclopentadiene	77-47-4	5

Hexachlorophene	70-30-4	0.3
Hydrocyanic Acid	74-90-8	20
Hydrogen Chloride	7647-01-1	7
Hydrogen Sulfide	7783-06-4	3
Isobutyl Alcohol	78-83-1	300
Lead	7439-92-1	0.09
Maleic Anhydride	108-31-6	100
Mercury	7439-97-6	0.3
Methacrylonitrile	126-98-7	0.1
Methomyl	16752-77-5	20
Methoxychlor	72-43-5	50
Methyl Chlorocarbonate	79-22-1	1000
Methyl Ethyl Ketone	78-93-3	80
Methyl Parathion	298-00-0	0.3
Nickel Cyanide	557-19-7	20
Nitric Oxide	10102-43-9	100
Nitrobenzene	98-95-3	0.8
Pentachlorobenzene	608-93-5	0.8
Pentachlorophenol	87-86-5	30
Phenol	108-95-2	30
M-Phenylenediamine	108-45-2	5
Phenylmercuric Acetate	62-38-4	0.075
Phosphine	7803-51-2	0.3
Phthalic Anhydride	85-44-9	2000
Potassium Cyanide	151-50-8	50
Potassium Silver Cyanide	506-61-6	200
Pyridine	110-86-1	1
Selenious Acid	7783-60-8	3
Selenourea	630-10-4	5
Silver	7440-22-4	3
Silver Cyanide	506-64-9	100
Sodium Cyanide	143-33-9	30
Strychnine	57-24-9	0.3
1,2,4,5-Tetrachlorobenzene	95-94-3	0.3
2,3,4,6-Tetrachlorophenol	58-90-2	30
Tetraethyl Lead	78-00-2	0.0001
Tetrahydrofuran	109-99-9	10
Thallic Oxide	1314-32-5	0.3
Thallium	7440-28-0	0.5
Thallium (I) Acetate	563-68-8	0.5
Thallium (I) Carbonate	6533-73-9	0.3
Thallium (I) Chloride	7791-12-0	0.3
Thallium (I) Nitrate	10102-45-1	0.5
Thallium Selenite	12039-52-0	0.5
Thallium (I) Sulfate	7446-18-6	0.075

Thiram	137-26-8	5
Toluene	108-88-3	300
1,2,4-Trichlorobenzene	120-82-1	20
Trichloromonofluoromethane	75-69-4	300
2,4,5-Trichlorophenol	95-95-4	100
Vanadium Pentoxide	1314-62-1	20
Warfarin	81-81-2	0.3
Xylenes	1330-20-7	80
Zinc Cyanide	557-21-1	50
Zinc Phosphide	1314-84-7	0.3

*The RAC for other appendix VIII Rule R315-261 constituents not listed herein or in appendix V of Rule R315-266 is 0.1 ug/m^3.

Appendix V to Rule R315-266 - Risk Specific Doses.

Constituent	CAS No.	Unit risk (m3/µg)	RsD (µg/m3)
Acrylamide	79-06-1	1.3E−03	7.7E−03
Acrylonitrile	107-13-1	6.8E−05	1.5E−01
Aldrin	309-00-2	4.9E−03	2.0E−03
Aniline	62-53-3	7.4E−06	1.4E+00
Arsenic	7440-38-2	4.3E−03	2.3E−03
Benz(a)anthracene	56-55-3	8.9E−04	1.1E−02
Benzene	71-43-2	8.3E−06	1.2E+00
Benzidine	92-87-5	6.7E−02	1.5E−04
Benzo(a)pyrene	50-32-8	3.3E−03	3.0E−03
Beryllium	7440-41-7	2.4E−03	4.2E−03
Bis(2-chloroethyl) ether	111-44-4	3.3E−04	3.0E−02
Bis(chloromethyl)ether	542-88-1	6.2E−02	1.6E−04
Bis(2-ethylhexyl) -phthalate	117-81-7	2.4E−07	4.2E+01
1,3-Butadiene	106-99-0	2.8E−04	3.6E−02
Cadmium	7440-43-9	1.8E−03	5.6E−03
Carbon Tetrachloride	56-23-5	1.5E−05	6.7E−01
Chlordane	57-74-9	3.7E−04	2.7E−02
Chloroform	67-66-3	2.3E−05	4.3E−01
Chloromethane	74-87-3	3.6E−06	2.8E+00
Chromium VI	7440-47-3	1.2E−02	8.3E−04
DDT	50-29-3	9.7E−05	1.0E−01
Dibenz(a,h)anthracene	53-70-3	1.4E−02	7.1E−04

1,2-Dibromo-3 -chloropropane	96-12-8	6.3E−03	1.6E−03
1,2-Dibromoethane	106-93-4	2.2E−04	4.5E−02
1,1-Dichloroethane	75-34-3	2.6E−05	3.8E−01
1,2-Dichloroethane	107-06-2	2.6E−05	3.8E−01
1,1-Dichloroethylene	75-35-4	5.0E−05	2.0E−01
1,3-Dichloropropene	542-75-6	3.5E−01	2.9E−05
Dieldrin	60-57-1	4.6E−03	2.2E−03
Diethylstilbestrol	56-53-1	1.4E−01	7.1E−05
Dimethylnitrosamine	62-75-9	1.4E−02	7.1E−04
2,4-Dinitrotoluene	121-14-2	8.8E−05	1.1E−01
1,2-Diphenylhydrazine	122-66-7	2.2E−04	4.5E−02
1,4-Dioxane	123-91-1	1.4E−06	7.1E+00
Epichlorohydrin	106-89-8	1.2E−06	8.3E+00
Ethylene Oxide	75-21-8	1.0E−04	1.0E−01
Ethylene Dibromide	106-93-4	2.2E−04	4.5E−02
Formaldehyde	50-00-0	1.3E−05	7.7E−01
Heptachlor	76-44-8	1.3E−03	7.7E−03
Heptachlor Epoxide	1024-57-3	2.6E−03	3.8E−03
Hexachlorobenzene	118-74-1	4.9E−04	2.0E−02
Hexachlorobutadiene	87-68-3	2.0E−05	5.0E−01
Alpha-hexachloro -cyclohexane	319-84-6	1.8E−03	5.6E−03
Beta-hexachloro -cyclohexane	319-85-7	5.3E−04	1.9E−02
Gamma-hexachloro -cyclohexane	58-89-9	3.8E−04	2.6E−02
Hexachlorocyclo -hexane, Technical		5.1E−04	2.0E−02
Hexachlorodibenzo-p-dioxin(1,2 Mixture)		1.3E+0	7.7E−06
Hexachloroethane	67-72-1	4.0E−06	2.5E+00
Hydrazine	302-01-2	2.9E−03	3.4E−03
Hydrazine Sulfate	302-01-2	2.9E−03	3.4E−03
3-Methylcholanthrene	56-49-5	2.7E−03	3.7E−03
Methyl Hydrazine	60-34-4	3.1E−04	3.2E−02
Methylene Chloride	75-09-2	4.1E−06	2.4E+00
4,4′-Methylene-bis-2 -chloroaniline	101-14-4	4.7E−05	2.1E−01
Nickel	7440-02-0	2.4E−04	4.2E−02
Nickel Refinery Dust	7440-02-0	2.4E−04	4.2E−02
Nickel Subsulfide	12035-72-2	4.8E−04	2.1E−02

2-Nitropropane	79-46-9	2.7E−02	3.7E−04
N-Nitroso-n-butylamine	924-16-3	1.6E−03	6.3E−03
N-Nitroso-n-methylurea	684-93-5	8.6E−02	1.2E−04
N-Nitrosodiethylamine	55-18-5	4.3E−02	2.3E−04
N-Nitrosopyrrolidine	930-55-2	6.1E−04	1.6E−02
Pentachloronitrobenzene	82-68-8	7.3E−05	1.4E−01
PCBs	1336-36-3	1.2E−03	8.3E−03
Pronamide	23950-58-5	4.6E−06	2.2E+00
Reserpine	50-55-5	3.0E−03	3.3E−03
2,3,7,8-Tetrachloro -dibenzo-p-dioxin	1746-01-6	4.5E+01	2.2E−07
1,1,2,2-Tetrachloroethane	79-34-5	5.8E−05	1.7E−01
Tetrachloroethylene	127-18-4	4.8E−07	2.1E+01
Thiourea	62-56-6	5.5E−04	1.8E−02
1,1,2-Trichloroethane	79-00-5	1.6E−05	6.3E−01
Trichloroethylene	79-01-6	1.3E−06	7.7E+00
2,4,6-Trichlorophenol	88-06-2	5.7E−06	1.8E+00
Toxaphene	8001-35-2	3.2E−04	3.1E−02
Vinyl Chloride	75-01-4	7.1E−06	1.4E+00

Appendix VI to Rule R315-266 - Stack Plume Rise.

Appendix VI of 40 CFR 266, 2015 edition, is adopted and incorporated by reference.

Appendix VII to Rule R315-266 - Health-Based Limits for Exclusion of Waste-Derived Residues.

Metals - TCLP Extract Concentration Limits

Constituent	CAS No.	Concentration limits (mg/L)
Antimony	7440-36-0	1xE+00
Arsenic	7440-38-2	5xE+00
Barium	7440-39-3	1xE+02
Beryllium	7440-41-7	7xE−03
Cadmium	7440-43-9	1xE+00
Chromium	7440-47-3	5xE+00
Lead	7439-92-1	5xE+00
Mercury	7439-97-6	2xE−01
Nickel	7440-02-0	7xE+01
Selenium	7782-49-2	1xE+00
Silver	7440-22-4	5xE+00
Thallium	7440-28-0	7xE+00

Nonmetals - Residue Concentration Limits

Constituent	CAS No.	Concentration limits for residues (mg/kg)
Acetonitrile	75-05-8	2xE−01
Acetophenone	98-86-2	4xE+00
Acrolein	107-02-8	5xE−01
Acrylamide	79-06-1	2xE−04
Acrylonitrile	107-13-1	7xE−04
Aldrin	309-00-2	2xE−05
Allyl alcohol	107-18-6	2xE−01
Aluminum phosphide	20859-73-8	1xE−02
Aniline	62-53-3	6xE−02
Barium cyanide	542-62-1	1xE+00
Benz(a)anthracene	56-55-3	1xE−04
Benzene	71-43-2	5xE−03
Benzidine	92-87-5	1xE−06
Bis(2-chloroethyl) ether	111-44-4	3xE−04
Bis(chloroethyl) ether	542-88-1	2xE−06
Bis(2-ethylhexyl) phthalate	117-81-7	3xE+01
Bromoform	75-25-2	7xE−01
Calcium cyanide	592-01-8	1xE−06
Carbon disulfide	75-15-0	4xE+00
Carbon tetrachloride	56-23-5	5xE−03
Chlordane	57-74-9	3xE−04
Chlorobenzene	108-90-7	1xE+00
Chloroform	67-66-3	6xE−02
Copper cyanide	544-92-3	2xE−01
Cresols (Cresylic acid)	1319-77-3	2xE+00
Cyanogen	460-19-5	1xE+00
DDT	50-29-3	1xE−03
Dibenz(a, h)-anthracene	53-70-3	7xE−06
1,2-Dibromo-3 -chloropropane	96-12-8	2xE−05
p-Dichlorobenzene	106-46-7	7.5xE−02
Dichlorodifluoromethane	75-71-8	7xE+00
1,1-Dichloroethylene	75-35-4	5xE−03
2,4-Dichlorophenol	120-83-2	1xE−01

1,3-Dichloropropene	542-75-6	1xE−03
Dieldrin	60-57-1	2xE−05
Diethyl phthalate	84-66-2	3xE+01
Diethylstilbesterol	56-53-1	7xE−07
Dimethoate	60-51-5	3xE−02
2,4-Dinitrotoluene	121-14-2	5xE−04
Diphenylamine	122-39-4	9xE−01
1,2-Diphenylhydrazine	122-66-7	5xE−04
Endosulfan	115-29-7	2xE−03
Endrin	72-20-8	2xE−04
Epichlorohydrin	106-89-8	4xE−02
Ethylene dibromide	106-93-4	4xE−07
Ethylene oxide	75-21-8	3xE−04
Fluorine	7782-41-4	4xE+00
Formic acid	64-18-6	7xE+01
Heptachlor	76-44-8	8xE−05
Heptachlor epoxide	1024-57-3	4xE−05
Hexachlorobenzene	118-74-1	2xE−04
Hexachlorobutadiene	87-68-3	5xE−03
Hexachlorocyclopentadiene	77-47-4	2xE−01
Hexachlorodibenzo-p -dioxins	19408-74-3	6xE−08
Hexachloroethane	67-72-1	3xE−02
Hydrazine	302-01-1	1xE−04
Hydrogen cyanide	74-90-8	7xE−05
Hydrogen sulfide	7783-06-4	1xE−06
Isobutyl alcohol	78-83-1	1xE+01
Methomyl	16752-77-5	1xE+00
Methoxychlor	72-43-5	1xE−01
3-Methylcholanthrene	56-49-5	4xE−05
4,4′-Methylenebis (2-chloroaniline)	101-14-4	2xE−03
Methylene chloride	75-09-2	5xE−02
Methyl ethyl ketone (MEK)	78-93-3	2xE+00
Methyl hydrazine	60-34-4	3xE−04
Methyl parathion	298-00-0	2xE−02
Naphthalene	91-20-3	1xE+01
Nickel cyanide	557-19-7	7xE−01
Nitric oxide	10102-43-9	4xE+00
Nitrobenzene	98-95-3	2xE−02
N-Nitrosodi-n -butylamine	924-16-3	6xE−05
N-Nitrosodiethylamine	55-18-5	2xE−06

N-Nitroso-N-methylurea	684-93-5	1xE−07
N-Nitrosopyrrolidine	930-55-2	2xE−04
Pentachlorobenzene	608-93-5	3xE−02
Pentachloronitrobenzene (PCNB)	82-68-8	1xE−01
Pentachlorophenol	87-86-5	1xE+00
Phenol	108-95-2	1xE+00
Phenylmercury acetate	62-38-4	3xE−03
Phosphine	7803-51-2	1xE−02
Polychlorinated biphenyls, N.O.S	1336-36-3	5xE−05
Potassium cyanide	151-50-8	2xE+00
Potassium silver cyanide	506-61-6	7xE+00
Pronamide	23950-58-5	3xE+00
Pyridine	110-86-1	4xE−02
Reserpine	50-55-5	3xE−05
Selenourea	630-10-4	2xE−01
Silver cyanide	506-64-9	4xE+00
Sodium cyanide	143-33-9	1xE+00
Strychnine	57-24-9	1xE−02
1,2,4,5-Tetrachlorobenzene	95-94-3	1xE−02
1,1,2,2-tetrachloroethane	79-34-5	2xE−03
Tetrachloroethylene	127-18-4	7xE−01
2,3,4,6-Tetrachlorophenol	58-90-2	1xE−02
Tetraethyl lead	78-00-2	4xE−06
Thiourea	62-56-6	2xE−04
Toluene	108-88-3	1xE+01
Toxaphene	8001-35-2	5xE−03
1,1,2-Trichloroethane	79-00-5	6xE−03
Trichloroethylene	79-01-6	5xE−03
Trichloromonofluoromethane	75-69-4	1xE+01
2,4,5-Trichlorophenol	95-95-4	4xE+00
2,4,6-Trichlorophenol	88-06-2	4xE+00
Vanadium pentoxide	1314-62-1	7xE−01
Vinyl chloride	75-01-4	2xE−03

*Note 1: The health-based concentration limits for appendix VIII Rule R315-261 constituents for which a health-based concentration is not provided below is 2xE−06 mg/kg.

Note 2: The levels specified in this appendix and the default level of 0.002 micrograms per kilogram or the level of detection for constituents as identified in Note 1 of this appendix are administratively stayed under the condition, for those constituents specified in Susection R315-266-112(b)(1), that the owner or operator complies with alternative levels defined as the land disposal restriction limits specified in Section R315-268-43 for FO39 nonwastewaters. See Subsection R315-266-112(b)(2)(i).

Appendix VIII to Rule R315-266 - Organic Compounds for Which Residues Shall Be Analyzed.

Volatiles

Benzene
Toluene
Carbon tetrachloride
Chloroform
Methylene chloride
Trichloroethylene
Tetra chloroethylene
1,1,1-Trichloroethane
Chlorobenzene
cis-1,4-Dichloro-2-butene
Bromochloromethane
Bromodichloromethane
Bromoform
Bromomethane
Methylene bromide
Methyl ethyl ketone

Semivolatiles

Bis(2-ethylhexyl)phthalate
Naphthalene
Phenol
Diethyl phthalate
Butyl benzyl phthalate
2,4-Dimethylphenol
o-Dichlorobenzene
m-Dichlorobenzene
p-Dichlorobenzene
Hexachlorobenzene

2,4,6-Trichlorophenol
Fluoranthene
o-Nitrophenol
1,2,4-Trichlorobenzene
o-Chlorophenol
Pentachlorophenol
Pyrene
Dimethyl phthalate
Mononitrobenzene
2,6-Toluene diisocyanate
Polychlorinated dibenzo-p-dioxins[1]
Polychlorinated dibenzo-furans[1]

[1]Analyses for polychlorinated dibenzo-p-dioxins and polychlorinated dibenzo-furans are required only for residues collected from areas downstream of the combustion chamber, e.g., ductwork, boiler tubes, heat exchange surfaces, air pollution control devices, etc.

Note to Appendix VIII: Analysis is not required for those compounds that do not have an established F039 nonwastewater concentration limit.

Appendix IX to Rule R315-266 - Methods Manual for Compliance With the BIF Regulations.
Appendix IX of 40 CFR 266, 2015 edition, is adopted and incorporated by reference.

Appendix XI to Rule R315-266 - Lead-Bearing Materials That May be Processed in Exempt Lead Smelters.

A. Exempt Lead-Bearing Materials When Generated or Originally Produced By Lead-Associated Industries[1]

Acid dump/fill solids

Sump mud

Materials from laboratory analyses

Acid filters

Baghouse bags

Clothing, e.g., coveralls, aprons, shoes, hats, gloves

Sweepings

Air filter bags and cartridges

Respiratory cartridge filters

Shop abrasives

Stacking boards

Waste shipping containers, e.g., cartons, bags, drums, cardboard

Paper hand towels

Wiping rags and sponges

Contaminated pallets

Water treatment sludges, filter cakes, residues, and solids

Emission control dusts, sludges, filter cakes, residues, and solids from lead-associated industries, e.g., K069 and D008 wastes

Spent grids, posts, and separators

Spent batteries

Lead oxide and lead oxide residues

Lead plates and groups

Spent battery cases, covers, and vents

Pasting belts

Water filter media

Cheesecloth from pasting rollers

Pasting additive bags

Asphalt paving materials

B. Exempt Lead-Bearing Materials When Generated or Originally Produced By Any Industry

Charging jumpers and clips

Platen abrasive

Fluff from lead wire and cable casings

Lead-based pigments and compounding pigment dust

[1]Lead-associated industries are lead smelters, lead-acid battery manufacturing, and lead chemical manufacturing, e.g., manufacturing of lead oxide or other lead compounds.

Appendix XII to Rule R315-266 - Nickel or Chromium-Bearing Materials that may be Processed in Exempt Nickel-Chromium Recovery Furnaces.

A. Exempt Nickel or Chromium-Bearing Materials when Generated by Manufacturers or Users of Nickel, Chromium, or Iron

Baghouse bags

Raney nickel catalyst

Floor sweepings

Air filters

Electroplating bath filters

Wastewater filter media

Wood pallets

Disposable clothing (coveralls, aprons, hats, and gloves)

Laboratory samples and spent chemicals

Shipping containers and plastic liners from containers or vehicles used to transport nickel or chromium-containing wastes

Respirator cartridge filters

Paper hand towels

B. Exempt Nickel or Chromium-Bearing Materials when Generated by Any Industry

Electroplating wastewater treatment sludges (F006)

Nickel and/or chromium-containing solutions

Nickel, chromium, and iron catalysts

Nickel-cadmium and nickel-iron batteries

Filter cake from wet scrubber system water treatment plants in the specialty steel industry[1]

Filter cake from nickel-chromium alloy pickling operations[1]

[1]If a hazardous waste under an authorized State program.

Appendix XIII to Rule R315-266 - Mercury Bearing Wastes That May Be Processed in Exempt Mercury Recovery Units.

These are exempt mercury-bearing materials with less than 500 ppm of Rule R315-261, appendix VIII organic constituents when generated by manufacturers or users of mercury or mercury products.

1. Activated carbon

2. Decomposer graphite

3. Wood

4. Paper

5. Protective clothing

6. Sweepings

7. Respiratory cartridge filters

8. Cleanup articles

9. Plastic bags and other contaminated containers

10. Laboratory and process control samples

11. K106 and other wastewater treatment plant sludge and filter cake

12. Mercury cell sump and tank sludge

13. Mercury cell process solids

14. Recoverable levels of mercury contained in soil

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.

Rule R315-268. Land Disposal Restrictions.

R315-268-1. Land Disposal Restrictions - Purpose, scope, and applicability.

(a) Rule R315-268 identifies hazardous wastes that are restricted from land disposal and defines those limited circumstances under which an otherwise prohibited waste may continue to be land disposed.

(b) Except as specifically provided otherwise in Rule R315-268 or Rule R315-261, the requirements of Rule R315-268 apply to persons who generate or transport hazardous waste and owners and operators of hazardous waste treatment, storage, and disposal facilities.

(c) Restricted wastes may continue to be land disposed as follows:

(1) Where persons have been granted an extension to the effective date of a prohibition under Sections R315-268-20 through 39 or pursuant to Section R315-268-5, with respect to those wastes covered by the extension;

(2) Where persons have been granted an exemption from a prohibition pursuant to a petition under Section R315-268-6, with respect to those wastes and units covered by the petition;

(3) Wastes that are hazardous only because they exhibit a hazardous characteristic, and which are otherwise prohibited under Rule R315-268, or 40 CFR 148, are not prohibited if the wastes:

(i) Are disposed into a nonhazardous or hazardous injection well as defined under 40 CFR 146.6(a); and

(ii) Do not exhibit any prohibited characteristic of hazardous waste identified in Sections R315-261-20 through 24, at the point of injection.

(4) Wastes that are hazardous only because they exhibit a hazardous characteristic, and which are otherwise prohibited under Rule R315-268, are not prohibited if the wastes meet any of the following criteria, unless the wastes are subject to a specified method of treatment other than DEACT in Section R315-268-40, or are D003 reactive cyanide:

(i) The wastes are managed in a treatment system which subsequently discharges to waters of the U.S. pursuant to a permit issued under section 402 of the Clean Water Act; or

(ii) The wastes are treated for purposes of the pretreatment requirements of section 307 of the Clean Water Act; or

(iii) The wastes are managed in a zero discharge system engaged in Clean Water Act-equivalent treatment as defined in Subsection R315-268-37(a); and

(iv) The wastes no longer exhibit a prohibited characteristic at the point of land disposal, i.e., placement in a surface impoundment.

(d) The requirements of Rule R315-268 shall not affect the availability of a waiver under section 121(d)(4) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA).

(e) The following hazardous wastes are not subject to any provision of Rule R315-268:

(1) Waste generated by small quantity generators of less than 100 kilograms of non-acute hazardous waste or less than 1 kilogram of acute hazardous waste per month, as defined in Section R315-261-5;

(2) Waste pesticides that a farmer disposes of pursuant to Section R315-262-70;

(3) Wastes identified or listed as hazardous after November 8, 1984 for which EPA has not promulgated land disposal prohibitions or treatment standards;

(4) De minimis losses of characteristic wastes to wastewaters are not considered to be prohibited wastes and are defined as losses from normal material handling operations, e.g. spills from the unloading or transfer of materials from bins or other containers, leaks from pipes, valves or other devices used to transfer materials; minor leaks of process equipment, storage tanks or containers; leaks from well-maintained pump packings and seals; sample purgings; and relief device discharges; discharges from safety showers and rinsing and cleaning of personal safety equipment; rinsate from empty containers or from containers that are rendered empty by that rinsing; and laboratory wastes not exceeding one per cent of the total flow of wastewater into the facility's headworks on an annual basis, or with a combined annualized average concentration not exceeding one part per million in the headworks of the facility's wastewater treatment or pretreatment facility.

(f) Universal waste handlers and universal waste transporters, as defined in Section R315-260-10, are exempt from Sections R315-268-7 and 268-50 for the hazardous

wastes listed below. These handlers are subject to regulation under Rule R315-273.

(1) Batteries as described in Section R315-273-2;

(2) Pesticides as described in Section R315-273-3;

(3) Mercury-containing equipment as described in Section R315-273-4; and

(4) Lamps as described in Section R315-273-5.

R315-268-2. Land Disposal Restrictions - Definitions applicable in Rule R315-268.

When used in Rule R315-268 the following terms have the meanings given below:

(a) Halogenated organic compounds or HOCs means those compounds having a carbon-halogen bond which are listed under appendix III to Rule R315-268.

(b) Hazardous constituent or constituents means those constituents listed in appendix VIII to Rule R315-261.

(c) Land disposal means placement in or on the land, except in a corrective action management unit or staging pile, and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, salt bed formation, underground mine or cave, or placement in a concrete vault, or bunker intended for disposal purposes.

(d) Nonwastewaters are wastes that do not meet the criteria for wastewaters in Subsection R315-268-2(f).

(e) Polychlorinated biphenyls or PCBs are halogenated organic compounds defined in accordance with 40 CFR 761.3.

(f) Wastewaters are wastes that contain less than 1% by weight total organic carbon (TOC) and less than 1% by weight total suspended solids (TSS).

(g) Debris means solid material exceeding a 60 mm particle size that is intended for disposal and that is: A manufactured object; or plant or animal matter; or natural geologic material. However, the following materials are not debris: any material for which a specific treatment standard is provided in Sections R315-268-40 through 49, namely lead acid batteries, cadmium batteries, and radioactive lead solids; process residuals such as smelter slag and residues from the treatment of waste, wastewater, sludges, or air emission residues; and intact containers of hazardous waste that are not ruptured and that retain at least 75% of their original volume. A mixture of debris that has not been treated to the standards provided by Section R315-268-45 and other material is subject to

regulation as debris if the mixture is comprised primarily of debris, by volume, based on visual inspection.

(h) Hazardous debris means debris that contains a hazardous waste listed in Sections R315-261-30 through 35, or that exhibits a characteristic of hazardous waste identified in Sections R315-261-20 through 24. Any deliberate mixing of prohibited hazardous waste with debris that changes its treatment classification, i.e., from waste to hazardous debris, is not allowed under the dilution prohibition in Section R315-268-3.

(i) Underlying hazardous constituent means any constituent listed in Section R315-268-48, Table UTS-Universal Treatment Standards, except fluoride, selenium, sulfides, vanadium, and zinc, which can reasonably be expected to be present at the point of generation of the hazardous waste at a concentration above the constituent-specific UTS treatment standards.

(j) Inorganic metal-bearing waste is one for which EPA has established treatment standards for metal hazardous constituents, and which does not otherwise contain significant organic or cyanide content as described in Subsection R315-268-3(c)(1), and is specifically listed in appendix XI of Rule R315-268.

(k) Soil means unconsolidated earth material composing the superficial geologic strata, material overlying bedrock, consisting of clay, silt, sand, or gravel size particles as classified by the U.S. Natural Resources Conservation Service, or a mixture of such materials with liquids, sludges or solids which is inseparable by simple mechanical removal processes and is made up primarily of soil by volume based on visual inspection. Any deliberate mixing of prohibited hazardous waste with soil that changes its treatment classification, i.e., from waste to contaminated soil, is not allowed under the dilution prohibition in Section R315-268-3.

R315-268-3. Land Disposal Restrictions - Dilution Prohibited as a Substitute for Treatment.

(a) Except as provided in Subsection R315-268-3(b), no generator, transporter, handler, or owner or operator of a treatment, storage, or disposal facility shall in any way dilute a restricted waste or the residual from treatment of a restricted waste as a substitute for adequate treatment to achieve compliance with Sections R315-268-40 through 49, to circumvent the effective date of a prohibition in

Sections R315-268-20 through 39, to otherwise avoid a prohibition in Sections R315-268-20 through 39, or to circumvent a land disposal prohibition imposed by RCRA section 3004.

(b) Dilution of wastes that are hazardous only because they exhibit a characteristic in treatment systems which include land- based units which treat wastes subsequently discharged to a water of the United States pursuant to a permit issued under section 402 of the Clean Water Act (CWA), or which treat wastes in a CWA-equivalent treatment system, or which treat wastes for the purposes of pretreatment requirements under section 307 of the CWA is not impermissible dilution for purposes of Section R315-268-3 unless a method other than DEACT has been specified in Section R315-268-40 as the treatment standard, or unless the waste is a D003 reactive cyanide wastewater or nonwastewater.

(c) Combustion of the hazardous waste codes listed in Appendix XI of Rule R315-268 is prohibited, unless the waste, at the point of generation, or after any bona fide treatment such as cyanide destruction prior to combustion, can be demonstrated to comply with one or more of the following criteria, unless otherwise specifically prohibited from combustion:

(1) The waste contains hazardous organic constituents or cyanide at levels exceeding the constituent-specific treatment standard found in Section R315-268-48;

(2) The waste consists of organic, debris-like materials, e.g., wood, paper, plastic, or cloth, contaminated with an inorganic metal-bearing hazardous waste;

(3) The waste, at point of generation, has reasonable heating value such as greater than or equal to 5000 BTU per pound;

(4) The waste is co-generated with wastes for which combustion is a required method of treatment;

(5) The waste is subject to Federal and/or State requirements necessitating reduction of organics, including biological agents; or

(6) The waste contains greater than 1% Total Organic Carbon (TOC).

(d) It is a form of impermissible dilution, and therefore prohibited, to add iron filings or other metallic forms of iron to lead-containing hazardous wastes in order to achieve any land disposal restriction treatment standard

for lead. Lead-containing wastes include D008 wastes, wastes exhibiting a characteristic due to the presence of lead, all characteristic wastes containing lead as an underlying hazardous constituent, listed wastes containing lead as a regulated constituent, and hazardous media containing any of the aforementioned lead-containing wastes.

R315-268-4. Land Disposal Restrictions - Treatment Surface Impoundment Exemption.

(a) Wastes which are otherwise prohibited from land disposal under Rule R315-268 may be treated in a surface impoundment or series of impoundments provided that:

(1) Treatment of such wastes occurs in the impoundments;

(2) The following conditions are met:

(i) Sampling and testing. For wastes with treatment standards in Sections R315-268-40 through 49 and/or prohibition levels in Sections R315-268-20 through 39 or RCRA section 3004(d), the residues from treatment are analyzed, as specified in Sections R315-268-7 or 268-32, to determine if they meet the applicable treatment standards or where no treatment standards have been established for the waste, the applicable prohibition levels. The sampling method, specified in the waste analysis plan under Section R315-264-13 or 40 CFR 265.13, which is adopted by reference, shall be designed such that representative samples of the sludge and the supernatant are tested separately rather than mixed to form homogeneous samples.

(ii) Removal. The following treatment residues, including any liquid waste, shall be removed at least annually; residues which do not meet the treatment standards promulgated under Sections R315-268-40 through 49; residues which do not meet the prohibition levels established under Sections R315-268-20 through 39 or imposed by statute, where no treatment standards have been established; residues which are from the treatment of wastes prohibited from land disposal under Sections R315-268-20 through 39, where no treatment standards have been established and no prohibition levels apply; or residues from managing listed wastes which are not delisted under Section R315-260-22. If the volume of liquid flowing through the impoundment or series of impoundments annually is greater than the volume of the impoundment or

impoundments, this flow-through constitutes removal of the supernatant for the purpose of this requirement.

(iii) Subsequent management. Treatment residues may not be placed in any other surface impoundment for subsequent management.

(iv) Recordkeeping. Sampling and testing and recordkeeping provisions of Section R315-264-13 and 40 CFR 265.13, which is adopted by reference, apply.

(3) The impoundment meets the design requirements of Section R315-264-221(c) or 40 CFR 265.221(a), which is adopted by reference, regardless that the unit may not be new, expanded, or a replacement, and be in compliance with applicable ground water monitoring requirements of Sections R315-264-90 through 101 or 40 CFR 265.90 through 94, which are adopted by reference, unless:

(i) Exempted pursuant to Sections R315-264-221 (d) or (e), or to 40 CFR 265.221(c) or (d), which are adopted by reference; or,

(ii) Upon application by the owner or operator, the Director, after notice and an opportunity to comment, has granted a waiver of the requirements on the basis that the surface impoundment:

(A) Has at least one liner, for which there is no evidence that such liner is leaking;

(B) Is located more than one-quarter mile from an underground source of drinking water; and

(C) Is in compliance with generally applicable ground water monitoring requirements for facilities with permits; or,

(iii) Upon application by the owner or operator, the Director, after notice and an opportunity to comment, has granted a modification to the requirements on the basis of a demonstration that the surface impoundment is located, designed, and operated so as to assure that there will be no migration of any hazardous constituent into ground water or surface water at any future time.

(4) The owner or operator submits to the Director a written certification that the requirements of Section R315-268-4(a)(3) have been met. The following certification is required:

I certify under penalty of law that the requirements of Section R315-268-4(a)(3) have been met for all surface impoundments being used to treat restricted wastes. I

believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(b) Evaporation of hazardous constituents as the principal means of treatment is not considered to be treatment for purposes of an exemption under Section R315-268-4.

R315-268-5. Land Disposal Restrictions - Procedures For Case-by-Case Extensions to an Effective Date.

Note to Sections R315-268-5. All references to administrative positions and to regulations are to the positions and regulations of the US Environmental Protection Agency. Utah does not administer Section R315-268-5.

(a) Any person who generates, treats, stores, or disposes of a hazardous waste may submit an application to the Administrator for an extension to the effective date of any applicable restriction established under Sections R315-268-20 through 39. The applicant shall demonstrate the following:

(1) He has made a good-faith effort to locate and contract with treatment, recovery, or disposal facilities nationwide to manage his waste in accordance with the effective date of the applicable restriction established under Sections R315-268-20 through 39;

(2) He has entered into a binding contractual commitment to construct or otherwise provide alternative treatment, recovery (e.g., recycling), or disposal capacity that meets the treatment standards specified in Sections R315-268-40 through 49 or, where treatment standards have not been specified, such treatment, recovery, or disposal capacity is protective of human health and the environment.

(3) Due to circumstances beyond the applicant's control, such alternative capacity cannot reasonably be made available by the applicable effective date. This demonstration may include a showing that the technical and practical difficulties associated with providing the alternative capacity will result in the capacity not being available by the applicable effective date;

(4) The capacity being constructed or otherwise provided by the applicant shall be sufficient to manage the entire quantity of waste that is the subject of the application;

(5) He provides a detailed schedule for obtaining required operating and construction permits or an outline of how and when alternative capacity will be available;

(6) He has arranged for adequate capacity to manage his waste during an extension and has documented in the application the location of all sites at which the waste will be managed; and

(7) Any waste managed in a surface impoundment or landfill during the extension period shall meet the requirements of Subsection R315-268-5(h)(2).

(b) An authorized representative signing an application described under Subsection R315-268-5(a) shall make the following certification:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(c) After receiving an application for an extension, the Administrator may request any additional information which he deems as necessary to evaluate the application.

(d) An extension shall apply only to the waste generated at the individual facility covered by the application and shall not apply to restricted waste from any other facility.

(e) On the basis of the information referred to in Subsection R315-268-5(a), after notice and opportunity for comment, and after consultation with appropriate State agencies in all affected States, the Administrator may grant an extension of up to 1 year from the effective date. The Administrator may renew this extension for up to 1 additional year upon the request of the applicant if the demonstration required in Subsection R315-268-5 (a) can still be made. In no event shall an extension extend beyond 24 months from the applicable effective date specified in Sections R315-268-20 through 39. The length of any extension authorized shall be determined by the Administrator based on the time required to construct or obtain the type of capacity needed by the applicant as described in the completion schedule discussed in

Subsection R315-268-5(a)(5). The Administrator shall give public notice of the intent to approve or deny a petition and provide an opportunity for public comment. The final decision on a petition shall be published in the Federal Register.

(f) Any person granted an extension under Section R315-268-5 shall immediately notify the Administrator as soon as he has knowledge of any change in the conditions certified to in the application.

(g) Any person granted an extension Section R315-268-5 shall submit written progress reports at intervals designated by the Administrator. Such reports shall describe the overall progress made toward constructing or otherwise providing alternative treatment, recovery or disposal capacity; shall identify any event which may cause or has caused a delay in the development of the capacity; and shall summarize the steps taken to mitigate the delay. The Administrator can revoke the extension at any time if the applicant does not demonstrate a good-faith effort to meet the schedule for completion, if the Agency denies or revokes any required permit, if conditions certified in the application change, or for any violation of Rules R315-260 through 266, 268, 270, 273, 124,15, and 101.

(h) Whenever the Administrator establishes an extension to an effective date under this section, during the period for which such extension is in effect:

(1) The storage restrictions under Subsection R315-268-50(a) do not apply; and

(2) Such hazardous waste may be disposed in a landfill or surface impoundment only if such unit is in compliance with the technical requirements of the following provisions regardless of whether such unit is existing, new, or a replacement or lateral expansion.

(i) The landfill, if in interim status, is in compliance with the requirements of subpart F of 40 CFR 265 and 40 CFR 265.301(a), (c), and (d) that is adopted by reference in Rule R315-265; or,

(ii) The landfill, if permitted, is in compliance with the requirements of Sections R315-264-90 through 101 and Subsections R315-264-301(c), (d) and (e); or

(iii) The surface impoundment, if in interim status, is in compliance with the requirements of subpart F of 40 CFR 265, 40 CFR 265.221(a),(c), and (d) that are adopted by reference in Rule R315-265, and RCRA section 3005(j)(1); or

(iv) The surface impoundment, if permitted, is in compliance with the requirements of Sections R315-264-90 through 101 and Subsections R315-264-221(c), (d) and (e); or

(v) The surface impoundment, if newly subject to RCRA section 3005(j)(1) due to the promulgation of additional listings or characteristics for the identification of hazardous waste, is in compliance with the requirements of subpart F of 40 CFR 265 that is adopted by reference in Rule R315-265 within 12 months after the promulgation of additional listings or characteristics of hazardous waste, and with the requirements of 40 CFR 265.221(a), (c) and (d) that is adopted by reference in Rule R315-265 within 48 months after the promulgation of additional listings or characteristics of hazardous waste. If a national capacity variance is granted, during the period the variance is in effect, the surface impoundment, if newly subject to RCRA section 3005(j)(1) due to the promulgation of additional listings or characteristics of hazardous waste, is in compliance with the requirements of subpart F of 40 CFR 265 that is adopted by reference in Rule R315-265 within 12 months after the promulgation of additional listings or characteristics of hazardous waste, and with the requirements of 40 CFR 265.221(a), (c) and (d) that is adopted by reference in Rule R315-265 within 48 months after the promulgation of additional listings or characteristics of hazardous waste; or

(vi) The landfill, if disposing of containerized liquid hazardous wastes containing PCBs at concentrations greater than or equal to 50 ppm but less than 500 ppm, is also in compliance with the requirements of 40 CFR 761.75 and Rules R264 and 265.

(i) Pending a decision on the application the applicant is required to comply with all restrictions on land disposal under Rule R315-268 once the effective date for the waste has been reached.

R315-268-6. Land Disposal Restrictions - Petitions to Allow Land Disposal of a Waste Prohibited Under Sections R315-268-20 through 39.

Note to Section R315-268-6. All references to administrative positions and to regulations are to the positions and regulations of the US Environmental Protection Agency. Utah does not administer Section R315-268-6.

(a) Any person seeking an exemption from a prohibition under Sections R315-268-20 through 39 for the disposal of a restricted hazardous waste in a particular unit or units shall submit a petition to the Administrator demonstrating, to a reasonable degree of certainty, that there will be no migration of hazardous constituents from the disposal unit or injection zone for as long as the wastes remain hazardous. The demonstration shall include the following components:

(1) An identification of the specific waste and the specific unit for which the demonstration will be made;

(2) A waste analysis to describe fully the chemical and physical characteristics of the subject waste;

(3) A comprehensive characterization of the disposal unit site including an analysis of background air, soil, and water quality.

(4) A monitoring plan that detects migration at the earliest practicable time;

(5) Sufficient information to assure the Administrator that the owner or operator of a land disposal unit receiving restricted waste(s) shall comply with other applicable Federal, State, and local laws.

(b) The demonstration referred to in Subsection R315-268-6(a) shall meet the following criteria:

(1) All waste and environmental sampling, test, and analysis data shall be accurate and reproducible to the extent that state-of-the-art techniques allow;

(2) All sampling, testing, and estimation techniques for chemical and physical properties of the waste and all environmental parameters shall have been approved by the Administrator;

(3) Simulation models shall be calibrated for the specific waste and site conditions, and verified for accuracy by comparison with actual measurements;

(4) A quality assurance and quality control plan that addresses all aspects of the demonstration shall be approved by the Administrator; and,

(5) An analysis shall be performed to identify and quantify any aspects of the demonstration that contribute significantly to uncertainty. This analysis shall include an evaluation of the consequences of predictable future events, including, but not limited to, earthquakes, floods, severe storm events, droughts, or other natural phenomena.

(c) Each petition referred to in Subsection R315-268-6(a) shall include the following:

(1) A monitoring plan that describes the monitoring program installed at and/or around the unit to verify continued compliance with the conditions of the variance. This monitoring plan shall provide information on the monitoring of the unit and/or the environment around the unit. The following specific information shall be included in the plan:

(i) The media monitored in the cases where monitoring of the environment around the unit is required;

(ii) The type of monitoring conducted at the unit, in the cases where monitoring of the unit is required;

(iii) The location of the monitoring stations;

(iv) The monitoring interval (frequency of monitoring at each station);

(v) The specific hazardous constituents to be monitored;

(vi) The implementation schedule for the monitoring program;

(vii) The equipment used at the monitoring stations;

(viii) The sampling and analytical techniques employed; and

(ix) The data recording/reporting procedures.

(2) Where applicable, the monitoring program described in Subsection R315-268-6(c)(1) shall be in place for a period of time specified by the Administrator, as part of his approval of the petition, prior to receipt of prohibited waste at the unit.

(3) The monitoring data collected according to the monitoring plan specified under Subsection R315-268-6(c)(1) shall be sent to the Administrator according to a format and schedule specified and approved in the monitoring plan, and

(4) A copy of the monitoring data collected under the monitoring plan specified under Subsection R315-268-6(c)(1) shall be kept on-site at the facility in the operating record.

(5) The monitoring program specified under Subsection R315-268-6(c)(1) meets the following criteria:

(i) All sampling, testing, and analytical data shall be approved by the Administrator and shall provide data that is accurate and reproducible.

(ii) All estimation and monitoring techniques shall be approved by the Administrator.

(iii) A quality assurance and quality control plan addressing all aspects of the monitoring program shall be provided to and approved by the Administrator.

(d) Each petition shall be submitted to the Administrator.

(e) After a petition has been approved, the owner or operator shall report any changes in conditions at the unit and/or the environment around the unit that significantly depart from the conditions described in the variance and affect the potential for migration of hazardous constituents from the units as follows:

(1) If the owner or operator plans to make changes to the unit design, construction, or operation, such a change shall be proposed, in writing, and the owner or operator shall submit a demonstration to the Administrator at least 30 days prior to making the change. The Administrator shall determine whether the proposed change invalidates the terms of the petition and shall determine the appropriate response. Any change shall be approved by the Administrator prior to being made.

(2) If the owner or operator discovers that a condition at the site which was modeled or predicted in the petition does not occur as predicted, this change shall be reported, in writing, to the Administrator within 10 days of discovering the change. The Administrator shall determine whether the reported change from the terms of the petition requires further action, which may include termination of waste acceptance and revocation of the petition, petition modifications, or other responses.

(f) If the owner or operator determines that there is migration of hazardous constituent(s) from the unit, the owner or operator shall:

(1) Immediately suspend receipt of prohibited waste at the unit, and

(2) Notify the Administrator, in writing, within 10 days of the determination that a release has occurred.

(3) Following receipt of the notification the Administrator shall determine, within 60 days of receiving notification, whether the owner or operator can continue to receive prohibited waste in the unit and whether the variance is to be revoked. The Administrator shall also determine whether further examination of any migration is warranted under applicable provisions of Rules R315-264 or 265.

(g) Each petition shall include the following statement signed by the petitioner or an authorized representative:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this petition and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(h) After receiving a petition, the Administrator may request any additional information that reasonably may be required to evaluate the demonstration.

(i) If approved, the petition shall apply to land disposal of the specific restricted waste at the individual disposal unit described in the demonstration and shall not apply to any other restricted waste at that disposal unit, or to that specific restricted waste at any other disposal unit.

(j) The Administrator shall give public notice in the Federal Register of the intent to approve or deny a petition and provide an opportunity for public comment. The final decision on a petition shall be published in the Federal Register.

(k) The term of a petition granted under Section R315-268-6 shall be no longer than the term of the hazardous waste permit if the disposal unit is operating under a hazardous waste permit, or up to a maximum of 10 years from the date of approval provided under Subsection R315-268-6(g) if the unit is operating under interim status. In either case, the term of the granted petition shall expire upon the termination or denial of a hazardous waste permit, or upon the termination of interim status or when the volume limit of waste to be land disposed during the term of petition is reached.

(l) Prior to the Administrator's decision, the applicant is required to comply with all restrictions on land disposal under Rule R315-268 once the effective date for the waste has been reached.

(m) The petition granted by the Administrator does not relieve the petitioner of his responsibilities in the

management of hazardous waste under Rules R315-260 through part 270.

(n) Liquid hazardous wastes containing polychlorinated biphenyls at concentrations greater than or equal to 500 ppm are not eligible for an exemption under Section R315-268-6.

R315-268-7. Land Disposal Restrictions - Testing, Tracking, And Recordkeeping Requirements For Generators, Treaters, And Disposal Facilities.

(a) Requirements for generators:

(1) A generator of hazardous waste shall determine if the waste has to be treated before it can be land disposed. This is done by determining if the hazardous waste meets the treatment standards in Sections R315-268-40, 45, or 49. This determination can be made concurrently with the hazardous waste determination required in Section R315-262-11, in either of two ways: testing the waste or using knowledge of the waste. If the generator tests the waste, testing would normally determine the total concentration of hazardous constituents, or the concentration of hazardous constituents in an extract of the waste obtained using test method 1311 in “Test Methods of Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW-846, incorporated by reference, see Section R315-260-11, depending on whether the treatment standard for the waste is expressed as a total concentration or concentration of hazardous constituent in the waste's extract. Alternatively, the generator shall send the waste to a hazardous waste treatment facility permitted under Section 19-6-108, where the waste treatment facility shall comply with the requirements of Section R315-264-13 and Subsection R315-268-7(b). In addition, some hazardous wastes shall be treated by particular treatment methods before they can be land disposed and some soils are contaminated by such hazardous wastes. These treatment standards are also found in Section R315-268-40, and are described in detail in Section R315-268-42, Table 1. These wastes, and soils contaminated with such wastes, do not need to be tested, however, if they are in a waste mixture, other wastes with concentration level treatment standards would have to be tested. If a generator determines they are managing a waste or soil contaminated with a waste, that displays a hazardous characteristic of ignitability, corrosivity, reactivity, or toxicity, they shall comply with the special

requirements of Section R315-268-9 in addition to any applicable requirements in Section R315-268-7.

(2) If the waste or contaminated soil does not meet the treatment standards, or if the generator chooses not to make the determination of whether his waste shall be treated, with the initial shipment of waste to each treatment or storage facility, the generator shall send a one-time written notice to each treatment or storage facility receiving the waste, and place a copy in the file. The notice shall include the information in column "268-7(a)(2)" of the Generator Paperwork Requirements Table in Subsection R315-268-7(a)(4). Alternatively, if the generator chooses not to make the determination of whether the waste shall be treated, the notification shall include the EPA Hazardous Waste Numbers and Manifest Number of the first shipment and shall state "This hazardous waste may or may not be subject to the LDR treatment standards. The treatment facility shall make the determination." No further notification is necessary until such time that the waste or facility change, in which case a new notification shall be sent and a copy placed in the generator's file.

(3) If the waste or contaminated soil meets the treatment standard at the original point of generation:

(i) With the initial shipment of waste to each treatment, storage, or disposal facility, the generator shall send a one-time written notice to each treatment, storage, or disposal facility receiving the waste, and place a copy in the file. The notice shall include the information indicated in column "268-7(a)(3)" of the Generator Paperwork Requirements Table in Subsection R315-268-7(a)(4) and the following certification statement, signed by an authorized representative:

I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in Sections R315-268-40 through 49. I believe that the information I submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

(ii) For contaminated soil, with the initial shipment of wastes to each treatment, storage, or disposal facility,

the generator shall send a one-time written notice to each facility receiving the waste and place a copy in the file. The notice shall include the information in column "268-7(a)(3)" of the Generator Paperwork Requirements Table in Subsection R315-268-7(a)(4).

(iii) If the waste changes, the generator shall send a new notice and certification to the receiving facility, and place a copy in their files. Generators of hazardous debris excluded from the definition of hazardous waste under Subsection R315-261-3(f) are not subject to these requirements.

(4) For reporting, tracking, and recordkeeping when exceptions allow certain wastes or contaminated soil that do not meet the treatment standards to be land disposed: There are certain exemptions from the requirement that hazardous wastes or contaminated soil meet treatment standards before they can be land disposed. These include, but are not limited to case-by-case extensions under Section R315-268-5, disposal in a no-migration unit under Section R315-268-6, or a national capacity variance or case-by-case capacity variance under Sections R315-268-20 through 39. If a generator's waste is so exempt, then with the initial shipment of waste, the generator shall send a one-time written notice to each land disposal facility receiving the waste. The notice shall include the information indicated in column "268-7(a(4)" of the Generator Paperwork Requirements Table below. If the waste changes, the generator shall send a new notice to the receiving facility, and place a copy in their files.

Generator Paperwork Requirements Table

Required information	268-7 (a)(2)	268-7 (a)(3)	268-7 (a)(4)	268-7 (a)(9)
1. EPA Hazardous Waste Numbers and Manifest Number of first shipment	X	X	X	X
2. Statement: this waste is not prohibited from land disposal			X	
3. The waste is subject to the LDRs. The constituents of concern for F001-F005, and F039, and underlying hazardous constituents in characteristic	X	X		

wastes, unless the waste will be treated and monitored for all constituents. If all constituents will be treated and monitored, there is no need to put them all on the LDR notice			
4. The notice shall include the applicable wastewater/ nonwastewater category (see Section R315-268-2(d) and (f)) and subdivisions made within a waste code based on waste-specific criteria (such as D003 reactive cyanide)	X	X	
5. Waste analysis data, when available	X	X	X
6. Date the waste is subject to the prohibition			X
7. For hazardous debris, when treating with the alternative treatment technologies provided by Section R315-268-45: the contaminants subject to treatment, as described in Section R315-268-45(b); and an indication that these contaminants are being treated to comply with Section R315-268-45	X		X
8. For contaminated soil subject to LDRs as provided in Section R315-268-49(a), the constituents subject to treatment as described in Section R315-268-49(d), and the following statement: This contaminated soil, does/does not, contain listed hazardous waste and, does/does not, exhibit a characteristic of hazardous waste and, is subject to/complies with, the soil treatment standards as provided by Section	X	X	

R315-268-49(c) or the universal treatment standards

9. A certification is needed, see applicable section for exact wording X X

(5) If a generator is managing and treating prohibited waste or contaminated soil in tanks, containers, or containment buildings regulated under Section R315-262-34 to meet applicable LDR treatment standards found at Section R315-268-40, the generator shall develop and follow a written waste analysis plan which describes the procedures they will carry out to comply with the treatment standards. Generators treating hazardous debris under the alternative treatment standards of Table 1, Section R315-268-45, however, are not subject to these waste analysis requirements. The plan shall be kept on site in the generator's records, and the following requirements shall be met:

(i) The waste analysis plan shall be based on a detailed chemical and physical analysis of a representative sample of the prohibited waste(s) being treated, and contain all information necessary to treat the waste(s) in accordance with the requirements of Rule R315-268, including the selected testing frequency.

(ii) Such plan shall be kept in the facility's on-site files and made available to inspectors.

(iii) Wastes shipped off-site pursuant to Subsection R315-268-7(a) shall comply with the notification requirements of Subsection R315-268-7(a)(3).

(6) If a generator determines that the waste or contaminated soil is restricted based solely on his knowledge of the waste, all supporting data used to make this determination shall be retained on-site in the generator's files. If a generator determines that the waste is restricted based on testing this waste or an extract developed using the test method 1311 in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW-846, as referenced in Section R315-260-11, and all waste analysis data shall be retained on-site in the generator's files.

(7) If a generator determines that he is managing a prohibited waste that is excluded from the definition of hazardous or solid waste or is exempted from regulation under Sections R315-261-2 through 6 subsequent to the point of generation, including deactivated characteristic

hazardous wastes managed in wastewater treatment systems subject to the Clean Water Act (CWA) as specified at Subsection R315-261-4(a)(2) or that are CWA-equivalent, or are managed in an underground injection well regulated by the SDWA, he shall place a one-time notice describing such generation, subsequent exclusion from the definition of hazardous or solid waste or exemption from regulation under Sections R315-261-2 through 6, and the disposition of the waste, in the facility's on-site files.

(8) Generators shall retain on-site a copy of all notices, certifications, waste analysis data, and other documentation produced pursuant to Section R315-268-7 for at least three years from the date that the waste that is the subject of such documentation was last sent to on-site or off-site treatment, storage, or disposal. The three year record retention period is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Director. The requirements of Subsection R315-268-7(a) apply to solid wastes even when the hazardous characteristic is removed prior to disposal, or when the waste is excluded from the definition of hazardous or solid waste under Sections R315-261-2 through 6, or exempted from hazardous waste regulation, subsequent to the point of generation.

(9) If a generator is managing a lab pack containing hazardous wastes and wishes to use the alternative treatment standard for lab packs found at Subsection R315-268-42(c):

(i) With the initial shipment of waste to a treatment facility, the generator shall submit a notice that provides the information in column "268-7(a)(9)" in the Generator Paperwork Requirements Table of Subsection R315-268-7(a)(4), and the following certification. The certification, which shall be signed by an authorized representative and shall be placed in the generator's files, shall say the following:

I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack contains only wastes that have not been excluded under appendix IV to Rule R315-268 and that this lab pack will be sent to a combustion facility in compliance with the alternative treatment standards for lab packs at Subsection R315-268-42(c). I am aware that there are significant

penalties for submitting a false certification, including the possibility of fine or imprisonment.

(ii) No further notification is necessary until such time that the wastes in the lab pack change, or the receiving facility changes, in which case a new notice and certification shall be sent and a copy placed in the generator's file.

(iii) If the lab pack contains characteristic hazardous wastes, D001-D043 excluding D009, underlying hazardous constituents, as defined in Subsection R315-268-2(i) need not be determined.

(iv) The generator shall also comply with the requirements in Subsections R315-268-7(a)(6) and (a)(7).

(10) Small quantity generators with tolling agreements pursuant to Subsection R315-262-20(e) shall comply with the applicable notification and certification requirements of Subsection R315-268-7(a) for the initial shipment of the waste subject to the agreement. Such generators shall retain on-site a copy of the notification and certification, together with the tolling agreement, for at least three years after termination or expiration of the agreement. The three-year record retention period is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Director.

(b) Treatment facilities shall test their wastes according to the frequency specified in their waste analysis plans as required by Section R315-264-13, for permitted TSDs, or 40 CFR 265.13, which is adopted by reference, for interim status facilities. Such testing shall be performed as provided in Subsections R315-268-7(b)(1), (b)(2) and (b)(3).

(1) For wastes or contaminated soil with treatment standards expressed in the waste extract (TCLP), the owner or operator of the treatment facility shall test an extract of the treatment residues, using test method 1311, the Toxicity Characteristic Leaching Procedure, described in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW-846 as incorporated by reference in Section R315-260-11, to assure that the treatment residues extract meet the applicable treatment standards.

(2) For wastes or contaminated soil with treatment standards expressed as concentrations in the waste, the owner or operator of the treatment facility shall test the

treatment residues, not an extract of such residues, to assure that they meet the applicable treatment standards.

(3) A one-time notice shall be sent with the initial shipment of waste or contaminated soil to the land disposal facility. A copy of the notice shall be placed in the treatment facility's file.

(i) No further notification is necessary until such time that the waste or receiving facility change, in which case a new notice shall be sent and a copy placed in the treatment facility's file.

(ii) The one-time notice shall include these requirements:

Treatment Facility Paperwork Requirements Table

Required information	268-7(b)
1. EPA Hazardous Waste Numbers and Manifest Number of first shipment	X
2. The waste is subject to the LDRs. The constituents of concern for F001-F005, and F039, and underlying hazardous constituents in characteristic wastes, unless the waste will be treated and monitored for all constituents. If all constituents will be treated and monitored, there is no need to put them all on the LDR notice.	X
3. The notice shall include the applicable wastewater/ nonwastewater category, see Subsections R315-268-2(d) and (f)) and subdivisions made within a waste code based on waste-specific criteria, such as D003 reactive cyanide	X
4. Waste analysis data, when available	X
5. For contaminated soil subject to LDRs as provided in Subsection R315-268-49(a), the constituents subject to treatment as described in Subsection R315-268-49(d) and the following statement, “this contaminated soil, does/does not, exhibit a characteristic of hazardous waste and, is subject to/complies with, the soil treatment standards as provided by Subsection R315-268-49(c)”.	X
6. A certification is needed, see applicable section for exact wording	X

(4) The treatment facility shall submit a one-time certification signed by an authorized representative with

the initial shipment of waste or treatment residue of a restricted waste to the land disposal facility. The certification shall state:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the treatment standards specified in Section R315-268-40 without impermissible dilution of the prohibited waste. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

A certification is also necessary for contaminated soil and it shall state:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and believe that it has been maintained and operated properly so as to comply with treatment standards specified in Section R315-268-49 without impermissible dilution of the prohibited wastes. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

(i) A copy of the certification shall be placed in the treatment facility's on-site files. If the waste or treatment residue changes, or the receiving facility changes, a new certification shall be sent to the receiving facility, and a copy placed in the file.

(ii) Debris excluded from the definition of hazardous waste under Subsection R315-261-3(f), i.e., debris treated by an extraction or destruction technology provided by Table 1, Section R315-268-45, and debris that the Director has determined does not contain hazardous waste, however, is subject to the notification and certification requirements of Subsection R315-268-7(d) rather than the certification requirements of Subsection R315-268-7(b).

(iii) For wastes with organic constituents having treatment standards expressed as concentration levels, if compliance with the treatment standards is based in whole

or in part on the analytical detection limit alternative specified in Subsection R315-268-40(d), the certification, signed by an authorized representative, shall state the following:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the nonwastewater organic constituents have been treated by combustion units as specified in Section R315-268-42, Table 1. I have been unable to detect the nonwastewater organic constituents, despite having used best good-faith efforts to analyze for such constituents. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

(iv) For characteristic wastes that are subject to the treatment standards in Section R315-268-40, other than those expressed as a method of treatment, or Section R315-268-49, and that contain underlying hazardous constituents as defined in Subsection R315-268-2(i); if these wastes are treated on-site to remove the hazardous characteristic; and are then sent off-site for treatment of underlying hazardous constituents, the certification shall state the following:

I certify under penalty of law that the waste has been treated in accordance with the requirements of Section R315-268-40 or 49 to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

(v) For characteristic wastes that contain underlying hazardous constituents as defined Subsection R315-268-2(i) that are treated on-site to remove the hazardous characteristic to treat underlying hazardous constituents to levels in Section R315-268-48 Universal Treatment Standards, the certification shall state the following:

I certify under penalty of law that the waste has been treated in accordance with the requirements of Section

R315-268-40 to remove the hazardous characteristic and that underlying hazardous constituents, as defined in Subsection R315-268-2(i) have been treated on-site to meet the Section R315-268-48 Universal Treatment Standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

(5) If the waste or treatment residue will be further managed at a different treatment, storage, or disposal facility, the treatment, storage, or disposal facility sending the waste or treatment residue off-site shall comply with the notice and certification requirements applicable to generators under Section R315-268-7.

(6) Where the wastes are recyclable materials used in a manner constituting disposal subject to the provisions of Subsection R315-266-20(b) regarding treatment standards and prohibition levels, the owner or operator of a treatment facility, i.e., the recycler, shall, for the initial shipment of waste, prepare a one-time certification described in Subsection R315-268-7(b)(4), and a one-time notice which includes the information in Subsection R315-268-7(b)(3), except the manifest number. The certification and notification shall be placed in the facility's on-site files. If the waste or the receiving facility changes, a new certification and notification shall be prepared and placed in the on-site files. In addition, the recycling facility shall also keep records of the name and location of each entity receiving the hazardous waste-derived product.

(c) Except where the owner or operator is disposing of any waste that is a recyclable material used in a manner constituting disposal pursuant to Subsection R315-266-20(b), the owner or operator of any land disposal facility disposing any waste subject to restrictions under Rule R315-268 shall:

(1) Have copies of the notice and certifications specified in Subsection R315-268-7(a) or (b).

(2) Test the waste, or an extract of the waste or treatment residue developed using test method 1311, the Toxicity Characteristic Leaching Procedure, described in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW-846 as incorporated by reference in Section R315-260-11, to assure that the wastes or treatment residues are in compliance with the applicable treatment standards set forth in Sections R315-268-40

through 49. Such testing shall be performed according to the frequency specified in the facility's waste analysis plan as required by Section R315-264-13 or 40 CFR 265.13, which is adopted by reference.

(d) Generators or treaters who first claim that hazardous debris is excluded from the definition of hazardous waste under Subsection R315-261-3(f), i.e., debris treated by an extraction or destruction technology provided by Table 1, Section R315-268-45, and debris that the Director has determined does not contain hazardous waste, are subject to the following notification and certification requirements:

(1) A one-time notification, including the following information, shall be submitted to the Director:

(i) The name and address of the Subtitle D facility receiving the treated debris;

(ii) A description of the hazardous debris as initially generated, including the applicable EPA Hazardous Waste Number(s); and

(iii) For debris excluded under Subsection R315-261-3(f)(1), the technology from Table 1, Section R315-268-45, used to treat the debris.

(2) The notification shall be updated if the debris is shipped to a different facility, and, for debris excluded under Subsection R315-261-2(f)(1), if a different type of debris is treated or if a different technology is used to treat the debris.

(3) For debris excluded under Subsection R315-261-3(f)(1), the owner or operator of the treatment facility shall document and certify compliance with the treatment standards of Table 1, Section R315-268-45, as follows:

(i) Records shall be kept of all inspections, evaluations, and analyses of treated debris that are made to determine compliance with the treatment standards;

(ii) Records shall be kept of any data or information the treater obtains during treatment of the debris that identifies key operating parameters of the treatment unit; and

(iii) For each shipment of treated debris, a certification of compliance with the treatment standards shall be signed by an authorized representative and placed in the facility's files. The certification shall state the following: “I certify under penalty of law that the debris has been treated in accordance with the requirements of Section R315-268-45. I am aware that there are significant

penalties for making a false certification, including the possibility of fine and imprisonment."

(e) Generators and treaters who first receive from the Director a determination that a given contaminated soil subject to LDRs as provided in Subsection R315-268-49(a) no longer contains a listed hazardous waste and generators and treaters who first determine that a contaminated soil subject to LDRs as provided in Subsection R315-268-49(a) no longer exhibits a characteristic of hazardous waste shall:

(1) Prepare a one-time only documentation of these determinations including all supporting information; and,

(2) Maintain that information in the facility files and other records for a minimum of three years.

R315-268-9. Land Disposal Restrictions - Special Rules Regarding Wastes That Exhibit A Characteristic.

(a) The initial generator of a solid waste shall determine each EPA Hazardous Waste Number, waste code, applicable to the waste in order to determine the applicable treatment standards under Sections R315-268-40 through 49. This determination may be made concurrently with the hazardous waste determination required in Section R315-262-11. For purposes of Rule R315-268, the waste shall carry the waste code for any applicable listed waste Sections R315-261-30 through 35. In addition, where the waste exhibits a characteristic, the waste shall carry one or more of the characteristic waste codes Sections R315-261-20 through 24, except when the treatment standard for the listed waste operates in lieu of the treatment standard for the characteristic waste, as specified in Subsection R315-268-9(b). If the generator determines that their waste displays a hazardous characteristic, and is not D001 nonwastewaters treated by CMBST, RORGS, OR POLYM of Section R315-268-42, Table 1, the generator shall determine the underlying hazardous constituents, as defined at Subsection R315-268-2(i), in the characteristic waste.

(b) Where a prohibited waste is both listed under Sections R315-261-30 through 35 and exhibits a characteristic under Sections R315-261-20 through 24, the treatment standard for the waste code listed in Sections R315-261-30 through 35 shall operate in lieu of the standard for the waste code under Sections R315-261-20 through 24, provided that the treatment standard for the listed waste includes a treatment standard for the constituent that causes the waste to exhibit the

characteristic. Otherwise, the waste shall meet the treatment standards for all applicable listed and characteristic waste codes.

(c) In addition to any applicable standards determined from the initial point of generation, no prohibited waste which exhibits a characteristic under Sections R315-261-20 through 24 may be land disposed unless the waste complies with the treatment standards under Sections R315-268-40 through 49.

(d) Wastes that exhibit a characteristic are also subject to Section R315-268-7 requirements, except that once the waste is no longer hazardous, a one-time notification and certification shall be placed in the generator's or treater's on-site files. The notification and certification shall be updated if the process or operation generating the waste changes and/or if the non-hazardous waste facility receiving the waste changes.

(1) The notification shall include the following information:

(i) Name and address of the non-hazardous waste facility receiving the waste shipment; and

(ii) A description of the waste as initially generated, including the applicable EPA hazardous waste code(s), treatability group(s), and underlying hazardous constituents, as defined in Subsection R315-268-2(i), unless the waste will be treated and monitored for all underlying hazardous constituents. If all underlying hazardous constituents will be treated and monitored, there is no requirement to list any of the underlying hazardous constituents on the notice.

(2) The certification shall be signed by an authorized representative and shall state the language found in Subsection R315-268-7(b)(4).

(i) If treatment removes the characteristic but does not meet standards applicable to underlying hazardous constituents, then the certification found in Subsection R315-268-7(b)(4)(iv) applies.

R315-268-13. Land Disposal Restrictions - Schedule For Wastes Identified Or Listed After November 8, 1984.

In the case of any hazardous waste identified or listed under section 3001 after November 8, 1984, the Administrator shall make a land disposal prohibition determination within 6 months after the date of identification or listing.

R315-268-14. Land Disposal Restrictions - Surface Impoundment Exemptions.

(a) Section R315-268-14 defines additional circumstances under which an otherwise prohibited waste may continue to be placed in a surface impoundment.

(b) Wastes which are newly identified or listed under RCRA section 3001 after November 8, 1984, and stored in a surface impoundment that is newly subject to subtitle C of RCRA as a result of the additional identification or listing, may continue to be stored in the surface impoundment for 48 months after the promulgation of the additional listing or characteristic, notwithstanding that the waste is otherwise prohibited from land disposal, provided that the surface impoundment is in compliance with the requirements of 40 CFR 265.90 through 94, which are adopted by reference, within 12 months after promulgation of the new listing or characteristic.

(c) Wastes which are newly identified or listed under RCRA section 3001 after November 8, 1984, and treated in a surface impoundment that is newly subject to subtitle C of RCRA as a result of the additional identification or listing, may continue to be treated in that surface impoundment, notwithstanding that the waste is otherwise prohibited from land disposal, provided that surface impoundment is in compliance with the requirements of 40 CFR 265.90 through 94, which are adopted by reference, within 12 months after the promulgation of the new listing or characteristic. In addition, if the surface impoundment continues to treat hazardous waste after 48 months from promulgation of the additional listing or characteristic, it shall then be in compliance with Section R315-268-4.

R315-268-20. Land Disposal Restrictions - Waste specific prohibitions - Dyes And/Or Pigments Production Wastes.

(a) Effective August 23, 2005, the waste specified in Rule R315-261 as EPA Hazardous Waste Number K181, and soil and debris contaminated with this waste, radioactive wastes mixed with this waste, and soil and debris contaminated with radioactive wastes mixed with this waste are prohibited from land disposal.

(b) The requirements of Subsection R315-268-20(a) do not apply if:

(1) The wastes meet the applicable treatment standards specified in Sections R315-268-40 through 49;

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under Section R315-268-6, with respect to those wastes and units covered by the petition;

(3) The wastes meet the applicable treatment standards established pursuant to a petition granted under Section R315-268-44;

(4) Hazardous debris has met the treatment standards in Section R315-268-40 or the alternative treatment standards in Section R315-268-45; or

(5) Persons have been granted an extension to the effective date of a prohibition pursuant to Section R315-268-5, with respect to these wastes covered by the extension.

(c) To determine whether a hazardous waste identified in Section R315-268-20 exceeds the applicable treatment standards specified in Section R315-268-40, the initial generator shall test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract of the waste, or the generator may use knowledge of the waste. If the waste contains regulated constituents in excess of the applicable Sections R315-268-40 through 49 levels, the waste is prohibited from land disposal, and all requirements of Rule R315-268 are applicable, except as otherwise specified.

R315-268-30. Land Disposal Restrictions - Waste Specific Prohibitions - Wood Preserving Wastes.

(a) Effective August 11, 1997, the following wastes are prohibited from land disposal: the wastes specified in Rule R315-261 as EPA Hazardous Waste numbers F032, F034, and F035.

(b) Effective May 12, 1999, the following wastes are prohibited from land disposal: soil and debris contaminated with F032, F034, F035; and radioactive wastes mixed with EPA Hazardous waste numbers F032, F034, and F035.

(c) Between May 12, 1997 and May 12, 1999, soil and debris contaminated with F032, F034, F035; and radioactive waste mixed with F032, F034, and F035 may be disposed in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in Subsection R315-268-5(h)(2).

(d) The requirements of Subsections R315-268-30(a) and (b) do not apply if:

(1) The wastes meet the applicable treatment standards specified in Sections R315-268-40 through 49;

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under Section R315-268-6, with respect to those wastes and units covered by the petition;

(3) The wastes meet the applicable alternate treatment standards established pursuant to a petition granted under Section R315-268-44; or

(4) Persons have been granted an extension to the effective date of a prohibition pursuant to Section R315-268-5, with respect to those wastes covered by the extension.

(e) To determine whether a hazardous waste identified in Section R315-268-30 exceeds the applicable treatment standards specified in Section R315-268-40, the initial generator shall test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable Universal Treatment Standard levels of Section R315-268-48, the waste is prohibited from land disposal, and all requirements of Rule R315-268 are applicable, except as otherwise specified.

R315-268-31. Land Disposal Restrictions - Waste Specific Prohibitions-Dioxin-Containing Wastes.

(a) Effective November 8, 1988, the dioxin-containing wastes specified in Section R315-261-31 as EPA Hazardous Waste Nos. F020, F02l, F022, F023, F026, F027, and F028, are prohibited from land disposal unless the following condition applies:

(1) The F020-F023 and F026-F028 dioxin-containing waste is contaminated soil and debris resulting from a response action taken under section 104 or 106 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) or a corrective action taken under subtitle C of the Resource Conservation and Recovery Act (RCRA).

(b) Effective November 8, 1990, the F020-F023 and F026-F028 dioxin-containing wastes listed in Subsection R315-268-31(a)(1) are prohibited from land disposal.

(c) Between November 8, 1988, and November 8, 1990, wastes included in Subsection R315-268-31(a)(1) may be

disposed in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in Subsection R315-268-5(h)(2) and all other applicable requirements of Rules R315-264 and 265.

(d) The requirements of Subsections R315-268-31(a) and (b) do not apply if:

(1) The wastes meet the standards of Sections R315-268-40 through 49; or

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under Section R315-268-6, with respect to those wastes and units covered by the petition; or

(3) Persons have been granted an extension to the effective date of a prohibition pursuant to Section R315-268-5, with respect to those wastes covered by the extension.

R315-268-32. Land Disposal Restrictions - Waste Specific Prohibitions—Soils Exhibiting The Toxicity Characteristic For Metals And Containing Pcbs.

(a) Effective December 26, 2000, the following wastes are prohibited from land disposal: any volumes of soil exhibiting the toxicity characteristic solely because of the presence of metals (D004—D011) and containing PCBs.

(b) The requirements of Subsection R315-268-32(a) do not apply if:

(1)(i) The wastes contain halogenated organic compounds in total concentration less than 1,000 mg/kg; and

(ii) The wastes meet the treatment standards specified in Sections R315-268-40 through 49 for EPA hazardous waste numbers D004-D011, as applicable; or

(2)(i) The wastes contain halogenated organic compounds in total concentration less than 1,000 mg/kg; and

(ii) The wastes meet the alternative treatment standards specified in Section R315-268-49 for contaminated soil; or

(3) Persons have been granted an exemption from a prohibition pursuant to a petition under Section R315-268-6, with respect to those wastes and units covered by the petition; or

(4) The wastes meet applicable alternative treatment standards established pursuant to a petition granted under Section R315-268-44.

R315-268-33. Land Disposal Restrictions Waste Specific Prohibitions—Chlorinated Aliphatic Wastes.

(a) Effective May 8, 2001, the wastes specified in Rule R315-261 as EPA Hazardous Wastes Numbers K174, and K175, soil and debris contaminated with these wastes, radioactive wastes mixed with these wastes, and soil and debris contaminated with radioactive wastes mixed with these wastes are prohibited from land disposal.

(b) The requirements of Subsection R315-268-33(a) do not apply if:

(1) The wastes meet the applicable treatment standards specified in Sections R315-268-40 through 49;

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under Section R315-268-6, with respect to those wastes and units covered by the petition;

(3) The wastes meet the applicable treatment standards established pursuant to a petition granted under Section R315-268-44;

(4) Hazardous debris has met the treatment standards in Section R315-268-40 or the alternative treatment standards in Section R315-268-45; or

(5) Persons have been granted an extension to the effective date of a prohibition pursuant to Section R315-268-5, with respect to these wastes covered by the extension.

(c) To determine whether a hazardous waste identified in Sections R315-268-33 exceeds the applicable treatment standards specified in Section R315-268-40, the initial generator shall test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains regulated constituents in excess of the applicable levels of Sections R315-268-40 through 49, the waste is prohibited from land disposal, and all requirements of Rule R315-268 are applicable, except as otherwise specified.

(d) Disposal of K175 wastes that have complied with all applicable Section R315-268-40 treatment standards shall also be macroencapsulated in accordance with Section R315-268-45 Table 1 unless the waste is placed in:

(1) A hazardous waste monofill containing only K175 wastes that meet all applicable Section R315-268-40 treatment standards; or

(2) A dedicated hazardous waste landfill cell in which all other wastes being co-disposed are at pH less than or equal to 6.0.

R315-268-34. Land Disposal Restrictions - Waste Specific Prohibitions-Toxicity Characteristic Metal Wastes.

(a) Effective August 24, 1998, the following wastes are prohibited from land disposal: the wastes specified in Rule R315-261 as EPA Hazardous Waste numbers D004-D011 that are newly identified, i.e. wastes, soil, or debris identified as hazardous by the Toxic Characteristic Leaching Procedure but not the Extraction Procedure, and waste, soil, or debris from mineral processing operations that is identified as hazardous by the specifications at Rule R315-261.

(b) Effective November 26, 1998, the following waste is prohibited from land disposal: Slag from secondary lead smelting which exhibits the Toxicity Characteristic due to the presence of one or more metals.

(c) Effective May 26, 2000, the following wastes are prohibited from land disposal: newly identified characteristic wastes from elemental phosphorus processing; radioactive wastes mixed with EPA Hazardous wastes D004-D011 that are newly identified, i.e., wastes, soil, or debris identified as hazardous by the Toxic Characteristic Leaching Procedure but not the Extraction Procedure; or mixed with newly identified characteristic mineral processing wastes, soil, or debris.

(d) Between May 26, 1998 and May 26, 2000, newly identified characteristic wastes from elemental phosphorus processing, radioactive waste mixed with D004-D011 wastes that are newly identified, i.e., wastes, soil, or debris identified as hazardous by the Toxic Characteristic Leaching Procedure but not the Extraction Procedure, or mixed with newly identified characteristic mineral processing wastes, soil, or debris may be disposed in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in Subsection R315-268-5(h).

(e) The requirements of Subsection R315-268-34(a) and (b) do not apply if:

(1) The wastes meet the applicable treatment standards specified in Sections R315-268-40 through 49:

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under Section R315-268-

6, with respect to those wastes and units covered by the petition;

(3) The wastes meet the applicable alternate treatment standards established pursuant to a petition granted under Section R315-268-44; or

(4) Persons have been granted an extension to the effective date of a prohibition pursuant to Section R315-268-5, with respect to these wastes covered by the extension.

(f) To determine whether a hazardous waste identified in Section R315-268-34 exceeds the applicable treatment standards specified in Section R315-268-40, the initial generator shall test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentration in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents, including underlying hazardous constituents in characteristic wastes, in excess of the applicable Universal Treatment Standard levels of Section R315-268-48, the waste is prohibited from land disposal, and all requirements of Rule R315-268 are applicable, except as otherwise specified.

R315-268-35. Land Disposal Restrictions - Waste Specific Prohibitions—Petroleum Refining Wastes.

(a) Effective February 8, 1999, the wastes specified in Rule R315-261 as EPA Hazardous Wastes Numbers K169, K170, K171, and K172, soils and debris contaminated with these wastes, radioactive wastes mixed with these hazardous wastes, and soils and debris contaminated with these radioactive mixed wastes, are prohibited from land disposal.

(b) The requirements of Subsection R315-268-35(a) do not apply if:

(1) The wastes meet the applicable treatment standards specified in Sections R315-268-40 through 49;

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under Section R315-268-6, with respect to those wastes and units covered by the petition;

(3) The wastes meet the applicable treatment standards established pursuant to a petition granted under Section R315-268-44;

(4) Hazardous debris that have met treatment standards in Section R315-268-40 or in the alternative treatment standards in Section R315-268-45; or

(5) Persons have been granted an extension to the effective date of a prohibition pursuant to Section R315-268-5, with respect to these wastes covered by the extension.

(c) To determine whether a hazardous waste identified in Section R315-268-35 exceeds the applicable treatment standards specified in Section R315-268-40, the initial generator shall test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable Universal Treatment Standard levels of Section R315-268-48, the waste is prohibited from land disposal, and all requirements of Rule R315-268 are applicable, except as otherwise specified.

R315-268-36. Land Disposal Restrictions - Waste Specific Prohibitions-Inorganic Chemical Wastes.

(a) Effective May 20, 2002, the wastes specified in Rule R315-261 as EPA Hazardous Wastes Numbers K176, K177, and K178, and soil and debris contaminated with these wastes, radioactive wastes mixed with these wastes, and soil and debris contaminated with radioactive wastes mixed with these wastes are prohibited from land disposal.

(b) The requirements of Subsection R315-268-36(a) do not apply if:

(1) The wastes meet the applicable treatment standards specified in Sections R315-268-40 through 49;

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under Section R315-268-6, with respect to those wastes and units covered by the petition;

(3) The wastes meet the applicable treatment standards established pursuant to a petition granted under Section R315-268-44;

(4) Hazardous debris has met the treatment standards in Section R315-268-40 or the alternative treatment standards in Section R315-268-45; or

(5) Persons have been granted an extension to the effective date of a prohibition pursuant to Section R315-

268-5, with respect to these wastes covered by the extension.

(c) To determine whether a hazardous waste identified in Section R315-268-36 exceeds the applicable treatment standards specified in Section R315-268-40, the initial generator shall test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains regulated constituents in excess of the applicable Sections R315-268-40 through 49 levels, the waste is prohibited from land disposal, and all requirements of Rule R315-268 are applicable, except as otherwise specified.

R315-268-37. Land Disposal Restrictions - Waste Specific Prohibitions-Ignitable And Corrosive Characteristic Wastes Whose Treatment Standards Were Vacated.

(a) Effective August 9, 1993, the wastes specified in Section R315-261-21 as D001, and is not in the High TOC Ignitable Liquids Subcategory, and specified in Section R315-261-22 as D002, that are managed in systems other than those whose discharge is regulated under the Clean Water Act (CWA), or that inject in Class I deep wells regulated under the Safe Drinking Water Act (SDWA), or that are zero dischargers that engage in CWA-equivalent treatment before ultimate land disposal, are prohibited from land disposal. CWA-equivalent treatment means biological treatment for organics, alkaline chlorination or ferrous sulfate precipitation for cyanide, precipitation/sedimentation for metals, reduction of hexavalent chromium, or other treatment technology that can be demonstrated to perform equally or greater than these technologies.

(b) Effective February 10, 1994, the wastes specified in Section R315-261-21 as D001, and is not in the High TOC Ignitable Liquids Subcategory, and specified in Section R315-261-22 as D002, that are managed in systems defined in 40 CFR 144.6(e) and 146.6(e) as Class V injection wells, that do not engage in CWA-equivalent treatment before injection, are prohibited from land disposal.

R315-268-38. Land Disposal Restrictions - Waste Specific Prohibitions-Newly Identified Organic Toxicity Characteristic Wastes And Newly Listed Coke By-Product And Chlorotoluene Production Wastes.

(a) Effective December 19, 1994, the wastes specified in Section R315-261-32 as EPA Hazardous Waste numbers K141, K142, K143, K144, K145, K147, K148, K149, K150, and K151 are prohibited from land disposal. In addition, debris contaminated with EPA Hazardous Waste numbers F037, F038, K107-K112, K117, K118, K123-K126, K131, K132, K136, U328, U353, U359, and soil and debris contaminated with D012-D043, K141-K145, and K147-K151 are prohibited from land disposal. The following wastes that are specified in Section R315-261-24, Table 1 as EPA Hazardous Waste numbers: D012, D013, D014, D015, D016, D017, D018, D019, D020, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D031, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043 that are not radioactive, or that are managed in systems other than those whose discharge is regulated under the Clean Water Act (CWA), or that are zero dischargers that do not engage in CWA-equivalent treatment before ultimate land disposal, or that are injected in Class I deep wells regulated under the Safe Drinking Water Act (SDWA), are prohibited from land disposal. CWA-equivalent treatment means biological treatment for organics, alkaline chlorination or ferrous sulfate precipitation for cyanide, precipitation/ sedimentation for metals, reduction of hexavalent chromium, or other treatment technology that can be demonstrated to perform equally or better than these technologies.

(b) On September 19, 1996, radioactive wastes that are mixed with D018-D043 that are managed in systems other than those whose discharge is regulated under the Clean Water Act (CWA), or that inject in Class I deep wells regulated under the Safe Drinking Water Act (SDWA), or that are zero dischargers that engage in CWA-equivalent treatment before ultimate land disposal, are prohibited from land disposal. CWA-equivalent treatment means biological treatment for organics, alkaline chlorination or ferrous sulfate precipitation for cyanide, precipitation/ sedimentation for metals, reduction of hexavalent chromium, or other treatment technology that can be demonstrated to perform equally or greater than these technologies. Radioactive wastes mixed with K141-K145, and K147-K151 are also prohibited from land disposal. In addition, soil and debris contaminated with these radioactive mixed wastes are prohibited from land disposal.

(c) Between December 19, 1994 and September 19, 1996, the wastes included in Subsection R315-268-38(b) may be

disposed in a landfill or surface impoundment, only if such unit is in compliance with the requirements specified in Subsection R315-268-5(h)(2).

(d) The requirements of Subsections R315-268-38(a), (b), and (c) do not apply if:

(1) The wastes meet the applicable treatment standards specified in Sections R315-268-40 through 49;

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under Section R315-268-6, with respect to those wastes and units covered by the petition;

(3) The wastes meet the applicable alternate treatment standards established pursuant to a petition granted under Section R315-268-44;

(4) Persons have been granted an extension to the effective date of a prohibition pursuant to Section R315-268-5, with respect to these wastes covered by the extension.

(e) To determine whether a hazardous waste identified in Section R315-268-38 exceeds the applicable treatment standards specified in Section R315-268-40, the initial generator shall test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable Sections R315-268-40 through 49, the waste is prohibited from land disposal, and all requirements of Rule R315-268 are applicable, except as otherwise specified.

R315-268-39. Land Disposal Restrictions - Waste Specific Prohibitions-Spent Aluminum Potliners; Reactive; And Carbamate Wastes.

(a) On July 8, 1996, the wastes specified in Section R315-261-32 as EPA Hazardous Waste numbers K156-K159, and K161; and in Section R315-261-33 as EPA Hazardous Waste numbers P127, P128, P185, P188-P192, P194, P196-P199, P201-P205, U271, U278-U280, U364, U367, U372, U373, U387, U389, U394, U395, U404, and U409-U411 are prohibited from land disposal. In addition, soil and debris contaminated with these wastes are prohibited from land disposal.

(b) On July 8, 1996, the wastes identified in Section R315-261-23 as D003 that are managed in systems other than those whose discharge is regulated under the Clean Water Act (CWA), or that inject in Class I deep wells regulated

under the Safe Drinking Water Act (SDWA), or that are zero dischargers that engage in CWA-equivalent treatment before ultimate land disposal, are prohibited from land disposal. This prohibition does not apply to unexploded ordnance and other explosive devices which have been the subject of an emergency response. Such D003 wastes are prohibited unless they meet the treatment standard of DEACT before land disposal, see Section R315-268-40.

(c) On September 21, 1998, the wastes specified in Section R315-261-32 as EPA Hazardous Waste number K088 are prohibited from land disposal. In addition, soil and debris contaminated with these wastes are prohibited from land disposal.

(d) On April 8, 1998, radioactive wastes mixed with K088, K156-K159, K161, P127, P128, P185, P188-P192, P194, P196-P199, P201-P205, U271, U278-U280, U364, U367, U372, U373, U387, U389, U394, U395, U404, and U409-U411 are prohibited from land disposal. In addition, soil and debris contaminated with these radioactive mixed wastes are prohibited from land disposal.

(e) Between July 8, 1996, and April 8, 1998, the wastes included in Subsections R315-268-39(a), (c), and (d) may be disposed in a landfill or surface impoundment, only if such unit is in compliance with the requirements specified in Subsection R315-268-5(h)(2).

(f) The requirements of Subsections R315-268-39(a), (b), (c), and (d) do not apply if:

(1) The wastes meet the applicable treatment standards specified in Sections R315-268-40 through 49;

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under Section R315-268-6, with respect to those wastes and units covered by the petition;

(3) The wastes meet the applicable alternate treatment standards established pursuant to a petition granted under Section R315-268-44;

(4) Persons have been granted an extension to the effective date of a prohibition pursuant to Section R315-268-5, with respect to these wastes covered by the extension.

(g) To determine whether a hazardous waste identified in Section R315-268-39 exceeds the applicable treatment standards specified in Section R315-268-40, the initial generator shall test a sample of the waste extract or the entire waste, depending on whether the treatment standards

are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable Sections R315-268-40 through 49, the waste is prohibited from land disposal, and all requirements of Rule R315-268 are applicable, except as otherwise specified.

R315-268-40. Land Disposal Restrictions - Applicability Of Treatment Standards.

(a) A prohibited waste identified in the table "Treatment Standards for Hazardous Wastes" may be land disposed only if it meets the requirements found in the table. For each waste, the table identifies one of three types of treatment standard requirements:

(1) All hazardous constituents in the waste or in the treatment residue shall be at or below the values found in the table for that waste ("total waste standards"); or

(2) The hazardous constituents in the extract of the waste or in the extract of the treatment residue shall be at or below the values found in the table ("waste extract standards"); or

(3) The waste shall be treated using the technology specified in the table ("technology standard"), which are described in detail in Section R315-268-42, Table 1-Technology Codes and Description of Technology-Based Standards.

(b) For wastewaters, compliance with concentration level standards is based on maximums for any one day, except for D004 through D011 wastes for which the previously promulgated treatment standards based on grab samples remain in effect. For all nonwastewaters, compliance with concentration level standards is based on grab sampling. For wastes covered by the waste extract standards, the test Method 1311, the Toxicity Characteristic Leaching Procedure found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in Section R315-260-11, shall be used to measure compliance. An exception is made for D004 and D008, for which either of two test methods may be used: Method 1311, or Method 1310B, the Extraction Procedure Toxicity Test. For wastes covered by a technology standard, the wastes may be land disposed after being treated using that specified technology or an equivalent treatment technology approved by the

Administrator under the procedures set forth in Section R315-268-42(b).

(c) When wastes with differing treatment standards for a constituent of concern are combined for purposes of treatment, the treatment residue shall meet the lowest treatment standard for the constituent of concern.

(d) Notwithstanding the prohibitions specified in Subsection R315-268-40(a), treatment and disposal facilities may demonstrate, and certify pursuant to Subsection R315-268-7(b)(5), compliance with the treatment standards for organic constituents specified by a footnote in the table “Treatment Standards for Hazardous Wastes” in Section R315-268-40, provided the following conditions are satisfied:

(1) The treatment standards for the organic constituents were established based on incineration in units operated in accordance with the technical requirements of Section R315-264-340 through 351, or based on combustion in fuel substitution units operating in accordance with applicable technical requirements;

(2) The treatment or disposal facility has used the methods referenced in Subsection R315-268-40(d)(1) to treat the organic constituents; and

(3) The treatment or disposal facility may demonstrate compliance with organic constituents if good-faith analytical efforts achieve detection limits for the regulated organic constituents that do not exceed the treatment standards specified in Section R315-268-40 by an order of magnitude.

(e) For characteristic wastes (D001-D043) that are subject to treatment standards in the following table “Treatment Standards for Hazardous Wastes,” and are not managed in a wastewater treatment system that is regulated under the Clean Water Act (CWA), that is CWA-equivalent, or that is injected into a Class I nonhazardous deep injection well, all underlying hazardous constituents, as defined in Section R315-268-2(i), shall meet Universal Treatment Standards, found in Section R315-268-48, Table Universal Treatment Standards, prior to land disposal as defined in Subsection R315-268-2(c).

(f) The treatment standards for F001-F005 nonwastewater constituents carbon disulfide, cyclohexanone, and/or methanol apply to wastes which contain only one, two, or three of these constituents. Compliance is measured for these constituents in the waste extract from test

Method 1311, the Toxicity Characteristic Leaching Procedure found in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, EPA Publication SW-846, as incorporated by reference in Section R315-260-11. If the waste contains any of these three constituents along with any of the other 25 constituents found in F001-F005, then compliance with treatment standards for carbon disulfide, cyclohexanone, and/or methanol are not required.

(g) Between August 26, 1996 and March 4, 1999 the treatment standards for the wastes specified in Section R315-261-32 as EPA Hazardous Waste numbers K156-K161; and in Section R315-261-33 as EPA Hazardous Waste numbers P127, P128, P185, P188-P192, P194, P196-P199, P201-P205, U271, U277-U280, U364-U367, U372, U373, U375-U379, U381-U387, U389-U396, U400-U404, U407, and U409-U411; and soil contaminated with these wastes; may be satisfied by either meeting the constituent concentrations presented in the table “Treatment Standards for Hazardous Wastes” in Section R315-268-40, or by treating the waste by the following technologies: combustion, as defined by the technology code CMBST at Section R315-268-42 Table 1, for nonwastewaters; and, biodegradation as defined by the technology code BIODG, carbon adsorption as defined by the technology code CARBN, chemical oxidation as defined by the technology code CHOXD, or combustion as defined as technology code CMBST at Section R315-268-42 Table 1, for wastewaters.

(h) Prohibited D004-D011 mixed radioactive wastes and mixed radioactive listed wastes containing metal constituents, that were previously treated by stabilization to the treatment standards in effect at that time and then put into storage, do not have to be re-treated to meet treatment standards in Section R315-268-40 prior to land disposal.

(i) Reserved

(j) Effective September 4, 1998, the treatment standards for the wastes specified in Section R315-261-33 as EPA Hazardous Waste numbers P185, P191, P192, P197, U364, U394, and U395 may be satisfied by either meeting the constituent concentrations presented in the table “Treatment Standards for Hazardous Wastes” in Section R315-268-40, or by treating the waste by the following technologies: combustion, as defined by the technology code CMBST at Section R315-268-42 Table 1, for nonwastewaters; and, biodegradation as defined by the technology code BIODG, carbon adsorption as defined by the technology code

CARBN, chemical oxidation as defined by the technology code CHOXD, or combustion as defined as technology code CMBST at Section R315-268-42 Table 1, for wastewaters.

Table Treatment Standards for Hazardous Wastes and the Footnotes To Treatment Standards Standard Table in 40 CFR 268.40, 2015 edition, are adopted and incorporated by reference.

R315-268-41. Land Disposal Restrictions - Treatment Standards Expressed As Concentrations In Waste Extract.
For the requirements previously found in Section R315-268-41 and for treatment standards in Table CCWE-Constituent Concentrations in Waste Extracts, refer to Section R315-268-40.

R315-268-42. Land Disposal Restrictions - Treatment Standards Expressed As Specified Technologies.
Note: For the requirements previously found in Section R315-268-42 in Table 2-Technology-Based Standards By RCRA Waste Code, and Table 3-Technology-Based Standards for Specific Radioactive Hazardous Mixed Waste, refer to Section R315-268-40.

(a) The following wastes in the table in R315-268-40 “Treatment Standards for Hazardous Wastes,” for which standards are expressed as a treatment method rather than a concentration level, shall be treated using the technology or technologies specified in the table entitled “Technology Codes and Description of Technology-Based Standards” in Section R315-268-42.

Table 1—Technology Codes and Description of Technology-Based Standards

Technology code	Description of technology-based standards
ADGAS:	Venting of compressed gases into an absorbing or reacting media (i.e., solid or liquid)—venting can be accomplished through physical release utilizing valves/piping; physical penetration of the container; and/or penetration through detonation.
AMLGM:	Amalgamation of liquid, elemental mercury contaminated with radioactive materials utilizing inorganic reagents such as copper,

zinc, nickel, gold, and sulfur that result in a nonliquid, semi-solid amalgam and thereby reducing potential emissions of elemental mercury vapors to the air.

BIODG: Biodegradation of organics or non-metallic inorganics (i.e., degradable inorganics that contain the elements of phosphorus, nitrogen, and sulfur) in units operated under either aerobic or anaerobic conditions such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals, e.g., Total Organic Carbon can often be used as an indicator parameter for the biodegradation of many organic constituents that cannot be directly analyzed in wastewater residues.

CARBN: Carbon adsorption, granulated or powdered, of non-metallic inorganics, organo-metallics, and/or organic constituents, operated such that a surrogate compound or indicator parameter has not undergone breakthrough, e.g., Total Organic Carbon can often be used as an indicator parameter for the adsorption of many organic constituents that cannot be directly analyzed in wastewater residues. Breakthrough occurs when the carbon has become saturated with the constituent, or indicator parameter, and substantial change in adsorption rate associated with that constituent occurs.

CHOXD: Chemical or electrolytic oxidation utilizing the following oxidation reagents, or waste reagents, or combinations of reagents: (1) Hypochlorite, e.g., bleach; (2) chlorine; (3) chlorine dioxide; (4) ozone or UV, ultraviolet light, assisted ozone; (5) peroxides; (6) persulfates; (7) perchlorates; (8) permangantes; and/or (9) other oxidizing reagents of equivalent efficiency, performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals, e.g., Total Organic Carbon can often be used as an indicator parameter for the oxidation of many organic constituents that cannot be directly analyzed in wastewater residues. Chemical oxidation specifically

includes what is commonly referred to as alkaline chlorination.

CHRED: Chemical reduction utilizing the following reducing reagents, or waste reagents, or combinations of reagents: (1) Sulfur dioxide; (2) sodium, potassium, or alkali salts or sulfites, bisulfites, metabisulfites, and polyethylene glycols, e.g., NaPEG and KPEG; (3) sodium hydrosulfide; (4) ferrous salts; and/or (5) other reducing reagents of equivalent efficiency, performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals, e.g., Total Organic Halogens can often be used as an indicator parameter for the reduction of many halogenated organic constituents that cannot be directly analyzed in wastewater residues. Chemical reduction is commonly used for the reduction of hexavalent chromium to the trivalent state.

CMBST: High temperature organic destruction technologies, such as combustion in incinerators, boilers, or industrial furnaces operated in accordance with the applicable requirements of Sections R315-264-340 through 351, 40 CFR 265.340 through 352, which are adopted by reference, or Sections R315-266-100 through 112, and in other units operated in accordance with applicable technical operating requirements; and certain non-combustive technologies, such as the Catalytic Extraction Process.

DEACT: Deactivation to remove the hazardous characteristics of a waste due to its ignitability, corrosivity, and/or reactivity.

FSUBS: Fuel substitution in units operated in accordance with applicable technical operating requirements.

HLVIT: Vitrification of high level mixed radioactive wastes in units in compliance with all applicable radioactive protection requirements under control of the Nuclear Regulatory Commission.

IMERC: Incineration of wastes containing organics and mercury in units operated in accordance with the

technical operating requirements of Sections R315-264-340 through 351 and 40 CFR 265.340 through 352, which are adopted by reference. All wastewater and nonwastewater residues derived from this process shall then comply with the corresponding treatment standards per waste code with consideration of any applicable subcategories, e.g., High or Low Mercury Subcategories.

INCIN: Incineration in units operated in accordance with the technical operating requirements of Sections R315-264-340 through 351 and 40 CFR 265.340 through 352, which are adopted by reference.

LLEXT: Liquid-liquid extraction, often referred to as solvent extraction, of organics from liquid wastes into an immiscible solvent for which the hazardous constituents have a greater solvent affinity, resulting in an extract high in organics that shall undergo either incineration, reuse as a fuel, or other recovery/reuse and a raffinate, extracted liquid waste, proportionately low in organics that shall undergo further treatment as specified in the standard.

MACRO: Macroencapsulation with surface coating materials such as polymeric organics, e.g., resins and plastics, or with a jacket of inert inorganic materials to substantially reduce surface exposure to potential leaching media. Macroencapsulation specifically does not include any material that would be classified as a tank or container according to Section R315-260-10.

NEUTR: Neutralization with the following reagents, or waste reagents, or combinations of reagents: (1) Acids; (2) bases; or (3) water, including wastewaters, resulting in a pH greater than 2 but less than 12.5 as measured in the aqueous residuals.

NLDBR: No land disposal based on recycling.

POLYM: Formation of complex high-molecular weight solids through polymerization of monomers in high-TOC D001 non-wastewaters which are chemical components in the manufacture of plastics.

PRECP: Chemical precipitation of metals and other

inorganics as insoluble precipitates of oxides, hydroxides, carbonates, sulfides, sulfates, chlorides, fluorides, or phosphates. The following reagents, or waste reagents, are typically used alone or in combination: (1) Lime, i.e., containing oxides and/or hydroxides of calcium and/or magnesium; (2) caustic, i.e., sodium and/or potassium hydroxides; (3) soda ash, i.e., sodium carbonate; (4) sodium sulfide; (5) ferric sulfate or ferric chloride; (6) alum; or (7) sodium sulfate. Additional floculating, coagulation or similar reagents/processes that enhance sludge dewatering characteristics are not precluded from use.

RBERY: Thermal recovery of Beryllium.

RCGAS: Recovery/reuse of compressed gases including techniques such as reprocessing of the gases for reuse/resale; filtering/adsorption of impurities; remixing for direct reuse or resale; and use of the gas as a fuel source.

RCORR: Recovery of acids or bases utilizing one or more of the following recovery technologies: (1) Distillation, i.e., thermal concentration; (2) ion exchange; (3) resin or solid adsorption; (4) reverse osmosis; and/or (5) incineration for the recovery of acid-Note: this does not preclude the use of other physical phase separation or concentration techniques such as decantation, filtration, including ultrafiltration, and centrifugation, when used in conjunction with the above listed recovery technologies.

RLEAD: Thermal recovery of lead in secondary lead smelters.

RMERC: Retorting or roasting in a thermal processing unit capable of volatilizing mercury and subsequently condensing the volatilized mercury for recovery. The retorting or roasting unit, or facility. shall be subject to one or more of the following: (a) a National Emissions Standard for Hazardous Air Pollutants (NESHAP) for mercury; (b) a Best Available Control Technology (BACT) or a Lowest Achievable Emission Rate (LAER) standard for mercury imposed pursuant to a Prevention of Significant Deterioration (PSD) permit; or (c) a state permit that establishes

	emission limitations, within meaning of section 302 of the Clean Air Act, for mercury. All wastewater and nonwastewater residues derived from this process shall then comply with the corresponding treatment standards per waste code with consideration of any applicable subcategories, e.g., High or Low Mercury Subcategories.
RMETL:	Recovery of metals or inorganics utilizing one or more of the following direct physical/removal technologies: (1) Ion exchange; (2) resin or solid, i.e., zeolites, adsorption; (3) reverse osmosis; (4) chelation/solvent extraction; (5) freeze crystalization; (6) ultrafiltration and/or (7) simple precipitation, i.e., crystallization,- Note: This does not preclude the use of other physical phase separation or concentration techniques such as decantation, filtration, including ultrafiltration, and centrifugation, when used in conjunction with the above listed recovery technologies.
RORGS:	Recovery of organics utilizing one or more of the following technologies: (1) Distillation; (2) thin film evaporation; (3) steam stripping; (4) carbon adsorption; (5) critical fluid extraction; (6) liquid-liquid extraction; (7) precipitation/crystallization, including freeze crystallization; or (8) chemical phase separation techniques, i.e., addition of acids, bases, demulsifiers, or similar chemicals;-Note: his does not preclude the use of other physical phase separation techniques such as a decantation, filtration, including ultrafiltration, and centrifugation, when used in conjunction with the above listed recovery technologies.
RTHRM:	Thermal recovery of metals or inorganics from nonwastewaters in units identified as industrial furnaces according to Subsections R315-260-10(1), (6), (7), (11), and (12) under the definition of “industrial furnaces”.
RZINC:	Resmelting in high temperature metal recovery units for the purpose of recovery of zinc.
STABL:	Stabilization with the following reagents, or waste reagents, or combinations of reagents: (1)

Portland cement; or (2) lime/pozzolans, e.g., fly ash and cement kiln dust, -this does not preclude the addition of reagents, e.g., iron salts, silicates, and clays, designed to enhance the set/cure time and/or compressive strength, or to overall reduce the leachability of the metal or inorganic.

SSTRP: Steam stripping of organics from liquid wastes utilizing direct application of steam to the wastes operated such that liquid and vapor flow rates, as well as temperature and pressure ranges, have been optimized, monitored, and maintained. These operating parameters are dependent upon the design parameters of the unit, such as the number of separation stages and the internal column design, thus, resulting in a condensed extract high in organics that shall undergo either incineration, reuse as a fuel, or other recovery/reuse and an extracted wastewater that shall undergo further treatment as specified in the standard.

VTD: Vacuum thermal desorption of low-level radioactive hazardous mixed waste in units in compliance with all applicable radioactive protection requirements under control of the Nuclear Regulatory Commission.

WETOX: Wet air oxidation performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals, e.g., Total Organic Carbon can often be used as an indicator parameter for the oxidation of many organic constituents that cannot be directly analyzed in wastewater residues.

WTRRX: Controlled reaction with water for highly reactive inorganic or organic chemicals with precautionary controls for protection of workers from potential violent reactions as well as precautionary controls for potential emissions of toxic/ignitable levels of gases released during the reaction.

Note 1: When a combination of these technologies, i.e., a treatment train, is specified as a single treatment standard, the order of application is specified in Section

R315-268-42, Table 2 by indicating the five letter technology code that shall be applied first, then the designation “fb.,” an abbreviation for “followed by,” then the five letter technology code for the technology that shall be applied next, and so on.

Note 2: When more than one technology, or treatment train, are specified as alternative treatment standards, the five letter technology codes, or the treatment trains, are separated by a semicolon (;) with the last technology preceded by the word “OR”. This indicates that any one of these BDAT technologies or treatment trains can be used for compliance with the standard.

(b) Any person may submit an application to the Administrator demonstrating that an alternative treatment method can achieve a measure of performance equivalent to that achieved by methods specified in Subsection R315-268-42(a), (c), and (d) for wastes or specified in Table 1 of Section R315-268-45 for hazardous debris. The applicant shall submit information demonstrating that his treatment method is in compliance with federal, state, and local requirements and is protective of human health and the environment. On the basis of such information and any other available information, the Administrator may approve the use of the alternative treatment method if he finds that the alternative treatment method provides a measure of performance equivalent to that achieved by methods specified in Subsections R315-268-42(a), (c), and (d) for wastes or in Table 1 of Section R315-268-45 for hazardous debris. Any approval shall be stated in writing and may contain such provisions and conditions as the Administrator deems appropriate. The person to whom such approval is issued shall comply with all limitations contained in such a determination.

(c) As an alternative to the otherwise applicable Sections R315-268-40 through 49 treatment standards, lab packs are eligible for land disposal provided the following requirements are met:

(1) The lab packs comply with the applicable provisions of Section R315-264-316 and 40 CFR 265.316, which is adopted by reference;

(2) The lab pack does not contain any of the wastes listed in Appendix IV to Rule R315-268;

(3) The lab packs are incinerated in accordance with the requirements of Sections R315-264-340 through 351, or 40 CFR 265.340 through 352, which are adopted by reference; and

(4) Any incinerator residues from lab packs containing D004, D005, D006, D007, D008, D010, and D011 are treated in compliance with the applicable treatment standards specified for such wastes in Sections R315-268-40 through 49.

(d) Radioactive hazardous mixed wastes are subject to the treatment standards in Section R315-268-40. Where treatment standards are specified for radioactive mixed wastes in the Table of Treatment Standards, those treatment standards shall govern. Where there is no specific treatment standard for radioactive mixed waste, the treatment standard for the hazardous waste, as designated by EPA waste code, applies. Hazardous debris containing radioactive waste is subject to the treatment standards specified in Section R315-268-45.

R315-268-43. Land Disposal Restrictions - Treatment Standards Expressed As Waste Concentrations.

For the requirements previously found in Section R315-268-43 and for treatment standards in Table CCW-Constituent Concentrations in Wastes, refer to Section R315-268-40.

R315-268-44. Land Disposal Restrictions - Variance From A Treatment Standard.

(a) Based on a petition filed by a generator or treater of hazardous waste, the Administrator may approve a variance from an applicable treatment standard if:

(1) It is not physically possible to treat the waste to the level specified in the treatment standard, or by the method specified as the treatment standard. To show that this is the case, the petitioner shall demonstrate that because the physical or chemical properties of the waste differ significantly from waste analyzed in developing the treatment standard, the waste cannot be treated to the specified level or by the specified method; or

(2) It is inappropriate to require the waste to be treated to the level specified in the treatment standard or by the method specified as the treatment standard, even though such treatment is technically possible. To show that this is the case, the petitioner shall either demonstrate that:

(i) Treatment to the specified level or by the specified method is technically inappropriate, for example, resulting in combustion of large amounts of mildly contaminated environmental media; or

(ii) For remediation waste only, treatment to the specified level or by the specified method is environmentally inappropriate because it would likely discourage aggressive remediation.

(b) Each petition shall be submitted in accordance with the procedures in 40 CFR 260.20.

(c) Each petition shall include the following statement signed by the petitioner or an authorized representative:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this petition and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(d) After receiving a petition for variance from a treatment standard, the Administrator may request any additional information or samples which he may require to evaluate the petition. Additional copies of the complete petition may be requested as needed to send to affected states and Regional Offices.

(e) The Administrator shall give public notice in the Federal Register of the intent to approve or deny a petition and provide an opportunity for public comment. The final decision on a variance from a treatment standard shall be published in the Federal Register.

(f) A generator, treatment facility, or disposal facility that is managing a waste covered by a variance from the treatment standards shall comply with the waste analysis requirements for restricted wastes found under Section R315-268-7.

(g) During the petition review process, the applicant is required to comply with all restrictions on land disposal under Rule R315-268 once the effective date for the waste has been reached.

(h) Based on a petition filed by a generator or treater of hazardous waste, the Director may approve a

site-specific variance from an applicable treatment standard if:

(1) It is not physically possible to treat the waste to the level specified in the treatment standard, or by the method specified as the treatment standard. To show that this is the case, the petitioner shall demonstrate that because the physical or chemical properties of the waste differ significantly from waste analyzed in developing the treatment standard, the waste cannot be treated to the specified level or by the specified method; or

(2) It is inappropriate to require the waste to be treated to the level specified in the treatment standard or by the method specified as the treatment standard, even though such treatment is technically possible. To show that this is the case, the petitioner shall either demonstrate that:

(i) Treatment to the specified level or by the specified method is technically inappropriate, for example, resulting in combustion of large amounts of mildly contaminated environmental media where the treatment standard is not based on combustion of such media; or

(ii) For remediation waste only, treatment to the specified level or by the specified method is environmentally inappropriate because it would likely discourage aggressive remediation.

(3) For contaminated soil only, treatment to the level or by the method specified in the soil treatment standards would result in concentrations of hazardous constituents that are below, i.e., lower than, the concentrations necessary to minimize short- and long-term threats to human health and the environment. Treatment variances approved under Subsection R315-268-44(h) shall:

(i) At a minimum, impose alternative land disposal restriction treatment standards that, using a reasonable maximum exposure scenario:

(A) For carcinogens, achieve constituent concentrations that result in the total excess risk to an individual exposed over a lifetime generally falling within a range from 10–4 to 10–6; and

(B) For constituents with non-carcinogenic effects, achieve constituent concentrations that an individual could be exposed to on a daily basis without appreciable risk of deleterious effect during a lifetime.

(ii) Not consider post-land-disposal controls.

(4) For contaminated soil only, treatment to the level or by the method specified in the soil treatment standards would result in concentrations of hazardous constituents that are below, i.e., lower than, natural background concentrations at the site where the contaminated soil will be land disposed.

(5) Public notice and a reasonable opportunity for public comment shall be provided before granting or denying a petition.

(i) Each application for a site-specific variance from a treatment standard shall include the information in Subsections R315-260-20(b)(1)-(4);

(j) After receiving an application for a site-specific variance from a treatment standard, the Director may request any additional information or samples which may be required to evaluate the application.

(k) A generator, treatment facility, or disposal facility that is managing a waste covered by a site-specific variance from a treatment standard shall comply with the waste analysis requirements for restricted wastes found under Section R315-268-7.

(l) During the application review process, the applicant for a site-specific variance shall comply with all restrictions on land disposal under Rule R315-268 once the effective date for the waste has been reached.

(m) For all variances, the petitioner shall also demonstrate that compliance with any given treatment variance is sufficient to minimize threats to human health and the environment posed by land disposal of the waste. In evaluating this demonstration, EPA or the Director, whichever is applicable, may take into account whether a treatment variance should be approved if the subject waste is to be used in a manner constituting disposal pursuant to Sections R315-266-20 through 23.

(n) [Reserved]

(o) The following facilities are excluded from the treatment standards under Section R315-268-40, and are subject to the following constituent concentrations: EnergySolutions LLC, Clive, UT - This site-specific treatment variance applies only to solid treatment residue resulting from the vacuum thermal desorption (VTD) of P- and U-listed hazardous waste containing radioactive contamination, “mixed waste,” at the EnergySolutions' LLC facility in Clive, Utah that otherwise requires CMBST as the LDR treatment standard. Once the P- and U-listed mixed

waste are treated using VTD, the solid treatment residue can be land disposed at EnergySolutions' onsite RCRA permitted mixed waste landfill without further treatment. This treatment variance is conditioned on EnergySolutions complying with a Waste Family Demonstration Testing Plan specifically addressing the treatment of these P- and U-listed wastes, with this plan being implemented through a RCRA Part B permit modification for the VTD unit.

R315-268-45. Land Disposal Restrictions - Treatment Standards For Hazardous Debris.

(a) Treatment standards. Hazardous debris shall be treated prior to land disposal as follows unless the Director determines under Subsection R315-261-3(f)(2) that the debris is no longer contaminated with hazardous waste or the debris is treated to the waste-specific treatment standard provided in Sections R315-268-40 through 49 for the waste contaminating the debris:

(1) General. Hazardous debris shall be treated for each “contaminant subject to treatment” defined by Subsection R315-268-45(b) using the technology or technologies identified in Table 1 of Section R315-268-45.

(2) Characteristic debris. Hazardous debris that exhibits the characteristic of ignitability, corrosivity, or reactivity identified under Sections R315-261-21, 22, and 23, respectively, shall be deactivated by treatment using one of the technologies identified in Table 1 of Section R315-268-45.

(3) Mixtures of debris types. The treatment standards of Table 1 in Section R315-268-45 shall be achieved for each type of debris contained in a mixture of debris types. If an immobilization technology is used in a treatment train, it shall be the last treatment technology used.

(4) Mixtures of contaminant types. Debris that is contaminated with two or more contaminants subject to treatment identified under Subsection R315-268-45(b) shall be treated for each contaminant using one or more treatment technologies identified in Table 1 of Section R315-268-45. If an immobilization technology is used in a treatment train, it shall be the last treatment technology used.

(5) Waste PCBs. Hazardous debris that is also a waste PCB under 40 CFR part 761 is subject to the requirements of either 40 CFR part 761 or the requirements of Section R315-268-45, whichever are more stringent.

(b) Contaminants subject to treatment. Hazardous debris shall be treated for each “contaminant subject to treatment.” The contaminants subject to treatment shall be determined as follows:

(1) Toxicity characteristic debris. The contaminants subject to treatment for debris that exhibits the Toxicity Characteristic (TC) by Section R315-261-24 are those EP constituents for which the debris exhibits the TC toxicity characteristic.

(2) Debris contaminated with listed waste. The contaminants subject to treatment for debris that is contaminated with a prohibited listed hazardous waste are those constituents or wastes for which treatment standards are established for the waste under Section R315-268-40.

(3) Cyanide reactive debris. Hazardous debris that is reactive because of cyanide shall be treated for cyanide.

(c) Conditioned exclusion of treated debris. Hazardous debris that has been treated using one of the specified extraction or destruction technologies in Table 1 of Section R315-268-45 and that does not exhibit a characteristic of hazardous waste identified under Sections R315-261-20 through 24 after treatment is not a hazardous waste and need not be managed in a hazardous waste facility. Hazardous debris contaminated with a listed waste that is treated by an immobilization technology specified in Table 1 is a hazardous waste and shall be managed in a hazardous waste facility.

(d) Treatment residuals

(1) General requirements. Except as provided by Subsections R315-268-45(d)(2) and (d)(4):

(i) Residue from the treatment of hazardous debris shall be separated from the treated debris using simple physical or mechanical means; and

(ii) Residue from the treatment of hazardous debris is subject to the waste-specific treatment standards provided by Sections R315-268-40 through 49 for the waste contaminating the debris.

(2) Nontoxic debris. Residue from the deactivation of ignitable, corrosive, or reactive characteristic hazardous debris, other than cyanide-reactive, that is not contaminated with a contaminant subject to treatment defined by Subsection R315-268-45(b), shall be deactivated prior to land disposal and is not subject to the waste-specific treatment standards of Sections R315-268-40 through 49.

(3) Cyanide-reactive debris. Residue from the treatment of debris that is reactive because of cyanide shall meet the treatment standards for D003 in “Treatment Standards for Hazardous Wastes” at Section R315-268-40.

(4) Ignitable nonwastewater residue. Ignitable nonwastewaster residue containing equal to or greater than 10% total organic carbon is subject to the technology specified in the treatment standard for D001: Ignitable Liquids.

(5) Residue from spalling. Layers of debris removed by spalling are hazardous debris that remain subject to the treatment standards of Section R315-268-45.

Table 1-Alternative Treatment Standards For Hazardous Debris, including footnotes found in 40 CFR 268.45, 2015 edition, is adopted and incorporated by reference.

R315-268-46. Land Disposal Restrictions - Alternative Treatment Standards Based On HTMR.

For the treatment standards previously found in Section R315-268-46, refer to Section R315-268-40.

R315-268-48. Land Disposal Restrictions - Universal Treatment Standards.

(a) Table UTS identifies the hazardous constituents, along with the nonwastewater and wastewater treatment standard levels, that are used to regulate most prohibited hazardous wastes with numerical limits. For determining compliance with treatment standards for underlying hazardous constituents as defined in Subsection R315-268-2(i), these treatment standards may not be exceeded. Compliance with these treatment standards is measured by an analysis of grab samples, unless otherwise noted in the following Table UTS.

Table - Universal Treatment Standards (UTS)

Note: NA means not applicable

Regulated constituent common name	**CAS[1] number**	**Wastewater standard Concentration[2] in mg/l**	**Nonwastewater standard Concentration[3] in mg/kg unless noted as**

			"mg/l TCLP"
Organic Constituents			
Acenaphthylene	208-96-8	0.059	3.4
Acenaphthene	83-32-9	0.059	3.4
Acetone	67-64-1	0.28	160
Acetonitrile	75-05-8	5.6	38
Acetophenone	96-86-2	0.010	9.7
2-Acetylaminofluorene	53-96-3	0.059	140
Acrolein	107-02-8	0.29	NA
Acrylamide	79-06-1	19	23
Acrylonitrile	107-13-1	0.24	84
Aldrin	309-00-2	0.021	0.066
4-Aminobiphenyl	92-67-1	0.13	NA
Aniline	62-53-3	0.81	14
o-Anisidine (2-methoxyaniline)	90-04-0	0.010	0.66
Anthracene	120-12-7	0.059	3.4
Aramite	140-57-8	0.36	NA
alpha-BHC	319-84-6	0.00014	0.066
beta-BHC	319-85-7	0.00014	0.066
delta-BHC	319-86-8	0.023	0.066
gamma-BHC	58-89-9	0.0017	0.066
Benzene	71-43-2	0.14	10
Benz(a)anthracene	56-55-3	0.059	3.4
Benzal chloride	98-87-3	0.055	6.0
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
Benzo(a)pyrene	50-32-8	0.061	3.4
Bromodichloromethane	75-27-4	0.35	15
Bromomethane/Methyl bromide	74-83-9	0.11	15
4-Bromophenyl phenyl ether	101-55-3	0.055	15
n-Butyl alcohol	71-36-3	5.6	2.6
Butyl benzyl phthalate	85-68-7	0.017	28
2-sec-Butyl-4,6-dinitrophenol/Dinoseb	88-85-7	0.066	2.5
Carbon disulfide	75-15-0	3.8	4.8 mg/l

			TCLP
Carbon tetrachloride	56-23-5	0.057	6.0
Chlordane (alpha and gamma isomers)	57-74-9	0.0033	0.26
p-Chloroaniline	106-47-8	0.46	16
Chlorobenzene	108-90-7	0.057	6.0
Chlorobenzilate	510-15-6	0.10	NA
2-Chloro-1,3-butadiene	126-99-8	0.057	0.28
Chlorodibromomethane	124-48-1	0.057	15
Chloroethane	75-00-3	0.27	6.0
bis(2-Chloroethoxy) methane	111-91-1	0.036	7.2
bis(2-Chloroethyl)ether	111-44-4	0.033	6.0
Chloroform	67-66-3	0.046	6.0
bis(2-Chloroisopropyl) ether	39638-32-9	0.055	7.2
p-Chloro-m-cresol	59-50-7	0.018	14
2-Chloroethyl vinyl ether	110-75-8	0.062	NA
Chloromethane/Methyl chloride	74-87-3	0.19	30
2-Chloronaphthalene	91-58-7	0.055	5.6
2-Chloropchenol	95-57-8	0.044	5.7
3-Chloropropylene	107-05-1	0.036	30
Chrysene	218-01-9	0.059	3.4
p-Cresidine	120-71-8	0.010	0.66
o-Cresol	95-48-7	0.11	5.6
m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
Cyclohexanone	108-94-1	0.36	0.75 mg/l
			TCLP
o,p'-DDD	53-19-0	0.023	0.087
p,p'-DDD	72-54-8	0.023	0.087
o,p'-DDE	3424-82-6	0.031	0.087
p,p'-DDE	72-55-9	0.031	0.087
o,p'-DDT	789-02-6	0.0039	0.087
p,p'-DDT	50-29-3	0.0039	0.087
Dibenz(a,h)anthracene	53-70-3	0.055	8.2
Dibenz(a,e)pyrene	192-65-4	0.061	NA
1,2-Dibromo-3-	96-12-8	0.11	15

chloropropane			
1,2-Dibromoethane/ Ethylene dibromide	106-93-4	0.028	15
Dibromomethane	74-95-3	0.11	15
m-Dichlorobenzene	541-73-1	0.036	6.0
o-Dichlorobenzene	95-50-1	0.088	6.0
p-Dichlorobenzene	106-46-7	0.090	6.0
Dichlorodifluoromethane	75-71-8	0.23	7.2
1,1-Dichloroethane	75-34-3	0.059	6.0
1,2-Dichloroethane	107-06-2	0.21	6.0
1,1-Dichloroethylene	75-35-4	0.025	6.0
trans-1,2-Dichloroethylene	156-60-5	0.054	30
2,4-Dichlorophenol	120-83-2	0.044	14
2,6-Dichlorophenol	87-65-0	0.044	14
2,4-Dichlorophenoxyacetic acid/2,4-D	94-75-7	0.72	10
1,2-Dichloropropane	78-87-5	0.85	18
cis-1,3-Dichloropropylene	10061-01-5	0.036	18
trans-1,3-Dichloropropylene	10061-02-6	0.036	18
Dieldrin	60-57-1	0.017	0.13
Diethyl phthalate	84-66-2	0.20	28
p-Dimethylaminoazobenzene	60-11-7	0.13	NA
2,4-Dimethylaniline (2,4-xylidine)	95-68-1	0.010	0.66
2,4-Dimethyl phenol	105-67-9	0.036	14
Dimethyl phthalate	131-11-3	0.047	28
Di-n-butyl phthalate	84-74-2	0.057	28
1,4-Dinitrobenzene	100-25-4	0.32	2.3
4,6-Dinitro-o-cresol	534-52-1	0.28	160
2,4-Dinitrophenol	51-28-5	0.12	160
2,4-Dinitrotoluene	121-14-2	0.32	140
2,6-Dinitrotoluene	606-20-2	0.55	28
Di-n-octyl phthalate	117-84-0	0.017	28
Di-n-propylnitrosamine	621-64-7	0.40	14
1,4-Dioxane	123-91-1	12.0	170
Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	0.92	13
Diphenylnitrosamine (difficult to	86-30-6	0.92	13

distinguish from diphenylamine)			
1,2-Diphenylhydrazine	122-66-7	0.087	NA
Disulfoton	298-04-4	0.017	6.2
Endosulfan I	959-98-8	0.023	0.066
Endosulfan II	33213-65-9	0.029	0.13
Endosulfan sulfate	1031-07-8	0.029	0.13
Endrin	72-20-8	0.0028	0.13
Endrin aldehyde	7421-93-4	0.025	0.13
Ethyl acetate	141-78-6	0.34	33
Ethyl benzene	100-41-4	0.057	10
Ethyl cyanide/ Propanenitrile	107-12-0	0.24	360
Ethyl ether	60-29-7	0.12	160
bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
Ethyl methacrylate	97-63-2	0.14	160
Ethylene oxide	75-21-8	0.12	NA
Famphur	52-85-7	0.017	15
Fluoranthene	206-44-0	0.068	3.4
Fluorene	86-73-7	0.059	3.4
Heptachlor	76-44-8	0.0012	0.066
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)	35822-46-9	0.000035	.0025
1,2,3,4,6,7,8-Heptachlorodibenzofluran (1,2,3,4,6,7,8-HpCDF)	67562-39-4	0.000035	.0025
1,2,3,4,7,8,9-Heptachlorodibenzofluran (1,2,3,4,7,8,9-HpCDF)	55673-89-7	0.000035	.0025
Heptachlor epoxide	1024-57-3	0.016	0.066
Hexachlorobenzene	118-74-1	0.055	10
Hexachlorobutadiene	87-68-3	0.055	5.6
Hexachlorocyclopentadiene	77-47-4	0.057	2.4
HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	0.000063	0.001
HxCDFs (All Hexachlorodibenzofurans)	NA	0.000063	0.001
Hexachloroethane	67-72-1	0.055	30
Hexachloropropylene	1888-71-7	0.035	30
Indeno(1,2,3-c,d) pyrene	193-39-5	0.0055	3.4

Iodomethane	74-88-4	0.19	65
Isobutyl alcohol	78-83-1	5.6	170
Isodrin	465-73-6	0.021	0.066
Isosafrole	120-58-1	0.081	2.6
Kepone	143-50-0	0.0011	0.13
Methacrylonitrile	126-98-7	0.24	84
Methanol	67-56-1	5.6 0	.75 mg/l TCLP
Methapyrilene	91-80-5	0.081	1.5
Methoxychlor	72-43-5	0.25	0.18
3-Methylcholanthrene	56-49-5	0.0055	15
4,4-Methylene bis (2-chloroaniline)	101-14-4	0.50	30
Methylene chloride	75-09-2	0.089	30
Methyl ethyl ketone	78-93-3	0.28	36
Methyl isobutyl ketone	108-10-1	0.14	33
Methyl methacrylate	80-62-6	0.14	160
Methyl methanesulfonate	66-27-3	0.018	NA
Methyl parathion	298-00-0	0.014	4.6
Naphthalene	91-20-3	0.059	5.6
2-Naphthylamine	91-59-8	0.52	NA
o-Nitroaniline	88-74-4	0.27	14
p-Nitroaniline	100-01-6	0.028	28
Nitrobenzene	98-95-3	0.068	14
5-Nitro-o-toluidine	99-55-8	0.32	28
o-Nitrophenol	88-75-5	0.028	13
p-Nitrophenol	100-02-7	0.12	29
N-Nitrosodiethylamine	55-18-5	0.40	28
N-Nitrosodimethylamine	62-75-9	0.40	2.3
N-Nitroso-di-n-butylamine	924-16-3	0.40	17
N-Nitrosomethylethylamine	10595-95-6	0.40	2.3
N-Nitrosomorpholine	59-89-2	0.40	2.3
N-Nitrosopiperidine	100-75-4	0.013	35
N-Nitrosopyrrolidine	930-55-2	0.013	35
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	0.000063	0.005
1,2,3,4,6,7,8,9-Octachlorodibenzofluran (OCDF)	39001-02-0	0.000063	0.005
Parathion	56-38-2	0.014	4.6
Total PCBs (sum of all PCB isomers, or all	1336-36-3	0.10	10

Aroclors)[8]			
Pentachlorobenzene	608-93-5	0.055	10
PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	0.000063	0.001
PeCDFs (All Pentachlorodibenzofurans)	NA	0.000035	0.001
Pentachloroethane	76-01-7	0.055	6.0
Pentachloronitrobenzene	82-68-8	0.055	4.8
Pentachlorophenol	87-86-5	0.089	7.4
Phenacetin	62-44-2	0.081	16
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
1,3-Phenylenediamine	108-45-2	0.010	0.66
Phorate	298-02-2	0.021	4.6
Phthalic acid	100-21-0	0.055	28
Phthalic anhydride	85-44-9	0.055	28
Pronamide	23950-58-5	0.093	1.5
Pyrene	129-00-0	0.067	8.2
Pyridine	110-86-1	0.014	16
Safrole	94-59-7	0.081	22
Silvex/2,4,5-TP	93-72-1	0.72	7.9
1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	0.000063	0.001
TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0
Tetrachloroethylene	127-18-4	0.056	6.0
2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
Toluene	108-88-3	0.080	10
Toxaphene	8001-35-2	0.0095	2.6
Tribromomethane/Bromoform	75-25-2	0.63	15
1,2,4-Trichlorobenzene	120-82-1	0.055	19
1,1,1-Trichloroethane	71-55-6	0.054	6.0
1,1,2-Trichloroethane	79-00-5	0.054	6.0
Trichloroethylene	79-01-6	0.054	6.0
Trichlorofluoromethane	75-69-4	0.020	30

2,4,5-Trichlorophenol	95-95-4	0.18	7.4
2,4,6-Trichlorophenol	88-06-2	0.035	7.4
2,4,5-Trichlorophenoxyacetic acid/2,4,5-T	93-76-5	0.72	7.9
1,2,3-Trichloropropane	96-18-4	0.85	30
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.057	30
tris-(2,3-Dibromopropyl) phosphate	126-72-7	0.11	0.10
Vinyl chloride	75-01-4	0.27	6.0
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Inorganic Constituents			
Antimony	7440-36-0	1.9	1.15 mg/l TCLP
Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
Barium	7440-39-3	1.2	21 mg/l TCLP
Beryllium	7440-41-7	0.82	1.22 mg/l TCLP
Cadmium	7440-43-9	0.69	0.11 mg/l TCLP
Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
Cyanides (Total)[4]	57-12-5	1.2	590
Cyanides (Amenable)[4]	57-12-5	0.86	30
Fluoride[5]	16984-48-8	35	NA
Lead	7439-92-1	0.69	0.75 mg/l TCLP
Mercury—Nonwastewater from Retort	7439-97-6	NA	0.20 mg/l TCLP
Mercury-All Others	7439-97-6	0.15	0.025 mg/l TCLP
Nickel	7440-02-0	3.98	11 mg/l TCLP
Selenium[7]	7782-49-2	0.82	5.7 mg/l TCLP
Silver	7440-22-4	0.43	0.14 mg/l TCLP
Sulfide[5]	18496-25-8	14	NA

Thallium	7440-28-0	1.4	0.20 mg/l TCLP
Vanadium[5]	7440-62-2	4.3	1.6 mg/l TCLP
Zinc[5]	7440-66-6	2.61	4.3 mg/l TCLP

Footnotes to Table UTS

1 CAS means Chemical Abstract Services. When the waste code and/or regulated constituents are described as a combination of a chemical with it's salts and/or esters, the CAS number is given for the parent compound only.
2 Concentration standards for wastewaters are expressed in mg/l and are based on analysis of composite samples.
3 Except for Metals (EP or TCLP) and Cyanides (Total and Amenable) the nonwastewater treatment standards expressed as a concentration were established, inpart, based upon incineration in units operated in accordance with the technical requirements of Sections R315-264-340 through 351 or 40 CFR 265.340 through 352, which are adopted by reference, or based upon combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in Subsection R315-268-40(d). All concentration standards for nonwastewaters are based on analysis of grab samples.
4 Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010C or 9012B, found in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW-846, as incorporated by reference in Section R315-260-11, with a sample size of 10 grams and a distillation time of one hour and 15 minutes.
5 These constituents are not “underlying hazardous constituents” in characteristic wastes, according to the definition at Subsection R315-268-2(i).
6 Reserved
7 This constituent is not an underlying hazardous constituent as defined at Subsection R315-268-2(i) because its UTS level is greater than its TC level, thus a treatment selenium waste would always be characteristically hazardous, unless it is treated to below its characteristic level.

8 This standard is temporarily deferred for soil exhibiting a hazardous characteristic due to D004-D011 only.

R315-268-49. Land Disposal Restrictions - Alternative LDR Treatment Standards For Contaminated Soil.

(a) Applicability. You shall comply with LDRs prior to placing soil that exhibits a characteristic of hazardous waste, or exhibited a characteristic of hazardous waste at the time it was generated, into a land disposal unit. The following chart describes whether you shall comply with LDRs prior to placing soil contaminated by listed hazardous waste into a land disposal unit:

If LDRs	And if LDRs	And if	Then you
Applied to the listed waste when it contaminated the soil*	Apply to the listed waste now		Shall comply with LDRs.
Didn't apply to the listed waste when it contaminated the soil*	Apply to the listed waste now	The soil is determined to contain the listed waste when the soil is first generated	Shall comply with LDRs.
Didn't apply to the listed waste when it contaminated the soil*	Apply to the listed waste now	The soil is determined not to contain the listed waste when the soil is first generated	Need not comply with LDRs.
Didn't apply to the listed waste when it contaminated the soil*	Don't apply to the listed waste now		Need not comply with LDRs.

*For dates of LDR applicability, see Rule R315-268 Appendix VII. To determine the date any given listed hazardous waste contaminated any given volume of soil, use the last date

any given listed hazardous waste was placed into any given land disposal unit or, in the case of an accidental spill, the date of the spill.

(b) Prior to land disposal, contaminated soil identified by Subsection R315-268-49(a) as needing to comply with LDRs shall be treated according to the applicable treatment standards specified in Subsection R315-268-49(c) or according to the Universal Treatment Standards specified in Section R315-268-48 applicable to the contaminating listed hazardous waste and/or the applicable characteristic of hazardous waste if the soil is characteristic. The treatment standards specified in Subsection R315-268-49(c) and the Universal Treatment Standards may be modified through a treatment variance approved in accordance with Section R315-268-44.

(c) Treatment standards for contaminated soils. Prior to land disposal, contaminated soil identified by Subsection R315-268-49(a) as needing to comply with LDRs shall be treated according to all the standards specified in Subsection R315-268-49(c) or according to the Universal Treatment Standards specified in Section R315-268-48.

(1) All soils. Prior to land disposal, all constituents subject to treatment shall be treated as follows:

(A) For non-metals except carbon disulfide, cyclohexanone, and methanol, treatment shall achieve 90 percent reduction in total constituent concentrations, except as provided by Subsection R315-268-49(c)(1)(C).

(B) For metals and carbon disulfide, cyclohexanone, and methanol, treatment shall achieve 90 percent reduction in constituent concentrations as measured in leachate from the treated media, tested according to the TCLP, or 90 percent reduction in total constituent concentrations, when a metal removal treatment technology is used, except as provided by Subsection R315-268-49(c)(1)(C).

(C) When treatment of any constituent subject to treatment to a 90 percent reduction standard would result in a concentration less than 10 times the Universal Treatment Standard for that constituent, treatment to achieve constituent concentrations less than 10 times the universal treatment standard is not required. Universal Treatment Standards are identified in Section R315-268-48 Table UTS.

(2) Soils that exhibit the characteristic of ignitability, corrosivity or reactivity. In addition to the

treatment required by Subsection R315-268-49(c)(1), prior to land disposal, soils that exhibit the characteristic of ignitability, corrosivity, or reactivity shall be treated to eliminate these characteristics.

(3) Soils that contain nonanalyzable constituents. In addition to the treatment requirements of Subsections R315-268-49(c)(1) and (2), prior to land disposal, the following treatment is required for soils that contain nonanalyzable constituents:

(A) For soil that contains only analyzable and nonanalyzable organic constituents, treatment of the analyzable organic constituents to the levels specified in Subsections R315-268-49(c)(1) and (2); or,

(B) For soil that contains only nonanalyzable constituents, treatment by the method(s) specified in Section R315-268-42 for the waste contained in the soil.

(d) Constituents subject to treatment. When applying the soil treatment standards in Subsection R315-268-49(c), constituents subject to treatment are any constituents listed in Section R315-268-48 Table UTS-Universal Treatment Standards that are reasonably expected to be present in any given volume of contaminated soil, except fluoride, selenium, sulfides, vanadium, zinc, and that are present at concentrations greater than ten times the universal treatment standard. PCBs are not constituent subject to treatment in any given volume of soil which exhibits the toxicity characteristic solely because of the presence of metals.

(e) Management of treatment residuals. Treatment residuals from treating contaminated soil identified by Subsection R315-268-49(a) as needing to comply with LDRs shall be managed as follows:

(1) Soil residuals are subject to the treatment standards of Section R315-268-49;

(2) Non-soil residuals are subject to:

(A) For soils contaminated by listed hazardous waste, the hazardous waste standards applicable to the listed hazardous waste; and

(B) For soils that exhibit a characteristic of hazardous waste, if the non-soil residual also exhibits a characteristic of hazardous waste, the treatment standards applicable to the characteristic hazardous waste.

R315-268-50. Land Disposal Restrictions - Prohibitions On Storage Of Restricted Wastes.

(a) Except as provided in Section R315-268-50, the storage of hazardous wastes restricted from land disposal under Sections R315-268-20 through 39 is prohibited, unless the following conditions are met:

(1) A generator stores such wastes in tanks, containers, or containment buildings on-site solely for the purpose of the accumulation of such quantities of hazardous waste as necessary to facilitate proper recovery, treatment, or disposal and the generator complies with the requirements in Section R315-262-34 and Rules R315-264 and 265.

(2) An owner/operator of a hazardous waste treatment, storage, or disposal facility stores such wastes in tanks, containers, or containment buildings solely for the purpose of the accumulation of such quantities of hazardous waste as necessary to facilitate proper recovery, treatment, or disposal and:

(i) Each container is clearly marked to identify its contents and the date each period of accumulation begins;

(ii) Each tank is clearly marked with a description of its contents, the quantity of each hazardous waste received, and the date each period of accumulation begins, or such information for each tank is recorded and maintained in the operating record at that facility. Regardless of whether the tank itself is marked, an owner/operator shall comply with the operating record requirements specified in Section R315-264-73 or 40 CFR 265.73, which are adopted by reference.

(3) A transporter stores manifested shipments of such wastes at a transfer facility for 10 days or less.

(b) An owner/operator of a treatment, storage or disposal facility may store such wastes for up to one year unless the Director can demonstrate that such storage was not solely for the purpose of accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal.

(c) An owner/operator of a treatment, storage or disposal facility may store such wastes beyond one year; however, the owner/operator bears the burden of proving that such storage was solely for the purpose of accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal.

(d) If a generator's waste is exempt from a prohibition on the type of land disposal utilized for the

waste, for example, because of an approved case-by-case extension under Section R315-268-5, an approved Section R315-268-6 petition, or a national capacity variance under Sections R315-268-20 through 39, the prohibition in Subsection R315-268-50(a) does not apply during the period of such exemption.

(e) The prohibition in Subsection R315-268-50(a) does not apply to hazardous wastes that meet the treatment standards specified under Sections R315-268-41, 42, and 43 or the treatment standards specified under the variance in Section R315-268-44, or, where treatment standards have not been specified, is in compliance with the applicable prohibitions specified in Section R315-268-32 or RCRA section 3004.

(f) Liquid hazardous wastes containing polychlorinated biphenyls (PCBs) at concentrations greater than or equal to 50 ppm shall be stored at a facility that meets the requirements of 40 CFR 761.65(b) and shall be removed from storage and treated or disposed as required by Rule R315-268 within one year of the date when such wastes are first placed into storage. The provisions of Subsection R315-268-50(c) do not apply to such PCB wastes prohibited under Section R315-268-32.

(g) The prohibition and requirements in Section R315-268-50 do not apply to hazardous remediation wastes stored in a staging pile approved pursuant to Section R315-264-554.

Appendix III to Rule R315-268-List of Halogenated Organic Compounds Regulated Under Section R315-268-32

In determining the concentration of HOCs in a hazardous waste for purposes of the Section R315-268-32 land disposal prohibition, the Director has defined the HOCs that shall be included in a calculation as any compounds having a carbon-halogen bond which are listed in this Appendix, see Section R315-268-2. Appendix III to Rule R315-268 consists of the following compounds:

I. Volatiles

1. Bromodichloromethane
2. Bromomethane
3. Carbon Tetrachloride
4. Chlorobenzene

5. 2-Chloro-1,3-butadiene
6. Chlorodibromomethane
7. Chloroethane
8. 2-Chloroethyl vinyl ether
9. Chloroform
10. Chloromethane
11. 3-Chloropropene
12. 1,2-Dibromo-3-chloropropane
13. 1,2-Dibromomethane
14. Dibromomethane
15. Trans-1,4-Dichloro-2—butene
16. Dichlorodifluoromethane
17. 1,1-Dichloroethane
18. 1,2-Dichloroethane
19. 1,1-Dichloroethylene
20. Trans-1,2-Dichloroethene
21. 1,2-Dichloropropane
22. Trans-1,3-Dichloropropene
23. cis-1,3-Dichloropropene
24. Iodomethane
25. Methylene chloride
26. 1,1,1,2-Tetrachloroethane
27. 1,1,2,2-Tetrachloroethane
28. Tetrachloroethene
29. Tribromomethane
30. 1,1,1-Trichloroethane
31. 1,1,2-Trichloroethane
32. Trichlorothene
33. Trichloromonofluoromethane
34. 1,2,3-Thrichloropropane
35. Vinyl Chloride
II. Semivolatiles
1. Bis(2-chloroethoxy)ethane
2. Bis(2-chloroethyl)ether
3. Bis(2-chloroisopropyl)ether
4. p-Chloroaniline
5. Chlorobenzilate
6. p-Chloro-m-cresol
7. 2-Chloronaphthalene
8. 2-Chlorphenol
9. 3-Chloropropionitrile
10. m-Dichlorobenzene
11. o-Dichlorobenzene
12. p-Dichlorobenzene

13. 3.3′-Dichlorobenzidine
14. 2,4-Dichlorophenol
15. 2,6-Dichlorophenol
16. Hexachlorobenzene
17. Hexachlorobutadiene
18. Hexachlorocyclopentadiene
19. Hexachloroethane
20. Hexachloroprophene
21. Hexachlorpropene
22. 4,4′-Methylenebis(2-chloroanaline)
23. Pentachlorobenzene
24. Pentachloroethane
25. Pentachloronitrobenzene
26. Pentachlorophenol
27. Pronamide
28. 1,2,4,5-Tetrachlorobenzene
29. 2,3,4,6-Tetrachlorophenol
30. 1,2,4-Trichlorobenzene
31. 2,4,5-Trichlorophenol
32. 2,4,6-Trichlorophenol
33. Tris(2,3-dibromopropyl)phosphate

III. Organochlorine Pesticides

1. Aldrin
2. alpha-BHC
3. beta-BHC
4. delta-BHC
5. gamma-BHC
6. Chlorodane
7. DDD
8. DDE
9. DDT
10. Dieldrin
11. Endosulfan I
12. Endosulfan II
13. Endrin
14. Endrin aldehyde
15. Heptachlor
16. Heptachlor epoxide
17. Isodrin
18. Kepone
19. Methoxyclor
20. Toxaphene

IV. Phenoxyacetic Acid Herbicides

1. 2,4-Dichlorophenoxyacetic acid
2. Silvex
3. 2,4,5-T
V. PCBs
1. Aroclor 1016
2. Aroclor 1221
3. Aroclor 1232
4. Aroclor 1242
5. Aroclor 1248
6. Aroclor 1254
7. Aroclor 1260
8. PCBs not otherwise specified

VI. Dioxins and Furans
1. Hexachlorodibenzo-p-dioxins
2. Hexachlorodibenzofuran
3. Pentachlorodibenzo-p-dioxins
4. Pentachlorodibenzofuran
5. Tetrachlorodibenzo-p-dioxins
6. Tetrachlorodibenzofuran
7. 2,3,7,8-Tetrachlorodibenzo-p-dioxin

Appendix IV to Rule R315-268-Wastes Excluded From Lab Packs Under the Alternative Treatment Standards of Subsection R315-268-42(c)

Hazardous waste with the following EPA Hazardous Waste Codes may not be placed in lab packs under the alternative lab pack treatment standards of Subsection R315-268-42(c): D009, F019, K003, K004, K005, K006, K062, K071, K100, K106, P010, P011, P012, P076, P078, U134, U151.

Appendix VI to Rule R315-268—Recommended Technologies To Achieve Deactivation of Characteristics in Section R315-268-42

The treatment standard for many characteristic wastes is stated in the Section R315-268-40 Table of Treatment Standards as “Deactivation and meet UTS.” The Director has determined that many technologies, when used alone or in combination, can achieve the deactivation portion of the treatment standard. Characteristic wastes that are not managed in a facility regulated by the Clean Water Act (CWA) or in a CWA-equivalent facility, and that also contain underlying hazardous constituents, see Subsection

R315-268-2(i), shall be treated not only by a "deactivating" technology to remove the characteristic, but also to achieve the universal treatment standards (UTS) for underlying hazardous constituents. The following appendix presents a partial list of technologies, utilizing the five letter technology codes established in Section R315-268-42 Table 1, that may be useful in meeting the treatment standard. Use of these specific technologies is not mandatory and does not preclude direct reuse, recovery, and/or the use of other pretreatment technologies, provided deactivation is achieved and underlying hazardous constituents are treated to achieve the UTS.

Waste code/subcategory	Nonwastewaters	Wastewaters
D001 Ignitable Liquids based on R315-261-21(a)(1)-Low TOC Nonwastewater Subcategory, containing 1% to <10% TOC	RORGS INCIN WETOX CHOXD BIODG	n.a.
D001 Ignitable Liquids based on Subsection R315-261-21(a)(1) -Ignitable Wastewater Subcategory, containing <1% TOC	n.a.	RORGS INCIN WETOX CHOXD BIODG
D001 Compressed Gases based on Subsection R315-261-21(A)(3)	RCGAS INCIN FSUBS ADGAS fb. INCIN ADGAS fb. (CHOXD; or CHRED)	n.a.
D001 Ignitable Reactives based on Subsection R315-261-21(a)(2)	WTRRX CHOXD CHRED STABL INCIN	n.a.
D001 Ignitable Oxidizers based on Subsection R315-261-21(a)(4)	CHRED INCIN	CHRED INCIN
D002 Acid Subcategory based on	RCORR NEUTR	NEUTR INCIN

Subsection R315-261-22(a)(1) with pH less than or equal to 2	INCIN	
D002 Alkaline Subcategory based on Subsection R315-261-22(a)(1) with pH greater than or equal to 12.5	NEUTR INCIN	NEUTR INCIN
D002 Other Corrosives based on Subsection R315-261-22(a)(2)	CHOXD CHRED INCIN STABL	CHOXD CHRED INCIN
D003 Water Reactives based on Subsections R315-268-23(a)(2), (3), and (4)	INCIN WTRRX CHOXD CHRED	n.a.
D003 Reactive Sulfides based on Subsection R315-261-23(a)(5)	CHOXD CHRED INCIN STABL	CHOXD CHRED BIODG INCIN
D003 Explosives based on Subsection R315-261-23(a)(6), (7), and (8)	INCIN CHOXD CHRED	INCIN CHOXD CHRED
D003 Other Reactives based on Subsection R315-261-23(a)(1)	INCIN CHOXD CHRED	INCIN CHOXD CHRED BIODG CARBN
K044 Wastewater treatment sludges from the manufacturing and processing of explosives	CHOXD CHRED INCIN	CHOXD CHRED BIODG CARBN INCIN
K045 Spent carbon from the treatment of wastewaters containing explosives	CHOXD CHRED INCIN	CHOXD CHRED BIODG CARBN

		INCIN
K047 Pink/red water from TNT operations	CHOXD CHRED INCIN	CHOXD CHRED BIODG CARBN INCIN

Note: “n.a.” stands for “not applicable”; “fb.” stands for “followed by”.

Appendix VII to Rule R315-268-LDR Effective Dates of Surface Disposed Prohibited Hazardous Wastes

Table 1-Effective Dates of Surface Disposed Wastes, Non-Soil and Debris, Regulated in the LDRS[a]—Comprehensive List

Waste Code	Waste category	Effective date
D001[c]	All (except High TOC Ignitable Liquids)	Aug. 9, 1993.
D001	High TOC Ignitable Liquids,	Aug. 8, 1990.
D002[c]	All	Aug. 9, 1993.
D003	Newly identified surface-disposed elemental phosphorus processing wastes.	May 26, 2000
D004	Newly identified D004 and mineral processing wastes	Aug. 24, 1998.
D004	Mixed radioactive/newly identified D004 or mineral processing wastes	May 26, 2000
D005	Newly identified D005 and mineral processing wastes	Aug. 24, 1998.
D005	Mixed radioactive/newly identified D005 or mineral processing wastes	May 26, 2000.
D006	Newly identified D006 and mineral processing wastes	Aug. 24, 1998.
D006	Mixed radioactive/newly identified D006 or mineral processing wastes	May 26, 2000.
D007	Newly identified D007 and mineral processing wastes	Aug. 24, 1998.
D007	Mixed radioactive/newly identified D007 or mineral processing wastes	May 26, 2000.

D008	Newly identified D008 and mineral processing waste	Aug. 24, 1998.
D008	Mixed radioactive/newly identified D008 or mineral processing wastes,	May 26, 2000.
D009	Newly identified D009 and mineral processing waste	Aug. 24, 1998.
D009	Mixed radioactive/newly identified D009 or mineral processing wastes	May 26, 2000.
D010	Newly identified D010 and mineral processing wastes	Aug. 24, 1998.
D010	Mixed radioactive/newly identified D010 or mineral processing wastes	May 26, 2000.
D011	Newly identified D011 and mineral processing wastes	Aug. 24, 1998.
D011	Mixed radioactive/newly identified D011 or mineral processing wastes	May 26, 2000.
D012 (that exhibit the toxicity characteristic based on the TCLP)[d]	All	Dec. 14, 1994
D013 (that exhibit the toxicity characteristic based on the TCLP)[d]	All	Dec. 14, 1994
D014 (that exhibit the toxicity characteristic based on the TCLP)[d]	All	Dec. 14, 1994
D015 (that exhibit the toxicity characteristic based on the TCLP)[d]	All	Dec. 14, 1994
D016 (that exhibit the toxicity characteristic based on the	All	Dec. 14, 1994

TCLP)[d]		
D017 (that exhibit the toxicity characteristic based on the TCLP)[d]	All	Dec. 14, 1994
D018	Mixed with radioactive wastes	Sept. 19, 1996.
D018	All others	Dec. 19, 1994.
D019	Mixed with radioactive wastes	Sept. 19, 1996.
D019	All others	Dec. 19, 1994.
D020	Mixed with radioactive wastes	Sept. 19, 1996.
D020	All others	Dec. 19, 1994.
D021	Mixed with radioactive wastes	Sept. 19, 1996.
D021	All others	Dec. 19, 1994.
D022	Mixed with radioactive wastes	Sept. 19, 1996.
D022	All others	Dec. 19, 1994.
D023	Mixed with radioactive wastes	Sept. 19, 1996.
D023	All others	Dec. 19, 1994.
D024	Mixed with radioactive wastes	Sept. 19, 1996.
D024	All others	Dec. 19, 1994.
D025	Mixed with radioactive wastes	Sept. 19, 1996.
D025	All others	Dec. 19, 1994.
D026	Mixed with radioactive wastes	Sept. 19, 1996.
D026	All others	Dec. 19, 1994.
D027	Mixed with radioactive wastes	Sept. 19, 1996.

D027	All others	Dec. 19, 1994.
D028	Mixed with radioactive wastes	Sept. 19, 1996.
D028	All others	Dec. 19, 1994.
D029	Mixed with radioactive wastes	Sept. 19, 1996.
D029	All others	Dec. 19, 1994.
D030	Mixed with radioactive wastes	Sept. 19, 1996.
D030	All others	Dec. 19, 1994.
D031	Mixed with radioactive wastes	Sept. 19, 1996.
D031	All others	Dec. 19, 1994.
D032	Mixed with radioactive wastes	Sept. 19, 1996.
D032	All others	Dec. 19, 1994.
D033	Mixed with radioactive wastes	Sept. 19, 1996.
D033	All others	Dec. 19, 1994.
D034	Mixed with radioactive wastes	Sept. 19, 1996.
D034	All others	Dec. 19, 1994.
D035	Mixed with radioactive wastes	Sept. 19, 1996.
D035	All others	Dec. 19, 1994.
D036	Mixed with radioactive wastes	Sept. 19, 1996.
D036	All others	Dec. 19, 1994.
D037	Mixed with radioactive wastes	Sept. 19, 1996.
D037	All others	Dec. 19, 1994.
D038	Mixed with radioactive wastes	Sept. 19, 1996.
D038	All others	Dec. 19,

		1994.
D039	Mixed with radioactive wastes	Sept. 19, 1996.
D039	All others	Dec. 19, 1994.
D040	Mixed with radioactive wastes	Sept. 19, 1996.
D040	All others	Dec. 19, 1994.
D041	Mixed with radioactive wastes	Sept. 19, 1996.
D041	All others	Dec. 19, 1994.
D042	Mixed with radioactive wastes	Sept. 19, 1996.
D042	All others	Dec. 19, 1994.
D043	Mixed with radioactive wastes	Sept. 19, 1996.
D043	All others	Dec. 19, 1994.
F001	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids.	Nov. 8, 1988
F001	All others	Nov. 8, 1986.
F002 (1,1,2-trichloroethane)	Wastewater and Nonwastewater	Aug. 8, 1990.
F002	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids	Nov. 8, 1988
F002	All others	Nov. 8, 1986.
F003	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids,	Nov. 8, 1988.
F003	All others	Nov. 8, 1986.
F004	Small quantity generators, CERCLA	Nov. 8,

	response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids	1988.
F004	All others	Nov. 8, 1986.
F005 (benzene, 2-ethoxy ethanol, 2-nitropropane)	Wastewater and Nonwastewater	Aug. 8, 1990.
F005	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids	Nov. 8, 1988.
F005	All others	Nov. 8, 1986.
F006	Wastewater	Aug. 8, 1990.
F006	Nonwastewater	Aug. 8, 1988.
F006 (cyanides)	Nonwastewater	July 8, 1989.
F007	All	July 8, 1989.
F008	All	July 8, 1989.
F009	All	July 8, 1989.
F010	All	July 8, 1989.
F011 (cyanides)	Nonwastewater	Dec. 8, 1989.
F011	All others	July 8, 1989.
F012 (cyanides)	Nonwastewater	Dec. 8, 1989.
F012	All others	July 8, 1989.
F019	All	Aug. 8, 1990.
F020	All	Aug. 8, 1988.
F021	All	Aug. 8,

		1988.
F025	All	Aug. 8, 1990.
F026	All	Aug. 8, 1988.
F027	All	Aug. 8, 1988.
F028	All	Aug. 8, 1988.
F032	Mixed with radioactive wastes	May 12, 1999
F032	All others	Aug. 12, 1997.
F034	Mixed with radioactive wastes	May 12, 1999
F034	All others	Aug. 12, 1997.
F035	Mixed with radioactive wastes	May 12, 1999.
F035	All others	Aug. 12, 1997.
F037	Not generated from surface impoundment cleanouts or closures	June 30, 1993.
F037	Generated from surface impoundment cleanouts or closures	June 30, 1994.
F037	Mixed with radioactive wastes	June 30, 1994.
F038	Not generated from surface impoundment cleanouts or closures	June 30, 1993.
F038	Mixed with radioactive wastes	June 30, 1994.
F038	Mixed with radioactive wastes	June 30, 1994.
F039	Wastewater	Aug. 8, 1990.
F039	Nonwastewater	May 8, 1992.
K001 (organics)[b]	All	Aug. 8, 1988.
K001	All others	Aug. 8, 1988.
K002	All	Aug.8, 1990.
K003	All	Aug. 8, 1990.

K004	Wastewater	Aug. 8, 1990.
K004	Nonwastewater	Aug. 8, 1988.
K005	Wastewater	Aug. 8, 1990.
K005	Nonwastewater	June 8, 1989.
K006	All	Aug. 8, 1990.
K007	Wastewater	Aug. 8, 1990.
K007	Nonwastewater	June 8, 1989.
K008	Wastewater	Aug. 8, 1990.
K008	Nonwastewater	Aug. 8, 1988.
K009	All	June 8, 1989.
K010	All	June 8, 1989.
K011	Wastewater	Aug. 8, 1990.
K011	Nonwastewater	June 8, 1989.
K013	Wastewater	Aug. 8, 1990.
K013	Nonwastewater	June 8, 1989.
K014	Wastewater	Aug. 8, 1990.
K014	Nonwastewater	June 8, 1989.
K015	Wastewater	Aug. 8, 1990.
K015	Nonwastewater	Aug. 8, 1990.
K016	All	Aug. 8, 1988.
K017	All	Aug. 8, 1990.
K018	All	Aug. 8, 1988.
K019	All	Aug. 8,

		1988.
K020	All	Aug. 8, 1988.
K021	Wastewater	Aug. 8, 1990.
K021	Nonwastewater	Aug. 8, 1988.
K022	Wastewater	Aug. 8, 1990.
K022	Nonwastewater	Aug. 8, 1988.
K023	All	June 8, 1989.
K024	All	Aug. 8, 1988.
K025	Wastewater	Aug. 8, 1990.
K025	Nonwastewater	Aug. 8, 1988.
K026	All	Aug. 8, 1990.
K027	All	June 8, 1989.
K028 (metals)	Nonwastewater	Aug. 8, 1990.
K028	All others	June 8, 1989.
K029	Wastewater	Aug. 8, 1990.
K029	Nonwastewater	June 8, 1989.
K030	All	Aug. 8, 1988.
K031	Wastewater	Aug. 8, 1990.
K031	Nonwastewater	May 8, 1992.
K032	All	Aug. 8, 1990.
K033	All	Aug. 8, 1990.
K034	All	Aug. 8, 1990.
K035	All	Aug. 8, 1990.

K036	Wastewater	Aug. 8, 1990.
K036	Nonwastewater	Aug. 8, 1988.
K037[b]	Wastewater	Aug. 8, 1988.
K037	Nonwastewater	Aug. 8, 1988.
K038	All	June 8, 1989.
K039	All	June 8, 1989.
K040	All	June 8, 1989.
K041	All	Aug. 8, 1990.
K042	All	Aug. 8, 1990.
K043	All	June 8, 1989.
K044	All	Aug. 8, 1988.
K045	All	Aug. 8, 1988.
K046 (Nonreactive)	Nonwastewater	Aug. 8, 1988.
K046	All others	Aug. 8, 1990.
K047	All	Aug. 8, 1988.
K048	Wastewater	Aug. 8, 1990.
K048	Nonwastewater	Nov. 8, 1990.
K049	Wastewater	Aug. 8, 1990.
K049	Nonwastewater	Nov. 8, 1990.
K050	Wastewater	Aug. 8, 1990.
K050	Nonwastewater	Nov. 8, 1990.
K051	Wastewater	Aug. 8, 1990.
K051	Nonwastewater	Nov. 8,

		1990.
K052	Wastewater	Aug. 8, 1990.
K052	Nonwastewater	Nov. 8, 1990.
K060	Wastewater	Aug. 8, 1990.
K060	Nonwastewater	Aug. 8, 1988.
K061	Wastewater	Aug. 8, 1990.
K061	Nonwastewater	June 30, 1992.
K062	All	Aug. 8, 1988.
K069 (Non-Calcium Sulfate)	Nonwastewater	Aug. 8, 1988.
K069	All others	Aug. 8, 1990.
K071	All	Aug. 8, 1990.
K073	All	Aug. 8, 1990.
K083	All	Aug. 8, 1990.
K084	Wastewater	Aug. 8, 1990.
K084	Nonwastewater	May 8, 1992.
K085	All	Aug. 8, 1990.
K086 (organics)[b]	All	Aug. 8, 1988.
K086	All others	Aug. 8, 1988.
K087	All	Aug. 8, 1988.
K088	All others	Oct. 8, 1997.
K088	All others	Jan. 8, 1997.
K093	All	June 8, 1989.
K094	All	June 8,

		1989.
K095	Wastewater	Aug. 8, 1990.
K095	Nonwastewater	June 8, 1989.
K096	Wastewater	Aug. 8, 1990.
K096	Nonwastewater	June 8, 1989.
K097	All	Aug. 8, 1990.
K098	All	Aug. 8, 1990.
K099	All	Aug. 8, 1988.
K100	Wastewater	Aug. 8, 1990.
K100	Nonwastewater	Aug. 8, 1988.
K101 (organics)	Wastewater	Aug. 8, 1988.
K101 (metals)	Wastewater	Aug. 8, 1990.
K101 (organics)	Nonwastewater	Aug. 8, 1988.
K101 (metals)	Nonwastewater	May 8, 1992.
K102 (organics)	Wastewater	Aug. 8, 1988.
K102 (metals)	Wastewater	Aug. 8, 1990.
K102 (organics)	Nonwastewater	Aug. 8, 1988.
K102 (metals)	Nonwastewater	May 8, 1992.
K103	All	Aug. 8, 1988.
K104	All	Aug. 8, 1988.
K105	All	Aug. 8, 1990.
K106	Wastewater	Aug. 8, 1990.
K106	Nonwastewater	May 8, 1992.

K107	Mixed with radioactive wastes	June 30, 1994.
K107	All others	Nov. 9, 1992.
K108	Mixed with radioactive wastes	June 30, 1994.
K108	All others	Nov. 9, 1992.
K109	Mixed with radioactive wastes	June 30, 1994.
K109	All others	Nov. 9, 1992.
K110	Mixed with radioactive wastes	June 30, 1994.
K110	All others	Nov. 9, 1992.
K111	Mixed with radioactive wastes	June 30, 1994.
K111	All others	Nov. 9, 1992.
K112	Mixed with radioactive wastes	June 30, 1994.
K112	All others	Nov. 9, 1992.
K113	All	June 8, 1989.
K114	All	June 8, 1989.
K115	All	June 8, 1989.
K116	All	June 8, 1989.
K117	Mixed with radioactive wastes	June 30, 1994.
K117	All others	Nov. 9, 1992.
K118	Mixed with radioactive wastes	June 30, 1994.
K118	All others	Nov. 9, 1992.
K123	Mixed with radioactive wastes	June 30, 1994.
K123	All others	Nov. 9, 1992.
K124	Mixed with radioactive wastes	June 30,

		1994.
K124	All others	Nov. 9, 1992.
K125	Mixed with radioactive wastes	June 30, 1994.
K125	All others	Nov. 9, 1992.
K126	Mixed with radioactive wastes	June 30, 1994.
K126	All others	Nov. 9, 1992.
K131	Mixed with radioactive wastes	June 30, 1994.
K131	All others	Nov. 9, 1992.
K132	Mixed with radioactive wastes	June 30, 1994.
K132	All others	Nov. 9, 1992.
K136	Mixed with radioactive wastes	June 30, 1994.
K136	All others	Nov. 9, 1992.
K141	Mixed with radioactive wastes	Sep. 19, 1996.
K141	All others	Dec. 19, 1994.
K142	Mixed with radioactive wastes	Sep. 19, 1996.
K142	All others	Dec. 19, 1994.
K143	Mixed with radioactive wastes	Sep. 19, 1996.
K143	All others	Dec. 19, 1994.
K144	Mixed with radioactive wastes	Sep. 19, 1996.
K144	All others	Dec. 19, 1994.
K145	Mixed with radioactive wastes	Sep. 19, 1996.
K145	All others	Dec. 19, 1994.
K147	Mixed with radioactive wastes	Sep. 19, 1996.

K147	All others	Dec. 19, 1994.
K148	Mixed with radioactive wastes	Sep. 19, 1996.
K148	All others	Dec. 19, 1994.
K149	Mixed with radioactive wastes	Sep. 19, 1996.
K149	All others	Dec. 19, 1994.
K150	Mixed with radioactive wastes	Sep. 19, 1996.
K150	All others	Dec. 19, 1994.
K151	Mixed with radioactive wastes	Sep. 19, 1996.
K151	All others	Dec. 19, 1994.
K156	Mixed with radioactive wastes	Apr. 8, 1998.
K156	All others	July 8, 1996.
K157	Mixed with radioactive wastes	Apr. 8, 1998.
K157	All others	July 8, 1996.
K158	Mixed with radioactive wastes	Apr. 8, 1998.
K158	All others	July 8, 1996.
K159	Mixed with radioactive wastes	Apr. 8, 1998.
K159	All others	July 8, 1996.
K160	Mixed with radioactive wastes	Apr. 8, 1998.
K160	All others	July 8, 1996.
K161	Mixed with radioactive wastes	Apr. 8, 1998.
K161	All others	July 8, 1996.
P001	All	Aug. 8, 1990.
P002	All	Aug. 8,

		1990.
P003	All	Aug. 8, 1990.
P004	All	Aug. 8, 1990.
P005	All	Aug. 8, 1990.
P006	All	Aug. 8, 1990.
P007	All	Aug. 8, 1990.
P008	All	Aug. 8, 1990.
P009	All	Aug. 8, 1990.
P010	Wastewater	Aug. 8, 1990.
P010	Nonwastewater	May 8, 1992.
P011	Wastewater	Aug. 8, 1990.
P011	Nonwastewater	May 8, 1992.
P012	Wastewater	Aug. 8, 1990.
P012	Nonwastewater	May 8, 1992.
P013 (barium)	Nonwastewater	Aug. 8, 1990.
P013	All others	June 8, 1989.
P014	All	Aug. 8, 1990.
P015	All	Aug. 8, 1990.
P016	All	Aug. 8, 1990.
P017	All	Aug. 8, 1990.
P018	All	Aug. 8, 1990.
P020	All	Aug. 8, 1990.
P021	All	June 8, 1989.

P022	All	Aug. 8, 1990.
P023	All	Aug. 8, 1990.
P024	All	Aug. 8, 1990.
P026	All	Aug. 8, 1990.
P027	All	Aug. 8, 1990.
P028	All	Aug. 8, 1990.
P029	All	June 8, 1989.
P030	All	June 8, 1989.
P031	All	Aug. 8, 1990.
P033	All	Aug. 8, 1990.
P034	All	Aug. 8, 1990.
P036	Wastewater	Aug. 8, 1990.
P036	Nonwastewater	May 8, 1992.
P037	All	Aug. 8, 1990.
P038	Wastewater	Aug. 8, 1990.
P038	Nonwastewater	May 8, 1992.
P039	All	June 8, 1989.
P040	All	June 8, 1989.
P041	All	June 8, 1989.
P042	All	Aug. 8, 1990.
P043	All	June 8, 1989.
P044	All	June 8, 1989.
P045	All	Aug. 8,

		1990.
P046	All	Aug. 8, 1990.
P047	All	Aug. 8, 1990.
P048	All	Aug. 8, 1990.
P049	All	Aug. 8, 1990.
P050	All	Aug. 8, 1990.
P051	All	Aug. 8, 1990.
P054	All	Aug. 8, 1990.
P056	All	Aug. 8, 1990.
P057	All	Aug. 8, 1990.
P058	All	Aug. 8, 1990.
P059	All	Aug. 8, 1990.
P060	All	Aug. 8, 1990.
P062	All	June 8, 1989.
P063	All	June 8, 1989.
P064	All	Aug. 8, 1990.
P065	Wastewater	Aug. 8, 1990.
P065	Nonwastewater	May 8, 1992.
P066	All	Aug. 8, 1990.
P067	All	Aug. 8, 1990.
P068	All	Aug. 8, 1990.
P069	All	Aug. 8, 1990.
P070	All	Aug. 8, 1990.

P071	All	June 8, 1989.
P072	All	Aug. 8, 1990.
P073	All	Aug. 8, 1990.
P074	All	June 8, 1989.
P075	All	Aug. 8, 1990.
P076	All	Aug. 8, 1990.
P077	All	Aug. 8, 1990.
P078	All	Aug. 8, 1990.
P081	All	Aug. 8, 1990.
P082	All	Aug. 8, 1990.
P084	All	Aug. 8, 1990.
P085	All	June 8, 1989.
P087	All	May 8, 1992.
P088	All	Aug. 8, 1990.
P089	All	June 8, 1989.
P092	Wastewater	Aug. 8, 1990.
P092	Nonwastewater	May 8, 1992.
P093	All	Aug. 8, 1990.
P094	All	June 8, 1989.
P095	All	Aug. 8, 1990.
P096	All	Aug. 8, 1990.
P097	All	June 8, 1989.
P098	All	June 8,

		1989.
P099 (silver)	Wastewater	Aug. 8, 1990.
P099	All others	June 8, 1989.
P101	All	Aug. 8, 1990.
P102	All	Aug. 8, 1990.
P103	All	Aug. 8, 1990.
P104 (silver)	Wastewater	Aug. 8, 1990.
P104	All others	June 8, 1989.
P105	All	Aug. 8, 1990.
P106	All	June 8, 1989.
P108	All	Aug. 8, 1990.
P109	All	June 8, 1989.
P110	All	Aug. 8, 1990.
P111	All	June 8, 1989.
P112	All	Aug. 8, 1990.
P113	All	Aug. 8, 1990.
P114	All	Aug. 8, 1990.
P115	All	Aug. 8, 1990.
P116	All	Aug. 8, 1990.
P118	All	Aug. 8, 1990.
P119	All	Aug. 8, 1990.
P120	All	Aug. 8, 1990.
P121	All	June 8, 1989.

P122	All	Aug. 8, 1990.
P123	All	Aug. 8, 1990.
P127	Mixed with radioactive wastes	Apr. 8, 1998.
P127	All others	July 8, 1996.
P128	Mixed with radioactive wastes	Apr. 8, 1998.
P128	All others	July 8, 1996.
P185	Mixed with radioactive wastes	Apr. 8, 1998.
P185	All others	July 8, 1996.
P188	Mixed with radioactive wastes	Apr. 8, 1998.
P188	All others	July 8, 1996.
P189	Mixed with radioactive wastes	Apr. 8, 1998.
P189	All others	July 8, 1996.
P190	Mixed with radioactive wastes	Apr. 8, 1998.
P190	All others	July 8, 1996.
P191	Mixed with radioactive wastes	Apr. 8, 1998.
P191	All others	July 8, 1996.
P192	Mixed with radioactive wastes	Apr. 8, 1998.
P192	All others	July 8, 1996.
P194	Mixed with radioactive wastes	Apr. 8, 1998.
P194	All others	July 8, 1996.
P196	Mixed with radioactive wastes	Apr. 8, 1998.
P196	All others	July 8, 1996.
P197	Mixed with radioactive wastes	Apr. 8,

		1998.
P197	All others	July 8, 1996.
P198	Mixed with radioactive wastes	Apr. 8, 1998.
P198	All others	July 8, 1996.
P199	Mixed with radioactive wastes	Apr. 8, 1998.
P199	All others	July 8, 1996.
P201	Mixed with radioactive wastes	Apr. 8, 1998.
P201	All others	July 8, 1996.
P202	Mixed with radioactive wastes	Apr. 8, 1998.
P202	All others	July 8, 1996.
P203	Mixed with radioactive wastes	Apr. 8, 1998.
P203	All others	July 8, 1996.
P204	Mixed with radioactive wastes	Apr. 8, 1998.
P204	All others	July 8, 1996.
P205	Mixed with radioactive wastes	Apr. 8, 1998.
P205	All others	July 8, 1996.
U001	All	Aug. 8, 1990.
U002	All	Aug. 8, 1990.
U003	All	Aug. 8, 1990.
U004	All	Aug. 8, 1990.
U005	All	Aug. 8, 1990.
U006	All	Aug. 8, 1990.
U007	All	Aug. 8, 1990.

U008	All	Aug. 8, 1990.
U009	All	Aug. 8, 1990.
U010	All	Aug. 8, 1990.
U011	All	Aug. 8, 1990.
U012	All	Aug. 8, 1990.
U014	All	Aug. 8, 1990.
U015	All	Aug. 8, 1990.
U016	All	Aug. 8, 1990.
U017	All	Aug. 8, 1990.
U018	All	Aug. 8, 1990.
U019	All	Aug. 8, 1990.
U020	All	Aug. 8, 1990.
U021	All	Aug. 8, 1990.
U022	All	Aug. 8, 1990.
U023	All	Aug. 8, 1990.
U024	All	Aug. 8, 1990.
U025	All	Aug. 8, 1990.
U026	All	Aug. 8, 1990.
U027	All	Aug. 8, 1990.
U028	All	June 8, 1989.
U029	All	Aug. 8, 1990.
U030	All	Aug. 8, 1990.
U031	All	Aug. 8,

		1990.
U032	All	Aug. 8, 1990.
U033	All	Aug. 8, 1990.
U034	All	Aug. 8, 1990.
U035	All	Aug. 8, 1990.
U036	All	Aug. 8, 1990.
U037	All	Aug. 8, 1990.
U038	All	Aug. 8, 1990.
U039	All	Aug. 8, 1990.
U041	All	Aug. 8, 1990.
U042	All	Aug. 8, 1990.
U043	All	Aug. 8, 1990.
U044	All	Aug. 8, 1990.
U045	All	Aug. 8, 1990.
U046	All	Aug. 8, 1990.
U047	All	Aug. 8, 1990.
U048	All	Aug. 8, 1990.
U049	All	Aug. 8, 1990.
U050	All	Aug. 8, 1990.
U051	All	Aug. 8, 1990.
U052	All	Aug. 8, 1990.
U053	All	Aug. 8, 1990.
U055	All	Aug. 8, 1990.

U056	All	Aug. 8, 1990.
U057	All	Aug. 8, 1990.
U058	All	June 8, 1989.
U059	All	Aug. 8, 1990.
U060	All	Aug. 8, 1990.
U061	All	Aug. 8, 1990.
U062	All	Aug. 8, 1990.
U063	All	Aug. 8, 1990.
U064	All	Aug. 8, 1990.
U066	All	Aug. 8, 1990.
U067	All	Aug. 8, 1990.
U068	All	Aug. 8, 1990.
U069	All	June 30, 1992.
U070	All	Aug. 8, 1990.
U071	All	Aug. 8, 1990.
U072	All	Aug. 8, 1990.
U073	All	Aug. 8, 1990.
U074	All	Aug. 8, 1990.
U075	All	Aug. 8, 1990.
U076	All	Aug. 8, 1990.
U077	All	Aug. 8, 1990.
U078	All	Aug. 8, 1990.
U079	All	Aug. 8,

		1990.
U080	All	Aug. 8, 1990.
U081	All	Aug. 8, 1990.
U082	All	Aug. 8, 1990.
U083	All	Aug. 8, 1990.
U084	All	Aug. 8, 1990.
U085	All	Aug. 8, 1990.
U086	All	Aug. 8, 1990.
U087	All	June 8, 1989.
U088	All	June 8, 1989.
U089	All	Aug. 8, 1990.
U090	All	Aug. 8, 1990.
U091	All	Aug. 8, 1990.
U092	All	Aug. 8, 1990.
U093	All	Aug. 8, 1990.
U094	All	Aug. 8, 1990.
U095	All	Aug. 8, 1990.
U096	All	Aug. 8, 1990.
U097	All	Aug. 8, 1990.
U098	All	Aug. 8, 1990.
U099	All	Aug. 8, 1990.
U101	All	Aug. 8, 1990.
U102	All	June 8, 1989.

U103	All	Aug. 8, 1990.
U105	All	Aug. 8, 1990.
U106	All	Aug. 8, 1990.
U107	All	June 8, 1989.
U108	All	Aug. 8, 1990.
U109	All	Aug. 8, 1990.
U110	All	Aug. 8, 1990.
U111	All	Aug. 8, 1990.
U112	All	Aug. 8, 1990.
U113	All	Aug. 8, 1990.
U114	All	Aug. 8, 1990.
U115	All	Aug. 8, 1990.
U116	All	Aug. 8, 1990.
U117	All	Aug. 8, 1990.
U118	All	Aug. 8, 1990.
U119	All	Aug. 8, 1990.
U120	All	Aug. 8, 1990.
U121	All	Aug. 8, 1990.
U122	All	Aug. 8, 1990.
U123	All	Aug. 8, 1990.
U124	All	Aug. 8, 1990.
U125	All	Aug. 8, 1990.
U126	All	Aug. 8,

		1990.
U127	All	Aug. 8, 1990.
U128	All	Aug. 8, 1990.
U129	All	Aug. 8, 1990.
U130	All	Aug. 8, 1990.
U131	All	Aug. 8, 1990.
U132	All	Aug. 8, 1990.
U133	All	Aug. 8, 1990.
U134	All	Aug. 8, 1990.
U135	All	Aug. 8, 1990.
U136	Wastewater	Aug. 8, 1990.
U136	Nonwastewater	May 8, 1992.
U137	All	Aug. 8, 1990.
U138	All	Aug. 8, 1990.
U140	All	Aug. 8, 1990.
U141	All	Aug. 8, 1990.
U142	All	Aug. 8, 1990.
U143	All	Aug. 8, 1990.
U144	All	Aug. 8, 1990.
U145	All	Aug. 8, 1990.
U146	All	Aug. 8, 1990.
U147	All	Aug. 8, 1990.
U148	All	Aug. 8, 1990.

U149	All	Aug. 8, 1990.
U150	All	Aug. 8, 1990.
U151	Wastewater	Aug. 8, 1990.
U151	Nonwastewater	May 8, 1992.
U152	All	Aug. 8, 1990.
U153	All	Aug. 8, 1990.
U154	All	Aug. 8, 1990.
U155	All	Aug. 8, 1990.
U156	All	Aug. 8, 1990.
U157	All	Aug. 8, 1990.
U158	All	Aug. 8, 1990.
U159	All	Aug. 8, 1990.
U160	All	Aug. 8, 1990.
U161	All	Aug. 8, 1990.
U162	All	Aug. 8, 1990.
U163	All	Aug. 8, 1990.
U164	All	Aug. 8, 1990.
U165	All	Aug. 8, 1990.
U166	All	Aug. 8, 1990.
U167	All	Aug. 8, 1990.
U168	All	Aug. 8, 1990.
U169	All	Aug. 8, 1990.
U170	All	Aug. 8,

		1990.
U171	All	Aug. 8, 1990.
U172	All	Aug. 8, 1990.
U173	All	Aug. 8, 1990.
U174	All	Aug. 8, 1990.
U176	All	Aug. 8, 1990.
U177	All	Aug. 8, 1990.
U178	All	Aug. 8, 1990.
U179	All	Aug. 8, 1990.
U180	All	Aug. 8, 1990.
U181	All	Aug. 8, 1990.
U182	All	Aug. 8, 1990.
U183	All	Aug. 8, 1990.
U184	All	Aug. 8, 1990.
U185	All	Aug. 8, 1990.
U186	All	Aug. 8, 1990.
U187	All	Aug. 8, 1990.
U188	All	Aug. 8, 1990.
U189	All	Aug. 8, 1990.
U190	All	June 8, 1989.
U191	All	Aug. 8, 1990.
U192	All	Aug. 8, 1990.
U193	All	Aug. 8, 1990.

U194	All	June 8, 1989.
U196	All	Aug. 8, 1990.
U197	All	Aug. 8, 1990.
U200	All	Aug. 8, 1990.
U201	All	Aug. 8, 1990.
U203	All	Aug. 8, 1990.
U204	All	Aug. 8, 1990.
U205	All	Aug. 8, 1990.
U206	All	Aug. 8, 1990.
U207	All	Aug. 8, 1990.
U208	All	Aug. 8, 1990.
U209	All	Aug. 8, 1990.
U210	All	Aug. 8, 1990.
U211	All	Aug. 8, 1990.
U213	All	Aug. 8, 1990.
U214	All	Aug. 8, 1990.
U215	All	Aug. 8, 1990.
U216	All	Aug. 8, 1990.
U217	All	Aug. 8, 1990.
U218	All	Aug. 8, 1990.
U219	All	Aug. 8, 1990.
U220	All	Aug. 8, 1990.
U221	All	June 8,

		1989.
U222	All	Aug. 8, 1990.
U223	All	June 8, 1989.
U225	All	Aug. 8, 1990.
U226	All	Aug. 8, 1990.
U227	All	Aug. 8, 1990.
U228	All	Aug. 8, 1990.
U234	All	Aug. 8, 1990.
U235	All	June 8, 1989.
U236	All	Aug. 8, 1990.
U237	All	Aug. 8, 1990.
U238	All	Aug. 8, 1990.
U239	All	Aug. 8, 1990.
U240	All	Aug. 8, 1990.
U243	All	Aug. 8, 1990.
U244	All	Aug. 8, 1990.
U246	All	Aug. 8, 1990.
U247	All	Aug. 8, 1990.
U248	All	Aug. 8, 1990.
U249	All	Aug. 8, 1990.
U271	Mixed with radioactive wastes	Apr. 8, 1998.
U271	All others	July 8, 1996.
U277	Mixed with radioactive wastes	Apr. 8, 1998.

U277	All others	July 8, 1996.
U278	Mixed with radioactive wastes	Apr. 8, 1998.
U278	All others	July 8, 1996.
U279	Mixed with radioactive wastes	Apr. 8, 1998.
U279	All others	July 8, 1996.
U280	Mixed with radioactive wastes	Apr. 8, 1998.
U280	All others	July 8, 1996.
U328	Mixed with radioactive wastes	June 30, 1994.
U328	All others	Nov. 9, 1992.
U353	Mixed with radioactive wastes	June 30, 1994.
U353	All others	Nov. 9, 1992.
U359	Mixed with radioactive wastes	June 30, 1994.
U359	All others	Nov. 9, 1992.
U364	Mixed with radioactive wastes	Apr. 8, 1998.
U364	All others	July 8, 1996.
U365	Mixed with radioactive wastes	Apr. 8, 1998.
U365	All others	July 8, 1996.
U366	Mixed with radioactive wastes	Apr. 8, 1998.
U366	All others	July 8, 1996.
U367	Mixed with radioactive wastes	Apr. 8, 1998.
U367	All others	July 8, 1996.
U372	Mixed with radioactive wastes	Apr. 8, 1998.
U372	All others	July 8,

		1996.
U373	Mixed with radioactive wastes	Apr. 8, 1998.
U373	All others	July 8, 1996.
U375	Mixed with radioactive wastes	Apr. 8, 1998.
U375	All others	July 8, 1996.
U376	Mixed with radioactive wastes	Apr. 8, 1998.
U376	All others	July 8, 1996.
U377	Mixed with radioactive wastes	Apr. 8, 1998.
U377	All others	July 8, 1996.
U378	Mixed with radioactive wastes	Apr. 8, 1998.
U378	All others	July 8, 1996.
U379	Mixed with radioactive wastes	Apr. 8, 1998.
U379	All others	July 8, 1996.
U381	Mixed with radioactive wastes	Apr. 8, 1998.
U381	All others	July 8, 1996.
U382	Mixed with radioactive wastes	Apr. 8, 1998.
U382	All others	July 8, 1996.
U383	Mixed with radioactive wastes	Apr. 8, 1998.
U383	All others	July 8, 1996.
U384	Mixed with radioactive wastes	Apr. 8, 1998.
U384	All others	July 8, 1996.
U385	Mixed with radioactive wastes	Apr. 8, 1998.
U385	All others	July 8, 1996.

U386	Mixed with radioactive wastes	Apr. 8, 1998.
U386	All others	July 8, 1996.
U387	Mixed with radioactive wastes	Apr. 8, 1998.
U387	All others	July 8, 1996.
U389	Mixed with radioactive wastes	Apr. 8, 1998.
U389	All others	July 8, 1996.
U390	Mixed with radioactive wastes	Apr. 8, 1998.
U390	All others	July 8, 1996.
U391	Mixed with radioactive wastes	Apr. 8, 1998.
U391	All others	July 8, 1996.
U392	Mixed with radioactive wastes	Apr. 8, 1998.
U392	All others	July 8, 1996.
U393	Mixed with radioactive wastes	Apr. 8, 1998.
U393	All others	July 8, 1996.
U394	Mixed with radioactive wastes	Apr. 8, 1998.
U394	All others	July 8, 1996.
U395	Mixed with radioactive wastes	Apr. 8, 1998.
U395	All others	July 8, 1996.
U396	Mixed with radioactive wastes	Apr. 8, 1998.
U396	All others	July 8, 1996.
U400	Mixed with radioactive wastes	Apr. 8, 1998.
U400	All others	July 8, 1996.
U401	Mixed with radioactive wastes	Apr. 8,

		1998.
U401	All others	July 8, 1996.
U402	Mixed with radioactive wastes	Apr. 8, 1998.
U402	All others	July 8, 1996.
U403	Mixed with radioactive wastes	Apr. 8, 1998.
U403	All others	July 8, 1996.
U404	Mixed with radioactive wastes	Apr. 8, 1998.
U404	All others	July 8, 1996.
U407	Mixed with radioactive wastes	Apr. 8, 1998.
U407	All others	July 8, 1996.
U409	Mixed with radioactive wastes	Apr. 8, 1998.
U409	All others	July 8, 1996.
U410	Mixed with radioactive wastes	Apr. 8, 1998.
U410	All others	July 8, 1996.
U411	Mixed with radioactive wastes	Apr. 8, 1998.
U411	All others	July 8, 1996.

[a]This table does not include mixed radioactive wastes, from the First, Second, and Third Third rules, which received national capacity variance until May 8, 1992. This table also does not include contaminated soil and debris wastes.

[b]The standard was revised in the Third Third Final Rule, 55 FR 22520, June 1, 1990.

[c]The standard was revised in the Third Third Emergency Rule, 58 FR 29860, May 24, 1993; the original effective date was August 8, 1990.

[d]The standard was revised in the Phase II Final Rule, 59 FR 47982, Sept. 19, 1994; the original effective date was August 8, 1990.

[e]The standards for selected reactive wastes was revised in the Phase III Final Rule, 61 FR 15566, Apr. 8, 1996; the original effective date was August 8, 1990.

Table 2—Summary of Effective Dates of Land Disposal Restrictions for Contaminated Soil and Debris (CSD)

Restricted hazardous waste in CSD	Effective date
1. Solvent-(F001-F005) and dioxin-(F020-F023 and F026-F028) containing soil and debris from CERCLA response or RCRA corrective actions	Nov. 8, 1990.
2. Soil and debris not from CERCLA response or RCRA corrective actions contaminated with less than 1% total solvents (F001-F005) or dioxins (F020-F023 and F026-F028)	Nov. 8, 1988.
3 All soil and debris contaminated with First Third wastes for which treatment standards are based on incineration	Aug. 8, 1990.
4. All soil and debris contaminated with Second Third wastes for which treatment standards are based on incineration	June 8, 1991.
5. All soil and debris contaminated with Third Third wastes or, First or Second Third “soft hammer” wastes which had treatment standards promulgated in the Third Third rule, for which treatment standards are based on incineration, vitrification, or mercury retorting, acid leaching followed by chemical precipitation, or thermal recovery of metals; as well as all inorganic solids debris contaminated with D004-D011 wastes, and all soil and debris contaminated with mixed RCRA/radioactive wastes	May 8, 1992.
6. Soil and debris contaminated with D012-D043, K141-K145, and K147-151 wastes	Dec. 19, 1994.
7. Debris (only) contaminated with F037, F038, K107-K112, K117, K118, K123-K126, K131, K132, K136, U328, U353, U359	Dec. 19, 1994.

8. Soil and debris contaminated with K156-K161, P127, P128, P188-P192, P194, P196-P199, P201-P205, U271, U277-U280, U364-U367, U372, U373, U375-U379, U381-U387, U389-U396, U400-U404, U407, and U409-U411 wastes	July 8, 1996.
9. Soil and debris contaminated with K088 wastes	Oct. 8, 1997.
10. Soil and debris contaminated with radioactive wastes mixed with K088, K156-K161, P127, P128, P188-P192, P194, P196-P199, P201-P205, U271, U277-U280, U364-U367, U372, U373, U375-U379, U381-U387, U389-U396, U400-U404, U407, and U409-U411 wastes	April 8, 1998.
11. Soil and debris contaminated with F032, F034, and F035	May 12, 1997.
12. Soil and debris contaminated with newly identified D004-D011 toxicity characteristic wastes and mineral processing wastes.	Aug. 24, 1998.
13. Soil and debris contaminated with mixed radioactive newly identified D004-D011 characteristic wastes and mineral processing wastes.	May 26, 2000.

Note: Appendix VII is provided for the convenience of the reader.

Appendix VIII to Rule R315-268-LDR Effective Dates of Injected Prohibited Hazardous Wastes

National Capacity LDR Variances for UIC Wastes[a]

Waste code	Waste category	Effective date
F001-F005	All spent F001-F005 solvent containing less than 1 percent total F001-F005 solvent constituents	Aug. 8, 1990.
D001 (except High TOC Ignitable Liquids	All	Feb. 10, 1994.

Subcategory)[c]		
D001 (High TOC Ignitable Characteristic Liquids Subcategory)	Nonwastewater	Sept. 19, 1995.
D002[b]	All	May 8, 1992.
D002[c]	All	Feb. 10, 1994.
D003 (cyanides)	All	May 8, 1992.
D003 (sulfides)	All	May 8, 1992.
D003 (explosives, reactives)	All	May 8, 1992.
D007	All	May 8, 1992.
D009	Nonwastewater	May 8, 1992.
D012	All	Sept. 19, 1995.
D013	All	Sept. 19, 1995.
D014	All	Sept. 19, 1995.
D015	All	Sept. 19, 1995.
D016	All	Sept. 19, 1995.
D017	All	Sept. 19, 1995.
D018	All, including mixed with radioactive wastes	Apr. 8, 1998.
D019	All, including mixed with radioactive wastes	Apr. 8, 1998.
D020	All, including mixed with radioactive wastes	Apr. 8, 1998.
D021	All, including mixed with radioactive wastes	Apr. 8, 1998.
D022	All, including mixed with radioactive wastes	Apr. 8, 1998.
D023	All, including mixed radioactive	Apr. 8,

	wastes	1998.
D024	All, including mixed radioactive wastes	Apr. 8, 1998.
D025	All, including mixed radioactive wastes	Apr. 8, 1998.
D026	All, including mixed radioactive wastes	Apr. 8, 1998.
D027	All, including mixed radioactive wastes	Apr. 8, 1998.
D028	All, including mixed radioactive wastes	Apr. 8, 1998.
D029	All, including mixed radioactive wastes	Apr. 8, 1998.
D030	All, including mixed radioactive wastes	Apr. 8, 1998.
D031	All, including mixed radioactive wastes	Apr. 8, 1998.
D032	All, including mixed radioactive wastes	Apr. 8, 1998.
D033	All, including mixed radioactive wastes	Apr. 8, 1998.
D034	All, including mixed radioactive wastes	Apr. 8, 1998.
D035	All, including mixed radioactive wastes	Apr. 8, 1998.
D036	All, including mixed radioactive wastes	Apr. 8, 1998.
D037	All, including mixed radioactive wastes	Apr. 8, 1998.
D038	All, including mixed radioactive wastes	Apr. 8, 1998.
D039	All, including mixed radioactive wastes	Apr. 8, 1998.
D040	All, including mixed radioactive wastes	Apr. 8, 1998.
D041	All, including mixed radioactive wastes	Apr. 8, 1998.
D042	All, including mixed radioactive wastes	Apr. 8, 1998.
D043	All, including mixed radioactive wastes	Apr. 8, 1998.
F007	All	June 8, 1991.
F032	All, including mixed radioactive wastes	May 12, 1999.

F034	All, including mixed radioactive wastes	May 12, 1999.
F035	All, including mixed radioactive wastes	May 12, 1999.
F037	All	Nov. 8, 1992.
F038	All	Nov. 8, 1992.
F039	Wastewater	May 8, 1992.
K009	Wastewater	June 8, 1991.
K011	Nonwastewater	June 8, 1991.
K011	Wastewater	May 8, 1992.
K013	Nonwastewater	June 8, 1991.
K013	Wastewater	May 8, 1992.
K014	All	May 8, 1992.
K016 (dilute)	All	June 8, 1991.
K049	All	Aug. 8, 1990.
K050	All	Aug. 8, 1990.
K051	All	Aug. 8, 1990.
K052	All	Aug. 8, 1990.
K062	All	Aug. 8, 1990.
K071	All	Aug. 8, 1990.
K088	All	Jan. 8, 1997.
K104	All	Aug. 8, 1990.
K107	All	Nov. 8, 1992.
K108	All	Nov. 9, 1992.
K109	All	Nov. 9,

		1992.
K110	All	Nov. 9, 1992.
K111	All	Nov. 9, 1992.
K112	All	Nov. 9, 1992.
K117	All	June 30, 1995.
K118	All	June 30, 1995.
K123	All	Nov. 9, 1992.
K124	All	Nov. 9, 1992.
K125	All	Nov. 9, 1992.
K126	All	Nov. 9, 1992.
K131	All	June 30, 1995.
K132	All	June 30, 1995.
K136	All	Nov. 9, 1992.
K141	All	Dec. 19, 1994.
K142	All	Dec. 19, 1994.
K143	All	Dec. 19, 1994.
K144	All	Dec. 19, 1994.
K145	All	Dec. 19, 1994.
K147	All	Dec. 19, 1994.
K148	All	Dec. 19, 1994.
K149	All	Dec. 19, 1994.
K150	All	Dec. 19, 1994.
K151	All	Dec. 19, 1994.

K156	All	July 8, 1996.
K157	All	July 8, 1996.
K158	All	July 8, 1996.
K159	All	July 8, 1996.
K160	All	July 8, 1996.
K161	All	July 8, 1996.
NA	Newly identified mineral processing wastes from titanium dioxide production and mixed radioactive/ newly identified D004-D011 characteristic wastes and mineral processing wastes.	May 26, 2000.
P127	All	July 8, 1996.
P128	All	July 8, 1996.
P185	All	July 8, 1996.
P188	All	July 8, 1996.
P189	All	July 8, 1996.
P190	All	July 8, 1996.
P191	All	July 8, 1996.
P192	All	July 8, 1996.
P194	All	July 8, 1996.
P196	All	July 8, 1996.
P197	All	July 8, 1996.
P198	All	July 8, 1996.
P199	All	July 8, 1996.
P201	All	July 8,

		1996.
P202	All	July 8, 1996.
P203	All	July 8, 1996.
P204	All	July 8, 1996.
P205	All	July 8, 1996.
U271	All	July 8, 1996.
U277	All	July 8, 1996.
U278	All	July 8, 1996.
U279	All	July 8, 1996.
U280	All	July 8, 1996.
U328	All	Nov. 9, 1992.
U353	All	Nov. 9, 1992.
U359	All	Nov. 9, 1992.
U364	All	July 8, 1996.
U365	All	July 8, 1996.
U366	All	July 8, 1996.
U367	All	July 8, 1996.
U372	All	July 8, 1996.
U373	All	July 8, 1996.
U375	All	July 8, 1996.
U376	All	July 8, 1996.
U377	All	July 8, 1996.
U378	All	July 8, 1996.

U379	All	July 8, 1996.
U381	All	July 8, 1996.
U382	All	July 8, 1996.
U383	All	July 8, 1996.
U384	All	July 8, 1996.
U385	All	July 8, 1996.
U386	All	July 8, 1996.
U387	All	July 8, 1996.
U389	All	July 8, 1996.
U390	All	July 8, 1996.
U391	All	July 8, 1996.
U392	All	July 8, 1996.
U395	All	July 8, 1996.
U396	All	July 8, 1996.
U400	All	July 8, 1996.
U401	All	July 8, 1996.
U402	All	July 8, 1996.
U403	All	July 8, 1996.
U404	All	July 8, 1996.
U407	All	July 8, 1996.
U409	All	July 8, 1996.
U410	All	July 8, 1996.
U411	All	July 8,

1996.

[a]Wastes that are deep well disposed on-site receive a six-month variance, with restrictions effective in November 1990.

[b]Deepwell injected D002 liquids with a pH less than 2 shall meet the California List treatment standards on August 8, 1990.

[c]Managed in systems defined in 40 CFR 144.6(e) and 144.6(e) as Class V injection wells, that do not engage in CWA-equivalent treatment before injection.

Note: This table is provided for the convenience of the reader.

Appendix IX to Rule R315-268-Extraction Procedure (EP) Toxicity Test Method and Structural Integrity Test (Method 1310B)

Note: The EP (Method 1310B) is published in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW-846, as incorporated by reference in Section R315-260-11.

Appendix XI to Rule R315-268-Metal Bearing Wastes Prohibited From Dilution in a Combustion Unit According to Subsection R315-268-3(c)

Metal Bearing Wastes Prohibited From Dilution in a Combustion Unit According to Subsection R315-268-3(c)[1]

Waste code	Waste description
D004	Toxicity Characteristic for Arsenic.
D005	Toxicity Characteristic for Barium.
D006	Toxicity Characteristic for Cadmium.
D007	Toxicity Characteristic for Chromium.
D008	Toxicity Characteristic for Lead.
D009	Toxicity Characteristic for Mercury.
D010	Toxicity Characteristic for Selenium.
D011	Toxicity Characteristic for Silver.
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid anodizing of aluminum; (2) tin plating carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-plating on carbon steel; (5) cleaning/stripping

	associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.
F007	Spent cyanide plating bath solutions from electroplating operations.
F008	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.
F010	Quenching bath residues from oil baths from metal treating operations where cyanides are used in the process.
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.
F012	Quenching waste water treatment sludges from metal heat treating operations where cyanides are used in the process.
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum car washing when such phosphating is an exclusive conversion coating process.
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.
K003	Wastewater treatment sludge from the production of molybdate orange pigments.
K004	Wastewater treatment sludge from the production of zinc yellow pigments.
K005	Wastewater treatment sludge from the production of chrome green pigments.
K006	Wastewater treatment sludge from the production of chrome oxide green pigments, anhydrous and hydrated.
K007	Wastewater treatment sludge from the production of iron blue pigments.
K008	Oven residue from the production of chrome oxide green pigments.
K061	Emission control dust/sludge from the primary production of steel in electric furnaces.
K069	Emission control dust/sludge from secondary lead smelting.
K071	Brine purification muds from the mercury cell processes in chlorine production, where separately

	prepurified brine is not used.
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.
K106	Sludges from the mercury cell processes for making chlorine.
P010	Arsenic acid $H_3 AsO_4$
P011	Arsenic oxide $As_2 O_5$
P012	Arsenic trioxide
P013	Barium cyanide
P015	Beryllium
P029	Copper cyanide Cu(CN)
P074	Nickel cyanide $Ni(CN)_2$
P087	Osmium tetroxide
P099	Potassium silver cyanide
P104	Silver cyanide
P113	Thallic oxide
P114	Thallium (l) selenite
P115	Thallium (l) sulfate
P119	Ammonium vanadate
P120	Vanadium oxide $V_2 O_5$
P121	Zinc cyanide.
U032	Calcium chromate.
U145	Lead phosphate.
U151	Mercury.
U204	Selenious acid.
U205	Selenium disulfide.
U216	Thallium (I) chloride.
U217	Thallium (I) nitrate.

[1]A combustion unit is defined as any thermal technology subject to Sections R315-264-340 through 351; 40 CFR 265.340 through 352, which are adopted by reference; and/or Sections R315-266-100 through 112.

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.

Rule R315-270. Hazardous Waste Permit Program.

R315-270-1. Hazardous Waste Permit Program - Purpose And Scope Of These Regulations.

(a) No person shall own, construct, modify, or operate any facility for the purpose of treating, storing, or disposing of hazardous waste without first submitting, and receiving the approval of the Director for, a hazardous waste permit for that facility. However, any person owning or operating a facility on or before November 19, 1980, who has given timely notification as required by section 3010 of the Resource Conservation and Recovery Act (RCRA) of 1976, 42 U.S.C., section 6921, et seq., and who has submitted a proposed hazardous waste permit as required by Section R315-270-1 and Section 19-6-108 for that facility, may continue to operate that facility without violating Section R315-270-1 until such time as the permit is approved or disapproved pursuant to Section R315-270-1.

(b)(1) The Director shall review each proposed hazardous waste permit application to determine whether the application will be in accord with the provisions of Rules R315-260 through 266, 268, 270 and 273, and Section 19-6-108 and, on that basis, shall approve or disapprove the application within the applicable time period specified in Section 19-6-108. If, after the receipt of plans, specifications, or other information required under Rule R315-270 and Section 19-6-108 and within the applicable time period of Section 19-6-108, the Director determines that the proposed construction, installation or establishment or any part of it will not be in accord with the requirements of Rule R315-270 or other applicable rules, he shall issue an order prohibiting the construction, installation or establishment of the proposal in whole or in part. The date of submission shall be deemed to be the date of all required information is provided to the Director as required by Rule R315-270.

(2) Any permit application which does not meet the requirements of Rules 315-260 through 266, 268 270 and 273 shall be disapproved within the applicable time period specified in Section 19-6-108. If within the applicable time period specified in Section 19-6-108 the Director fails to approve or disapprove the permit application or to request the submission of any additional information or modification to the application, the application shall not

be deemed approved but the applicant may petition the Director for a decision or seek judicial relief requiring a decision of approval or disapproval.

(3) An application for approval of a hazardous waste permit consists of two parts, part A and part B. For an existing facility, the requirement is satisfied by submitting only part A of the application until the date the Director sets for each individual facility for submitting part B of the application, which date shall be in no case less than six months after the Director gives notice to a particular facility that it shall submit part B of the application.

(c) Scope of the hazardous waste permit requirement. Section 19-6-108 requires a permit for the “treatment,” “storage,” and “disposal” of any “hazardous waste” as identified or listed in Rule R315-261. The terms “treatment,” “storage,” “disposal,” and “hazardous waste” are defined in Section R315-270-2. Owners and operators of hazardous waste management units shall have permits during the active life, including the closure period, of the unit. Owners and operators of surface impoundments, landfills, land treatment units, and waste pile units that received waste after July 26, 1982, or that certified closure, according to 40 CFR 265.115, which is adopted by reference, after January 26, 1983, shall have post-closure permits, unless they demonstrate closure by removal or decontamination as provided under Subsections R315-270-1(c)(5) and (6), or obtain an enforceable document in lieu of a post-closure permit, as provided under Subsection R315-270-1(c)(7). If a post-closure permit is required, the permit shall address applicable Rule R315-264 groundwater monitoring, unsaturated zone monitoring, corrective action, and post-closure care requirements. The denial of a permit for the active life of a hazardous waste management facility or unit does not affect the requirement to obtain a post-closure permit under Section R315-270-1.

(1) Specific inclusions. Owners and operators of certain facilities require hazardous waste permits as well as permits under other programs for certain aspects of the facility operation. Hazardous waste permits are required for:

(i) Injection wells that dispose of hazardous waste, and associated surface facilities that treat, store or dispose of hazardous waste. However, the owner and operator with a Utah or Federal UIC permit, shall be deemed to have

a "permit by rule" for the injection well itself if they comply with the requirements of Subsection R315-270-60(b).

(ii) Treatment, storage, or disposal of hazardous waste at facilities requiring an NPDES permit. However, the owner and operator of a publicly owned treatment works receiving hazardous waste shall be deemed to have a "permit by rule" for that waste if they comply with the requirements of Section R315-270-60(c).

(2) Specific exclusions. The following persons are among those who are not required to obtain a hazardous waste permit:

(i) Generators who accumulate hazardous waste on-site for less than the time periods provided in Section R315-262-34.

(ii) Farmers who dispose of hazardous waste pesticides from their own use as provided in Section R315-262-70;

(iii) Persons who own or operate facilities solely for the treatment, storage or disposal of hazardous waste excluded from regulations under Rule R315-270 by Sections R315-261-4 or 5, small generator exemption.

(iv) Owners or operators of totally enclosed treatment facilities as defined in Section R315-260-10.

(v) Owners and operators of elementary neutralization units or wastewater treatment units as defined in Section R315-260-10.

(vi) Transporters storing manifested shipments of hazardous waste in containers meeting the requirements of Section R315-262-30 at a transfer facility for a period of ten days or less.

(vii) Persons adding absorbent material to waste in a container, as defined in Section R315-260-10, and persons adding waste to absorbent material in a container, provided that these actions occur at the time waste is first placed in the container; and Subsection R315-264-17(b) and Sections R315-264-171, and 172 are complied with.

(viii) Universal waste handlers and universal waste transporters, as defined in Section R315-260-10, managing the wastes listed below. These handlers are subject to regulation under Rule R315-273.

(A) Batteries as described in Section R315-273-2;

(B) Pesticides as described in Section R315-273-3;

(C) Mercury-containing equipment as described in Section R315-273-4; and

(D) Lamps as described in Section R315-273-5.

(3) Further exclusions.

(i) A person is not required to obtain a permit for treatment or containment activities taken during immediate response to any of the following situations:

(A) A discharge of a hazardous waste;

(B) An imminent and substantial threat of a discharge of hazardous waste;

(C) A discharge of a material which, when discharged, becomes a hazardous waste.

(ii) Any person who continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to all applicable requirements of Rule R315-270 for those activities.

(iii) In the case of emergency responses involving military munitions, the responding military emergency response specialist's organizational unit shall retain records for three years identifying the dates of the response, the responsible persons responding, the type and description of material addressed, and its disposition.

(4) Permits for less than an entire facility. The Director may issue or deny a permit for one or more units at a facility without simultaneously issuing or denying a permit to all of the units at the facility. The interim status of any unit for which a permit has not been issued or denied is not affected by the issuance or denial of a permit to any other unit at the facility.

(5) Closure by removal. Owners/operators of surface impoundments, land treatment units, and waste piles closing by removal or decontamination under Rule R315-265 standards shall obtain a post-closure permit unless they can demonstrate to the Director that the closure met the standards for closure by removal or decontamination in Section R315-264-228, Subsection R315-264-280(e), or Section R315-264-258, respectively. The demonstration may be made in the following ways:

(i) If the owner/operator has submitted a part B application for a post-closure permit, the owner/operator may request a determination, based on information contained in the application, that Rule R315-264 closure by removal standards were met. If the Director believes that Rule R315-264 standards were met, The Director shall notify the public of this proposed decision, allow for public comment, and reach a final determination according to the procedures in Subsection R315-270-1(c)(6).

(ii) If the owner/operator has not submitted a part B application for a post-closure permit, the owner/operator may petition the Director for a determination that a post-closure permit is not required because the closure met the applicable Rule R315-264 closure standards.

(A) The petition shall include data demonstrating that closure by removal or decontamination standards of Rule R315-264 were met.

(B) The Director shall approve or deny the petition according to the procedures outlined in Subsection R315-270-1(c)(6).

(6) Procedures for closure equivalency determination.

(i) If a facility owner/operator seeks an equivalency demonstration under Subsection R315-270-1(c)(5), the Director shall provide the public, through a newspaper notice, the opportunity to submit written comments on the information submitted by the owner/operator within 30 days from the date of the notice. The Director shall also, in response to a request or at the Director's discretion, hold a public hearing whenever such a hearing might clarify one or more issues concerning the equivalence of the Rule R315-265 closure to a Rule R315-264 closure. The Director shall give public notice of the hearing at least 30 days before it occurs. Public notice of the hearing may be given at the same time as notice of the opportunity for the public to submit written comments, and the two notices may be combined.

(ii) The Director shall determine whether the Rule R315-265 closure met the Rule R315-264 closure by removal or decontamination requirements within 90 days of its receipt. If the Director finds that the closure did not meet the applicable Rule R315-264 standards, the Director shall provide the owner/operator with a written statement of the reasons why the closure failed to meet Rule R315-264 standards. The owner/operator may submit additional information in support of an equivalency demonstration within 30 days after receiving such written statement. The Director shall review any additional information submitted and make a final determination within 60 days.

(iii) If the Director determines that the facility did not close in accordance with Rule R315-264 closure by removal standards, the facility is subject to post-closure permitting requirements.

(7) Enforceable documents for post-closure care. At the discretion of the Director, an owner or operator may

obtain, in lieu of a post-closure permit, an enforceable document imposing the requirements of 40 CFR 265.121, which is adopted by reference. “Enforceable document” means an order, a permit, or other document issued by the Director including, but not limited to, a corrective action order issued by EPA under section 3008(h), a CERCLA remedial action, or a closure or post-closure permit.

R315-270-2. Hazardous Waste Permit Program - Definitions. The following definitions apply to Rules R315-270 and 124. Terms not defined in Section R315-270-2 have the meaning given by Section R315-260-10 and Section 19-6-102.

(a) "Administrator" means the Administrator of the United States Environmental Protection Agency, or an authorized representative.

(b) "Application" means the information required by the Director under Section R315-270-14 through 29.

(c) "Aquifer" means a geological formation, group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring.

(d) "Closure" means the act of securing a Hazardous Waste Management facility pursuant to the requirements of Rule R315-264.

(e) "Component" means any constituent part of a unit or any group of constituent parts of a unit which are assembled to perform a specific function, e.g., a pump seal, pump, kiln liner, kiln thermocouple.

(f) "Corrective Action Management Unit" or CAMU means an area within a facility that is designated by the Director under Sections R315-264-550 through 555 for the purpose of implementing corrective action requirements under Section R315-264-101 and RCRA section 3008(h). A CAMU shall only be used for the management of remediation wastes pursuant to implementing such corrective action requirements at the facility.

(g) "CWA" means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act amendments of 1972) Pub. L. 92-500, as amended by Pub. L. 92-217 and Pub. L. 95-576; 33 U.S.C. 1251 et seq.

(h) "Director" means the Director of the Division of Waste Management and Radiation Control.

(i) "Disposal" has the meaning as found in Section 19-6-102.

(j) "Disposal facility" means a facility or part of a facility at which hazardous waste is intentionally placed into or on the land or water, and at which hazardous waste will remain after closure. The term disposal facility does not include a corrective action management unit into which remediation wastes are placed.

(k) "Draft permit" means a document prepared under Section R315-124-6 indicating the Director's tentative decision to issue or deny, modify, revoke and reissue, terminate, or reissue a permit. A notice of intent to terminate a permit, and a notice of intent to deny a permit, as discussed in Section R315-124-5, are types of draft permits. A denial of a request for modification, revocation and reissuance, or termination, as discussed in Section R315-124-5 is not a “draft permit.” A proposed permit is not a draft permit.

(l) "Elementary neutralization unit" means a device which:

(1) Is used for neutralizing wastes only because they exhibit the corrosivity characteristic defined in Section R315-261-22, or are listed in Sections R315-261-30 through 35 only for this reason; and

(2) Meets the definition of tank, tank system, container, transport vehicle, or vessel in Section R315-260-10.

(m) "Emergency permit" means a permit issued in accordance with Section R315-270-61.

(n) "Environmental Protection Agency (EPA) " means the United States Environmental Protection Agency.

(o) "EPA" means the United States Environmental Protection Agency.

(p) "Existing hazardous waste management (HWM) facility" or "existing facility" means a facility which was in operation or for which construction commenced on or before November 19, 1980. A facility has commenced construction if:

(1) The owner or operator has obtained the Federal, State and local approvals or permits necessary to begin physical construction; and either

(2)(i) A continuous on-site, physical construction program has begun; or

(ii) The owner or operator has entered into contractual obligations which cannot be cancelled or modified without substantial loss-for physical construction of the facility to be completed within a reasonable time.

(q) "Facility mailing list" means the mailing list for a facility maintained by the Director in accordance with Subsection R315-124-10(c)(1)(ix).

(r) "Facility" or "activity" means any HWM facility or any other facility or activity, including land or appurtenances thereto, that is subject to regulation under Sections 19-6-101 through 125.

(s) "Federal, State and local approvals or permits necessary to begin physical construction" means permits and approvals required under Federal, State or local hazardous waste control statutes, regulations or ordinances.

(t) "Functionally equivalent component" means a component which performs the same function or measurement and which meets or exceeds the performance specifications of another component.

(u) "Generator" means any person, by site location, whose act, or process produces “hazardous waste” identified or listed in Rule R315-261.

(v) "Ground water" means water below the land surface in a zone of saturation.

(w) "Hazardous waste" means a hazardous waste as defined in Section 19-6-102 and further defined in Section R315-261-3.

(x) "Hazardous Waste Management facility" means all contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units, for example, one or more landfills, surface impoundments, or combinations of them.

(y) "HWM facility" means Hazardous Waste Management facility.

(z) "Injection well" means a well into which fluids are being injected.

(aa) "In operation" means a facility which is treating, storing, or disposing of hazardous waste.

(bb) "Major facility" means any facility or activity classified as such by the Regional Administrator in conjunction with the Director.

(cc) "Manifest' means the shipping document originated and signed by the generator which contains the information required by Sections R315-262-20 through 27.

(dd) "National Pollutant Discharge Elimination System" means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and

enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of the CWA. The term includes an approved program.

(ee) "NPDES" means National Pollutant Discharge Elimination System.

(ff) "New HWM facility" means a Hazardous Waste Management facility which began operation or for which construction commenced after November 19, 1980.

(gg) "Off-site" means any site which is not on-site.

(hh) "On-site" means on the same or geographically contiguous property which may be divided by public or private right(s)-of-way, provided the entrance and exit between the properties is at a cross-roads intersection, and access is by crossing as opposed to going along, the right(s)-of-way. Non-contiguous properties owned by the same person but connected by a right-of-way which the person controls and to which the public does not have access, is also considered on-site property.

(ii) "Owner or operator" means the owner or operator of any facility or activity subject to regulation under Sections 19-6-101 through 125.

(jj) "Permit" means an operation plan under Section 19-6-108 to implement the requirements of Rules R315-270 and 124. Permit includes permit by rule, Section R315-270-60, and emergency permit, Section R315-270-61. Permit does not include interim status, Sections R315-270-70 through 73, or any permit which has not been the subject of final action by the Director, such as a draft permit or a proposed permit.

(kk) "Permit-by-rule" means a provision of these rules stating that a facility or activity is deemed to have a permit if it meets the requirements of the provision.

(ll) "Person" means person as defined in Subsection 19-1-103(4).

(mm) "Physical construction" means excavation, movement of earth, erection of forms or structures, or similar activity to prepare an HWM facility to accept hazardous waste.

(nn) "POTW" means publicly owned treatment works.

(oo) "Publicly owned treatment works" means any device or system used in the treatment, including recycling and reclamation, of municipal sewage or industrial wastes of a liquid nature which is owned by a State or municipality. This definition includes sewers, pipes, or

other conveyances only if they convey wastewater to a POTW providing treatment.

(pp) "RCRA" means the Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act of 1976, Pub. L. 94-580, as amended by Pub. L. 95-609 and Pub. L. 96-482, 42 U.S.C. 6901 et seq.

(qq) "Regional Administrator" means the Regional Administrator of the appropriate Regional Office of the Environmental Protection Agency or the authorized representative of the Regional Administrator.

(rr) "Remedial Action Plan" (RAP) means a special form of permit that a facility owner or operator may obtain instead of a permit issued under Sections R315-270-3 through 66, to authorize the treatment, storage or disposal of hazardous remediation waste, as defined in Section R315-260-10, at a remediation waste management site.

(ss) "Schedule of compliance" means a schedule of remedial measures included in a permit, including an enforceable sequence of interim requirements, for example, actions, operations, or milestone events, leading to compliance with Sections 19-6-101 through 125 and rules adopted thereunder.

(tt) "SDWA" means the Safe Drinking Water Act, Pub. L. 95-523, as amended by Pub. L. 95-1900; 42 U.S.C. 3001 et seq.

(uu) "Site" means the land or water area where any facility or activity is physically located or conducted, including adjacent land used in connection with the facility or activity.

(vv) "State" means any of the 50 States, the District of Columbia, Guam, the Commonwealth of Puerto Rico, the Virgin Islands, American Samoa, and the Commonwealth of the Northern Mariana Islands.

(ww) "Storage" means the holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed, or stored elsewhere.

(xx) "Transfer facility" means any transportation-related facility including loading docks, parking areas, storage areas and other similar areas where shipments of hazardous waste are held during the normal course of transportation.

(yy) "Transporter" means a person engaged in the off-site transportation of hazardous waste by air, rail, highway or water.

(zz) "Treatment" means any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such wastes, or so as to recover energy or material resources from the waste, or so as to render such waste non-hazardous, or less hazardous; safer to transport, store, or dispose of; or amenable for recovery, amenable for storage, or reduced in volume.

(aaa) "UIC" means the Underground Injection Control Program under part C of the Safe Drinking Water Act, including an approved program.

(bbb) "Underground injection" means a well injection.

(ccc) "Underground source of drinking water" means an aquifer or its portion:

(1)(i) Which supplies any public water system; or

(ii) Which contains a sufficient quantity of ground water to supply a public water system; and

(A) Currently supplies drinking water for human consumption; or

(B) Contains fewer than 10,000 mg/l total dissolved solids; and

(2) Which is not an exempted aquifer.

(ddd) "USDW" means underground source of drinking water.

(eee) "Wastewater treatment unit" means a device which:

(1) Is part of a wastewater treatment facility which is subject to regulation under Rule R317-1 through 15; and

(2) Receives and treats or stores an influent wastewater which is a hazardous waste as defined in Section R315-261-3, or generates and accumulates a wastewater treatment sludge which is a hazardous waste as defined in Section R315-261-3, or treats or stores a wastewater treatment sludge which is a hazardous waste as defined in Section R315-261-3; and

(3) Meets the definition of tank or tank system in Section R315-260-10.

R315-270-4. Hazardous Waste Permit Program - Effect Of A Permit.

(a)(1) Compliance with a permit during its term constitutes compliance, for purposes of enforcement, with Rules R315-260 through 266, 268, 270 and 124 except for those requirements not included in the permit which:

(i) Become effective by statute;

(ii) Are promulgated under Rule R315-268 restricting the placement of hazardous wastes in or on the land;

(iii) Are promulgated under Rule R315-264 regarding leak detection systems for new and replacement surface impoundment, waste pile, and landfill units, and lateral expansions of surface impoundment, waste pile, and landfill units. The leak detection system requirements include double liners, CQA programs, monitoring, action leakage rates, and response action plans, and shall be implemented through the procedures of Section R315-270-42 Class 1 permit modifications; or

(iv) Are promulgated under 40 CFR 265.1030 through 1035, 1050 through 1064, or 1080 through 1090, which are adopted by reference limiting air emissions.

(2) A permit may be modified, revoked and reissued, or terminated during its term for cause as set forth in Sections R315-270-41 and 43, or the permit may be modified upon the request of the permittee as set forth in Section R315-270-42.

(b) The issuance of a permit does not convey any property rights of any sort, or any exclusive privilege.

(c) The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations.

R315-270-10. Hazardous Waste Permit Program - General Application Requirements.

(a) Applying for a permit. Below is information on how to obtain a permit and where to find requirements for specific permits:

(1) If you are covered by permits by rule, Section R315-270-60, you need not apply.

(2) If you currently have interim status, you shall apply for permits when required by the Director.

(3) If you are required to have a permit, including new applicants and permittees with expiring permits, you shall complete, sign, and submit an application to the Director, as described in Section R315-270-10 and Sections R315-270-70 through 73.

(4) If you are seeking an emergency permit, the procedures for application, issuance, and administration are found exclusively in Section R315-270-61.

(5) If you are seeking a research, development, and demonstration permit, the procedures for application, issuance, and administration are found exclusively in Section R315-270-65.

(b) Who applies? When a facility or activity is owned by one person but is operated by another person, it is the operator's duty to obtain a permit, except that the owner shall also sign the permit application.

(c) Completeness.

(1) The Director shall not issue a permit before receiving a complete application for a permit except for permits by rule, or emergency permits. An application for a permit is complete when the Director receives an application form and any supplemental information which are completed to the Director's satisfaction. An application for a permit is complete notwithstanding the failure of the owner or operator to submit the exposure information described in Subsection R315-270-10(j). The Director may deny a permit for the active life of a hazardous waste management facility or unit before receiving a complete application for a permit.

(2) The Director shall review for completeness every permit application. Each permit application submitted by a new hazardous waste management facility, should be reviewed for completeness by the Director in accordance with the applicable review periods of 19-6-108. Upon completing the review, the Director shall notify the applicant in writing whether the permit application is complete. If the permit application is incomplete, the Director shall list the information necessary to make the permit application complete. When the permit application is for an existing hazardous waste management facility, the Director shall specify in the notice of deficiency a date for submitting the necessary information. The Director shall review information submitted in response to a notice of deficiency within 30 days after receipt. The Director shall notify the applicant that the permit application is complete upon receiving this information. After the permit application is complete, the Director may request additional information from an applicant but only when necessary to clarify, modify, or supplement previously submitted material.

(3) If an applicant fails or refuses to correct deficiencies in the permit application, the permit application may be denied and appropriate enforcement

actions may be taken under the applicable provisions of the Utah Solid and Hazardous Waste Act.

(d) Information requirements. All applicants for permits shall provide information set forth in Section R315-270-13 and applicable sections in Sections R315-270-14 through 29 to the Director, using the application form provided by the Director, if the Director has made such forms available.

(e) Existing HWM facilities and interim status qualifications.

(1) Owners and operators of existing hazardous waste management facilities or of hazardous waste management facilities in existence on the effective date of statutory or regulatory amendments under Sections 19-6-101 through 125 that render the facility subject to the requirement to have a permit shall submit part A of their permit application no later than:

(i) Six months after the date of publication of regulations which first require them to comply with the standards set forth in Rules R315-265 or 266, or

(ii) Thirty days after the date they first become subject to the standards set forth in Rules R315-265 or 266, whichever first occurs.

(iii) For generators generating greater than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month and treats, stores, or disposes of these wastes on-site, by March 24, 1987.

(2) Reserved

(3) The Director may by compliance order extend the date by which the owner and operator of an existing hazardous waste management facility shall submit part A of their permit application.

(4) The owner or operator of an existing hazardous waste management facility may be required to submit part B of their permit application. The Director may require submission of part B. Any owner or operator shall be allowed at least six months from the date of request to submit part B of the application. Any owner or operator of an existing hazardous waste management facility may voluntarily submit part B of the application at any time. Notwithstanding the above, any owner or operator of an existing hazardous waste management facility shall submit a part B permit application in accordance with the dates specified in Section R315-270-73. Any owner or operator of a land disposal facility in existence on the effective date

of statutory or regulatory amendments under Sections 19-6-101 through 125 that render the facility subject to the requirement to have a permit shall submit a part B application in accordance with the dates specified in Section R315-270-73.

(5) Failure to furnish a requested part B application on time, or to furnish in full the information required by the part B application, is grounds for termination of interim status under Rule R315-124.

(f) New HWM facilities.

(1) Except as provided in Subsection R315-270-10(f)(3), no person shall begin physical construction of a new HWM facility without having submitted parts A and B of the permit application and having received a finally effective permit.

(2) An application for a permit for a new hazardous waste management facility, including both Parts A and B, may be filed any time after promulgation of those standards in Sections R315-264-170 through 1202 applicable to such facility. The application shall be filed with the Director. Except as provided in Subsection R315-270-10(f)(3), all applications shall be submitted at least 180 days before physical construction is expected to commence.

(3) Notwithstanding Subsection R315-270-10(f)(1), the owner or operator of a facility approved for the incineration of polychlorinated biphenyls may, at any time after construction or operation of such facility has begun, file an application for a permit to incinerate hazardous waste authorizing such facility to incinerate waste identified or listed under Rule R315-261.

(g) Updating permit applications.

(1) If any owner or operator of a hazardous waste management facility has filed Part A of a permit application and has not yet filed part B, the owner or operator shall file an amended part A application:

(i) With the Director, within six months after the promulgation of revised regulations under Rule R315-261 listing or identifying additional hazardous wastes, if the facility is treating, storing or disposing of any of those newly listed or identified wastes.

(ii) With the Director no later than the effective date of regulatory provisions listing or designating wastes as hazardous in addition to those listed or designated previously, if the facility is treating storing or

disposing of any of those newly listed or designated wastes; or

(iii) As necessary to comply with provisions of Section R315-270-72 for changes during interim status. Revised Part A applications necessary to comply with the provisions of Section R315-270-72 shall be filed with the Director.

(2) The owner or operator of a facility who fails to comply with the updating requirements of Subsection R315-270-10(g)(1) does not receive interim status as to the wastes not covered by duly filed part A applications.

(h) Reapplying for a permit. Owners and operators that have an effective permit and want to reapply for a new one, shall:

(1) Submit a new application at least 180 days before the expiration date of the effective permit, unless the Director allows a later date;

(2) The Director may not allow submittal of applications or Notices of Intent later than the expiration date of the existing permit, except as allowed by Subsection R315-270-51(e)(2).

(i) Recordkeeping. Applicants shall keep records of all data used to complete permit applications and any supplemental information submitted under Subsection R315-270-10(d) and Sections R315-270-13 through 21 for a period of at least 3 years from the date the application is signed.

(j) Exposure information.

(1) Any part B permit application submitted by an owner or operator of a facility that stores, treats, or disposes of hazardous waste in a surface impoundment or a landfill shall be accompanied by information, reasonably ascertainable by the owner or operator, on the potential for the public to be exposed to hazardous wastes or hazardous constituents through releases related to the unit. At a minimum, such information shall address:

(i) Reasonably foreseeable potential releases from both normal operations and accidents at the unit, including releases associated with transportation to or from the unit;

(ii) The potential pathways of human exposure to hazardous wastes or constituents resulting from the releases described under Subsection R315-270-10(j)(1)(i); and

(iii) The potential magnitude and nature of the human exposure resulting from such releases.

(2) Owners and operators of a landfill or a surface impoundment who have already submitted a part B application shall submit the exposure information required in Subsection R315-270-10(j)(1).

(k) The Director may require a permittee or an applicant to submit information in order to establish permit conditions under Sections R315-270-32(b)(2) and 50(d).

(l) If the Director concludes, based on one or more of the factors listed in Subsection R315-270-10(l)(1) that compliance with the standards of Subsection R307-214-2(39) which incorporates 40 CFR part 63, subpart EEE alone may not be protective of human health or the environment, the Director shall require the additional information or assessment(s) necessary to determine whether additional controls are necessary to ensure protection of human health and the environment. This includes information necessary to evaluate the potential risk to human health and/or the environment resulting from both direct and indirect exposure pathways. The Director may also require a permittee or applicant to provide information necessary to determine whether such an assessment(s) should be required.

(1) The Director shall base the evaluation of whether compliance with the standards of Subsection R307-214-2(39) which incorporates 40 CFR part 63, subpart EEE alone is protective of human health or the environment on factors relevant to the potential risk from a hazardous waste combustion unit, including, as appropriate, any of the following factors:

(i) Particular site-specific considerations such as proximity to receptors, such as schools, hospitals, nursing homes, day care centers, parks, community activity centers, or other potentially sensitive receptors, unique dispersion patterns, etc.;

(ii) Identities and quantities of emissions of persistent, bioaccumulative or toxic pollutants considering enforceable controls in place to limit those pollutants;

(iii) Identities and quantities of nondioxin products of incomplete combustion most likely to be emitted and to pose significant risk based on known toxicities, confirmation of which should be made through emissions testing;

(iv) Identities and quantities of other off-site sources of pollutants in proximity of the facility that significantly influence interpretation of a facility-specific risk assessment;

(v) Presence of significant ecological considerations, such as the proximity of a particularly sensitive ecological area;

(vi) Volume and types of wastes, for example wastes containing highly toxic constituents;

(vii) Other on-site sources of hazardous air pollutants that significantly influence interpretation of the risk posed by the operation of the source in question;

(viii) Adequacy of any previously conducted risk assessment, given any subsequent changes in conditions likely to affect risk; and

(ix) Such other factors as may be appropriate.

R315-270-11. Hazardous Waste Permit Program - Signatories To Permit Applications And Reports.

(a) Applications. All permit applications shall be signed as follows:

(1) For a corporation: By a principal executive officer of at least the level of vice-president;

(2) For a partnership or sole proprietorship; by a general partner or the proprietor, respectively; or

(3) For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.

(b) Reports. All reports required by permits and other information requested by the Director shall be signed by a person described in Subsection R315-270-11(a), or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described in Subsection R315-270-11(a);

(2) The authorization specifies either an individual or a position having responsibility for overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility. A duly authorized representative may thus be either a named individual or any individual occupying a named position; and

(3) The written authorization is submitted to the Director.

(c) Changes to authorization. If an authorization under Subsection R315-270-11(b) is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Subsection R315-270-11(b) shall be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.

(d)(1) Any person signing a document under Subsection R315-270-11(a) or (b) shall make the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

(2) For remedial action plans (RAPs) under Sections R315-270-79 through 230, if the operator certifies according to Subsection R315-270-11(d)(1), then the owner may choose to make the following certification instead of the certification in Subsection R315-270-11(d)(1):

Based on my knowledge of the conditions of the property described in the RAP and my inquiry of the person or persons who manage the system referenced in the operator's certification, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

R315-270-12. Hazardous Waste Permit Program - Confidentiality Of Information.

(a) Any information provided to The Director under Rule R315-270 shall be made available to the public to the

extent and in the manner authorized by Sections 63G-2-101 through 901.

(b) Any person who submits information to the Director in accordance with RuleR315-270 may assert a claim of business confidentiality covering part or all of that information by following the procedures set forth in Section 63G-2-309. Information covered by such a claim shall be disclosed by the Director only to the extent, and by means of the procedures, set forth Sections 63G-2-101 through 901. However, if no claim under Sections 63G-2-101 through 804 accompanies the information when it is received by the Director, it may be made available to the public without further notice to the person submitting it.

(c) Claims of confidentiality for the name and address of any permit applicant or permittee shall be denied.

R315-270-13. Hazardous Waste Permit Program - Contents Of Part A Of The Permit Application.

Part A of the permit application shall be submitted to the Director and include the following information:

(a) The activities conducted by the applicant which require it to obtain a permit under Section 19-6-108.

(b) Name, mailing address, and location, including latitude and longitude of the facility for which the application is submitted.

(c) Up to four SIC codes which best reflect the principal products or services provided by the facility.

(d) The operator's name, address, telephone number, ownership status, and status as Federal, State, private, public, or other entity.

(e) The name, address, and phone number of the owner of the facility.

(f) Whether the facility is located on Indian lands.

(g) An indication of whether the facility is new or existing and whether it is a first or revised application.

(h) For existing facilities,

(1) a scale drawing of the facility showing the location of all past, present, and future treatment, storage, and disposal areas; and

(2) photographs of the facility clearly delineating all existing structures; existing treatment, storage, and disposal areas; and sites of future treatment, storage, and disposal areas.

(i) A description of the processes to be used for treating, storing, and disposing of hazardous waste, and the design capacity of these items.

(j) A specification of the hazardous wastes listed or designated under Rule R315-261 to be treated, stored, or disposed of at the facility, an estimate of the quantity of such wastes to be treated, stored, or disposed annually, and a general description of the processes to be used for such wastes.

(k) A listing of all permits or construction approvals received or applied for under any of the following programs:

(1) Hazardous Waste Management program under Sections 19-6-101 through 125 or under RCRA.

(2) UIC program under the SWDA.

(3) NPDES program under the CWA.

(4) Prevention of Significant Deterioration (PSD) program under the Clean Air Act.

(5) Nonattainment program under the Clean Air Act.

(6) National Emission Standards for Hazardous Pollutants (NESHAPS) preconstruction approval under the Clean Air Act.

(7) Reserved

(8) Dredge or fill permits under section 404 of the CWA.

(9) Other relevant environmental permits, including State permits.

(l) A topographic map, or other map if a topographic map is unavailable, extending one mile beyond the property boundaries of the source, depicting the facility and each of its intake and discharge structures; each of its hazardous waste treatment, storage, or disposal facilities; each well where fluids from the facility are injected underground; and those wells, springs, other surface water bodies, and drinking water wells listed in public records or otherwise known to the applicant within 1⁄4 mile of the facility property boundary.

(m) A brief description of the nature of the business.

(n) For hazardous debris, a description of the debris category(ies) and contaminant category(ies) to be treated, stored, or disposed of at the facility.

R315-270-14. Hazardous Waste Permit Program - Contents Of Part B: General Requirements.

(a) Part B of the permit application consists of the general information requirements of Section R315-270-14, and the specific information requirements in Section R315-270-14 through 29 applicable to the facility. The part B information requirements presented in Sections R315-270-14 through 29 reflect the standards promulgated in Rule R315-264. These information requirements are necessary in order for the Director to determine compliance with the Rule R315-264 standards. If owners and operators of hazardous waste management facilities can demonstrate that the information prescribed in part B cannot be provided to the extent required, the Director may make allowance for submission of such information on a case-by-case basis. Information required in part B shall be submitted to the Director and signed in accordance with the requirements in Section R315-270-11. Certain technical data, such as design drawings and specifications, and engineering studies shall be certified by a qualified Professional Engineer. For post-closure permits, only the information specified in Section R315-270-28 is required in part B of the permit application.

(b) General information requirements. The following information is required for all hazardous waste management facilities, except as Section R315-264-1 provides otherwise:

(1) A general description of the facility.

(2) Chemical and physical analyses of the hazardous waste and hazardous debris to be handled at the facility. At a minimum, these analyses shall contain all the information which must be known to treat, store, or dispose of the wastes properly in accordance with Rule R315-264.

(3) A copy of the waste analysis plan required by Subsection R315-264-13(b) and, if applicable Subsection R315-264-13(c).

(4) A description of the security procedures and equipment required by Section R315-264-14, or a justification demonstrating the reasons for requesting a waiver of this requirement.

(5) A copy of the general inspection schedule required by Subsection R315-264-15(b). Include where applicable, as part of the inspection schedule, specific requirements in Section R315-264-174, Subsection R315-264-

193(i), Sections R315-264-195, 226, 254, 273, 303, 602, 1033, 1052, 1053, 1058, 1084, 1085, 1086, and 1088.

(6) A justification of any request for a waiver(s) of the preparedness and prevention requirements of Sections R315-264-30 through 37.

(7) A copy of the contingency plan required by Section R315-264-50 through 56. Include, where applicable, as part of the contingency plan, specific requirements in Sections R315-264-227, 255, and 200.

(8) A description of procedures, structures, or equipment used at the facility to:

(i) Prevent hazards in unloading operations, for example, ramps, special forklifts;

(ii) Prevent runoff from hazardous waste handling areas to other areas of the facility or environment, or to prevent flooding, for example, berms, dikes, trenches;

(iii) Prevent contamination of water supplies;

(iv) Mitigate effects of equipment failure and power outages;

(v) Prevent undue exposure of personnel to hazardous waste, for example, protective clothing; and

(vi) Prevent releases to atmosphere.

(9) A description of precautions to prevent accidental ignition or reaction of ignitable, reactive, or incompatible wastes as required to demonstrate compliance with Section R315-264-17 including documentation demonstrating compliance with Subsection R315-264-17(c).

(10) Traffic pattern, estimated volume, number, types of vehicles, and control, for example, show turns across traffic lanes, and stacking lanes, if appropriate; describe access road surfacing and load bearing capacity; show traffic control signals.

(11) Facility location information;

(i) In order to determine the applicability of the seismic standard, Subsection R315-264-18(a), the owner or operator of a new facility shall identify the political jurisdiction, e.g., county, township, or election district, in which the facility is proposed to be located. If the county or election district is not listed in appendix VI of Rule R315-264, no further information is required to demonstrate compliance with Subsection R315-264-18(a).

(ii) If the facility is proposed to be located in an area listed in appendix VI of Rule R315-264, the owner or operator shall demonstrate compliance with the seismic standard. This demonstration may be made using either

published geologic data or data obtained from field investigations carried out by the applicant. The information provided shall be of such quality to be acceptable to geologists experienced in identifying and evaluating seismic activity. The information submitted shall show that either:

(A) No faults which have had displacement in Holocene time are present, or no lineations which suggest the presence of a fault, which have displacement in Holocene time, within 3,000 feet of a facility are present, based on data from:

(1) Published geologic studies,

(2) Aerial reconnaissance of the area within a five-mile radius from the facility.

(3) An analysis of aerial photographs covering a 3,000 foot radius of the facility, and

(4) If needed to clarify the above data, a reconnaissance based on walking portions of the area within 3,000 feet of the facility, or

(B) If faults, to include lineations, which have had displacement in Holocene time are present within 3,000 feet of a facility, no faults pass within 200 feet of the portions of the facility where treatment, storage, or disposal of hazardous waste will be conducted, based on data from a comprehensive geologic analysis of the site. Unless a site analysis is otherwise conclusive concerning the absence of faults within 200 feet of such portions of the facility data shall be obtained from a subsurface exploration, trenching, of the area within a distance no less than 200 feet from portions of the facility where treatment, storage, or disposal of hazardous waste will be conducted. Such trenching shall be performed in a direction that is perpendicular to known faults, which have had displacement in Holocene time, passing within 3,000 feet of the portions of the facility where treatment, storage, or disposal of hazardous waste will be conducted. Such investigation shall document with supporting maps and other analyses, the location of faults found. The Guidance Manual for the Location Standards provides greater detail on the content of each type of seismic investigation and the appropriate conditions under which each approach or a combination of approaches would be used.

(iii) Owners and operators of all facilities shall provide an identification of whether the facility is located within a 100-year floodplain. This identification

shall indicate the source of data for such determination and include a copy of the relevant Federal Insurance Administration (FIA) flood map, if used, or the calculations and maps used where an FIA map is not available. Information shall also be provided identifying the 100-year flood level and any other special flooding factors, e.g., wave action, which shall be considered in designing, constructing, operating, or maintaining the facility to withstand washout from a 100-year flood. Where maps for the National Flood Insurance Program produced by the Federal Insurance Administration of the Federal Emergency Management Agency are available, they will normally be determinative of whether a facility is located within or outside of the 100-year floodplain. However, where the FIA map excludes an area, usually areas of the floodplain less than 200 feet in width, these areas shall be considered and a determination made as to whether they are in the 100-year floodplain. Where FIA maps are not available for a proposed facility location, the owner or operator shall use equivalent mapping techniques to determine whether the facility is within the 100-year floodplain, and if so located, what the 100-year flood elevation would be.]

(iv) Owners and operators of facilities located in the 100-year floodplain shall provide the following information:

(A) Engineering analysis to indicate the various hydrodynamic and hydrostatic forces expected to result at the site as consequence of a 100-year flood.

(B) Structural or other engineering studies showing the design of operational units, e.g., tanks, incinerators, and flood protection devices, e.g., floodwalls, dikes, at the facility and how these will prevent washout.

(C) If applicable, and in lieu of Subsections R315-270-14(b)(11)(iv)(A) and (B), a detailed description of procedures to be followed to remove hazardous waste to safety before the facility is flooded, including:

(I) Timing of such movement relative to flood levels, including estimated time to move the waste, to show that such movement can be completed before floodwaters reach the facility.

(II) A description of the location(s) to which the waste will be moved and demonstration that those facilities will be eligible to receive hazardous waste in accordance

with the regulations under Rules R315-270, 124, and 264 through 266.

(III) The planned procedures, equipment, and personnel to be used and the means to ensure that such resources will be available in time for use.

(IV) The potential for accidental discharges of the waste during movement.

(v) Existing facilities NOT in compliance with Subsection R315-264-18(b) shall provide a plan showing how the facility will be brought into compliance and a schedule for compliance.

(12) An outline of both the introductory and continuing training programs by owners or operators to prepare persons to operate or maintain the hazardous waste management facility in a safe manner as required to demonstrate compliance with Section R315-264-16. A brief description of how training will be designed to meet actual job tasks in accordance with requirements in Subsection R315-264-16(a)(3).

(13) A copy of the closure plan and, where applicable, the post-closure plan required by Sections R315-264-112, 118, and 197. Include, where applicable, as part of the plans, specific requirements in Sections R315-264-178, 197, 228, 258, 280, 310, 351, 601, and 603.

(14) For hazardous waste disposal units that have been closed, documentation that notices required under Section R315-264-119 have been filed.

(15) The most recent closure cost estimate for the facility prepared in accordance with Section R315-264-142 and a copy of the documentation required to demonstrate financial assurance under Section R315-264-143. For a new facility, a copy of the required documentation may be submitted 60 days prior to the initial receipt of hazardous wastes, if that is later than the submission of the part B.

(16) Where applicable, the most recent post-closure cost estimate for the facility prepared in accordance with Section R315-264-144 plus a copy of the documentation required to demonstrate financial assurance under Section R315-264-145. For a new facility, a copy of the required documentation may be submitted 60 days prior to the initial receipt of hazardous wastes, if that is later than the submission of the part B.

(17) Where applicable, a copy of the insurance policy or other documentation which comprises compliance with the requirements of Section R315-264-147. For a new facility,

documentation showing the amount of insurance meeting the specification of Subsection R315-264-147(a) and, if applicable, Subsection R315-264-147(b), that the owner or operator plans to have in effect before initial receipt of hazardous waste for treatment, storage, or disposal. A request for a variance in the amount of required coverage, for a new or existing facility, may be submitted as specified in Subsection R315-264-147(c).

(18) Where appropriate, proof of coverage by a State financial mechanism in compliance with Section R315-264-149 or Section R315-264-150.

(19) A topographic map showing a distance of 1,000 feet around the facility at a scale of 2.5 centimeters, 1 inch, equal to not more than 61.0 meters, 200 feet. Contours shall be shown on the map. The contour interval shall be sufficient to clearly show the pattern of surface water flow in the vicinity of and from each operational unit of the facility. For example, contours with an interval of 1.5 meters, 5 feet, if relief is greater than 6.1 meters, 20 feet, or an interval of 0.6 meters, 2 feet, if relief is less than 6.1 meters, 20 feet. Owners and operators of hazardous waste management facilities located in mountainous areas should use large contour intervals to adequately show topographic profiles of facilities. The map shall clearly show the following:

(i) Map scale and date.

(ii) 100-year floodplain area.

(iii) Surface waters including intermittent streams.

(iv) Surrounding land uses, residential, commercial, agricultural, recreational.

(v) A wind rose, i.e., prevailing wind-speed and direction.

(vi) Orientation of the map, north arrow.

(vii) Legal boundaries of the hazardous waste management facility site.

(viii) Access control, fences, gates.

(ix) Injection and withdrawal wells both on-site and off-site.

(x) Buildings; treatment, storage, or disposal operations; or other structure, recreation areas, runoff control systems, access and internal roads, storm, sanitary, and process sewerage systems, loading and unloading areas, fire control facilities, etc.

(xi) Barriers for drainage or flood control.

(xii) Location of operational units within the hazardous waste management facility site, where hazardous waste is, or will be, treated, stored, or disposed, include equipment cleanup areas. For large hazardous waste management facilities the Director may allow the use of other scales on a case-by-case basis.

(20) Applicants may be required to submit such information as may be necessary to enable the Director to carry out his duties under State and Federal laws.

(21) For land disposal facilities, if a case-by-case extension has been approved under Section R315-268-5 or a petition has been approved under Section R315-268-6, a copy of the notice of approval for the extension or petition is required.

(22) A summary of the pre-application meeting, along with a list of attendees and their addresses, and copies of any written comments or materials submitted at the meeting, as required under Subsection R315-124-31(c).

(c) Additional information requirements. The following additional information regarding protection of groundwater is required from owners or operators of hazardous waste facilities containing a regulated unit except as provided in Subsection R315-264-90(b):

(1) A summary of the ground-water monitoring data obtained during the interim status period under 40 CFR 265.90 through 94, which are adopted by reference, where applicable.

(2) Identification of the uppermost aquifer and aquifers hydraulically interconnected beneath the facility property, including ground-water flow direction and rate, and the basis for such identification, i.e., the information obtained from hydrogeologic investigations of the facility area.

(3) On the topographic map required under Subsection R315-270-14(b)(19), a delineation of the waste management area, the property boundary, the proposed “point of compliance” as defined under Section R315-264-95, the proposed location of ground-water monitoring wells as required under Section R315-264-97, and, to the extent possible, the information required in Subsection R315-270-14(c)(2).

(4) A description of any plume of contamination that has entered the ground water from a regulated unit at the time that the application was submitted that:

(i) Delineates the extent of the plume on the topographic map required under Subsection R315-270-14(b)(19);

(ii) Identifies the concentration of each appendix IX, of Rule R315-264, constituent throughout the plume or identifies the maximum concentrations of each appendix IX constituent in the plume.

(5) Detailed plans and an engineering report describing the proposed ground water monitoring program to be implemented to meet the requirements of Section R315-264-97.

(6) If the presence of hazardous constituents has not been detected in the ground water at the time of permit application, the owner or operator shall submit sufficient information, supporting data, and analyses to establish a detection monitoring program which meets the requirements of Section R315-264-98. This submission shall address the following items specified under Section R315-264-98:

(i) A proposed list of indicator parameters, waste constituents, or reaction products that can provide a reliable indication of the presence of hazardous constituents in the ground water;

(ii) A proposed ground-water monitoring system;

(iii) Background values for each proposed monitoring parameter or constituent, or procedures to calculate such values; and

(iv) A description of proposed sampling, analysis and statistical comparison procedures to be utilized in evaluating ground-water monitoring data.

(7) If the presence of hazardous constituents has been detected in the ground water at the point of compliance at the time of the permit application, the owner or operator shall submit sufficient information, supporting data, and analyses to establish a compliance monitoring program which meets the requirements of Section R315-264-99. Except as provided in Subsection R315-264-98(h)(5), the owner or operator shall also submit an engineering feasibility plan for a corrective action program necessary to meet the requirements of Section R315-264-100, unless the owner or operator obtains written authorization in advance from the Director to submit a proposed permit schedule for submittal of such a plan. To demonstrate compliance with Section R315-264-99, the owner or operator shall address the following items:

(i) A description of the wastes previously handled at the facility;

(ii) A characterization of the contaminated ground water, including concentrations of hazardous constituents;

(iii) A list of hazardous constituents for which compliance monitoring will be undertaken in accordance with Sections R315-264-97 and 99;

(iv) Proposed concentration limits for each hazardous constituent, based on the criteria set forth in Subsection R315-264-94(a), including a justification for establishing any alternate concentration limits;

(v) Detailed plans and an engineering report describing the proposed ground-water monitoring system, in accordance with the requirements of Section R315-264-97; and

(vi) A description of proposed sampling, analysis and statistical comparison procedures to be utilized in evaluating ground-water monitoring data.

(8) If hazardous constituents have been measured in the ground water which exceed the concentration limits established under Section R315-264-94 Table 1, or if ground water monitoring conducted at the time of permit application under 40 CFR 265.90 through 94, which are adopted by reference, at the waste boundary indicates the presence of hazardous constituents from the facility in ground water over background concentrations, the owner or operator shall submit sufficient information, supporting data, and analyses to establish a corrective action program which meets the requirements of Section R315-264-100. However, an owner or operator is not required to submit information to establish a corrective action program if he demonstrates to the Director that alternate concentration limits will protect human health and the environment after considering the criteria listed in Subsection R315-264-94(b). An owner or operator who is not required to establish a corrective action program for this reason shall instead submit sufficient information to establish a compliance monitoring program which meets the requirements of Section R315-264-99 and Subsection R315-270-14(c)(6). To demonstrate compliance with Section R315-264-100, the owner or operator shall address, at a minimum, the following items:

(i) A characterization of the contaminated ground water, including concentrations of hazardous constituents;

(ii) The concentration limit for each hazardous constituent found in the ground water as set forth in Section R315-264-94;

(iii) Detailed plans and an engineering report describing the corrective action to be taken; and

(iv) A description of how the ground-water monitoring program will demonstrate the adequacy of the corrective action.

(v) The permit may contain a schedule for submittal of the information required in Subsections R315-270-14(c)(8)(iii) and (iv) provided the owner or operator obtains written authorization from the Director prior to submittal of the complete permit application.

(d) Information requirements for solid waste management units.

(1) The following information is required for each solid waste management unit at a facility seeking a permit:

(i) The location of the unit on the topographic map required under Subsection R315-270-14(b)(19).

(ii) Designation of type of unit.

(iii) General dimensions and structural description, supply any available drawings.

(iv) When the unit was operated.

(v) Specification of all wastes that have been managed at the unit, to the extent available.

(2) The owner or operator of any facility containing one or more solid waste management units shall submit all available information pertaining to any release of hazardous wastes or hazardous constituents from such unit or units.

(3) The owner/operator shall conduct and provide the results of sampling and analysis of groundwater, landsurface, and subsurface strata, surface water, or air, which may include the installation of wells, where the Director ascertains it is necessary to complete a Facility Assessment that will determine if a more complete investigation is necessary

R315-270-15. Hazardous Waste Permit Program - Specific Part B Information Requirements For Containers.

Except as otherwise provided in Section R315-264-170, owners or operators of facilities that store containers of hazardous waste shall provide the following additional information:

(a) A description of the containment system to demonstrate compliance with Section R315-264-175. Show at least the following:

(1) Basic design parameters, dimensions, and materials of construction.

(2) How the design promotes drainage or how containers are kept from contact with standing liquids in the containment system.

(3) Capacity of the containment system relative to the number and volume of containers to be stored.

(4) Provisions for preventing or managing run-on.

(5) How accumulated liquids can be analyzed and removed to prevent overflow.

(b) For storage areas that store containers holding wastes that do not contain free liquids, a demonstration of compliance with Subsection R315-264-175(c), including:

(1) Test procedures and results or other documentation or information to show that the wastes do not contain free liquids; and

(2) A description of how the storage area is designed or operated to drain and remove liquids or how containers are kept from contact with standing liquids.

(c) Sketches, drawings, or data demonstrating compliance with Section R315-264-176, location of buffer zone and containers holding ignitable or reactive wastes, and Subsection R315-264-177(c), location of incompatible wastes, where applicable.

(d) Where incompatible wastes are stored or otherwise managed in containers, a description of the procedures used to ensure compliance with Subsections R315-264-177(a) and (b), and Subsections R315-264-17(b) and (c).

(e) Information on air emission control equipment as required in Section R315-270-27.

R315-270-16. Hazardous Waste Permit Program - Specific Part B Information Requirements For Tank Systems.

Except as otherwise provided in Section R315-264-190, owners and operators of facilities that use tanks to store or treat hazardous waste shall provide the following additional information:

(a) A written assessment that is reviewed and certified by a qualified Professional Engineer as to the structural integrity and suitability for handling hazardous waste of each tank system, as required under Sections R315-264-191 and 192;

(b) Dimensions and capacity of each tank;

(c) Description of feed systems, safety cutoff, bypass systems, and pressure controls, e.g., vents;

(d) A diagram of piping, instrumentation, and process flow for each tank system;

(e) A description of materials and equipment used to provide external corrosion protection, as required under Subsection R315-264-192(a)(3)(ii);

(f) For new tank systems, a detailed description of how the tank system(s) will be installed in compliance with Subsections R315-264-192(b), (c), (d), and (e);

(g) Detailed plans and description of how the secondary containment system for each tank system is or will be designed, constructed, and operated to meet the requirements of Subsections R315-264-193(a), (b), (c), (d), (e), and (f);

(h) For tank systems for which a variance from the requirements of Section R315-264-193 is sought, as provided by Subsection R315-264-193(g):

(1) Detailed plans and engineering and hydrogeologic reports, as appropriate, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous waste or hazardous constituents into the ground water or surface water during the life of the facility, or

(2) A detailed assessment of the substantial present or potential hazards posed to human health or the environment should a release enter the environment.

(i) Description of controls and practices to prevent spills and overflows, as required under Subsection R315-264-194(b); and

(j) For tank systems in which ignitable, reactive, or incompatible wastes are to be stored or treated, a description of how operating procedures and tank system and facility design will achieve compliance with the requirements of Sections R315-264-198 and 199.

(k) Information on air emission control equipment as required in Section R315-270-27.

R315-270-17. Hazardous Waste Permit Program - Specific Part B Information Requirements For Surface Impoundments. Except as otherwise provided in Section R315-264-1, owners and operators of facilities that store, treat or dispose of hazardous waste in surface impoundments shall provide the following additional information:

(a) A list of the hazardous wastes placed or to be placed in each surface impoundment;

(b) Detailed plans and an engineering report describing how the surface impoundment is designed and is or will be constructed, operated, and maintained to meet the requirements of Section R315-264-19 and Sections R315-264-221through 223, addressing the following items:

(1) The liner system, except for an existing portion of a surface impoundment. If an exemption from the requirement for a liner is sought as provided by Subsection R315-264-221(b), submit detailed plans and engineering and hydrogeologic reports, as appropriate, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous constituents into the ground water or surface water at any future time;

(2) The double liner and leak, leachate, detection, collection, and removal system, if the surface impoundment shall meet the requirements of Subsection R315-264-221(c). If an exemption from the requirements for double liners and a leak detection, collection, and removal system or alternative design is sought as provided by Subsections R315-264-221(d), (e), or (f), submit appropriate information;

(3) If the leak detection system is located in a saturated zone, submit detailed plans and an engineering report explaining the leak detection system design and operation, and the location of the saturated zone in relation to the leak detection system;

(4) The construction quality assurance (CQA) plan if required under Section R315-264-19;

(5) Proposed action leakage rate, with rationale, if required under Section R315-264-222, and response action plan, if required under Section R315-264-223;

(6) Prevention of overtopping; and

(7) Structural integrity of dikes;

(c) A description of how each surface impoundment, including the double liner system, leak detection system, cover system, and appurtenances for control of overtopping, will be inspected in order to meet the requirements of Subsections R315-264-226(a), (b), and (d). This information shall be included in the inspection plan submitted under Subsection R315-270-14(b)(5);

(d) A certification by a qualified engineer which attests to the structural integrity of each dike, as

required under Subsection R315-264-226(c). For new units, the owner or operator shall submit a statement by a qualified engineer that he will provide such a certification upon completion of construction in accordance with the plans and specifications;

(e) A description of the procedure to be used for removing a surface impoundment from service, as required under Subsections R315-264-227(b) and (c). This information should be included in the contingency plan submitted under Subsection R315-270-14(b)(7);

(f) A description of how hazardous waste residues and contaminated materials will be removed from the unit at closure, as required under Subsection R315-264-228(a)(1). For any wastes not to be removed from the unit upon closure, the owner or operator shall submit detailed plans and an engineering report describing how Subsections R315-264-228(a)(2) and (b) will be complied with. This information should be included in the closure plan and, where applicable, the post-closure plan submitted under Subsection R315-270-14(b)(13);

(g) If ignitable or reactive wastes are to be placed in a surface impoundment, an explanation of how Section R315-264-229 will be complied with;

(h) If incompatible wastes, or incompatible wastes and materials will be placed in a surface impoundment, an explanation of how Section R315-264-230 will be complied with.

(i) A waste management plan for EPA Hazardous Waste Nos. FO20, FO21, FO22, FO23, FO26, and FO27 describing how the surface impoundment is or will be designed, constructed, operated, and maintained to meet the requirements of Section R315-264-231. This submission shall address the following items as specified in Section R315-264-231:

(1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring techniques.

(j) Information on air emission control equipment as required in Section R315-270-27.

R315-270-18. Hazardous Waste Permit Program - Specific Part B Information Requirements For Waste Piles.
Except as otherwise provided in Section R315-264-1, owners and operators of facilities that store or treat hazardous waste in waste piles shall provide the following additional information:

(a) A list of hazardous wastes placed or to be placed in each waste pile;

(b) If an exemption is sought to Section R315-264-251 and Sections R315-264-90 through 101 as provided by Subsection R315-264-250(c) or Subsection R315-264-90(b)(2), an explanation of how the standards of Subsection R315-264-250(c) will be complied with or detailed plans and an engineering report describing how the requirements of Subsection R315-264-90(b)(2) will be met.

(c) Detailed plans and an engineering report describing how the waste pile is designed and is or will be constructed, operated, and maintained to meet the requirements of Sections R315-264-19 and R315-264-251through 253, addressing the following items:

(1)(i) The liner system, except for an existing portion of a waste pile, if the waste pile shall meet the requirements of Subsection R315-264-251(a). If an exemption from the requirement for a liner is sought as provided by Subsection R315-264-251(b), submit detailed plans, and engineering and hydrogeological reports, as appropriate, describing alternate designs and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous constituents into the ground water or surface water at any future time;

(ii) The double liner and leak, leachate, detection; collection; and removal system, if the waste pile shall meet the requirements of Subsection R315-264-251(c). If an exemption from the requirements for double liners and a leak detection, collection, and removal system or alternative design is sought as provided by Subsections R315-264-251(d), (e), or (f), submit appropriate information;

(iii) If the leak detection system is located in a saturated zone, submit detailed plans and an engineering report explaining the leak detection system design and

operation, and the location of the saturated zone in relation to the leak detection system;

(iv) The construction quality assurance (CQA) plan if required under Section R315-264-19;

(v) Proposed action leakage rate, with rationale, if required under Section R315-264-252, and response action plan, if required under Section R315-264-253;

(2) Control of run-on;

(3) Control of run-off;

(4) Management of collection and holding units associated with run-on and run-off control systems; and

(5) Control of wind dispersal of particulate matter, where applicable;

(d) A description of how each waste pile, including the double liner system, leachate collection and removal system, leak detection system, cover system, and appurtenances for control of run-on and run-off, will be inspected in order to meet the requirements of Subsections R315-264-254(a), (b), and (c). This information shall be included in the inspection plan submitted under Subsection R315-270-14(b)(5);

(e) If treatment is carried out on or in the pile, details of the process and equipment used, and the nature and quality of the residuals;

(f) If ignitable or reactive wastes are to be placed in a waste pile, an explanation of how the requirements of Section R315-264-256 will be complied with;

(g) If incompatible wastes, or incompatible wastes and materials will be placed in a waste pile, an explanation of how Section R315-264-257 will be complied with;

(h) A description of how hazardous waste residues and contaminated materials will be removed from the waste pile at closure, as required under Subsection R315-264-258(a). For any waste not to be removed from the waste pile upon closure, the owner or operator shall submit detailed plans and an engineering report describing how Subsections R315-264-310(a) and (b) will be complied with. This information should be included in the closure plan and, where applicable, the post-closure plan submitted under Subsection R315-270-14(b)(13).

(i) A waste management plan for EPA Hazardous Waste Nos. FO20, FO21, FO22, FO23, FO26, and FO27 describing how a waste pile that is not enclosed, as defined in Section R315-264-250(c), is or will be designed, constructed,

operated, and maintained to meet the requirements of Section R315-264-259. This submission shall address the following items as specified in Section R315-264-259:

(1) The volume, physical, and chemical characteristics of the wastes to be disposed in the waste pile, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring techniques.

R315-270-19. Hazardous Waste Permit Program - Specific Part B Information Requirements For Incinerators.

Except as Subsection R315-264-340 and Subsection R315-270-19(e) provide otherwise, owners and operators of facilities that incinerate hazardous waste shall fulfill the requirements of Subsection R315-270-19(a), (b), or (c).

(a) When seeking an exemption under Subsection R315-264-340 (b) or (c), Ignitable, corrosive, or reactive wastes only:

(1) Documentation that the waste is listed as a hazardous waste in Sections R315-261-30 through 35 solely because it is ignitable, Hazard Code I, or corrosive, Hazard Code C, or both; or

(2) Documentation that the waste is listed as a hazardous waste in Sections R315-261-30 through 35 solely because it is reactive, Hazard Code R, for characteristics other than those listed in Subsection R315-261-23(a)(4) and (5), and will not be burned when other hazardous wastes are present in the combustion zone; or

(3) Documentation that the waste is a hazardous waste solely because it possesses the characteristic of ignitability, corrosivity, or both, as determined by the tests for characteristics of hazardous waste under Sections R315-261-20 through 24; or

(4) Documentation that the waste is a hazardous waste solely because it possesses the reactivity characteristics listed in Subsections R315-261-23(a)(1), (2), (3), (6), (7), or (8), and that it will not be burned when other hazardous wastes are present in the combustion zone; or

(b) Submit a trial burn plan or the results of a trial burn, including all required determinations, in accordance with Section R315-270-62; or

(c) In lieu of a trial burn, the applicant may submit the following information:

(1) An analysis of each waste or mixture of wastes to be burned including:

(i) Heat value of the waste in the form and composition in which it will be burned.

(ii) Viscosity, if applicable, or description of physical form of the waste.

(iii) An identification of any hazardous organic constituents listed in Rule R315-261, appendix VIII, which are present in the waste to be burned, except that the applicant need not analyze for constituents listed in Rule R315-261, appendix VIII, which would reasonably not be expected to be found in the waste. The constituents excluded from analysis shall be identified and the basis for their exclusion stated. The waste analysis shall rely on appropriate analytical techniques.

(iv) An approximate quantification of the hazardous constituents identified in the waste, within the precision produced by appropriate analytical methods.

(v) A quantification of those hazardous constituents in the waste which may be designated as POHC's based on data submitted from other trial or operational burns which demonstrate compliance with the performance standards in Section R315-264-343.

(2) A detailed engineering description of the incinerator, including:

(i) Manufacturer's name and model number of incinerator.

(ii) Type of incinerator.

(iii) Linear dimension of incinerator unit including cross sectional area of combustion chamber.

(iv) Description of auxiliary fuel system, type/feed.

(v) Capacity of prime mover.

(vi) Description of automatic waste feed cutoff system(s).

(vii) Stack gas monitoring and pollution control monitoring system.

(viii) Nozzle and burner design.

(ix) Construction materials.

(x) Location and description of temperature, pressure, and flow indicating devices and control devices.

(3) A description and analysis of the waste to be burned compared with the waste for which data from operational or trial burns are provided to support the contention that a trial burn is not needed. The data should include those items listed in Subsection R315-270-19(c)(1). This analysis should specify the POHC's which the applicant has identified in the waste for which a permit is sought, and any differences from the POHC's in the waste for which burn data are provided.

(4) The design and operating conditions of the incinerator unit to be used, compared with that for which comparative burn data are available.

(5) A description of the results submitted from any previously conducted trial burn(s) including:

(i) Sampling and analysis techniques used to calculate performance standards in Section R315-264-343,

(ii) Methods and results of monitoring temperatures, waste feed rates, carbon monoxide, and an appropriate indicator of combustion gas velocity, including a statement concerning the precision and accuracy of this measurement,

(6) The expected incinerator operation information to demonstrate compliance with Sections R315-264-343 and 345 including:

(i) Expected carbon monoxide (CO) level in the stack exhaust gas.

(ii) Waste feed rate.

(iii) Combustion zone temperature.

(iv) Indication of combustion gas velocity.

(v) Expected stack gas volume, flow rate, and temperature.

(vi) Computed residence time for waste in the combustion zone.

(vii) Expected hydrochloric acid removal efficiency.

(viii) Expected fugitive emissions and their control procedures.

(ix) Proposed waste feed cut-off limits based on the identified significant operating parameters.

(7) Such supplemental information as the Director finds necessary to achieve the purposes of Subsection R315-270-19(c).

(8) Waste analysis data, including that submitted in Subsection R315-270-19(c)(1), sufficient to allow the Director to specify as permit Principal Organic Hazardous Constituents, permit POHC's, those constituents for which destruction and removal efficiencies will be required.

(d) The Director shall approve a permit application without a trial burn if he finds that:

(1) The wastes are sufficiently similar; and

(2) The incinerator units are sufficiently similar, and the data from other trial burns are adequate to specify, under Section R315-264-345, operating conditions that will ensure that the performance standards in Section R315-264-343 shall be met by the incinerator.

(e) When an owner or operator of a hazardous waste incineration unit becomes subject to permit requirements after October 12, 2005, or when an owner or operator of an existing hazardous waste incineration unit demonstrates compliance with the air emission standards and limitations in Subsection R307-214-2(39) which incorporates 40 CFR part 63, subpart EEE, i.e., by conducting a comprehensive performance test and submitting a Notification of Compliance under 40 CFR 63.1207(j) and 63.1210(d) documenting compliance with all applicable requirements of Subsection R307-214-2(39) which incorporates 40 CFR part 63, subpart EEE, the requirements of Section R315-270-19 do not apply, except those provisions the Director determines are necessary to ensure compliance with Subsections R315-264-345(a) and (c) if the owner or operator elect to comply with Subsection R315-270-235(a)(1)(i) to minimize emissions of toxic compounds from startup, shutdown, and malfunction events. Nevertheless, the Director may apply the provisions of Section R315-270-19, on a case-by-case basis, for purposes of information collection in accordance with Subsections R315-270-10(k) and (l), R315-270-32(b)(2), and (b)(3).

R315-270-20. Hazardous Waste Permit Program - Specific Part B Information Requirements For Land Treatment Facilities.

Except as otherwise provided in Section R315-264-1, owners and operators of facilities that use land treatment to dispose of hazardous waste shall provide the following additional information:

(a) A description of plans to conduct a treatment demonstration as required under Section R315-264-272. The description shall include the following information;

(1) The wastes for which the demonstration will be made and the potential hazardous constituents in the waste;

(2) The data sources to be used to make the demonstration, e.g., literature, laboratory data, field data, or operating data;

(3) Any specific laboratory or field test that will be conducted, including:

(i) The type of test, e.g., column leaching, degradation;

(ii) Materials and methods, including analytical procedures;

(iii) Expected time for completion;

(iv) Characteristics of the unit that will be simulated in the demonstration, including treatment zone characteristics, climatic conditions, and operating practices.

(b) A description of a land treatment program, as required under Section R315-264-271. This information shall be submitted with the plans for the treatment demonstration, and updated following the treatment demonstration. The land treatment program shall address the following items:

(1) The wastes to be land treated;

(2) Design measures and operating practices necessary to maximize treatment in accordance with Subsection R315-264-273(a) including:

(i) Waste application method and rate;

(ii) Measures to control soil pH;

(iii) Enhancement of microbial or chemical reactions;

(iv) Control of moisture content;

(3) Provisions for unsaturated zone monitoring, including:

(i) Sampling equipment, procedures, and frequency;

(ii) Procedures for selecting sampling locations;

(iii) Analytical procedures;

(iv) Chain of custody control;

(v) Procedures for establishing background values;

(vi) Statistical methods for interpreting results;

(vii) The justification for any hazardous constituents recommended for selection as principal hazardous constituents, in accordance with the criteria for such selection in Subsection R315-264-278(a);

(4) A list of hazardous constituents reasonably expected to be in, or derived from, the wastes to be land treated based on waste analysis performed pursuant to Section R315-264-13;

(5) The proposed dimensions of the treatment zone;

(c) A description of how the unit is or will be designed, constructed, operated, and maintained in order to meet the requirements of Section R315-264-273. This submission shall address the following items:

(1) Control of run-on;

(2) Collection and control of run-off;

(3) Minimization of run-off of hazardous constituents from the treatment zone;

(4) Management of collection and holding facilities associated with run-on and run-off control systems;

(5) Periodic inspection of the unit. This information should be included in the inspection plan submitted under Subsection R315-270-14(b)(5);

(6) Control of wind dispersal of particulate matter, if applicable;

(d) If food-chain crops are to be grown in or on the treatment zone of the land treatment unit, a description of how the demonstration required under Subsection R315-264-276(a) will be conducted including:

(1) Characteristics of the food-chain crop for which the demonstration will be made.

(2) Characteristics of the waste, treatment zone, and waste application method and rate to be used in the demonstration;

(3) Procedures for crop growth, sample collection, sample analysis, and data evaluation;

(4) Characteristics of the comparison crop including the location and conditions under which it was or will be grown;

(e) If food-chain crops are to be grown, and cadmium is present in the land-treated waste, a description of how the requirements of Subsection R315-264-276(b) will be complied with;

(f) A description of the vegetative cover to be applied to closed portions of the facility, and a plan for maintaining such cover during the post-closure care period, as required under Subsections R315-264-280(a)(8) and R315-264-280(c)(2). This information should be included in the closure plan and, where applicable, the post-closure care plan submitted under Subsection R315-270-14(b)(13);

(g) If ignitable or reactive wastes will be placed in or on the treatment zone, an explanation of how the requirements of Section R315-264-281 will be complied with;

(h) If incompatible wastes, or incompatible wastes and materials, will be placed in or on the same treatment

zone, an explanation of how Section R315-264-282 will be complied with.

(i) A waste management plan for EPA Hazardous Waste Nos. FO20, FO21, FO22, FO23, FO26, and FO27 describing how a land treatment facility is or will be designed, constructed, operated, and maintained to meet the requirements of Section R315-264-283. This submission shall address the following items as specified in Section R315-264-283:

(1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring techniques.

R315-270-21. Hazardous Waste Permit Program - Specific Part B Information Requirements For Landfills.

Except as otherwise provided in Section R315-264-1, owners and operators of facilities that dispose of hazardous waste in landfills shall provide the following additional information:

(a) A list of the hazardous wastes placed or to be placed in each landfill or landfill cell;

(b) Detailed plans and an engineering report describing how the landfill is designed and is or will be constructed, operated, and maintained to meet the requirements of Sections R315-264-19 and Sections R315-264-301 through 303, addressing the following items:

(1)(i) The liner system, except for an existing portion of a landfill, if the landfill shall meet the requirements of Subsection R315-264-301(a). If an exemption from the requirement for a liner is sought as provided by Subsection R315-264-301(b), submit detailed plans, and engineering and hydrogeological reports, as appropriate, describing alternate designs and operating practices that shall, in conjunction with location aspects, prevent the migration of any hazardous constituents into the ground water or surface water at any future time;

(ii) The double liner and leak, leachate; detection; collection; and removal system; if the landfill shall meet

the requirements of Subsection R315-264-301(c). If an exemption from the requirements for double liners and a leak detection, collection, and removal system or alternative design is sought as provided by Subsection R315-264-301(d), (e), or (f), submit appropriate information;

(iii) If the leak detection system is located in a saturated zone, submit detailed plans and an engineering report explaining the leak detection system design and operation, and the location of the saturated zone in relation to the leak detection system;

(iv) The construction quality assurance (CQA) plan if required under Section R315-264-19;

(v) Proposed action leakage rate, with rationale, if required under Section R315-264-302, and response action plan, if required under Section R315-264-303;

(2) Control of run-on;

(3) Control of run-off;

(4) Management of collection and holding facilities associated with run-on and run-off control systems; and

(5) Control of wind dispersal of particulate matter, where applicable;

(c) A description of how each landfill, including the double liner system, leachate collection and removal system, leak detection system, cover system, and appurtenances for control of run-on and run-off, will be inspected in order to meet the requirements of Subsections R315-264-303(a), (b), and (c). This information shall be included in the inspection plan submitted under Subsection R315-270-14(b)(5);

(d) A description of how each landfill, including the liner and cover systems, will be inspected in order to meet the requirements of Subsections R315-264-303(a) and (b). This information should be included in the inspection plan submitted under Subsection R315-270-14(b)(5).

(e) Detailed plans and an engineering report describing the final cover which will be applied to each landfill or landfill cell at closure in accordance with Subsection R315-264-310(a), and a description of how each landfill will be maintained and monitored after closure in accordance with Subsection R315-264-310(b). This information should be included in the closure and post-closure plans submitted under Subsection R315-270-14(b)(13).

(f) If ignitable or reactive wastes will be landfilled, an explanation of how the standards of Section R315-264-312 will be complied with;

(g) If incompatible wastes, or incompatible wastes and materials will be landfilled, an explanation of how Section R315-264-313 will be complied with;

(h) If bulk or non-containerized liquid waste or wastes containing free liquids is to be landfilled prior to May 8, 1985, an explanation of how the requirements of Subsection R315-264-314(a) will be complied with;

(i) If containers of hazardous waste are to be landfilled, an explanation of how the requirements of Section R315-264-315 or Section R315-264-316, as applicable, will be complied with.

(j) A waste management plan for EPA Hazardous Waste Nos. FO20, FO21, FO22, FO23, FO26, and FO27 describing how a landfill is or will be designed, constructed, operated, and maintained to meet the requirements of Section R315-264-317. This submission shall address the following items as specified in Section R315-264-317:

(1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring techniques.

R315-270-22. Hazardous Waste Permit Program Specific Part B Information Requirements For Boilers And Industrial Furnaces Burning Hazardous Waste.

When an owner or operator of a cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace becomes subject to Section 19-6-108 permit requirements after October 12, 2005, or when an owner or operator of an existing cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace demonstrates compliance with the air emission standards and limitations in 40 CFR 63, subpart EEE, i.e., by conducting a comprehensive performance test and submitting a Notification of Compliance under 40 CFR 63.1207(j) and

63.1210(d) documenting compliance with all applicable requirements of Subsection R307-214-2(39) which incorporates 40 CFR part 63, subpart EEE, the requirements of Section R315-270-22 do not apply. The requirements of Section R315-270-22 do apply, however, if the Director determines certain provisions are necessary to ensure compliance with Subsections R315-266-102(e)(1) and (e)(2)(iii) if the owner or operator elects to comply with Subsection R315-270-235(a)(1)(i) to minimize emissions of toxic compounds from startup, shutdown, and malfunction events; or if the facility is an area source and the owner or operator elects to comply with the Sections R315-266-105 through 107 standards and associated requirements for particulate matter, hydrogen chloride and chlorine gas, and non-mercury metals; or the Director determines certain provisions apply, on a case-by-case basis, for purposes of information collection in accordance with Subsections R315-270-10(k), R315-270-10(l), and Subsections R315-270-32(b)(2), and 32(b)(3).

(a) Trial burns

(1) General. Except as provided below, owners and operators that are subject to the standards to control organic emissions provided by Section R315-266-104, standards to control particulate matter provided by Section R315-266-105, standards to control metals emissions provided by Section R315-266-106, or standards to control hydrogen chloride or chlorine gas emissions provided by Section R315-266-107 shall conduct a trial burn to demonstrate conformance with those standards and shall submit a trial burn plan or the results of a trial burn, including all required determinations, in accordance with Section R315-270-66.

(i) A trial burn to demonstrate conformance with a particular emission standard may be waived under provisions of Sections R315-266-104 through 107 and Subsections R315-270-22(a)(2) through (a)(5); and

(ii) The owner or operator may submit data in lieu of a trial burn, as prescribed in Subsection R315-270-22 (a)(6).

(2) Waiver of trial burn for DRE

(i) Boilers operated under special operating requirements. When seeking to be permitted under Subsections R315-266-104(a)(4) and R315-266-110 that automatically waive the DRE trial burn, the owner or operator of a boiler shall submit documentation that the

boiler operates under the special operating requirements provided by Section R315-266-110.

(ii) Boilers and industrial furnaces burning low risk waste. When seeking to be permitted under the provisions for low risk waste provided by Subsections R315-266-104(a)(5) and R315-266-109(a) that waive the DRE trial burn, the owner or operator shall submit:

(A) Documentation that the device is operated in conformance with the requirements of Subsection R315-266-109(a)(1).

(B) Results of analyses of each waste to be burned, documenting the concentrations of nonmetal compounds listed in appendix VIII of Rule R315-261, except for those constituents that would reasonably not be expected to be in the waste. The constituents excluded from analysis shall be identified and the basis for their exclusion explained. The analysis shall rely on appropriate analytical techniques.

(C) Documentation of hazardous waste firing rates and calculations of reasonable, worst-case emission rates of each constituent identified in Subsection R315-270-22(a)(2)(ii)(B) using procedures provided by Subsection R315-266-109(a)(2)(ii).

(D) Results of emissions dispersion modeling for emissions identified in Subsection R315-270-22(a)(2)(ii)(C) using modeling procedures prescribed by Subsection R315-266-106(h). The Director shall review the emission modeling conducted by the applicant to determine conformance with these procedures. The Director shall either approve the modeling or determine that alternate or supplementary modeling is appropriate.

(E) Documentation that the maximum annual average ground level concentration of each constituent identified in Subsection R315-270-22(a)(2)(ii)(B) quantified in conformance with Subsection R315-270-22(a)(2)(ii)(D) does not exceed the allowable ambient level established in appendices IV or V of Rule R315-266. The acceptable ambient concentration for emitted constituents for which a specific Reference Air Concentration has not been established in appendix IV or Risk-Specific Dose has not been established in appendix V is 0.1 micrograms per cubic meter, as noted in the footnote to appendix IV.

(3) Waiver of trial burn for metals. When seeking to be permitted under the Tier I, or adjusted Tier I, metals feed rate screening limits provided by Subsections R315-

266-106 (b) and (e) that control metals emissions without requiring a trial burn, the owner or operator shall submit:

(i) Documentation of the feed rate of hazardous waste, other fuels, and industrial furnace feed stocks;

(ii) Documentation of the concentration of each metal controlled by Subsection R315-266-106(b) or (e) in the hazardous waste, other fuels, and industrial furnace feedstocks, and calculations of the total feed rate of each metal;

(iii) Documentation of how the applicant shall ensure that the Tier I feed rate screening limits provided by Subsection R315-266-106(b) or (e) shall not be exceeded during the averaging period provided by Subsection R315-266-106(b) or (e);

(iv) Documentation to support the determination of the terrain-adjusted effective stack height, good engineering practice stack height, terrain type, and land use as provided by Subsections R315-266-106(b)(3) through (b)(5);

(v) Documentation of compliance with the provisions of Subsection R315-266-106(b)(6), if applicable, for facilities with multiple stacks;

(vi) Documentation that the facility does not fail the criteria provided by Subsection R315-266-106(b)(7) for eligibility to comply with the screening limits; and

(vii) Proposed sampling and metals analysis plan for the hazardous waste, other fuels, and industrial furnace feed stocks.

(4) Waiver of trial burn for particulate matter. When seeking to be permitted under the low risk waste provisions of Subsection R315-266-109(b) which waives the particulate standard, and trial burn to demonstrate conformance with the particulate standard, applicants shall submit documentation supporting conformance with Subsections R315-270-22(a)(2)(ii) and (a)(3).

(5) Waiver of trial burn for HCl and Cl_2. When seeking to be permitted under the Tier I, or adjusted Tier I, feed rate screening limits for total chloride and chlorine provided by Subsections R315-266-107(b)(1) and (e) that control emissions of hydrogen chloride (HCl) and chlorine gas (Cl_2) without requiring a trial burn, the owner or operator shall submit:

(i) Documentation of the feed rate of hazardous waste, other fuels, and industrial furnace feed stocks;

(ii) Documentation of the levels of total chloride and chlorine in the hazardous waste, other fuels, and industrial furnace feedstocks, and calculations of the total feed rate of total chloride and chlorine;

(iii) Documentation of how the applicant shall ensure that the Tier I, or adjusted Tier I, feed rate screening limits provided by Subsection R315-266-107(b)(1) or (e) shall not be exceeded during the averaging period provided by Subsection R315-266-107(b)(1) or (e);

(iv) Documentation to support the determination of the terrain-adjusted effective stack height, good engineering practice stack height, terrain type, and land use as provided by Subsection R315-266-107(b)(3);

(v) Documentation of compliance with the provisions of Subsection R315-266-107(b)(4), if applicable, for facilities with multiple stacks;

(vi) Documentation that the facility does not fail the criteria provided by Subsection R315-266-107(b)(3) for eligibility to comply with the screening limits; and

(vii) Proposed sampling and analysis plan for total chloride and chlorine for the hazardous waste, other fuels, and industrial furnace feedstocks.

(6) Data in lieu of trial burn. The owner or operator may seek an exemption from the trial burn requirements to demonstrate conformance with Sections R315-266-104 through 107 and Section R315-270-66 by providing the information required by Section R315-270-66 from previous compliance testing of the device in conformance with Subsection R315-266-103, or from compliance testing or trial or operational burns of similar boilers or industrial furnaces burning similar hazardous wastes under similar conditions. If data from a similar device is used to support a trial burn waiver, the design and operating information required by Section R315-270-66 shall be provided for both the similar device and the device to which the data is to be applied, and a comparison of the design and operating information shall be provided. The Director shall approve a permit application without a trial burn if he finds that the hazardous wastes are sufficiently similar, the devices are sufficiently similar, the operating conditions are sufficiently similar, and the data from other compliance tests, trial burns, or operational burns are adequate to specify, under Section R315-266-102, operating conditions that shall ensure conformance with Subsection R315-266-

102(c). In addition, the following information shall be submitted:

(i) For a waiver from any trial burn:

(A) A description and analysis of the hazardous waste to be burned compared with the hazardous waste for which data from compliance testing, or operational or trial burns are provided to support the contention that a trial burn is not needed;

(B) The design and operating conditions of the boiler or industrial furnace to be used, compared with that for which comparative burn data are available; and

(C) Such supplemental information as the Director finds necessary to achieve the purposes of Subsection R315-270-22(a).

(ii) For a waiver of the DRE trial burn, the basis for selection of POHCs used in the other trial or operational burns which demonstrate compliance with the DRE performance standard in Subsection R315-266-104(a). This analysis should specify the constituents in appendix VIII, Rule R315-261, that the applicant has identified in the hazardous waste for which a permit is sought, and any differences from the POHCs in the hazardous waste for which burn data are provided.

(b) Alternative HC limit for industrial furnaces with organic matter in raw materials. Owners and operators of industrial furnaces requesting an alternative HC limit under Subsection R315-266-104(f) shall submit the following information at a minimum:

(1) Documentation that the furnace is designed and operated to minimize HC emissions from fuels and raw materials;

(2) Documentation of the proposed baseline flue gas HC, and CO, concentration, including data on HC, and CO, levels during tests when the facility produced normal products under normal operating conditions from normal raw materials while burning normal fuels and when not burning hazardous waste;

(3) Test burn protocol to confirm the baseline HC, and CO, level including information on the type and flow rate of all feedstreams, point of introduction of all feedstreams, total organic carbon content, or other appropriate measure of organic content, of all nonfuel feedstreams, and operating conditions that affect combustion of fuel(s) and destruction of hydrocarbon emissions from nonfuel sources;

(4) Trial burn plan to:

(i) Demonstrate that flue gas HC, and CO, concentrations when burning hazardous waste do not exceed the baseline HC, and CO, level; and

(ii) Identify the types and concentrations of organic compounds listed in appendix VIII, Rule R315-261, that are emitted when burning hazardous waste in conformance with procedures prescribed by the Director;

(5) Implementation plan to monitor over time changes in the operation of the facility that could reduce the baseline HC level and procedures to periodically confirm the baseline HC level; and

(6) Such other information as the Director finds necessary to achieve the purposes of Subsection R315-270-22(b).

(c) Alternative metals implementation approach. When seeking to be permitted under an alternative metals implementation approach under Subsection R315-266-106(f), the owner or operator shall submit documentation specifying how the approach ensures compliance with the metals emissions standards of Subsection R315-266-106(c) or (d) and how the approach can be effectively implemented and monitored. Further, the owner or operator shall provide such other information that the Director finds necessary to achieve the purposes of Subsection R315-270-22(b).

(d) Automatic waste feed cutoff system. Owners and operators shall submit information describing the automatic waste feed cutoff system, including any pre-alarm systems that may be used.

(e) Direct transfer. Owners and operators that use direct transfer operations to feed hazardous waste from transport vehicles, containers, as defined in Section R315-266-111, directly to the boiler or industrial furnace shall submit information supporting conformance with the standards for direct transfer provided by Section R315-266-111.

(f) Residues. Owners and operators that claim that their residues are excluded from regulation under the provisions of Section R315-266-112 shall submit information adequate to demonstrate conformance with those provisions.

R315-270-23. Hazardous Waste Permit Program - Specific Part B Information Requirements For Miscellaneous Units. Except as otherwise provided in Section R315-264-600, owners and operators of facilities that treat, store, or

dispose of hazardous waste in miscellaneous units shall provide the following additional information:

(a) A detailed description of the unit being used or proposed for use, including the following:

(1) Physical characteristics, materials of construction, and dimensions of the unit;

(2) Detailed plans and engineering reports describing how the unit will be located, designed, constructed, operated, maintained, monitored, inspected, and closed to comply with the requirements of Sections R315-264-601 and 602; and

(3) For disposal units, a detailed description of the plans to comply with the post-closure requirements of Section R315-264-603.

(b) Detailed hydrologic, geologic, and meteorologic assessments and land-use maps for the region surrounding the site that address and ensure compliance of the unit with each factor in the environmental performance standards of Section R315-264-601. If the applicant can demonstrate that he does not violate the environmental performance standards of Section R315-264-601 and the Director agrees with such demonstration, preliminary hydrologic, geologic, and meteorologic assessments will suffice.

(c) Information on the potential pathways of exposure of humans or environmental receptors to hazardous waste or hazardous constituents and on the potential magnitude and nature of such exposures.

(d) For any treatment unit, a report on a demonstration of the effectiveness of the treatment based on laboratory or field data.

(e) Any additional information determined by the Director to be necessary for evaluation of compliance of the unit with the environmental performance standards of Section R315-264-601.

R315-270-24. Hazardous Waste Permit Program - Specific Part B Information Requirements For Process Vents.

Except as otherwise provided in Section R315-264-1, owners and operators of facilities that have process vents to which Sections R315-264-1030 through 1036 applies shall provide the following additional information:

(a) For facilities that cannot install a closed-vent system and control device to comply with the provisions of Sections R315-264-1030 through 1036 on the effective date that the facility becomes subject to the provisions of

Sections R315-264-1030 through 1036 or 40 CFR 265.1030 through 1035, which are adopted by reference, an implementation schedule as specified in Subsection R315-264-1033(a)(2).

(b) Documentation of compliance with the process vent standards in Section R315-264-1032, including:

(1) Information and data identifying all affected process vents, annual throughput and operating hours of each affected unit, estimated emission rates for each affected vent and for the overall facility, i.e., the total emissions for all affected vents at the facility, and the approximate location within the facility of each affected unit, e.g., identify the hazardous waste management units on a facility plot plan.

(2) Information and data supporting estimates of vent emissions and emission reduction achieved by add-on control devices based on engineering calculations or source tests. For the purpose of determining compliance, estimates of vent emissions and emission reductions shall be made using operating parameter values, e.g., temperatures, flow rates, or concentrations, that represent the conditions that exist when the waste management unit is operating at the highest load or capacity level reasonably expected to occur.

(3) Information and data used to determine whether or not a process vent is subject to the requirements of Section R315-264-1032.

(c) Where an owner or operator applies for permission to use a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system to comply with the requirements of Section R315-264-1032, and chooses to use test data to determine the organic removal efficiency or the total organic compound concentration achieved by the control device, a performance test plan as specified in Subsection R315-264-1035(b)(3).

(d) Documentation of compliance with Section R315-264-1033, including:

(1) A list of all information references and sources used in preparing the documentation.

(2) Records, including the dates, of each compliance test required by Subsection R315-264-1033(k).

(3) A design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of “APTI Course 415: Control of Gaseous Emissions” or other engineering texts acceptable to

the Director that present basic control device information. The design analysis shall address the vent stream characteristics and control device operation parameters as specified in Subsection R315-264-1035(b)(4)(iii).

(4) A statement signed and dated by the owner or operator certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous waste management unit is or would be operating at the highest load or capacity level reasonably expected to occur.

(5) A statement signed and dated by the owner or operator certifying that the control device is designed to operate at an efficiency of 95 weight percent or greater unless the total organic emission limits of Subsection R315-264-1032(a) for affected process vents at the facility can be attained by a control device involving vapor recovery at an efficiency less than 95 weight percent.

R315-270-25. Hazardous Waste Permit Program - Specific Part B Information Requirements For Equipment.

Except as otherwise provided in Subsection R315-264-1, owners and operators of facilities that have equipment to which Sections R315-264-1050 through 1065 applies shall provide the following additional information:

(a) For each piece of equipment to which Sections R315-264-1050 through 1065 applies:

(1) Equipment identification number and hazardous waste management unit identification.

(2) Approximate locations within the facility, e.g., identify the hazardous waste management unit on a facility plot plan.

(3) Type of equipment, e.g., a pump or pipeline valve.

(4) Percent by weight total organics in the hazardous waste stream at the equipment.

(5) Hazardous waste state at the equipment, e.g., gas/vapor or liquid.

(6) Method of compliance with the standard, e.g., “monthly leak detection and repair” or “equipped with dual mechanical seals”.

(b) For facilities that cannot install a closed-vent system and control device to comply with the provisions of Sections R315-264-1050 through 1065 on the effective date that the facility becomes subject to the provisions of Sections R315-264-1050 through 1065 or 40 CFR 265.1050

through 1064, which are adopted by reference, an implementation schedule as specified in Subsection R315-264-1033(a)(2).

(c) Where an owner or operator applies for permission to use a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system and chooses to use test data to determine the organic removal efficiency or the total organic compound concentration achieved by the control device, a performance test plan as specified in Subsection R315-264-1035(b)(3).

(d) Documentation that demonstrates compliance with the equipment standards in Sections R315-264-1052 through 1059. This documentation shall contain the records required under Section R315-264-1064. The Director may request further documentation before deciding if compliance has been demonstrated.

(e) Documentation to demonstrate compliance with Section R315-264-1060 shall include the following information:

(1) A list of all information references and sources used in preparing the documentation.

(2) Records, including the dates, of each compliance test required by Subsection R315-264-1033(j).

(3) A design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of “APTI Course 415: Control of Gaseous Emissions” or other engineering texts acceptable to the Director that present basic control device information. The design analysis shall address the vent stream characteristics and control device operation parameters as specified in Subsection R315-264-1035(b)(4)(iii).

(4) A statement signed and dated by the owner or operator certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur.

(5) A statement signed and dated by the owner or operator certifying that the control device is designed to operate at an efficiency of 95 weight percent or greater.

R315-270-26. Hazardous Waste Permit Program - Special Part B Information Requirements For Drip Pads.

Except as otherwise provided by Subsection R315-264-1, owners and operators of hazardous waste treatment, storage, or disposal facilities that collect, store, or treat hazardous waste on drip pads shall provide the following additional information:

(a) A list of hazardous wastes placed or to be placed on each drip pad.

(b) If an exemption is sought to Sections R315-264-90 through 101, as provided by Subsection R315-264-90, detailed plans and an engineering report describing how the requirements of Subsection R315-264-90(b)(2) shall be met.

(c) Detailed plans and an engineering report describing how the drip pad is or will be designed, constructed, operated and maintained to meet the requirements of Section R315-264-573, including the as-built drawings and specifications. This submission shall address the following items as specified in Section R315-264-571:

(1) The design characteristics of the drip pad;

(2) The liner system;

(3) The leakage detection system, including the leak detection system and how it is designed to detect the failure of the drip pad or the presence of any releases of hazardous waste or accumulated liquid at the earliest practicable time;

(4) Practices designed to maintain drip pads;

(5) The associated collection system;

(6) Control of run-on to the drip pad;

(7) Control of run-off from the drip pad;

(8) The interval at which drippage and other materials will be removed from the associated collection system and a statement demonstrating that the interval will be sufficient to prevent overflow onto the drip pad;

(9) Procedures for cleaning the drip pad at least once every seven days to ensure the removal of any accumulated residues of waste or other materials, including but not limited to rinsing, washing with detergents or other appropriate solvents, or steam cleaning and provisions for documenting the date, time, and cleaning procedure used each time the pad is cleaned.

(10) Operating practices and procedures that will be followed to ensure that tracking of hazardous waste or waste constituents off the drip pad due to activities by personnel or equipment is minimized;

(11) Procedures for ensuring that, after removal from the treatment vessel, treated wood from pressure and non-pressure processes is held on the drip pad until drippage has ceased, including recordkeeping practices;

(12) Provisions for ensuring that collection and holding units associated with the run-on and run-off control systems are emptied or otherwise managed as soon as possible after storms to maintain design capacity of the system;

(13) If treatment is carried out on the drip pad, details of the process equipment used, and the nature and quality of the residuals.

(14) A description of how each drip pad, including appurtenances for control of run-on and run-off, will be inspected in order to meet the requirements of Section R315-264-573. This information should be included in the inspection plan submitted under Subsection R315-270-14(b)(5).

(15) A certification signed by a qualified Professional Engineer, stating that the drip pad design meets the requirements of Subsection R315-264-573(a) through (f).

(16) A description of how hazardous waste residues and contaminated materials will be removed from the drip pad at closure, as required under Subsection R315-264-575(a). For any waste not to be removed from the drip pad upon closure, the owner or operator shall submit detailed plans and an engineering report describing how Subsections R315-264-310 (a) and (b) will be complied with. This information should be included in the closure plan and, where applicable, the post-closure plan submitted under Subsection R315-270-14(b)(13).

R315-270-27. Hazardous Waste Permit Program - Specific Part B Information Requirements For Air Emission Controls For Tanks, Surface Impoundments, And Containers.

(a) Except as otherwise provided in Section R315-264-1, owners and operators of tanks, surface impoundments, or containers that use air emission controls in accordance with the requirements of Sections R315-264-1080 through 1090, shall provide the following additional information:

(1) Documentation for each floating roof cover installed on a tank subject to Subsection R315-264-1084(d)(1) or (d)(2) that includes information prepared by the owner or operator or provided by the cover manufacturer

or vendor describing the cover design, and certification by the owner or operator that the cover meets the applicable design specifications as listed in Subsection R315-264-1084(e)(1) or (f)(1).

(2) Identification of each container area subject to the requirements of Sections R315-264-1080 through 1090 and certification by the owner or operator that the requirements of Sections R315-270-10 through 29 are met.

(3) Documentation for each enclosure used to control air pollutant emissions from tanks or containers in accordance with the requirements of Subsection R315-264-1084(d)(5) or 1086(e)(1)(ii) that includes records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure meets the criteria of a permanent total enclosure as specified in "Procedure T-Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B.

(4) Documentation for each floating membrane cover installed on a surface impoundment in accordance with the requirements of Subsection R315-264-1085(c) that includes information prepared by the owner or operator or provided by the cover manufacturer or vendor describing the cover design, and certification by the owner or operator that the cover meets the specifications listed in Subsection R315-264-1085(c)(1).

(5) Documentation for each closed-vent system and control device installed in accordance with the requirements of Section R315-264-1087 that includes design and performance information as specified in Subsections R315-270-24(c) and (d).

(6) An emission monitoring plan for both Method 21 in 40 CFR part 60, appendix A and control device monitoring methods. This plan shall include the following information: monitoring point(s), monitoring methods for control devices, monitoring frequency, procedures for documenting exceedances, and procedures for mitigating noncompliances.

(7) When an owner or operator of a facility subject to 40 CFR 265.1080 through 1090, which are adopted by reference, cannot comply with Sections R315-264-1080 through 1090 by the date of permit issuance, the schedule of implementation required under 40 CFR 265.1082, which is adopted by reference.

R315-270-28. Hazardous Waste Permit Program - Part B Information Requirements For Post-Closure Permits.
For post-closure permits, the owner or operator is required to submit only the information specified in Subsections R315-270-14(b)(1), (4), (5), (6), (11), (13), (14), (16), (18) and (19), (c), and (d), unless the Director determines that additional information from Sections R315-270-14, 16, 17, 18, 20, or 21 is necessary. The owner or operator is required to submit the same information when an alternative authority is used in lieu of a post-closure permit as provided in Subsection R315-270-1(c)(7).

R315-270-29. Hazardous Waste Permit Program - Permit Denial.
The Director may, pursuant to the procedures in Rule R315-124, deny the permit application either in its entirety or as to the active life of a hazardous waste management facility or unit only.

R315-270-30. Hazardous Waste Permit Program - Conditions Applicable To All Permits.
The following conditions apply to all hazardous waste facility permits, and shall be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to these regulations shall be given in the permit.

(a) Duty to comply. The permittee shall comply with all conditions of this permit, except that the permittee need not comply with the conditions of this permit to the extent and for the duration such noncompliance is authorized in an emergency permit. (See Section R315-270-61). Any permit noncompliance, except under the terms of an emergency permit, constitutes a violation of Sections 19-6-101 through 125 and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

(b) Duty to reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit.

(c) Need to halt or reduce activity not a defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce

the permitted activity in order to maintain compliance with the conditions of this permit.

(d) In the event of noncompliance with the permit, the permittee shall take all reasonable steps to minimize releases to the environment, and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment.

(e) Proper operation and maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control, and related appurtenances, which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

(f) Permit actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

(g) Property rights. The permit does not convey any property rights of any sort, or any exclusive privilege.

(h) Duty to provide information. The permittee shall furnish to the Director, within a reasonable time, any relevant information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

(i) Inspection and entry. The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to:

(1) Enter at reasonable times upon the permittee's premises where a regulated facility or activity is located or conducted, or where records shall be kept under the conditions of this permit;

(2) Have access to and copy, at reasonable times, any records that shall be kept under the conditions of this permit;

(3) Inspect at reasonable times any facilities, equipment, including monitoring and control equipment; practices; or operations regulated or required under this permit; and

(4) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by Sections 19-6-101 through 125, any substances or parameters at any location.

(j) Monitoring and records.

(1) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(2) The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, the certification required by Subsection R315-264-73(b)(9), and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report, certification, or application. This period may be extended by request of the Director at any time. The permittee shall maintain records from all ground-water monitoring wells and associated ground-water surface elevations, for the active life of the facility, and for disposal facilities for the post-closure care period as well.

(3) Records for monitoring information shall include:

(i) The date, exact place, and time of sampling or measurements;

(ii) The individual(s) who performed the sampling or measurements;

(iii) The date(s) analyses were performed;

(iv) The individual(s) who performed the analyses;

(v) The analytical techniques or methods used; and

(vi) The results of such analyses.

(k) Signatory requirements. All applications, reports, or information submitted to the Director shall be signed and certified. See Section R315-270-11.

(l) Reporting requirements

(1) Planned changes. The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility.

(2) Anticipated noncompliance. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. For a new facility, the permittee may not treat, store, or dispose of hazardous waste; and for a facility being modified, the permittee may not treat, store, or dispose of hazardous waste in the modified portion of the facility except as provided in Section R315-270-42, until:

(i) The permittee has submitted to the Director by certified mail or hand delivery a letter signed by the permittee and a registered professional engineer stating that the facility has been constructed or modified in compliance with the permit; and

(ii)(A) The Director has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of the permit; or

(B) Within 15 days of the date of submission of the letter in Subsection R315-270-30(l)(2)(i), the permittee has not received notice from the Director of the Director's intent to inspect, prior inspection is waived and the permittee may commence treatment, storage, or disposal of hazardous waste.

(3) Transfers. This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under Sections 19-6-101 through 125. See Section R315-270-40.

(4) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(5) Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

(6) Twenty-four hour reporting.

(i) The permittee shall report any noncompliance which may endanger health or the environment orally within

24 hours from the time the permittee becomes aware of the circumstances, including:

(A) Information concerning release of any hazardous waste that may cause an endangerment to public drinking water supplies.

(B) Any information of a release or discharge of hazardous waste or of a fire or explosion from the HWM facility, which could threaten the environment or human health outside the facility.

(ii) The description of the occurrence and its cause shall include:

(A) Name, address, and telephone number of the owner or operator;

(B) Name, address, and telephone number of the facility;

(C) Date, time, and type of incident;

(D) Name and quantity of material(s) involved;

(E) The extent of injuries, if any;

(F) An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and

(G) Estimated quantity and disposition of recovered material that resulted from the incident.

(iii) A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The Director may waive the five day written notice requirement in favor of a written report within 15 days.

(7) Manifest discrepancy report: If a significant discrepancy in a manifest is discovered, the permittee shall attempt to reconcile the discrepancy. If not resolved within 15 days, the permittee shall submit a letter report, including a copy of the manifest, to the Director. See Section R315-264-72.

(8) Unmanifested waste report: This report shall be submitted to the Director within 15 days of receipt of unmanifested waste. See Section R315-264-76

(9) Biennial report: A biennial report shall be submitted covering facility activities during odd numbered calendar years. See Section R315-264-75.

(10) Other noncompliance. The permittee shall report all instances of noncompliance not reported under Subsections R315-270-30(l)(4), (5), and (6), at the time monitoring reports are submitted. The reports shall contain the information listed in Subsections R315-270-30(l)(6).

(11) Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

(m) Information repository. The Director may require the permittee to establish and maintain an information repository at any time, based on the factors set forth in Subsection R315-124-33(b). The information repository shall be governed by the provisions in Subsections R315-124-124-33(c) through (f).

R315-270-31. Hazardous Waste Permit Program - Requirements For Recording And Reporting Of Monitoring Results.

All permits shall specify:

(a) Requirements concerning the proper use, maintenance, and installation, when appropriate, of monitoring equipment or methods, including biological monitoring methods when appropriate;

(b) Required monitoring including type, intervals, and frequency sufficient to yield data which are representative of the monitored activity including, when appropriate, continuous monitoring;

(c) Applicable reporting requirements based upon the impact of the regulated activity and as specified in Rules R315-264 and 266. Reporting shall be no less frequent than specified in the above regulations.

R315-270-32. Hazardous Waste Permit Program - Establishing Permit Conditions.

(a) In addition to conditions required in all permits (Section R315-270-30) the Director shall establish conditions, as required on a case-by-case basis, in permits under Section R315-270-50 (duration of permits), Subsection R315-270-33(a) (schedules of compliance), and Section R315-270-31 (monitoring).

(b)(1) Each permit shall include permit conditions necessary to achieve compliance with Sections 19-6-101 through 125 and rules adopted thereunder, including each of the applicable requirements specified in Rules R315-264, 266 , and 268. In satisfying this provision, the Director may incorporate applicable requirements of Rules R315-264, 266, and 268 directly into the permit or establish other permit conditions that are based on these rules.

(2) Each permit issued under Section 19-6-108 shall contain terms and conditions as the Director determines necessary to protect human health and the environment.

(3) If, as the result of an assessment(s) or other information, the Director determines that conditions are necessary in addition to those required under 40 CFR parts 63, subpart EEE, Rule R315-264 or 266 to ensure protection of human health and the environment, he shall include those terms and conditions in a permit for a hazardous waste combustion unit.

(c) An applicable requirement is a statutory or regulatory requirement which takes effect prior to final administrative disposition of a permit. An applicable requirement is also any requirement which takes effect prior to the modification or revocation and reissuance of a permit, to the extent allowed in Section R315-270-41.

(d) New or reissued permits, and to the extent allowed under Section R315-270-41, modified or revoked and reissued permits, shall incorporate each of the applicable requirements referenced in Section R315-270-32 and in Section R315-270-31.

(e) Incorporation. All permit conditions shall be incorporated either expressly or by reference. If incorporated by reference, a specific citation to the applicable regulations or requirements shall be given in the permit.

R315-270-33. Hazardous Waste Permit Program - Schedules Of Compliance.

(a) The permit may, when appropriate, specify a schedule of compliance leading to compliance with Sections 19-6-101 through 125 and rules adopted thereunder.

(1) Time for compliance. Any schedules of compliance under Section R315-270-33 shall require compliance as soon as possible.

(2) Interim dates. Except as provided in Subsection R315-270-33(b)(1)(ii), if a permit establishes a schedule

of compliance which exceeds 1 year from the date of permit issuance, the schedule shall set forth interim requirements and the dates for their achievement.

(i) The time between interim dates shall not exceed 1 year.

(ii) If the time necessary for completion of any interim requirement is more than 1 year and is not readily divisible into stages for completion, the permit shall specify interim dates for the submission of reports of progress toward completion of the interim requirements and indicate a projected completion date.

(3) Reporting. The permit shall be written to require that no later than 14 days following each interim date and the final date of compliance, the permittee shall notify the Director in writing, of its compliance or noncompliance with the interim or final requirements.

(b) Alternative schedules of compliance. A permit applicant or permittee may cease conducting regulated activities; by receiving a terminal volume of hazardous waste and, for treatment and storage HWM facilities, closing pursuant to applicable requirements; and, for disposal HWM facilities, closing and conducting post-closure care pursuant to applicable requirements; rather than continue to operate and meet permit requirements as follows:

(1) If the permittee decides to cease conducting regulated activities at a given time within the term of a permit which has already been issued:

(i) The permit may be modified to contain a new or additional schedule leading to timely cessation of activities; or

(ii) The permittee shall cease conducting permitted activities before noncompliance with any interim or final compliance schedule requirement already specified in the permit.

(2) If the decision to cease conducting regulated activities is made before issuance of a permit whose term shall include the termination date, the permit shall contain a schedule leading to termination which shall ensure timely compliance with applicable requirements.

(3) If the permittee is undecided whether to cease conducting regulated activities, the Director may issue or modify a permit to contain two schedules as follows:

(i) Both schedules shall contain an identical interim deadline requiring a final decision on whether to cease

conducting regulated activities no later than a date which ensures sufficient time to comply with applicable requirements in a timely manner if the decision is to continue conducting regulated activities;

(ii) One schedule shall lead to timely compliance with applicable requirements;

(iii) The second schedule shall lead to cessation of regulated activities by a date which shall ensure timely compliance with applicable requirements;

(iv) Each permit containing two schedules shall include a requirement that after the permittee has made a final decision under Subsection R315-270-33(b)(3)(i) it shall follow the schedule leading to compliance if the decision is to continue conducting regulated activities, and follow the schedule leading to termination if the decision is to cease conducting regulated activities.

(4) The applicant's or permittee's decision to cease conducting regulated activities shall be evidenced by a firm public commitment satisfactory to the Director, such as resolution of the board of directors of a corporation.

R315-270-40. Hazardous Waste Permit Program - Transfer Of Permits.

(a) A permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued, under Subsection R315-270-40(b) or 41(b)(2), to identify the new permittee and incorporate such other requirements as may be necessary under the appropriate Act.

(b) Changes in the ownership or operational control of a facility may be made as a Class 1 modification with prior written approval of the Director in accordance with Section R315-270-42. The new owner or operator shall submit a revised permit application no later than 90 days prior to the scheduled change. A written agreement containing a specific date for transfer of permit responsibility between the current and new permittees shall also be submitted to the Director. When a transfer of ownership or operational control occurs, the old owner or operator shall comply with the requirements of Sections R315-264-140 through 151 until the new owner or operator has demonstrated that he or she is complying with the requirements of Sections R315-264-140 through 151. The new owner or operator shall demonstrate compliance with Sections R315-264-140 through 151 requirements within six months of the date of the change of

ownership or operational control of the facility. Upon demonstration to the Director by the new owner or operator of compliance with Sections R315-264-140 through 151, the Director shall notify the old owner or operator that he or she no longer needs to comply with Sections R315-264-140 through 151 as of the date of demonstration.

R315-270-41. Hazardous Waste Permit Program - Modification Or Revocation And Reissuance Of Permits.

When the Director receives any information; for example, inspects the facility, receives information submitted by the permittee as required in the permit, see Section R315-270-30, receives a request for revocation and reissuance under Section R315-124-5 or conducts a review of the permit file; the Director may determine whether one or more of the causes listed in Subsections R315-270-41(a) and (b) for modification, or revocation and reissuance or both exist. If cause exists, the Director may modify or revoke and reissue the permit accordingly, subject to the limitations of Subsection R315-270-41(c), and may request an updated application if necessary. When a permit is modified, only the conditions subject to modification are reopened. If a permit is revoked and reissued, the entire permit is reopened and subject to revision and the permit is reissued for a new term. See Subsection R315-124-5(c)(2). If cause does not exist under Section R315-270-41, the Director shall not modify or revoke and reissue the permit, except on request of the permittee. If a permit modification is requested by the permittee, the Director shall approve or deny the request according to the procedures of Subsection R315-270-42. Otherwise, a draft permit shall be prepared and other procedures in Rule R315-124 followed.

(a) Causes for modification. The following are causes for modification, but not revocation and reissuance, of permits; the following may be causes for revocation and reissuance, as well as modification, when the permittee requests or agrees.

(1) Alterations. There are material and substantial alterations or additions to the permitted facility or activity which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit.

(2) Information. The Director has received information. Permits may be modified during their terms for this cause only if the information was not available at the

time of permit issuance, other than revised regulations, guidance, or test methods, and would have justified the application of different permit conditions at the time of issuance.

(3) New statutory requirements or regulations. The standards or regulations on which the permit was based have been changed by statute, through promulgation of new or amended standards or regulations, or by judicial decision after the permit was issued.

(4) Compliance schedules. The Director determines good cause exists for modification of a compliance schedule, such as an act of God, strike, flood, or materials shortage or other events over which the permittee has little or no control and for which there is no reasonably available remedy.

(5) Notwithstanding any other provision in Section R315-270-41, when a permit for a land disposal facility is reviewed by the Director under Subsection R315-270-50(d), the Director shall modify the permit as necessary to assure that the facility continues to comply with the currently applicable requirements in Rules R315-124, 260 through 266, and 270.

(b) Causes for modification or revocation and reissuance. The following are causes to modify or, alternatively, revoke and reissue a permit:

(1) Cause exists for termination under Section R315-270-43, and the Director determines that modification or revocation and reissuance is appropriate.

(2) The Director has received notification; as required in the permit, see Subsection R315-270-30(l)(3); of a proposed transfer of the permit.

(c) Facility siting. Suitability of the facility location will not be considered at the time of permit modification or revocation and reissuance unless new information or standards indicate that a threat to human health or the environment exists which was unknown at the time of permit issuance.

R315-270-42. Hazardous Waste Permit Program - Permit Modification At The Request Of The Permittee.

(a) Class 1 modifications.

(1) Except as provided in Subsection R315-270-42(a)(2), the permittee may put into effect Class 1 modifications listed in appendix I of Section R315-270-42 under the following conditions:

(i) The permittee shall notify the Director concerning the modification by certified mail or other means that establish proof of delivery within 7 calendar days after the change is put into effect. This notice shall specify the changes being made to permit conditions or supporting documents referenced by the permit and shall explain why they are necessary. Along with the notice, the permittee shall provide the applicable information required by Sections R315-270-13 through 21, 62, and 63.

(ii) The permittee shall send a notice of the modification to all persons on the facility mailing list, maintained by the Director in accordance with Subsection R315-124-10(c)(viii), and the appropriate units of State and local government, as specified in Subsection R315-124-10(c)(ix). This notification shall be made within 90 calendar days after the change is put into effect. For the Class I modifications that require prior Director approval, the notification shall be made within 90 calendar days after the Director approves the request.

(iii) Any person may request the Director to review, and the Director may for cause reject, any Class 1 modification. The Director shall inform the permittee by certified mail that a Class 1 modification has been rejected, explaining the reasons for the rejection. If a Class 1 modification has been rejected, the permittee shall comply with the original permit conditions.

(2) Class 1 permit modifications identified in appendix I by an asterisk may be made only with the prior written approval of the Director.

(3) For a Class 1 permit modification, the permittee may elect to follow the procedures in Subsection R315-270-42(b) for Class 2 modifications instead of the Class 1 procedures. The permittee shall inform the Director of this decision in the notice required in Subsection R315-270-42(b)(1).

(b) Class 2 modifications.

(1) For Class 2 modifications, listed in appendix I of Section R315-270-42, the permittee shall submit a modification request to the Director that:

(i) Describes the exact change to be made to the permit conditions and supporting documents referenced by the permit;

(ii) Identifies that the modification is a Class 2 modification;

(iii) Explains why the modification is needed; and

(iv) Provides the applicable information required by Sections R315-270-13 through 21, 62, and 63.

(2) The permittee shall send a notice of the modification request to all persons on the facility mailing list maintained by the Director and to the appropriate units of State and local government as specified in subsection R315-124-10(c)(ix) and shall publish this notice in a major local newspaper of general circulation. This notice shall be mailed and published within 7 days before or after the date of submission of the modification request, and the permittee shall provide to the Director evidence of the mailing and publication. The notice shall include:

(i) Announcement of a 60-day comment period, in accordance with Subsection R315-270-42(b)(5), and the name and address of an Agency contact to whom comments shall be sent;

(ii) Announcement of the date, time, and place for a public meeting held in accordance with Subsection R315-270-42(b)(4);

(iii) Name and telephone number of the permittee's contact person;

(iv) Name and telephone number of an Agency contact person;

(v) Location where copies of the modification request and any supporting documents can be viewed and copied; and

(vi) The following statement: “The permittee's compliance history during the life of the permit being modified is available from the Agency contact person.”

(3) The permittee shall place a copy of the permit modification request and supporting documents in a location accessible to the public in the vicinity of the permitted facility.

(4) The permittee shall hold a public meeting no earlier than 15 days after the publication of the notice required in Subsection R315-270-42(b)(2) and no later than 15 days before the close of the 60-day comment period. The meeting shall be held to the extent practicable in the vicinity of the permitted facility.

(5) The public shall be provided 60 days to comment on the modification request. The comment period shall begin on the date the permittee publishes the notice in the local newspaper. Comments should be submitted to the Division contact identified in the public notice.

(6)(i) No later than 90 days after receipt of the notification request, the Director shall:

(A) Approve the modification request, with or without changes, and modify the permit accordingly;

(B) Deny the request;

(C) Determine that the modification request shall follow the procedures in Subsection R315-270-42(c) for Class 3 modifications for the following reasons:

(1) There is significant public concern about the proposed modification; or

(2) The complex nature of the change requires the more extensive procedures of Class 3.

(D) Approve the request, with or without changes, as a temporary authorization having a term of up to 180 days, or

(E) Notify the permittee that the Director will decide on the request within the next 30 days.

(ii) If the Director notifies the permittee of a 30-day extension for a decision, the Director shall, no later than 120 days after receipt of the modification request:

(A) Approve the modification request, with or without changes, and modify the permit accordingly;

(B) Deny the request; or

(C) Determine that the modification request shall follow the procedures in Subsection R315-270-42(c) for Class 3 modifications for the following reasons:

(1) There is significant public concern about the proposed modification; or

(2) The complex nature of the change requires the more extensive procedures of Class 3.

(D) Approve the request, with or without changes, as a temporary authorization having a term of up to 180 days.

(iii) If the Director fails to make one of the decisions specified in Subsection R315-270-42(b)(6)(ii) by the 120th day after receipt of the modification request, the permittee is automatically authorized to conduct the activities described in the modification request for up to 180 days, without formal action by the Director. The authorized activities shall be conducted as described in the permit modification request and shall be in compliance with all appropriate standards of Rule R315-265. If the Director approves, with or without changes, or denies the modification request during the term of the temporary or automatic authorization provided for in Section R315-270-

42(b)(6)(i), (ii), or (iii), such action cancels the temporary or automatic authorization.

(iv)(A) In the case of an automatic authorization under Subsection R315-270-42(b)(6)(iii), or a temporary authorization under Subsection R315-270-42(b)(6)(i)(D) or (ii)(D), if the Director has not made a final approval or denial of the modification request by the date 50 days prior to the end of the temporary or automatic authorization, the permittee shall within seven days of that time send a notification to persons on the facility mailing list, and make a reasonable effort to notify other persons who submitted written comments on the modification request, that:

(1) The permittee has been authorized temporarily to conduct the activities described in the permit modification request, and

(2) Unless the Director acts to give final approval or denial of the request by the end of the authorization period, the permittee shall receive authorization to conduct such activities for the life of the permit.

(B) If the owner/operator fails to notify the public by the date specified in Subsection R315-270-42(b)(6)(iv)(A), the effective date of the permanent authorization shall be deferred until 50 days after the owner/operator notifies the public.

(v) Except as provided in Subsection R315-270-42(b)(6)(vii), if the Director does not finally approve or deny a modification request before the end of the automatic or temporary authorization period or reclassify the modification as a Class 3, the permittee is authorized to conduct the activities described in the permit modification request for the life of the permit unless modified later under Section R315-270-41 or 42. The activities authorized under Subsection R315-270-42(b) shall be conducted as described in the permit modification request and shall be in compliance with all appropriate standards of Rule R315-265.

(vi) In making a decision to approve or deny a modification request, including a decision to issue a temporary authorization or to reclassify a modification as a Class 3, the Director shall consider all written comments submitted during the public comment period and shall respond in writing to all significant comments in the Director's decision.

(vii) With the written consent of the permittee, the Director may extend indefinitely or for a specified period the time periods for final approval or denial of a modification request or for reclassifying a modification as a Class 3.

(7) The Director may deny or change the terms of a Class 2 permit modification request under Subsection R315-270-42(b)(6)(i) through (iii) for the following reasons:

(i) The modification request is incomplete;

(ii) The requested modification does not comply with the appropriate requirements of Rule R315-264 or other applicable requirements; or

(iii) The conditions of the modification fail to protect human health and the environment.

(8) The permittee may perform any construction associated with a Class 2 permit modification request beginning 60 days after the submission of the request unless the Director establishes a later date for commencing construction and informs the permittee in writing before day 60.

(c) Class 3 modifications.

(1) For Class 3 modifications listed in appendix I of Section R315-270-42, the permittee shall submit a modification request to the Director that:

(i) Describes the exact change to be made to the permit conditions and supporting documents referenced by the permit;

(ii) Identifies that the modification is a Class 3 modification;

(iii) Explains why the modification is needed; and

(iv) Provides the applicable information required by Sections R315-270-13 through 22, 62, 63, and 66.

(2) The permittee shall send a notice of the modification request to all persons on the facility mailing list maintained by the Director and to the appropriate units of State and local government as specified in Subsection R315-124-10(c)(ix) and shall publish this notice in a major local newspaper of general circulation. This notice shall be mailed and published within seven days before or after the date of submission of the modification request, and the permittee shall provide to the Director evidence of the mailing and publication. The notice shall include:

(i) Announcement of a 60-day comment period, and a name and address of the Director to whom comments shall be sent;

(ii) Announcement of the date, time, and place for a public meeting on the modification request, in accordance with Subsection R315-270-42(c)(4);

(iii) Name and telephone number of the permittee's contact person;

(iv) Name and telephone number of an Division contact person;

(v) Location where copies of the modification request and any supporting documents can be viewed and copied; and

(vi) The following statement: “The permittee's compliance history during the life of the permit being modified is available from the Division's contact person.”

(3) The permittee shall place a copy of the permit modification request and supporting documents in a location accessible to the public in the vicinity of the permitted facility.

(4) The permittee shall hold a public meeting no earlier than 15 days after the publication of the notice required in Subsection R315-270-42(c)(2) and no later than 15 days before the close of the 60-day comment period. The meeting shall be held to the extent practicable in the vicinity of the permitted facility.

(5) The public shall be provided at least 60 days to comment on the modification request. The comment period shall begin on the date the permittee publishes the notice in the local newspaper. Comments should be submitted to the Director.

(6) After the conclusion of the 60-day comment period, the Director shall grant or deny the permit modification request according to the permit modification procedures of Rule R315-124. In addition, the Director shall consider and respond to all significant written comments received during the 60-day comment period.

(d) Other modifications.

(1) In the case of modifications not explicitly listed in appendix I of Section R315-270-42, the permittee may submit a Class 3 modification request to the Director, or the permittee may request a determination by the Director that the modification should be reviewed and approved as a Class 1 or Class 2 modification. If the permittee requests that the modification be classified as a Class 1 or 2 modification, the permittee shall provide the

Director with the necessary information to support the requested classification.

(2) The Director shall make the determination described in Subsection R315-270-42(d)(1) as promptly as practicable. In determining the appropriate class for a specific modification, the Director shall consider the similarity of the modification to other modifications codified in appendix I and the following criteria:

(i) Class 1 modifications apply to minor changes that keep the permit current with routine changes to the facility or its operation. These changes do not substantially alter the permit conditions or reduce the capacity of the facility to protect human health or the environment. In the case of Class 1 modifications, the Director may require prior approval.

(ii) Class 2 modifications apply to changes that are necessary to enable a permittee to respond, in a timely manner, to,

(A) Common variations in the types and quantities of the wastes managed under the facility permit,

(B) Technological advancements, and

(C) Changes necessary to comply with new regulations, where these changes can be implemented without substantially changing design specifications or management practices in the permit.

(iii) Class 3 modifications substantially alter the facility or its operation.

(e) Temporary authorizations.

(1) Upon request of the permittee, the Director may, without prior public notice and comment, grant the permittee a temporary authorization in accordance with Subsection R315-270-42(e). Temporary authorizations shall have a term of not more than 180 days.

(2)(i) The permittee may request a temporary authorization for:

(A) Any Class 2 modification meeting the criteria in Subsection R315-270-42(e)(3)(ii), and

(B) Any Class 3 modification that meets the criteria in Subsection R315-270-42(e)(3)(ii)(A)or (B); or that meets the criteria in Subsections R315-270-42(e)(3)(ii)(C) through (E) and provides improved management or treatment of a hazardous waste already listed in the facility permit.

(ii) The temporary authorization request shall include:

(A) A description of the activities to be conducted under the temporary authorization;

(B) An explanation of why the temporary authorization is necessary; and

(C) Sufficient information to ensure compliance with Rule R315-264 standards.

(iii) The permittee shall send a notice about the temporary authorization request to all persons on the facility mailing list maintained by the Director and to appropriate units of State and local governments as specified in Subsection R315-124-10(c)(ix). This notification shall be made within seven days of submission of the authorization request.

(3) The Director shall approve or deny the temporary authorization as quickly as practical. To issue a temporary authorization, the Director shall find:

(i) The authorized activities are in compliance with the standards of Rule R315-264.

(ii) The temporary authorization is necessary to achieve one of the following objectives before action is likely to be taken on a modification request:

(A) To facilitate timely implementation of closure or corrective action activities;

(B) To allow treatment or storage in tanks or containers, or in containment buildings in accordance with Rule R315-268;

(C) To prevent disruption of ongoing waste management activities;

(D) To enable the permittee to respond to sudden changes in the types or quantities of the wastes managed under the facility permit; or

(E) To facilitate other changes to protect human health and the environment.

(4) A temporary authorization may be reissued for one additional term of up to 180 days provided that the permittee has requested a Class 2 or 3 permit modification for the activity covered in the temporary authorization, and:

(i) The reissued temporary authorization constitutes the Director's decision on a Class 2 permit modification in accordance with Subsection R315-270-42(b)(6)(i)(D) or (ii)(D), or

(ii) The Director determines that the reissued temporary authorization involving a Class 3 permit modification request is warranted to allow the authorized

activities to continue while the modification procedures of Subsection R315-270-42(c) are conducted.

(f) Public notice and appeals of permit modification decisions.

(1) The Director shall notify persons on the facility mailing list and appropriate units of State and local government within 10 days of any decision under Section R315-270-42 to grant or deny a Class 2 or 3 permit modification request. The Director shall also notify such persons within 10 days after an automatic authorization for a Class 2 modification goes into effect under Subsection R315-270-42(b)(6)(iii) or (v).

(2) The Director's decision to grant or deny a Class 2 or 3 permit modification request under Section R315-270-42 may be appealed under the permit appeal procedures of Section R315-124-19.

(3) An automatic authorization that goes into effect under Subsection R315-270-42(b)(6)(iii) or (v) may be appealed under the permit appeal procedures of Section R315-124-19; however, the permittee may continue to conduct the activities pursuant to the automatic authorization unless and until a final determination is made.

(g) Newly regulated wastes and units.

(1) The permittee is authorized to continue to manage wastes listed or identified as hazardous under Rule R315-261, or to continue to manage hazardous waste in units newly regulated as hazardous waste management units, if:

(i) The unit was in existence as a hazardous waste facility with respect to the newly listed or characterized waste or newly regulated waste management unit on the effective date of the final rule listing or identifying the waste, or regulating the unit;

(ii) The permittee submits a Class 1 modification request on or before the date on which the waste or unit becomes subject to the new requirements;

(iii) The permittee is in compliance with the applicable standards of Rules R315-265 and 266;

(iv) The permittee also submits a complete Class 2 or 3 modification request within 180 days of the effective date of the rule listing or identifying the waste, or subjecting the unit to hazardous waste management standards;

(v) In the case of land disposal units, the permittee certifies that each such unit is in compliance with all applicable requirements of Rule R315-265 for groundwater

monitoring and financial responsibility on the date 12 months after the effective date of the rule identifying or listing the waste as hazardous, or regulating the unit as a hazardous waste management unit. If the owner or operator fails to certify compliance with all these requirements, the permittee shall lose authority to operate under Section R315-270-42.

(2) New wastes or units added to a facility's permit under Subsection R315-270-42(g) do not constitute expansions for the purpose of the 25 percent capacity expansion limit for Class 2 modifications.

(h) Reserved.

(i) Permit modification list. The Director shall maintain a list of all approved permit modifications and shall publish a notice once a year in a State-wide newspaper that an updated list is available for review.

(j) Combustion facility changes to meet 40 CFR 63 MACT standards. The following procedures apply to hazardous waste combustion facility permit modifications requested under appendix I of Section R315-270-42, section L(9).

(1) Facility owners or operators shall have complied with the Notification of Intent to Comply (NIC) requirements of 40 CFR 63.1210 that were in effect prior to October 11, 2000, (See 40 CFR part 63 §§63.1200-63.1499 revised as of July 1, 2000) in order to request a permit modification under Section R315-270-42 for the purpose of technology changes needed to meet the standards under 40 CFR 63.1203, 63.1204, and 63.1205.

(2) Facility owners or operators shall comply with the Notification of Intent to Comply (NIC) requirements of 40 CFR 63.1210(b) and 63.1212(a) before a permit modification can be requested under Section R315-270-42 for the purpose of technology changes needed to meet the 40 CFR 63.1215, 63.1216, 63.1217, 63.1218, 63.1219, 63.1220, and 63.1221 standards promulgated on October 12, 2005.

(3) If the Director does not approve or deny the request within 90 days of receiving it, the request shall be deemed approved. The Director may, at the Director's discretion, extend this 90 day deadline one time for up to 30 days by notifying the facility owner or operator.

(k) Waiver of permit conditions in support of transition to the 40 CFR 63 MACT standards.

(1) the permittee may request to have specific operating and emissions limits waived by submitting a Class

1 permit modification request under appendix I of Section R315-270-42, section L(10). The permittee shall:

(i) Identify the specific RCRA permit operating and emissions limits which the permittee is requesting to waive;

(ii) Provide an explanation of why the changes are necessary in order to minimize or eliminate conflicts between the hazardous waste permit and MACT compliance; and

(iii) Discuss how the revised provisions will be sufficiently protective.

(iv) The Director shall approve or deny the request within 30 days of receipt of the request. The Director may, at the Director's discretion, extend this 30 day deadline one time for up to 30 days by notifying the facility owner or operator.

(2) To request this modification in conjunction with MACT performance testing where permit limits may only be waived during actual test events and pretesting, as defined under 40 CFR 63.1207(h)(2)(i) and (ii), for an aggregate time not to exceed 720 hours of operation, renewable at the discretion of the Director, the permittee shall:

(i) Submit a modification request to the Director at the same time test plans are submitted to the Direcotr; and

(ii) The Director may elect to approve or deny the request continent upon approval of the test plans.

Appendix I to Section R315-270-42 - Classification of Permit Modification

Modifications	Class
A. General Permit Provisions	
1. Administrative and informational changes	1
2. Correction of typographical errors	1
3. Equipment replacement or upgrading with functionally equivalent components, e.g., pipes, valves, pumps, conveyors, controls	1
4. Changes in the frequency of or procedures for monitoring, reporting, sampling, or maintenance activities by the permittee:	
a. To provide for more frequent monitoring, reporting, sampling, or maintenance	1
b. Other changes,	2
5. Schedule of compliance:	
a. Changes in interim compliance dates, with prior approval of the Director	[1]1
b. Extension of final compliance date	3

6. Changes in expiration date of permit to allow earlier permit termination, with prior approval of the Director	[1]1
7. Changes in ownership or operational control of a facility, provided the procedures of Subsection R315-270-40(b) are followed	[1]1
8. Changes to remove permit conditions that are no longer applicable, i.e., because the standards upon which they are based are no longer applicable to the facility.	[1]1
9. Changes to remove permit conditions applicable to a unit excluded under the provisions of Section R315-261-4.	[1]1
10. Changes in the expiration date of a permit issued to a facility at which all units are excluded under the provisions of Section R315-261-4.	[1]1
B. General Facility Standards	
1. Changes to waste sampling or analysis methods	
a. To conform with agency guidance or regulations	1
b. To incorporate changes associated with F039, multi-source leachate, sampling or analysis methods	1
c. To incorporate changes associated with underlying hazardous constituents in ignitable or corrosive wastes	[1]1
d. Other changes	2
2. Changes to analytical quality assurance/control plan:	
a. To conform with agency guidance or regulations	1
b. Other changes	2
3. Changes in procedures for maintaining the operating record	1
4. Changes in frequency or content of inspection schedules	2
5. Changes in the training plan:	
a. That affect the type or decrease the amount of training given to employees	2
b. Other changes	1
6. Contingency plan:	
a. Changes in emergency procedures, i.e., spill or release response procedures	2
b. Replacement with functionally equivalent equipment, upgrade, or relocate emergency	1

equipment listed	
c. Removal of equipment from emergency equipment list	2
d. Changes in name, address, or phone number of coordinators or other persons or agencies identified in the plan	1
7. Construction quality assurance plan:	
a. Changes that the CQA officer certifies in the operating record will provide equivalent or better certainty that the unit components meet the design specifications	1
b. Other changes	2

Note: When a permit modification, such as introduction of a new unit, requires a change in facility plans or other general facility standards, that change shall be reviewed under the same procedures as the permit modification.

C. Ground-Water Protection

1. Changes to wells:	
a. Changes in the number, location, depth, or design of upgradient or downgradient wells of permitted ground-water monitoring system	2
b. Replacement of an existing well that has been damaged or rendered inoperable, without change to location, design, or depth of the well	1
2. Changes in ground-water sampling or analysis procedures or monitoring schedule, with prior approval of the Director	[1]1
3. Changes in statistical procedure for determining whether a statistically significant change in ground-water quality between upgradient and downgradient wells has occurred, with prior approval of the Director	[1]1
4. Changes in point of compliance	2
5. Changes in indicator parameters, hazardous constituents, or concentration limits, including ACLs:	
a. As specified in the groundwater protection standard	3
b. As specified in the detection monitoring program	2
6. Changes to a detection monitoring program as required by Subsection R315-264-98(h), unless otherwise specified in this appendix	2
7. Compliance monitoring program:	
a. Addition of compliance monitoring program as	3

required by Sections R315-264-98(g)(4) and R315-264-99	
b. Changes to a compliance monitoring program as required by Subsection R315-264-99(j), unless otherwise specified in this appendix	2
8. Corrective action program:	
a. Addition of a corrective action program as required by Subsection R315-264-99(h)(2) and Section R315-264-100	3
b. Changes to a corrective action program as required by Subsection R315-264-100(h), unless otherwise specified in this appendix	2
D. Closure	
1. Changes to the closure plan:	
a. Changes in estimate of maximum extent of operations or maximum inventory of waste on-site at any time during the active life of the facility, with prior approval of the Director	[1]1
b. Changes in the closure schedule for any unit, changes in the final closure schedule for the facility, or extension of the closure period, with prior approval of the Director	[1]1
c. Changes in the expected year of final closure, where other permit conditions are not changed, with prior approval of the Director	[1]1
d. Changes in procedures for decontamination of facility equipment or structures, with prior approval of the Director	[1]1
e. Changes in approved closure plan resulting from unexpected events occurring during partial or final closure, unless otherwise specified in this appendix	2
f. Extension of the closure period to allow a landfill, surface impoundment or land treatment unit to receive non-hazardous wastes after final receipt of hazardous wastes under Subsections R315-264-113(d) and (e)	2
2. Creation of a new landfill unit as part of closure	3
3. Addition of the following new units to be used temporarily for closure activities:	

a. Surface impoundments	3
b. Incinerators	3
c. Waste piles that do not comply with Subsection R315-264-250(c)	3
d. Waste piles that comply with Subsection R315-264-250(c)	2
e. Tanks or containers, other than specified below	2
f. Tanks used for neutralization, dewatering, phase separation, or component separation, with prior approval of the Director	[1]1
g. Staging piles	2
E. Post-Closure	
1. Changes in name, address, or phone number of contact in post-closure plan	1
2. Extension of post-closure care period	2
3. Reduction in the post-closure care period	3
4. Changes to the expected year of final closure, where other permit conditions are not changed	1
5. Changes in post-closure plan necessitated by events occurring during the active life of the facility, including partial and final closure	2
F. Containers	
1. Modification or addition of container units:	
a. Resulting in greater than 25% increase in the facility's container storage capacity, except as provided in F(1)(c) and F(4)(a) below	3
b. Resulting in up to 25% increase in the facility's container storage capacity, except as provided in F(1)(c) and F(4)(a) below	2
c. Or treatment processes necessary to treat wastes that are restricted from land disposal to meet some or all of the applicable treatment standards or to treat wastes to satisfy (in whole or in part) the standard of “use of practically available technology that yields the greatest environmental benefit” contained in Subsection R315-268-8(a)(2)(ii), with prior approval of the Director. This modification may also involve addition of new waste codes or narrative descriptions of wastes. It is not applicable to dioxin-containing wastes,	[1]1

F020, 021, 022, 023, 026, 027, and 028

2.

a. Modification of a container unit without increasing the capacity of the unit — 2

b. Addition of a roof to a container unit without alteration of the containment system — 1

3. Storage of different wastes in containers, except as provided in (F)(4) below:

a. That require additional or different management practices from those authorized in the permit — 3

b. That do not require additional or different management practices from those authorized in the permit — 2

Note: See Subsection R315-270-42(g) for modification procedures to be used for the management of newly listed or identified wastes.

4. Storage or treatment of different wastes in containers:

a. That require addition of units or change in treatment process or management standards, provided that the wastes are restricted from land disposal and are to be treated to meet some or all of the applicable treatment standards, or that are to be treated to satisfy, in whole or in part, the standard of “use of practically available technology that yields the greatest environmental benefit." This modification is not applicable to dioxin-containing wastes, F020, 021, 022, 023, 026, 027, and 028) — [1]1

b. That do not require the addition of units or a change in the treatment process or management standards, and provided that the units have previously received wastes of the same type, e.g., incinerator scrubber water. This modification is not applicable to dioxin-containing wastes, F020, 021, 022, 023, 026, 027, and 028 — [1]1

G. Tanks

1.

a. Modification or addition of tank units resulting in greater than 25% increase in the facility's tank capacity, except as — 3

provided in G(1)(c), G(1)(d), and G(1)(e) below	
b. Modification or addition of tank units resulting in up to 25% increase in the facility's tank capacity, except as provided in G(1)(d) and G(1)(e) below	2
c. Addition of a new tank that will operate for more than 90 days using any of the following physical or chemical treatment technologies: neutralization, dewatering, phase separation, or component separation	2
d. After prior approval of the Director, addition of a new tank that will operate for up to 90 days using any of the following physical or chemical treatment technologies: neutralization, dewatering, phase separation, or component separation	[1]1
e. Modification or addition of tank units or treatment processes necessary to treat wastes that are restricted from land disposal to meet some or all of the applicable treatment standards or to treat wastes to satisfy, in whole or in part, the standard of “use of practically available technology that yields the greatest environmental benefit,” with prior approval of the Director. This modification may also involve addition of new waste codes. It is not applicable to dioxin-containing wastes, F020, 021, 022, 023, 026, 027, and 028	[1]1
2. Modification of a tank unit or secondary containment system without increasing the capacity of the unit	2
3. Replacement of a tank with a tank that meets the same design standards and has a capacity within ±10% of the replaced tank provided -The capacity difference is no more than 1500 gallons, -The facility's permitted tank capacity is not increased, and -The replacement tank meets the same conditions in the permit.	1
4. Modification of a tank management practice	2
5. Management of different wastes in tanks:	

a. That require additional or different management practices, tank design, different fire protection specifications, or significantly different tank treatment process from that authorized in the permit, except as provided in (G)(5)(c) below	3
b. That do not require additional or different management practices, tank design, different fire protection specifications, or significantly different tank treatment process than authorized in the permit, except as provided in (G)(5)(d)	2
c. That require addition of units or change in treatment processes or management standards, provided that the wastes are restricted from land disposal and are to be treated to meet some or all of the applicable treatment standards or that are to be treated to satisfy, in whole or in part, the standard of "use of practically available technology that yields the greatest environmental benefit." The modification is not applicable to dioxin-containing wastes, F020, 021, 022, 023, 026, 027, and 028	[1]1
d. That do not require the addition of units or a change in the treatment process or management standards, and provided that the units have previously received wastes of the same type, e.g., incinerator scrubber water. This modification is not applicable to dioxin-containing wastes, F020, 021, 022, 023, 026, 027, and 028	1

Note: See Subsection R315-270-42(g) for modification procedures to be used for the management of newly listed or identified wastes.

H. Surface Impoundments

1. Modification or addition of surface impoundment units that result in increasing the facility's surface impoundment storage or treatment capacity	3
2. Replacement of a surface impoundment unit	3
3. Modification of a surface impoundment unit without increasing the facility's surface impoundment storage or treatment capacity and	2

without modifying the unit's liner, leak detection system, or leachate collection system	
4. Modification of a surface impoundment management practice0	2
5. Treatment, storage, or disposal of different wastes in surface impoundments:	
a. That require additional or different management practices or different design of the liner or leak detection system than authorized in the permit	3
b. That do not require additional or different management practices or different design of the liner or leak detection system than authorized in the permit	2
c. That are wastes restricted from land disposal that meet the applicable treatment standards or that are treated to satisfy the standard of “use of practically available technology that yields the greatest environmental benefit,” and provided that the unit meets the minimum technological requirements stated in Subsection R315-268-5(h)(2). This modification is not applicable to dioxin-containing wastes, F020, 021, 022, 023, 026, 027, and 028	1
d. That are residues from wastewater treatment or incineration, provided that disposal occurs in a unit that meets the minimum technological requirements stated in Subsection R315-268-5(h)(2), and provided further that the surface impoundment has previously received wastes of the same type, for example, incinerator scrubber water. This modification is not applicable to dioxin-containing wastes, F020, 021, 022, 023, 026, 027, and 028	1
6. Modifications of unconstructed units to comply with Subsection R315-264-221(c) and 226(d), and Sections R315-264-222, and 223	[1]1
7. Changes in response action plan:	
a. Increase in action leakage rate	3
b. Change in a specific response reducing its frequency or effectiveness	3

c. Other changes	2

Note: See Subsection R315-270-42(g) for modification procedures to be used for the management of newly listed or identified wastes,

I. Enclosed Waste Piles. For all waste piles except those complying with Subsection R315-264-250(c), modifications are treated the same as for a landfill. The following modifications are applicable only to waste piles complying with Subsection R315-264-250(c).

1. Modification or addition of waste pile units:	
a. Resulting in greater than 25% increase in the facility's waste pile storage or treatment capacity	3
b. Resulting in up to 25% increase in the facility's waste pile storage or treatment capacity	2
2. Modification of waste pile unit without increasing the capacity of the unit	2
3. Replacement of a waste pile unit with another waste pile unit of the same design and capacity and meeting all waste pile conditions in the permit	1
4. Modification of a waste pile management practice	2
5. Storage or treatment of different wastes in waste piles:	
a. That require additional or different management practices or different design of the unit	3
b. That do not require additional or different management practices or different design of the unit	2
6. Conversion of an enclosed waste pile to a containment building unit	2

Note: See Subsection R315-270-42(g) for modification procedures to be used for the management of newly listed or identified wastes.

J. Landfills and Unenclosed Waste Piles

1. Modification or addition of landfill units that result in increasing the facility's disposal capacity	3
2. Replacement of a landfill	3
3. Addition or modification of a liner, leachate collection system, leachate detection system,	3

	run-off control, or final cover system	
4.	Modification of a landfill unit without changing a liner, leachate collection system, leachate detection system, run-off control, or final cover system	2
5.	Modification of a landfill management practice	2
6.	Landfill different wastes:	
	a. That require additional or different management practices, different design of the liner, leachate collection system, or leachate detection system	3
	b. That do not require additional or different management practices, different design of the liner, leachate collection system, or leachate detection system	2
	c. That are wastes restricted from land disposal that meet the applicable treatment standards or that are treated to satisfy the standard of “use of practically available technology that yields the greatest environmental benefit,” and provided that the landfill unit meets the minimum technological requirements stated in Subsection R315-268-5(h)(2). This modification is not applicable to dioxin-containing wastes, F020, 021, 022, 023, 026, 027, and 028	1
	d. That are residues from wastewater treatment or incineration, provided that disposal occurs in a landfill unit that meets the minimum technological requirements stated in Subsection R315-268-5(h)(2), and provided further that the landfill has previously received wastes of the same type, for example, incinerator ash. This modification is not applicable to dioxin-containing wastes, F020, 021, 022, 023, 026, 027, and 028	1
7.	Modifications of unconstructed units to comply with Subsection R315-264-251(c), Sections R315-264-252 and 253, Subsections R315-264-254(c) and R315-264-301(c), Section R315-264-302, Subsection R315-264-303(c), and Section R315-264-304	[1]1
8.	Changes in response action plan:	

a. Increase in action leakage rate	3
b. Change in a specific response reducing its frequency or effectiveness	3
c. Other changes	2

Note: See Subsection R315-270-42(g) for modification procedures to be used for the management of newly listed or identified wastes.,

K. Land Treatment

1. Lateral expansion of or other modification of a land treatment unit to increase areal extent	3
2. Modification of run-on control system	2
3. Modify run-off control system	3
4. Other modifications of land treatment unit component specifications or standards required in permit	2
5. Management of different wastes in land treatment units:	
a. That require a change in permit operating conditions or unit design specifications	3
b. That do not require a change in permit operating conditions or unit design specifications	2

Note: See Subsection R315-270-42(g) for modification procedures to be used for the management of newly listed or identified wastes

6. Modification of a land treatment unit management practice to:	
a. Increase rate or change method of waste application	3
b. Decrease rate of waste application	1
7. Modification of a land treatment unit management practice to change measures of pH or moisture content, or to enhance microbial or chemical reactions	2
8. Modification of a land treatment unit management practice to grow food chain crops, to add to or replace existing permitted crops with different food chain crops, or to modify operating plans for distribution of animal feeds resulting from such crops	3
9. Modification of operating practice due to detection of releases from the land treatment unit pursuant to Subsection R315-264-278(g)(2)	3
10. Changes in the unsaturated zone monitoring system, resulting in a change to the location,	3

	depth, number of sampling points, or replace unsaturated zone monitoring devices or components of devices with devices or components that have specifications different from permit requirements	
11.	Changes in the unsaturated zone monitoring system that do not result in a change to the location, depth, number of sampling points, or that replace unsaturated zone monitoring devices or components of devices with devices or components having specifications different from permit requirements	2
12.	Changes in background values for hazardous constituents in soil and soil-pore liquid	2
13.	Changes in sampling, analysis, or statistical procedure	2
14.	Changes in land treatment demonstration program prior to or during the demonstration	2
15.	Changes in any condition specified in the permit for a land treatment unit to reflect results of the land treatment demonstration, provided performance standards are met, and the Director's prior approval has been received	[1]1
16.	Changes to allow a second land treatment demonstration to be conducted when the results of the first demonstration have not shown the conditions under which the wastes can be treated completely, provided the conditions for the second demonstration are substantially the same as the conditions for the first demonstration and have received the prior approval of the Director	[1]1
17.	Changes to allow a second land treatment demonstration to be conducted when the results of the first demonstration have not shown the conditions under which the wastes can be treated completely, where the conditions for the second demonstration are not substantially the same as the conditions for the first demonstration	3
18.	Changes in vegetative cover requirements for closure	2
L. Incinerators, Boilers, and Industrial Furnaces:		
1.	Changes to increase by more than 25% any of the following limits authorized in the	3

	permit: A thermal feed rate limit, a feedstream feed rate limit, a chlorine/chloride feed rate limit, a metal feed rate limit, or an ash feed rate limit. The Director shall require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means	
2.	Changes to increase by up to 25% any of the following limits authorized in the permit: A thermal feed rate limit, a feedstream feed rate limit, a chlorine/chloride feed rate limit, a metal feed rate limit, or an ash feed rate limit. The Director shall require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means	2
3.	Modification of an incinerator, boiler, or industrial furnace unit by changing the internal size or geometry of the primary or secondary combustion units, by adding a primary or secondary combustion unit, by substantially changing the design of any component used to remove HCl/Cl_2, metals, or particulate from the combustion gases, or by changing other features of the incinerator, boiler, or industrial furnace that could affect its capability to meet the regulatory performance standards. The Director shall require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means	3
4.	Modification of an incinerator, boiler, or industrial furnace unit in a manner that would not likely affect the capability of the unit to meet the regulatory performance standards but which would change the operating conditions or monitoring requirements specified in the permit. The Director may require a new trial burn to demonstrate compliance with the regulatory performance standards	2
5.	Operating requirements:	
	a. Modification of the limits specified in	3

	the permit for minimum or maximum combustion gas temperature, minimum combustion gas residence time, oxygen concentration in the secondary combustion chamber, flue gas carbon monoxide and hydrocarbon concentration, maximum temperature at the inlet to the particulate matter emission control system, or operating parameters for the air pollution control system. The Director shall require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means	
b.	Modification of any stack gas emission limits specified in the permit, or modification of any conditions in the permit concerning emergency shutdown or automatic waste feed cutoff procedures or controls	3
c.	Modification of any other operating condition or any inspection or recordkeeping requirement specified in the permit	2
6.	Burning different wastes:	
a.	If the waste contains a POHC that is more difficult to burn than authorized by the permit or if burning of the waste requires compliance with different regulatory performance standards than specified in the permit. The Director shall require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means	3
b.	If the waste does not contain a POHC that is more difficult to burn than authorized by the permit and if burning of the waste does not require compliance with different regulatory performance standards than specified in the permit	2

Note: See Subsection R315-270-42(g) for modification procedures to be used for the management of newly listed or identified wastes

7.	Shakedown and trial burn:	
a.	Modification of the trial burn plan or	2

	any of the permit conditions applicable during the shakedown period for determining operational readiness after construction, the trial burn period, or the period immediately following the trial burn	
b.	Authorization of up to an additional 720 hours of waste burning during the shakedown period for determining operational readiness after construction, with the prior approval of the Director	[1]1
c.	Changes in the operating requirements set in the permit for conducting a trial burn, provided the change is minor and has received the prior approval of the Director	[1]1
d.	Changes in the ranges of the operating requirements set in the permit to reflect the results of the trial burn, provided the change is minor and has received the prior approval of the Director	[1]1
8.	Substitution of an alternative type of nonhazardous waste fuel that is not specified in the permit	1
9.	Technology changes needed to meet standards under 40 CFR part 63 (Subpart EEE-National Emission Standards for Hazardous Air Pollutants From Hazardous Waste Combustors), provided the procedures of Subsection R315-270-42(j) are followed.	[1]1
10.	Changes to RCRA permit provisions needed to support transition to 40 CFR part 63 (Subpart EEE-National Emission Standards for Hazardous Air Pollutants From Hazardous Waste Combustors), provided the procedures of Subsection R315-270-42(k) are followed.	
M. Containment Buildings.		
1.	Modification or addition of containment building units:	
a.	Resulting in greater than 25% increase in the facility's containment building storage or treatment capacity	3
b.	Resulting in up to 25% increase in the facility's containment building storage or treatment capacity	2

2. Modification of a containment building unit or secondary containment system without increasing the capacity of the unit	2
3. Replacement of a containment building with a containment building that meets the same design standards provided:	
a. The unit capacity is not increased	1
b. The replacement containment building meets the same conditions in the permit	1
4. Modification of a containment building management practice	2
5. Storage or treatment of different wastes in containment buildings:	
a. That require additional or different management practices	3
b. That do not require additional or different management practices	2
N. Corrective Action:	
1. Approval of a corrective action management unit pursuant to Section R315-264-552	3
2. Approval of a temporary unit or time extension for a temporary unit pursuant to Section R315-264-553	2
3. Approval of a staging pile or staging pile operating term extension pursuant to Section R315-264-554	2
O. Burden Reduction	
1. Reserved	
2. Development of one contingency plan based on Integrated Contingency Plan Guidance pursuant to Subsection R315-264-52(b)	1
3. Changes to recordkeeping and reporting requirements pursuant to: Subsections R315-264-56(i), R315-264-343(a)(2), R315-264-1061(b)(1),(d), R315-264-1062(a)(2), R315-264-196(f), R315-264-100(g), and R315-264-113(e)(5)	1
4. Changes to inspection frequency for tank systems pursuant to Subsection R315-264-195(b)	1
5. Changes to detection and compliance monitoring program pursuant to Subsections R315-264-98(d), (g)(2), and (g)(3), R315-264-99(f), and (g)	1

[1]Class 1 modifications requiring prior Agency approval.

R315-270-43. Hazardous Waste Permit Program - Termination Of Permits.

(a) The following are causes for terminating a permit during its term, or for denying a permit renewal application:

(1) Noncompliance by the permittee with any condition of the permit;

(2) The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the permittee's misrepresentation of any relevant facts at any time; or

(3) A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination.

(b) The Director shall follow the applicable procedures in Rule R315-124 in terminating any permit under Section R315-270-43.

R315-270-50. Hazardous Waste Permit Program - Duration Of Permits.

(a) Hazardous Waste operation permits shall be effective for a fixed term not to exceed 10 years.

(b) Except as provided in Section R315-270-51, the term of a permit shall not be extended by modification beyond the maximum duration specified in Section R315-270-50.

(c) The Director may issue any permit for a duration that is less than the full allowable term under Section R315-270-50.

(d) Each permit for a land disposal facility shall be reviewed by the Director five years after the date of permit issuance or reissuance and shall be modified as necessary, as provided in Section R315-270-41.

R315-270-51. Hazardous Waste Permit Program - Continuation Of Expiring Permits.

(a) The conditions of an expired permit continue in force until the effective date of a new permit if:

(1) The permittee has submitted a timely application under Section R315-270-14 and the applicable sections in Sections R315-270-15 through 29 which is a complete application for a new permit; and

(2) The Director through no fault of the permittee, does not issue a new permit with an effective date under Section R315-124-15 on or before the expiration date of the

previous permit, for example, when issuance is impracticable due to time or resource constraints.

(b) Effect. Permits continued under Section R315-270-51 remain fully effective and enforceable.

(c) Enforcement. When the permittee is not in compliance with the conditions of the expiring or expired permit, the Director may choose to do any or all of the following:

(1) Initiate enforcement action based upon the permit which has been continued;

(2) Issue a notice of intent to deny the new permit under Section R315-124-6. If the permit is denied, the owner or operator would then be required to cease the activities authorized by the continued permit or be subject to enforcement action for operating without a permit;

(3) Issue a new permit under Rule R315-124 with appropriate conditions; or

(4) Take other actions authorized by these rules.

(d) State continuation. If a permittee has submitted a timely and complete application under applicable State law and regulations, the terms and conditions of an EPA-issued RCRA permit continue in force beyond the expiration date of the permit, but only until the effective date of the State's issuance or denial of a State RCRA permit.

R315-270-60. Hazardous Waste Permit Program - Permits By Rule.

Notwithstanding any other provision of Section R315-270-60 or Rule R315-124, the following shall be deemed to have a approved hazardous waste permit if the conditions listed are met:

(a) Reserved

(b) Injection wells. The owner or operator of an injection well disposing of hazardous waste, if the owner or operator:

(1) Has a permit for underground injection issued under Rule R317-7 and 40 CFR 144 or 145; and

(2) Complies with the conditions of that permit and the requirements of 40 CFR 144.14 and Section R317-7-11.

(3) For UIC permits issued after November 8, 1984:

(i) Complies with Section R315-264-101; and

(ii) Where the UIC well is the only unit at a facility which requires a hazardous waste permit, complies with Subsection R315-270-14(d).

(c) Publicly owned treatment works. The owner or operator of a POTW which accepts for treatment hazardous waste, if the owner or operator:

(1) Has an NPDES permit;

(2) Complies with the conditions of that permit; and

(3) Complies with the following regulations:

(i) Section R315-264-11, Identification number;

(ii) Section R315-264-71, Use of manifest system;

(iii) Section R315-264-72, Manifest discrepancies;

(iv) Section R315-264-73(a) and (b)(1), Operating record;

(v) Section R315-264-75, Biennial report;

(vi) Section R315-264-76, Unmanifested waste report; and

(vii) For NPDES permits issued after November 8, 1984, Section R315-264-101.

(4) If the waste meets all Federal, State, and local pretreatment requirements which would be applicable to the waste if it were being discharged into the POTW through a sewer, pipe, or similar conveyance.

R315-270-61. Hazardous Waste Permit Program - Emergency Permits.

(a) Notwithstanding any other provision of Rule R315-270 or Rule R315-124, in the event the Director finds an imminent and substantial endangerment to human health or the environment the Director may issue a temporary emergency permit:

(1) To a non-permitted facility to allow treatment, storage, or disposal of hazardous waste; or

(2) To a permitted facility to allow treatment, storage, or disposal of a hazardous waste not covered by an effective permit.

(b) This emergency permit:

(1) May be oral or written. If oral, it shall be followed in five days by a written emergency permit;

(2) Shall not exceed 90 days in duration;

(3) Shall clearly specify the hazardous wastes to be received, and the manner and location of their treatment, storage, or disposal;

(4) May be terminated by the Director at any time without process if the Director determines that termination is appropriate to protect human health and the environment;

(5) Shall be accompanied by a public notice published under Subsection R315-124-10(b) including:

(i) Name and address of the office granting the emergency authorization;

(ii) Name and location of the permitted hazardous waste management facility;

(iii) A brief description of the wastes involved;

(iv) A brief description of the action authorized and reasons for authorizing it; and

(v) Duration of the emergency permit; and

(6) Shall incorporate, to the extent possible and not inconsistent with the emergency situation, all applicable requirements of Rule R315-270 and Rules R315-264 and 266.

R315-270-62. Hazardous Waste Permit Program - Hazardous Waste Incinerator Permits.

When an owner or operator of a hazardous waste incineration unit becomes subject to hazardous waste permit requirements after October 12, 2005, or when an owner or operator of an existing hazardous waste incineration unit demonstrates compliance with the air emission standards and limitations in Subsection R307-214-2(39), i.e., by conducting a comprehensive performance test and submitting a Notification of Compliance under 40 CFR 63.1207(j) and 63.1210(d), which are incorporated by reference in Subsection R307-214-2(39), documenting compliance with all applicable requirements of Subsection R307-214-2(39), the requirements of Section R315-270-62 do not apply, except those provisions the Director determines are necessary to ensure compliance with Subsections R315-264-345(a) and (c) if the owner or operator elects to comply with Section R315-270-235(a)(1)(i) to minimize emissions of toxic compounds from startup, shutdown, and malfunction events. Nevertheless, the Director may apply the provisions of Section R315-270-62, on a case-by-case basis, for purposes of information collection in accordance with Subsections R315-270-10(k), 10(l), 32(b)(2), and 32(b)(3).

(a) For the purposes of determining operational readiness following completion of physical construction, the Director shall establish permit conditions, including but not limited to allowable waste feeds and operating conditions, in the permit to a new hazardous waste incinerator. These permit conditions shall be effective for the minimum time required to bring the incinerator to a point of operational readiness to conduct a trial burn, not to exceed 720 hours operating time for treatment of hazardous waste. The Director may extend the duration of

this operational period once, for up to 720 additional hours, at the request of the applicant when good cause is shown. The permit may be modified to reflect the extension according to Section R315-270-42.

(1) Applicants shall submit a statement, with part B of the permit application, which suggests the conditions necessary to operate in compliance with the performance standards of Section R315-264-343 during this period. This statement should include, at a minimum, restrictions on waste constituents, waste feed rates and the operating parameters identified in Section R315-264-345.

(2) The Director shall review this statement and any other relevant information submitted with part B of the permit application and specify requirements for this period sufficient to meet the performance standards of Section R315-264-343.

(b) For the purposes of determining feasibility of compliance with the performance standards of Section R315-264-343 and of determining adequate operating conditions under Section R315-264-345, the Director shall establish conditions in the permit for a new hazardous waste incinerator to be effective during the trial burn.

(1) Applicants shall propose a trial burn plan, prepared under Subsection R315-270-62(b)(2) with a part B of the permit application.

(2) The trial burn plan shall include the following information:

(i) An analysis of each waste or mixture of wastes to be burned which includes:

(A) Heat value of the waste in the form and composition in which it will be burned.

(B) Viscosity (if applicable), or description of the physical form of the waste.

(C) An identification of any hazardous organic constituents listed in Rule R315-261, appendix VIII, which are present in the waste to be burned, except that the applicant need not analyze for constituents listed in Rule R315-261, appendix VIII, which would reasonably not be expected to be found in the waste. The constituents excluded from analysis shall be identified, and the basis for the exclusion stated. The waste analysis shall rely on appropriate analytical techniques.

(D) An approximate quantification of the hazardous constituents identified in the waste, within the precision produced by appropriate analytical methods.

(ii) A detailed engineering description of the incinerator for which the permit is sought including:

(A) Manufacturer's name and model number of incinerator, if available.

(B) Type of incinerator.

(C) Linear dimensions of the incinerator unit including the cross sectional area of combustion chamber.

(D) Description of the auxiliary fuel system, type/feed.

(E) Capacity of prime mover.

(F) Description of automatic waste feed cut-off system(s).

(G) Stack gas monitoring and pollution control equipment.

(H) Nozzle and burner design.

(I) Construction materials.

(J) Location and description of temperature, pressure, and flow indicating and control devices.

(iii) A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis.

(iv) A detailed test schedule for each waste for which the trial burn is planned including date(s), duration, quantity of waste to be burned, and other factors relevant to the Director's decision under Subsection R315-270-62(b)(5).

(v) A detailed test protocol, including, for each waste identified, the ranges of temperature, waste feed rate, combustion gas velocity, use of auxiliary fuel, and any other relevant parameters that will be varied to affect the destruction and removal efficiency of the incinerator.

(vi) A description of, and planned operating conditions for, any emission control equipment which will be used.

(vii) Procedures for rapidly stopping waste feed, shutting down the incinerator, and controlling emissions in the event of an equipment malfunction.

(viii) Such other information as the Director reasonably finds necessary to determine whether to approve the trial burn plan in light of the purposes of Subsection R315-270-62(b)(2) and the criteria in Subsection R315-270-62(b)(5).

(3) The Director, in reviewing the trial burn plan, shall evaluate the sufficiency of the information provided and may require the applicant to supplement this information, if necessary, to achieve the purposes of Subsection R315-270-62(b)(2).

(4) Based on the waste analysis data in the trial burn plan, the Director shall specify as trial Principal Organic Hazardous Constituents (POHCs), those constituents for which destruction and removal efficiencies shall be calculated during the trial burn. These trial POHCs shall be specified by the Director based on The Director's estimate of the difficulty of incineration of the constituents identified in the waste analysis, their concentration or mass in the waste feed, and, for wastes listed in Sections R315-261-30 through 35, the hazardous waste organic constituent or constituents identified in appendix VII of Rule R315-261 as the basis for listing.

(5) The Director shall approve a trial burn plan if he finds that:

(i) The trial burn is likely to determine whether the incinerator performance standard required by Section R315-264-343 can be met;

(ii) The trial burn itself shall not present an imminent hazard to human health or the environment;

(iii) The trial burn will help the Director to determine operating requirements to be specified under Section R315-264-345; and

(iv) The information sought in Subsection R315-270-62(b)(5)(i) and (ii) cannot reasonably be developed through other means.

(6) The Director shall send a notice to all persons on the facility mailing list as set forth in Subsection R315-124-10(c)(1)(ix) and to the appropriate units of State and local government as set forth in Subsection R315-124-10(c)(1)(x) announcing the scheduled commencement and completion dates for the trial burn. The applicant may not commence the trial burn until after the Director has issued such notice.

(i) This notice shall be mailed within a reasonable time period before the scheduled trial burn. An additional notice is not required if the trial burn is delayed due to circumstances beyond the control of the facility or the permitting agency.

(ii) This notice shall contain:

(A) The name and telephone number of the applicant's contact person;

(B) The name and telephone number of the permitting agency's contact office;

(C) The location where the approved trial burn plan and any supporting documents can be reviewed and copied; and

(D) An expected time period for commencement and completion of the trial burn.

(7) During each approved trial burn, or as soon after the burn as is practicable, the applicant shall make the following determinations:

(i) A quantitative analysis of the trial POHCs in the waste feed to the incinerator.

(ii) A quantitative analysis of the exhaust gas for the concentration and mass emissions of the trial POHCs, oxygen (O2) and hydrogen chloride (HCl).

(iii) A quantitative analysis of the scrubber water, if any; ash residues; and other residues, for the purpose of estimating the fate of the trial POHCs.

(iv) A computation of destruction and removal efficiency (DRE), in accordance with the DRE formula specified in Subsection R315-264-343(a).

(v) If the HCl emission rate exceeds 1.8 kilograms of HCl per hour, 4 pounds per hour, a computation of HCl removal efficiency in accordance with Subsection R315-264-343(b).

(vi) A computation of particulate emissions, in accordance with Subsection R315-264-343(c).

(vii) An identification of sources of fugitive emissions and their means of control.

(viii) A measurement of average, maximum, and minimum temperatures and combustion gas velocity.

(ix) A continuous measurement of carbon monoxide (CO) in the exhaust gas.

(x) Such other information as the Director may specify as necessary to ensure that the trial burn will determine compliance with the performance standards in Section R315-264-343 and to establish the operating conditions required by Section R315-264-345 as necessary to meet that performance standard.

(8) The applicant shall submit to the Director a certification that the trial burn has been carried out in accordance with the approved trial burn plan, and shall submit the results of all the determinations required in

Subsection R315-270-62(b)(6). This submission shall be made within 90 days of completion of the trial burn, or later if approved by the Director.

(9) All data collected during any trial burn shall be submitted to the Director following the completion of the trial burn.

(10) All submissions required by Subsection R315-270-62(b) shall be certified on behalf of the applicant by the signature of a person authorized to sign a permit application or a report under Section R315-270-11.

(11) Based on the results of the trial burn, the Director shall set the operating requirements in the final permit according to Section R315-264-345. The permit modification shall proceed according to Section R315-270-42.

(c) For the purposes of allowing operation of a new hazardous waste incinerator following completion of the trial burn and prior to final modification of the permit conditions to reflect the trial burn results, the Director may establish permit conditions, including but not limited to allowable waste feeds and operating conditions sufficient to meet the requirements of Section R315-264-345, in the permit to a new hazardous waste incinerator. These permit conditions shall be effective for the minimum time required to complete sample analysis, data computation and submission of the trial burn results by the applicant, and modification of the facility permit by the Director.

(1) Applicants shall submit a statement, with part B of the permit application, which identifies the conditions necessary to operate in compliance with the performance standards of Section R315-264-343 during this period. This statement should include, at a minimum, restrictions on waste constituents, waste feed rates, and the operating parameters in Section R315-264-345.

(2) The Director shall review this statement and any other relevant information submitted with part B of the permit application and specify those requirements for this period most likely to meet the performance standards of Section R315-264-34 based on his engineering judgment.

(d) For the purpose of determining feasibility of compliance with the performance standards of Section R315-264-343 and of determining adequate operating conditions under Section R315-264-345, the applicant for a permit for an existing hazardous waste incinerator shall prepare and submit a trial burn plan and perform a trial burn in

accordance with Subsection R315-270-19(b) and Subsections R315-270-62(b)(2) through (b)(5) and (b)(7) through (b)(10) or, instead, submit other information as specified in Subsection R315-270-19(c). The Director shall announce the Director's intention to approve the trial burn plan in accordance with the timing and distribution requirements of Subsection R315-270-62(b)(6). The contents of the notice shall include: the name and telephone number of a contact person at the facility; the name and telephone number of a contact office at the permitting agency; the location where the trial burn plan and any supporting documents can be reviewed and copied; and a schedule of the activities that are required prior to permit issuance, including the anticipated time schedule for approval of the plan and the time period during which the trial burn would be conducted. Applicants submitting information under Subsection R315-270-19(a) are exempt from compliance with Sections R315-264-343 and 345 and, therefore, are exempt from the requirement to conduct a trial burn. Applicants who submit trial burn plans and receive approval before submission of a permit application shall complete the trial burn and submit the results, specified in Subsection R315-270-62(b)(7), with part B of the permit application. If completion of this process conflicts with the date set for submission of the part B application, the applicant shall contact the Director to establish a later date for submission of the part B application or the trial burn results. Trial burn results shall be submitted prior to issuance of the permit. When the applicant submits a trial burn plan with part B of the permit application, the Director shall specify a time period prior to permit issuance in which the trial burn shall be conducted and the results submitted.

R315-270-63. Hazardous Waste Permit Program - Permits For Land Treatment Demonstrations Using Field Test Or Laboratory Analyses.

(a) For the purpose of allowing an owner or operator to meet the treatment demonstration requirements of Section R315-264-272, the Director may issue a treatment demonstration permit. The permit shall contain only those requirements necessary to meet the standards in Subsection R315-264-272(c). The permit may be issued either as a treatment or disposal permit covering only the field test or laboratory analyses, or as a two-phase facility permit

covering the field tests, or laboratory analyses, and design, construction operation and maintenance of the land treatment unit.

(1) The Director may issue a two-phase facility permit if the Director finds that, based on information submitted in part B of the application, substantial, although incomplete or inconclusive, information already exists upon which to base the issuance of a facility permit.

(2) If the Director finds that not enough information exists upon which the Director can establish permit conditions to attempt to provide for compliance with all of the requirements of Sections R315-264-270 through 283, he shall issue a treatment demonstration permit covering only the field test or laboratory analyses.

(b) If the Director finds that a phased permit may be issued, the Director shall establish, as requirements in the first phase of the facility permit, conditions for conducting the field tests or laboratory analyses. These permit conditions shall include design and operating parameters, including the duration of the tests or analyses and, in the case of field tests, the horizontal and vertical dimensions of the treatment zone; monitoring procedures; post-demonstration clean-up activities; and any other conditions which the Director finds may be necessary under Subsection R315-264-272(c). The Director shall include conditions in the second phase of the facility permit to attempt to meet all Sections R315-264-270 through 283 requirements pertaining to unit design, construction, operation, and maintenance. The Director shall establish these conditions in the second phase of the permit based upon the substantial but incomplete or inconclusive information contained in the part B application.

(1) The first phase of the permit shall be effective as provided in Subsection R315-124-15(b).

(2) The second phase of the permit shall be effective as provided in Subsection R315-270-63(d).

(c) When the owner or operator who has been issued a two-phase permit has completed the treatment demonstration, the owner or operator shall submit to the Director a certification, signed by a person authorized to sign a permit application or report under Section R315-270-11, that the field tests or laboratory analyses have been carried out in accordance with the conditions specified in phase one of the permit for conducting such tests or

analyses. The owner or operator shall also submit all data collected during the field tests or laboratory analyses within 90 days of completion of those tests or analyses unless the Director approves a later date.

(d) If the Director determines that the results of the field tests or laboratory analyses meet the requirements of Section R315-264-272, the Director shall modify the second phase of the permit to incorporate any requirements necessary for operation of the facility in compliance with Sections R315-264-270 through 283, based upon the results of the field tests or laboratory analyses.

(1) This permit modification may proceed under Section R315-270-42, or otherwise shall proceed as a modification under Subsection R315-270-41(a)(2). If such modifications are necessary, the second phase of the permit shall become effective only after those modifications have been made.

(2) If no modifications of the second phase of the permit are necessary, the Director shall give notice of the final decision to the permit applicant and to each person who submitted written comments on the phased permit or who requested notice of the final decision on the second phase of the permit. The second phase of the permit then will become effective as specified in Subsection R315-124-15(b).

R315-270-65. Hazardous Waste Permit Program - Research, Development, And Demonstration Permits.

(a) The Director may issue a research, development, and demonstration permit for any hazardous waste treatment facility which proposes to utilize an innovative and experimental hazardous waste treatment technology or process for which permit standards for such experimental activity have not been promulgated under Rules R315-264 or 266. Any such permit shall include such terms and conditions as will assure protection of human health and the environment. Such permits:

(1) Shall provide for the construction of such facilities as necessary, and for operation of the facility for not longer than one year unless renewed as provided in Subsection R315-270-64(d), and

(2) Shall provide for the receipt and treatment by the facility of only those types and quantities of hazardous waste which the Director deems necessary for purposes of determining the efficacy and performance capabilities of the technology or process and the effects

of such technology or process on human health and the environment, and

(3) Shall include such requirements as the Director deems necessary to protect human health and the environment, including, but not limited to, requirements regarding monitoring, operation, financial responsibility, closure, and remedial action, and such requirements as the Director deems necessary regarding testing and providing of information to the Director with respect to the operation of the facility.

(b) For the purpose of expediting review and issuance of permits under Section R315-270-65, the Director may, consistent with the protection of human health and the environment, modify or waive permit application and permit issuance requirements in Rules R315-124 and 270 except that there may be no modification or waiver of regulations regarding financial responsibility, including insurance, or of procedures regarding public participation.

(c) The Director may order an immediate termination of all operations at the facility at any time the Director determines that termination is necessary to protect human health and the environment.

(d) Any permit issued under Section R315-270-65 may be renewed not more than three times. Each such renewal shall be for a period of not more than 1 year.

R315-270-66. Hazardous Waste Permit Program - Permits For Boilers And Industrial Furnaces Burning Hazardous Waste. When an owner or operator of a cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace becomes subject to the hazardous waste permit requirements after October 12, 2005 or when an owner or operator of an existing cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace demonstrates compliance with the air emission standards and limitations in Subsection R307-214-2(39), i.e., by conducting a comprehensive performance test and submitting a Notification of Compliance under 40 CFR 63.1207(j) and 63.1210(d) which are incorporated by reference in R307-214-2(39) documenting compliance with all applicable requirements of Subsection R307-214-2(39), the requirements of Section R315-270-66 do not apply. The requirements of Section R315-270-66 do apply, however, if the Director determines certain provisions are necessary to ensure

compliance with Subsections R315-266-102(e)(1) and 102(e)(2)(iii) if owners and operators elect to comply with Subsection R315-270-235(a)(1)(i) to minimize emissions of toxic compounds from startup, shutdown, and malfunction events; or if you are an area source and elect to comply with the Sections R315-266-105, 106, and 107 standards and associated requirements for particulate matter, hydrogen chloride and chlorine gas, and non-mercury metals; or the Director determines certain provisions apply, on a case-by-case basis, for purposes of information collection in accordance with Subsections R315-270-10(k), 10(l), 32(b)(2), and 32(b)(3).

(a) General. Owners and operators of new boilers and industrial furnaces, those not operating under the interim status standards of Section R315-266-103, are subject to Subsections R315-270-66(b) through (f). Boilers and industrial furnaces operating under the interim status standards of Section R315-266-103 are subject to Subsection R315-270-66(g).

(b) Permit operating periods for new boilers and industrial furnaces. A permit for a new boiler or industrial furnace shall specify appropriate conditions for the following operating periods:

(1) Pretrial burn period. For the period beginning with initial introduction of hazardous waste and ending with initiation of the trial burn, and only for the minimum time required to bring the boiler or industrial furnace to a point of operational readiness to conduct a trial burn, not to exceed 720 hours operating time when burning hazardous waste, the Director shall establish in the Pretrial Burn Period of the permit conditions, including but not limited to, allowable hazardous waste feed rates and operating conditions. The Director may extend the duration of this operational period once, for up to 720 additional hours, at the request of the applicant when good cause is shown. The permit may be modified to reflect the extension according to Section R315-270-42.

(i) Applicants shall submit a statement, with part B of the permit application that suggests the conditions necessary to operate in compliance with the standards of Sections R315-266-104 through 107 during this period. This statement should include, at a minimum, restrictions on the applicable operating requirements identified in Subsection R315-266-102(e).

(ii) The Director shall review this statement and any other relevant information submitted with part B of the permit application and specify requirements for this period sufficient to meet the performance standards of Sections R315-266-104 through 107.

(2) Trial burn period. For the duration of the trial burn, the Director shall establish conditions in the permit for the purposes of determining feasibility of compliance with the performance standards of Sections R315-266-104 through 107 and determining adequate operating conditions under Subsection R315-266-102(e). Applicants shall propose a trial burn plan, prepared under Subsection R315-270-66(c), to be submitted with part B of the permit application.

(3) Post-trial burn period.

(i) For the period immediately following completion of the trial burn, and only for the minimum period sufficient to allow sample analysis, data computation, and submission of the trial burn results by the applicant, and review of the trial burn results and modification of the facility permit by the Director to reflect the trial burn results, the Director shall establish the operating requirements most likely to ensure compliance with the performance standards of Sections R315-266-104 through 107.

(ii) Applicants shall submit a statement, with part B of the application that identifies the conditions necessary to operate during this period in compliance with the performance standards of Sections R315-266-104 through 107. This statement should include, at a minimum, restrictions on the operating requirements provided by Subsection R315-266-102(e).

(iii) The Director shall review this statement and any other relevant information submitted with part B of the permit application and specify requirements for this period sufficient to meet the performance standards of Sections R315-266-104 through 107.

(4) Final permit period. For the final period of operation, the Director shall develop operating requirements in conformance with Subsection R315-266-102(e) that reflect conditions in the trial burn plan and are likely to ensure compliance with the performance standards of Sections R315-266-104 through 107. Based on the trial burn results, the Director shall make any necessary modifications to the operating requirements to ensure compliance with the performance standards. The permit

modification shall proceed according to Section R315-270-42.

(c) Requirements for trial burn plans. The trial burn plan shall include the following information. The Director, in reviewing the trial burn plan, shall evaluate the sufficiency of the information provided and may require the applicant to supplement this information, if necessary, to achieve the purposes of Subsections R315-270-66(c)(1) through (9):

(1) An analysis of each feed stream, including hazardous waste, other fuels, and industrial furnace feed stocks, as fired, that includes:

(i) Heating value, levels of antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, thallium, total chlorine/chloride, and ash;

(ii) Viscosity or description of the physical form of the feed stream;

(2) An analysis of each hazardous waste, as fired, including:

(i) An identification of any hazardous organic constituents listed in appendix VIII, of Rule R315-261, that are present in the feed stream, except that the applicant need not analyze for constituents listed in appendix VIII that would reasonably not be expected to be found in the hazardous waste. The constituents excluded from analysis shall be identified and the basis for this exclusion explained. The waste analysis shall be conducted in accordance with appropriate analytical techniques.

(ii) An approximate quantification of the hazardous constituents identified in the hazardous waste, within the precision produced by appropriate analytical methods.

(iii) A description of blending procedures, if applicable, prior to firing the hazardous waste, including a detailed analysis of the hazardous waste prior to blending, an analysis of the material with which the hazardous waste is blended, and blending ratios.

(3) A detailed engineering description of the boiler or industrial furnace, including:

(i) Manufacturer's name and model number of the boiler or industrial furnace;

(ii) Type of boiler or industrial furnace;

(iii) Maximum design capacity in appropriate units;

(iv) Description of the feed system for the hazardous waste, and, as appropriate, other fuels and industrial furnace feedstocks;

(v) Capacity of hazardous waste feed system;

(vi) Description of automatic hazardous waste feed cutoff system(s);

(vii) Description of any air pollution control system; and

(viii) Description of stack gas monitoring and any pollution control monitoring systems.

(4) A detailed description of sampling and monitoring procedures including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis.

(5) A detailed test schedule for each hazardous waste for which the trial burn is planned, including date(s), duration, quantity of hazardous waste to be burned, and other factors relevant to the Director's decision under Subsection R315-270-66(b)(2).

(6) A detailed test protocol, including, for each hazardous waste identified, the ranges of hazardous waste feed rate, and, as appropriate, the feed rates of other fuels and industrial furnace feedstocks, and any other relevant parameters that may affect the ability of the boiler or industrial furnace to meet the performance standards in Sections R315-266-104 through 107.

(7) A description of, and planned operating conditions for, any emission control equipment that will be used.

(8) Procedures for rapidly stopping the hazardous waste feed and controlling emissions in the event of an equipment malfunction.

(9) Such other information as the Director reasonably finds necessary to determine whether to approve the trial burn plan in light of the purposes of Section R315-270-66(c) and the criteria in Subsection R315-270-66(b)(2).

(d) Trial burn procedures.

(1) A trial burn shall be conducted to demonstrate conformance with the standards of Sections R315-266-104 through 107 under an approved trial burn plan.

(2) The Director shall approve a trial burn plan if the Director finds that:

(i) The trial burn is likely to determine whether the boiler or industrial furnace can meet the performance standards of Sections R315-266-104 through 107;

(ii) The trial burn itself shall not present an imminent hazard to human health and the environment;

(iii) The trial burn will help the Director to determine operating requirements to be specified under Subsection R315-266-102(e); and

(iv) The information sought in the trial burn cannot reasonably be developed through other means.

(3) The Director shall send a notice to all persons on the facility mailing list as set forth in Subsection R315-124-10(c)(1)(ix) and to the appropriate units of State and local government as set forth in Subsection R315-124-10(c)(1)(x) announcing the scheduled commencement and completion dates for the trial burn. The applicant may not commence the trial burn until after the Director has issued such notice.

(i) This notice shall be mailed within a reasonable time period before the trial burn. An additional notice is not required if the trial burn is delayed due to circumstances beyond the control of the facility or the Director.

(ii) This notice shall contain:

(A) The name and telephone number of applicant's contact person;

(B) The name and telephone number of the Division;

(C) The location where the approved trial burn plan and any supporting documents can be reviewed and copied; and

(D) An expected time period for commencement and completion of the trial burn.

(4) The applicant shall submit to the Director a certification that the trial burn has been carried out in accordance with the approved trial burn plan, and shall submit the results of all the determinations required in Subsection R315-270-66(c). This submission shall be made within 90 days of completion of the trial burn, or later if approved by the Director.

(5) All data collected during any trial burn shall be submitted to the Director following completion of the trial burn.

(6) All submissions required by Subsection R315-270-66(d) shall be certified on behalf of the applicant by the signature of a person authorized to sign a permit application or a report under Section R315-270-11.

(e) Special procedures for DRE trial burns. When a DRE trial burn is required under Subsection R315-266-104(a), the Director shall specify, based on the hazardous waste analysis data and other information in the trial burn

plan, as trial Principal Organic Hazardous Constituents (POHCs) those compounds for which destruction and removal efficiencies shall be calculated during the trial burn. These trial POHCs shall be specified by the Director based on information including the Director's estimate of the difficulty of destroying the constituents identified in the hazardous waste analysis, their concentrations or mass in the hazardous waste feed, and, for hazardous waste containing or derived from wastes listed in Sections R315-261-30 through 35, the hazardous waste organic constituent(s) identified in Appendix VII of Rule R315-261 as the basis for listing.

(f) Determinations based on trial burn. During each approved trial burn, or as soon after the burn as is practicable, the applicant shall make the following determinations:

(1) A quantitative analysis of the levels of antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, thallium, silver, and chlorine/chloride, in the feed streams; hazardous waste, other fuels, and industrial furnace feedstocks;

(2) When a DRE trial burn is required under Subsection R315-266-104(a):

(i) A quantitative analysis of the trial POHCs in the hazardous waste feed;

(ii) A quantitative analysis of the stack gas for the concentration and mass emissions of the trial POHCs; and

(iii) A computation of destruction and removal efficiency (DRE), in accordance with the DRE formula specified in Subsection R315-266-104(a);

(3) When a trial burn for chlorinated dioxins and furans is required under Subsection R315-266-104(e), a quantitative analysis of the stack gas for the concentration and mass emission rate of the 2,3,7,8-chlorinated tetra-octa congeners of chlorinated dibenzo-p-dioxins and furans, and a computation showing conformance with the emission standard;

(4) When a trial burn for particulate matter, metals, or HCl/Cl2 is required under Section R315-266-105, or Subsections R315-266-106(c) or (d), or SubsectionsR315-266-107(b)(2) or (c), a quantitative analysis of the stack gas for the concentrations and mass emissions of particulate matter, metals, or hydrogen chloride (HCl) and chlorine (Cl2), and computations showing conformance with the applicable emission performance standards;

(5) When a trial burn for DRE, metals, or HCl/Cl2 is required under Subsections R315-266-104(a), 106(c) or (d), or 107(b)(2) or (c), a quantitative analysis of the scrubber water, if any); ash residues; other residues; and products for the purpose of estimating the fate of the trial POHCs, metals, and chlorine/chloride;

(6) An identification of sources of fugitive emissions and their means of control;

(7) A continuous measurement of carbon monoxide (CO), oxygen, and where required, hydrocarbons (HC), in the stack gas; and

(8) Such other information as the Director may specify as necessary to ensure that the trial burn shall determine compliance with the performance standards in Sections R315-266-104 through 107 and to establish the operating conditions required by Subsection R315-266-102(e) as necessary to meet those performance standards.

(g) Interim status boilers and industrial furnaces. For the purpose of determining feasibility of compliance with the performance standards of Sections R315-266-104 through 107 and of determining adequate operating conditions under Section R315-266-103, applicants owning or operating existing boilers or industrial furnaces operated under the interim status standards of Section R315-266-103 shall either prepare and submit a trial burn plan and perform a trial burn in accordance with the requirements of Section R315-270-66 or submit other information as specified in Subsection R315-270-22(a)(6). The Director shall announce the Director's intention to approve of the trial burn plan in accordance with the timing and distribution requirements of Subsection R315-270-66(d)(3). The contents of the notice shall include: the name and telephone number of a contact person at the facility; the name and telephone number of a contact office at the Division; the location where the trial burn plan and any supporting documents can be reviewed and copied; and a schedule of the activities that are required prior to permit issuance, including the anticipated time schedule for Director approval of the plan and the time periods during which the trial burn would be conducted. Applicants who submit a trial burn plan and receive approval before submission of the part B permit application shall complete the trial burn and submit the results specified in Subsection R315-270-66(f) with the part B permit application. If completion of this process conflicts with

the date set for submission of the part B application, the applicant shall contact the Director to establish a later date for submission of the part B application or the trial burn results. If the applicant submits a trial burn plan with part B of the permit application, the trial burn shall be conducted and the results submitted within a time period prior to permit issuance to be specified by the Director.

R315-270-68. Hazardous Waste Permit Program - Remedial Action Plans (RAPs).

Remedial Action Plans (RAPs) are special forms of permits that are regulated under Sections R315-270-79 through 230.

R315-270-70. Hazardous Waste Permit Program - Qualifying For Interim Status.

(a) Any person who owns or operates an “existing hazardous waste management facility” or a facility in existence on the effective date of statutory or regulatory amendments under the State or Federal Act that render the facility subject to the requirement to have a hazardous waste permit shall have interim status and shall be treated as having been issued a permit to the extent the owner or operator has:

(1) Complied with the requirements of section 3010(a) of RCRA pertaining to notification of hazardous waste activity or the notification requirements of Rules R315-260 through 266, 268 and 270.

Comment: Some existing facilities may not be required to file a notification under section 3010(a) of RCRA. These facilities may qualify for interim status by meeting Subsection R315-270-70(a)(2).

(2) Complied with the requirements of Section R315-270-10 governing submission of part A applications;

(b) Failure to qualify for interim status. If the Director has reason to believe upon examination of a part A application that it fails to meet the requirements of Section R315-270-13, the Director shall notify the owner or operator in writing of the apparent deficiency. Such notice shall specify the grounds for the Director's belief that the application is deficient. The owner or operator shall have 30 days from receipt to respond to such a notification and to explain or cure the alleged deficiency in the owner or operator's part A application. If, after such notification and opportunity for response, the Director

determines that the application is deficient the Director may take appropriate enforcement action.

(c) Subsection R315-270-70(a) shall not apply to any facility which has been previously denied a hazardous waste permit or if authority to operate the facility under Federal or State authority has been previously terminated.

R315-270-71. Hazardous Waste Permit Program - Operation During Interim Status.

(a) During the interim status period the facility shall not:

(1) Treat, store, or dispose of hazardous waste not specified in part A of the permit application;

(2) Employ processes not specified in part A of the permit application; or

(3) Exceed the design capacities specified in part A of the permit application.

(b) Interim status standards. During interim status, owners or operators shall comply with the interim status standards at Rule R315-265.

R315-270-72. Hazardous Waste Permit Program - Changes During Interim Status.

(a) Except as provided in Subsection R315-270-72(b), the owner or operator of an interim status facility may make the following changes at the facility:

(1) Treatment, storage, or disposal of new hazardous wastes not previously identified in part A of the permit application and, in the case of newly listed or identified wastes, addition of the units being used to treat, store, or dispose of the hazardous wastes on the effective date of the listing or identification if the owner or operator submits a revised part A permit application prior to such treatment, storage, or disposal;

(2) Increases in the design capacity of processes used at the facility if the owner or operator submits a revised part A permit application prior to such a change, along with a justification explaining the need for the change, and the Director approves the changes because:

(i) There is a lack of available treatment, storage, or disposal capacity at other hazardous waste management facilities, or

(ii) The change is necessary to comply with a Federal, State, or local requirement.

(3) Changes in the processes for the treatment, storage, or disposal of hazardous waste or addition of processes if the owner or operator submits a revised part A permit application prior to such change, along with a justification explaining the need for the change, and the Director approves the change because:

(i) The change is necessary to prevent a threat to human health and the environment because of an emergency situation, or

(ii) The change is necessary to comply with a Federal, State, or local requirement.

(4) Changes in the ownership or operational control of a facility if the new owner or operator submits a revised part A permit application no later than 90 days prior to the scheduled change. When a transfer of operational control of a facility occurs, the old owner or operator shall comply with the requirements of Sections R315-265-140 through 150, until the new owner or operator has demonstrated to the Director that the owner or operator is complying with the requirements of Sections R315-265-140 through 150. The new owner or operator shall demonstrate compliance with Sections R315-265-140 through 150 within six months of the date of the change in ownership or operational control of the facility. Upon demonstration to the Director by the new owner or operator of compliance with Sections R315-265-140 through 150, the Director shall notify the old owner or operator in writing that he no longer needs to comply with Sections R315-265-140 through 150 as of the date of demonstration. All other interim status duties are transferred effective immediately upon the date of the change in ownership or operational control of the facility.

(5) Changes made in accordance with an interim status corrective action order issued under Subsection 19-6-105(d) or by EPA under section 3008(h) or other Federal authority, or by a court in a judicial action brought by EPA or by an authorized State. Changes under Subsection R315-270-72(a)(5) are limited to the treatment, storage, or disposal of solid waste from releases that originate within the boundary of the facility.

(6) Addition of newly regulated units for the treatment, storage, or disposal of hazardous waste if the owner or operator submits a revised part A permit application on or before the date on which the unit becomes subject to the new requirements.

(b) Except as specifically allowed under Subsection R315-270-72(b), changes listed under Subsection R315-270-72(a) may not be made if they amount to reconstruction of the hazardous waste management facility. Reconstruction occurs when the capital investment in the changes to the facility exceeds 50 percent of the capital cost of a comparable entirely new hazardous waste management facility. If all other requirements are met, the following changes may be made even if they amount to a reconstruction:

(1) Changes made solely for the purposes of complying with the requirements of Section R315-265-193 for tanks and ancillary equipment.

(2) If necessary to comply with Federal, State, or local requirements, changes to an existing unit, changes solely involving tanks or containers, or addition of replacement surface impoundments that satisfy the standards of section 3004(o).

(3) Changes that are necessary to allow owners or operators to continue handling newly listed or identified hazardous wastes that have been treated, stored, or disposed of at the facility prior to the effective date of the rule establishing the new listing or identification.

(4) Changes during closure of a facility or of a unit within a facility made in accordance with an approved closure plan.

(5) Changes necessary to comply with an interim status corrective action order issued under Subsection 19-6-105(d), or by EPA under section 3008(h) or other Federal authority, or by a court in a judicial proceeding brought by EPA or an authorized State, provided that such changes are limited to the treatment, storage, or disposal of solid waste from releases that originate within the boundary of the facility.

(6) Changes to treat or store, in tanks, containers, or containment buildings, hazardous wastes subject to land disposal restrictions imposed by Rule R315-268 or RCRA section 3004, provided that such changes are made solely for the purpose of complying with Rule R315-268 or RCRA section 3004.

(7) Addition of newly regulated units under Subsection R315-27-72(a)(6).

(8) Changes necessary to comply with standards under 40 CFR part 63, Subpart EEE-National Emission Standards for Hazardous Air Pollutants From Hazardous Waste Combustors,

which is incorporated by reference in Subsection R307-214-2(39).

R315-270-73. Hazardous Waste Permit Program - Termination Of Interim Status.

Interim status terminates when:

(a) Final administrative disposition of a permit application, except an application for a remedial action plan (RAP) under Sections R315-270-79 through 230 is made.

(b) Interim status is terminated as provided in Subsection R315-270-10(e)(5).

(c) For owners or operators of each land disposal facility which has been granted interim status prior to November 8, 1984, on November 8, 1985, unless:

(1) The owner or operator submits a part B application for a permit for such facility prior to that date; and

(2) The owner or operator certifies that such facility is in compliance with all applicable ground-water monitoring and financial responsibility requirements.

(d) For owners or operators of each land disposal facility which is in existence on the effective date of statutory or regulatory amendments under the Federal Act, or Section 19-6-108, that render the facility subject to the requirement to have a hazardous waste permit and which is granted interim status, twelve months after the date on which the facility first becomes subject to such permit requirement unless the owner or operator of such facility:

(1) Submits a part B application for a hazardous waste permit for such facility before the date 12 months after the date on which the facility first becomes subject to such permit requirement; and

(2) Certifies that such facility is in compliance with all applicable ground water monitoring and financial responsibility requirements.

(e) For owners or operators of any land disposal unit that is granted authority to operate under Subsections R315-270-72(a) (1), (2) or (3), on the date 12 months after the effective date of such requirement, unless the owner or operator certifies that such unit is in compliance with all applicable ground-water monitoring and financial responsibility requirements.

(f) For owners and operators of each incinerator facility which has achieved interim status prior to November 8, 1984, interim status terminates on November 8,

1989, unless the owner or operator of the facility submits a part B application for a hazardous waste permit for an incinerator facility by November 8, 1986.

(g) For owners or operators of any facility, other than a land disposal or an incinerator facility, which has achieved interim status prior to November 8, 1984, interim status terminates on November 8, 1992, unless the owner or operator of the facility submits a part B application for a hazardous waste permit for the facility by November 8, 1988.

R315-270-79. Hazardous Waste Permit Program - Why Sections R315-79 through 230 Written In A Special Format?

Sections R315-270-79 through 230 are written in a special format to make it easier to understand the regulatory requirements. Like other rules adopted the Board, this establishes enforceable legal requirements. For Sections R315-270-79 through 230, “I” and “you” refer to the owner/operator.

R315-270-80. Hazardous Waste Permit Program - What is a RAP?

(a) A RAP is a special form of hazardous waste permit that you, as an owner or operator, may obtain, instead of a permit issued under Sections R315-270-3 through 66, to authorize you to treat, store, or dispose of hazardous remediation waste, as defined in Section R315-260-10, at a remediation waste management site. A RAP may only be issued for the area of contamination where the remediation wastes to be managed under the RAP originated, or areas in close proximity to the contaminated area, except as allowed in limited circumstances under Section R315-270-230.

(b) The requirements in Sections R315-270-3 through 66 do not apply to RAPs unless those requirements for traditional permits are specifically required under Sections R315-270-80 through 230. The definitions in Section R315-270-2 apply to RAPs.

(c) Notwithstanding any other provision of Rule R315-270 or Rule R315-124, any document that meets the requirements in Section R315-270-80 constitutes a hazardous waste permit Section 19-6-108.

(d) A RAP may be:

(1) A stand-alone document that includes only the information and conditions required by Sections R315-270-79 through 230; or

(2) Part, or parts, of another document that includes information and/or conditions for other activities at the remediation waste management site, in addition to the information and conditions required by Sections R315-270-79 through 230.

(e) If you are treating, storing, or disposing of hazardous remediation wastes as part of a cleanup compelled by Federal or State cleanup authorities, your RAP does not affect your obligations under those authorities in any way.

(f) If you receive a RAP at a facility operating under interim status, the RAP does not terminate your interim status.

R315-270-85. Hazardous Waste Permit Program - When Do I Need A Rap?

(a) Whenever you treat, store, or dispose of hazardous remediation wastes in a manner that requires a permit under Section R315-270-1, you shall either obtain:

(1) A permit according to Sections R315-270-3 through 66; or

(2) A RAP according to Sections R315-270-79 through 230.

(b) Treatment units that use combustion of hazardous remediation wastes at a remediation waste management site are not eligible for RAPs under Sections R315-270-79 through 230.

(c) You may obtain a RAP for managing hazardous remediation waste at an already permitted hazardous waste facility. You shall have these RAPs approved as a modification to your existing permit according to the requirements of Section R315-270-41 or 42 instead of the requirements in Sections R315-270-79 through 230. When you submit an application for such a modification, however, the information requirements in Subsections R315-270-42(a)(1)(i), (b)(1)(iv), and (c)(1)(iv) do not apply; instead, you shall submit the information required under Section R315-270-110. When your permit is modified the RAP becomes part of the hazardous waste permit. Therefore when your permit, including the RAP portion, is modified, revoked and reissued, terminated or when it expires, it will be modified according to the applicable requirements in Sections R315-270-40 through 42, revoked and reissued

according to the applicable requirements in Sections R315-270-41 and 43, terminated according to the applicable requirements in Section R315-270-43, and expire according to the applicable requirements in Sections R315-270-50 and 51.

R315-270-90. Hazardous Waste Permit Program - Does My Rap Grant Me Any Rights Or Relieve Me Of Any Obligations?
The provisions of Section R315-270-4 apply to RAPs. Note: The provisions of Subsection R315-270-4(a) provide you assurance that, as long as you comply with your RAP, the Director shall consider you in compliance with the rules adopted under Sections 19-6-101 through 125, and will not take enforcement actions against you. However, you should be aware of four exceptions to this provision that are listed in Section R315-270-4.

R315-270-95. Hazardous Waste Permit Program - How Do I Apply For A Rap?
To apply for a RAP, you shall complete an application, sign it, and submit it to the Director according to the requirements in Sections R315-270-79 through 230.

R315-270-100. Hazardous Waste Permit Program - Who Shall Obtain A Rap?
When a facility or remediation waste management site is owned by one person, but the treatment, storage or disposal activities are operated by another person, it is the operator's duty to obtain a RAP, except that the owner shall also sign the RAP application.

R315-270-105. Hazardous Waste Permit Program - Who Shall Sign The Application And Any Required Reports For A Rap?
Both the owner and the operator shall sign the RAP application and any required reports according to Subsections R315-270-11(a), (b), and (c). In the application, both the owner and the operator shall also make the certification required under Subsection R315-270-11(d)(1). However, the owner may choose the alternative certification under Subsection R315-270-11(d)(2) if the operator certifies under Subsection R315-270-11(d)(1).

R315-270-110. Hazardous Waste Permit Program - What Shall I Include In My Application For A Rap?

You shall include the following information in your application for a RAP:

(a) The name, address, and EPA identification number of the remediation waste management site;

(b) The name, address, and telephone number of the owner and operator;

(c) The latitude and longitude of the site;

(d) The United States Geological Survey (USGS) or county map showing the location of the remediation waste management site;

(e) A scaled drawing of the remediation waste management site showing:

(1) The remediation waste management site boundaries;

(2) Any significant physical structures; and

(3) The boundary of all areas on-site where remediation waste is to be treated, stored or disposed;

(f) A specification of the hazardous remediation waste to be treated, stored or disposed of at the facility or remediation waste management site. This shall include information on:

(1) Constituent concentrations and other properties of the hazardous remediation wastes that may affect how such materials should be treated and/or otherwise managed;

(2) An estimate of the quantity of these wastes; and

(3) A description of the processes you will use to treat, store, or dispose of this waste including technologies, handling systems, design and operating parameters you will use to treat hazardous remediation wastes before disposing of them according to the LDR standards of Rule R315-268, as applicable;

(g) Enough information to demonstrate that operations that follow the provisions in your RAP application will ensure compliance with applicable requirements of Rules R315-264, 266, and 268;

(h) Such information as may be necessary to enable the Director to carry out his duties as is required for permits under Subsection R315-270-14(b)(20);

(i) Any other information the Director decides is necessary for demonstrating compliance with Sections R315-270-79 through 230 or for determining any additional RAP conditions that are necessary to protect human health and the environment.

R315-270-115. Hazardous Waste Permit Program - What If I Want To Keep This Information Confidential?

Sections 63G-2-101 through 901 allows you to claim as confidential any or all of the information you submit to the Director under Sections R315-270-79 through 230. You shall assert any such claim by following the requirements of Section 63G-2-309. If you do assert a claim at the time you submit the information, the Director shall treat the information according to the procedures in Sections 63G-2-101 through 901. If you do not assert a claim at the time you submit the information, the Director may make the information available to the public without further notice to you. The Director shall deny any requests for confidentiality of your name and/or address.

R315-270-120. Hazardous Waste Permit Program - To Whom Shall I Submit My Rap Application?

You shall submit your application for a RAP to the Director for approval.

R315-270-125. Hazardous Waste Permit Program - If I Submit My Rap Application As Part Of Another Document, What Shall I Do?

If you submit your application for a RAP as a part of another document, you shall clearly identify the components of that document that constitute your RAP application.

R315-270-130. Hazardous Waste Permit Program - What Is The Process For Approving Or Denying My Application For A Rap?

(a) If the Director tentatively finds that your RAP application includes all of the information required by Section R315-270-110 and that your proposed remediation waste management activities meet the regulatory standards, the Director shall make a tentative decision to approve your RAP application. The Director shall then prepare a draft RAP and provide an opportunity for public comment before making a final decision on your RAP application, according to Sections R315-270-79 through 230.

(b) If the Director tentatively finds that your RAP application does not include all of the information required by Section R315-270-110 or that your proposed remediation waste management activities do not meet the regulatory standards, the Director may request additional information from you or ask you to correct deficiencies in your application. If you fail or refuse to provide any additional information the Director requests, or to correct any deficiencies in your RAP application, the Director may

make a tentative decision to deny your RAP application. After making this tentative decision, the Director shall prepare a notice of intent to deny your RAP application and provide an opportunity for public comment before making a final decision on your RAP application, according to the requirements in Sections R315-270-79 through 230. The Director may deny the RAP application either in its entirety or in part.

R315-270-135. Hazardous Waste Permit Program - What Shall The Director Include In A Draft Rap?

If the Director prepares a draft RAP, it shall include the:

(a) Information required under Subsections R315-270-110(a) through (f);

(b) The following terms and conditions:

(1) Terms and conditions necessary to ensure that the operating requirements specified in your RAP comply with applicable requirements of Rules R315-264, 266, and 268, including any recordkeeping and reporting requirements. In satisfying this provision, the Director may incorporate, expressly or by reference, applicable requirements of Rules R315-264, 266, and 268 into the RAP or establish site-specific conditions as required or allowed by Rules R315-264, 266, and 268;

(2) Terms and conditions in Section R315-270-30;

(3) Terms and conditions for modifying, revoking and reissuing, and terminating your RAP, as provided in Section R315-270-170; and

(4) Any additional terms or conditions that the Director determines are necessary to protect human health and the environment, including any terms and conditions necessary to respond to spills and leaks during use of any units permitted under the RAP; and

(c) If the draft RAP is part of another document, as described in Subsection R315-270-80(d)(2), the Director shall clearly identify the components of that document that constitute the draft RAP.

R315-270-140. Hazardous Waste Permit Program - What Else Shall The Director Prepare In Addition To The Draft Rap Or Notice Of Intent To Deny?

Once the Director has prepared the draft RAP or notice of intent to deny, he shall then:

(a) Prepare a statement of basis that briefly describes the derivation of the conditions of the draft RAP

and the reasons for them, or the rationale for the notice of intent to deny;

(b) Compile an administrative record, including:

(1) The RAP application, and any supporting data furnished by the applicant;

(2) The draft RAP or notice of intent to deny;

(3) The statement of basis and all documents cited therein, material readily available at the Division's office or published material that is generally available need not be physically included with the rest of the record, as long as it is specifically referred to in the statement of basis; and

(4) Any other documents that support the decision to approve or deny the RAP; and

(c) Make information contained in the administrative record available for review by the public upon request.

R315-270-145. Hazardous Waste Permit Program - What Are The Procedures For Public Comment On The Draft Rap Or Notice Of Intent To Deny?

(a) The Director shall:

(1) Send notice to you of intent to approve or deny your RAP application, and send you a copy of the statement of basis;

(2) Publish a notice of intent to approve or deny your RAP application in a major local newspaper of general circulation;

(3) Broadcast intent to approve or deny your RAP application over a local radio station; and

(4) Send a notice of intent to approve or deny your RAP application to each unit of local government having jurisdiction over the area in which your site is located, and to each State agency having any authority under State law with respect to any construction or operations at the site.

(b) The notice required by Subsection R315-270-145(a) shall provide an opportunity for the public to submit written comments on the draft RAP or notice of intent to deny within at least 45 days.

(c) The notice required by Subsection R315-270-145(a) shall include:

(1) The name and address of the office processing the RAP application;

(2) The name and address of the RAP applicant, and if different, the remediation waste management site or activity the RAP will regulate;

(3) A brief description of the activity the RAP will regulate;

(4) The name, address and telephone number of a person from whom interested persons may obtain further information, including copies of the draft RAP or notice of intent to deny, statement of basis, and the RAP application;

(5) A brief description of the comment procedures, and any other procedures by which the public may participate in the RAP decision;

(6) If a hearing is scheduled, the date, time, location and purpose of the hearing;

(7) If a hearing is not scheduled, a statement of procedures to request a hearing;

(8) The location of the administrative record, and times when it will be open for public inspection; and

(9) Any additional information the Director considers necessary or proper.

(d) If, within the comment period, the Director receives written notice of opposition to his intention to approve or deny your RAP application and a request for a hearing, the Director shall hold an informal public hearing to discuss issues relating to the approval or denial of your RAP application. The Director may also determine on his own initiative that an informal hearing is appropriate. The hearing shall include an opportunity for any person to present written or oral comments. Whenever possible, the Director shall schedule this hearing at a location convenient to the nearest population center to the remediation waste management site and give notice according to the requirements in Subsection R315-270-145(a). This notice shall, at a minimum, include the information required by Subsection R315-270-145(c) and:

(1) Reference to the date of any previous public notices relating to the RAP application;

(2) The date, time and place of the hearing; and

(3) A brief description of the nature and purpose of the hearing, including the applicable rules and procedures.

R315-270-150. Hazardous Waste Permit Program - How Will The Director Make A Final Decision On My Rap Application?

(a) The Director shall consider and respond to any significant comments raised during the public comment period, or during any hearing on the draft RAP or notice of intent to deny, and revise your draft RAP based on those comments, as appropriate.

(b) If the Director determines that your RAP includes the information and terms and conditions required in Section R315-270-135, then he will issue a final decision approving your RAP and, in writing, notify you and all commenters on your draft RAP that your RAP application has been approved.

(c) If the Director determines that your RAP does not include the information required in Section R315-270-135, then he will issue a final decision denying your RAP and, in writing, notify you and all commenters on your draft RAP that your RAP application has been denied.

(d) If the Director's final decision is that the tentative decision to deny the RAP application was incorrect, he will withdraw the notice of intent to deny and proceed to prepare a draft RAP, according to the requirements in Sections R315-270-79 through 230.

(e) When the Director issues a final RAP decision, the Director shall refer to the procedures for appealing the decision under Section R315-270-155.

(f) Before issuing the final RAP decision, the Director shall compile an administrative record. Material readily available at the Division office or published materials which are generally available and which are included in the administrative record need not be physically included with the rest of the record as long as it is specifically referred to in the statement of basis or the response to comments. The administrative record for the final RAP shall include information in the administrative record for the draft RAP, see Subsection R315-270-140(b), and:

(1) All comments received during the public comment period;

(2) Tapes or transcripts of any hearings;

(3) Any written materials submitted at these hearings;

(4) The responses to comments;

(5) Any new material placed in the record since the draft RAP was issued;

(6) Any other documents supporting the RAP; and

(7) A copy of the final RAP.

(g) The Director shall make information contained in the administrative record available for review by the public upon request.

R315-270-155. Hazardous Waste Permit Program - May The Decision To Approve Or Deny My Rap Application Be Administratively Appealed?

(a) Any commenter on the draft RAP or notice of intent to deny, or any participant in any public hearing(s) on the draft RAP, may appeal the Director's decision to approve or deny your RAP application under Section R315-124-19. Any person who did not file comments, or did not participate in any public hearing(s) on the draft RAP, may petition for administrative review only to the extent of the changes from the draft to the final RAP decision. Appeals of RAPs may be made to the same extent as for final permit decisions under Section R315-124-15 (or a decision under Section R315-270-29 to deny a permit for the active life of a hazardous waste management facility or unit).

(b) This appeal is a prerequisite to seeking judicial review of these actions.

R315-270-160. Hazardous Waste Permit Program - When Does My Rap Become Effective?

Your RAP becomes effective 30 days after the Director notifies you and all commenters that your RAP is approved unless:

(a) The Director specifies a later effective date in his decision;

(b) You or another person has appealed your RAP under R315-270-155 (if your RAP is appealed, and the request for review is granted under Section R315-270-155, conditions of your RAP are stayed according to Section R315-124-16 of this chapter); or

(c) No commenters requested a change in the draft RAP, in which case the RAP becomes effective immediately when it is issued.

R315-270-165. Hazardous Waste Permit Program - When May I Begin Physical Construction Of New Units Permitted Under The Rap?

You shall not begin physical construction of new units permitted under the RAP for treating, storing or disposing of hazardous remediation waste before receiving a finally effective RAP.

R315-270-170. Hazardous Waste Permit Program - After My Rap Is Issued, How May It Be Modified, Revoked And Reissued, Or Terminated?

In your RAP, the Director shall specify, either directly or by reference, procedures for future modifications, revocations and reissuance, or terminations of your RAP. These procedures shall provide adequate opportunities for public review and comment on any modification, revocation and reissuance, or termination that would significantly change your management of your remediation waste, or that otherwise merits public review and comment. If your RAP has been incorporated into a traditional hazardous waste permit, as allowed under Subsection R315-270-85(c), then the RAP will be modified according to the applicable requirements in Sections R315-270-40 through 42, revoked and reissued according to the applicable requirements in Sections R315-270-41 and 43, or terminated according to the applicable requirements of Section R315-270-43.

R315-270-175. Hazardous Waste Permit Program - For What Reasons May The Director Choose To Modify My Final Rap?

(a) The Director may modify your final RAP on his own initiative only if one or more of the following reasons listed in Section R315-27-175 exist(s). If one or more of these reasons do not exist, then the Director shall not modify your final RAP, except at your request. Reasons for modification are:

(1) You made material and substantial alterations or additions to the activity that justify applying different conditions;

(2) The Director finds new information that was not available at the time of RAP issuance and would have justified applying different RAP conditions at the time of issuance;

(3) The standards or regulations on which the RAP was based have changed because of new or amended statutes, rules, or by judicial decision after the RAP was issued;

(4) If your RAP includes any schedules of compliance, the Director may find reasons to modify your compliance schedule, such as an act of God, strike, flood, or materials shortage or other events over which you as the owner/operator have little or no control and for which there is no reasonably available remedy;

(5) You are not in compliance with conditions of your RAP;

(6) You failed in the application or during the RAP issuance process to disclose fully all relevant facts, or you misrepresented any relevant facts at the time;

(7) The Director has determined that the activity authorized by your RAP endangers human health or the environment and can only be remedied by modifying; or

(8) You have notified the Director, as required in the RAP under Subsection R315-270-30(l)(3)) of a proposed transfer of a RAP.

(b) Notwithstanding any other provision in Section R315-270-175, when the Director reviews a RAP for a land disposal facility under Section R315-270-195, he may modify the permit as necessary to assure that the facility continues to comply with the currently applicable requirements in Rules R315-124, 260 through 266 and 270.

(c) The Director shall not reevaluate the suitability of the facility location at the time of RAP modification unless new information or standards indicate that a threat to human health or the environment exists that was unknown when the RAP was issued.

R315-270-180. Hazardous Waste Permit Program - For What Reasons May The Director Choose To Revoke And Reissue My Final Rap?

(a) The Director may revoke and reissue your final RAP on his own initiative only if one or more reasons for revocation and reissuance exist(s). If one or more reasons do not exist, then the Director shall not modify or revoke and reissue your final RAP, except at your request. Reasons for modification or revocation and reissuance are the same as the reasons listed for RAP modifications in Subsections R315-270-175(a)(5) through (8) if the Director determines that revocation and reissuance of your RAP is appropriate.

(b) The Director shall not reevaluate the suitability of the facility location at the time of RAP revocation and reissuance, unless new information or standards indicate that a threat to human health or the environment exists that was unknown when the RAP was issued.

R315-270-185. Hazardous Waste Permit Program - For What Reasons May The Director Choose To Terminate My Final Rap, Or Deny My Renewal Application?

The Director may terminate your final RAP on his own initiative, or deny your renewal application for the same reasons as those listed for RAP modifications in Subsections R315-270-175(a)(5) through (7) if the Director determines that termination of your RAP or denial of your RAP renewal application is appropriate.

R315-270-190. Hazardous Waste Permit Program - May The Decision To Approve Or Deny A Modification, Revocation And Reissuance, Or Termination Of My Rap Be Administratively Appealed?

(a) Any commenter on the modification, revocation and reissuance or termination, or any person who participated in any hearing(s) on these actions, may appeal the Director's decision to approve a modification, revocation and reissuance, or termination of your RAP, according to Section R315-270-155. Any person who did not file comments or did not participate in any public hearing(s) on the modification, revocation and reissuance or termination, may petition for administrative review only of the changes from the draft to the final RAP decision.

(b) Any commenter on the modification, revocation and reissuance or termination, or any person who participated in any hearing(s) on these actions, may informally appeal the Director's decision to deny a request for modification, revocation and reissuance, or termination. Any person who did not file comments, or did not participate in any public hearing(s) on the modification, revocation and reissuance or termination may petition for administrative review only of the changes from the draft to the final RAP decision.

(c) The process for informal appeals of RAPs is found in Rule R305-7

R315-270-195. Hazardous Waste Permit Program - When Will My RAP Expire?

RAPs shall be issued for a fixed term, not to exceed 10 years, although they may be renewed upon approval by the Director in fixed increments of no more than ten years. In addition, the Director shall review any RAP for hazardous waste land disposal five years after the date of issuance or reissuance and you or the Director shall follow the requirements for modifying your RAP as necessary to assure that you continue to comply with currently applicable requirements in Rules adopted under Section 19-6-101 through 125.

R315-270-200. Hazardous Waste Permit Program - How May I Renew My RAP If It Is Expiring?
If you wish to renew your expiring RAP, you shall follow the process for application for and issuance of RAPs in Sections R315-270-79 through 230.

R315-270-205. Hazardous Waste Permit Program - What Happens If I Have Applied Correctly For A Rap Renewal But Have Not Received Approval By The Time My Old Rap Expires?
If you have submitted a timely and complete application for a RAP renewal, but the Director, through no fault of yours, has not issued a new RAP with an effective date on or before the expiration date of your previous RAP, your previous RAP conditions continue in force until the effective date of your new RAP or RAP denial.

R315-270-210. Hazardous Waste Permit Program - What Records Shall I Maintain Concerning My Rap?
You are required to keep records of:

(a) All data used to complete RAP applications and any supplemental information that you submit for a period of at least 3 years from the date the application is signed; and

(b) Any operating and/or other records the Director requires you to maintain as a condition of your RAP.

R315-270-215. Hazardous Waste Permit Program - How Are Time Periods In The Requirements In Sections R315-27-79 through 230 And My Rap Computed?

(a) Any time period scheduled to begin on the occurrence of an act or event shall begin on the day after the act or event. For example, if your RAP specifies that you shall close a staging pile within 180 days after the operating term for that staging pile expires, and the operating term expires on June 1, then June 2 counts as day one of your 180 days, and you would have to complete closure by November 28.

(b) Any time period scheduled to begin before the occurrence of an act or event shall be computed so that the period ends on the day before the act or event. For example, if you are transferring ownership or operational control of your site, and wish to transfer your RAP, the new owner or operator shall submit a revised RAP application no later than 90 days before the scheduled

change. Therefore, if you plan to change ownership on January 1, the new owner/operator shall submit the revised RAP application no later than October 3, so that the 90th day would be December 31.

(c) If the final day of any time period falls on a weekend or legal holiday, the time period shall be extended to the next working day. For example, if you wish to appeal the Director's decision to modify your RAP, then you shall file the appeal within 30 days after the Director has issued the final RAP decision. If the 30th day falls on Sunday, then you may submit your appeal by the Monday after. If the 30th day falls on July 4th, then you may submit your appeal by July 5th.

(d) Whenever a party or interested person has the right to or is required to act within a prescribed period after the service of notice or other paper upon him by mail, 3 days shall be added to the prescribed term. For example, if you wish to appeal the Director's decision to modify your RAP, then you shall file the appeal within 30 days after the Director has issued the final RAP decision. However, if the Director notifies you of his decision by mail, then you may have 33 days to file.

R315-270-220. Hazardous Waste Permit Program - How May I Transfer My Rap To A New Owner Or Operator?

(a) If you wish to transfer your RAP to a new owner or operator, you shall follow the requirements specified in your RAP for RAP modification to identify the new owner or operator, and incorporate any other necessary requirements. These modifications do not constitute “significant” modifications for purposes of Section R315-270-170. The new owner/operator shall submit a revised RAP application no later than 90 days before the scheduled change along with a written agreement containing a specific date for transfer of RAP responsibility between you and the new permittees.

(b) When a transfer of ownership or operational control occurs, you as the old owner or operator shall comply with the applicable requirements in Section R315-264-140 through 151 until the new owner or operator has demonstrated that he is complying with the requirements in Section R315-264-140 through 151. The new owner or operator shall demonstrate compliance with Section R315-264-140 through 151 within six months of the date of the change in ownership or operational control of the facility or remediation waste management site. When the new

owner/operator demonstrates compliance with Section R315-264-140 through 151 to the Director, the Director shall notify you that you no longer need to comply with Section R315-264-140 through 151 as of the date of demonstration.

R315-270-230. Hazardous Waste Permit Program - May I Perform Remediation Waste Management Activities Under A Rap At A Location Removed From The Area Where The Remediation Wastes Originated?

(a) You may request a RAP for remediation waste management activities at a location removed from the area where the remediation wastes originated if you believe such a location would be more protective than the contaminated area or areas in close proximity.

(b) If the Director determines that an alternative location, removed from the area where the remediation waste originated, is more protective than managing remediation waste at the area of contamination or areas in close proximity, then the Director may approve a RAP for this alternative location.

(c) You shall request the RAP, and the Director shall approve or deny the RAP, according to the procedures and requirements in Sections R315-270-79 through 230.

(d) A RAP for an alternative location shall also meet the following requirements, which the Director shall include in the RAP for such locations:

(1) The RAP for the alternative location shall be issued to the person responsible for the cleanup from which the remediation wastes originated;

(2) The RAP is subject to the expanded public participation requirements in Sections R315-124-31, 32, and 33;

(3) The RAP is subject to the public notice requirements in Subsection R315-124-10(c);

(4) The site permitted in the RAP may not be located within 61 meters or 200 feet of a fault which has had displacement in the Holocene time, you shall demonstrate compliance with this standard through the requirements in Subsection R315-270-14(b)(11), See definitions of terms in Subsection R315-264-18(a);

(e) These alternative locations are remediation waste management sites, and retain the following benefits of remediation waste management sites:

(1) Exclusion from facility-wide corrective action under Section R315-264-101; and

(2) Application of Subsection R315-264-1(j) in lieu of Sections R315-264-10 through 56.

R315-270-235. Hazardous Waste Permit Program - Integration with Maximum Achievable Control Technology (MACT) Standards - Options For Incinerators, Cement Kilns, Lightweight Aggregate Kilns, Solid Fuel Boilers, Liquid Fuel Boilers And Hydrochloric Acid Production Furnaces To Minimize Emissions From Startup, Shutdown, And Malfunction Events.

(a) Facilities with existing permits

(1) Revisions to permit conditions after documenting compliance with MACT. The owner or operator of a hazardous waste-permitted incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace may request that the Director address permit conditions that minimize emissions from startup, shutdown, and malfunction events under any of the following options when requesting removal of permit conditions that are no longer applicable according to Subsections R315-264-340(b) and R315-266-100(b):

(i) Retain relevant permit conditions. Under this option, the Director shall:

(A) Retain permit conditions that address releases during startup, shutdown, and malfunction events, including releases from emergency safety vents, as these events are defined in the facility's startup, shutdown, and malfunction plan required under 40 CFR 63.1206(c)(2), which is incorporated by reference in Subsection R307-214-2(39); and

(B) Limit applicability of those permit conditions only to when the facility is operating under its startup, shutdown, and malfunction plan.

(ii) Revise relevant permit conditions.

(A) Under this option, the Director shall:

(I) Identify a subset of relevant existing permit requirements, or develop alternative permit requirements, that ensure emissions of toxic compounds are minimized from startup, shutdown, and malfunction events, including releases from emergency safety vents, based on review of information including the source's startup, shutdown, and malfunction plan, design, and operating history.

(II) Retain or add these permit requirements to the permit to apply only when the facility is operating under its startup, shutdown, and malfunction plan.

(B) Changes that may significantly increase emissions.

(I) You shall notify the Director in writing of changes to the startup, shutdown, and malfunction plan or changes to the design of the source that may significantly increase emissions of toxic compounds from startup, shutdown, or malfunction events, including releases from emergency safety vents. You shall notify the Director of such changes within five days of making such changes. You shall identify in the notification recommended revisions to permit conditions necessary as a result of the changes to ensure that emissions of toxic compounds are minimized during these events.

(II) The Director may revise permit conditions as a result of these changes to ensure that emissions of toxic compounds are minimized during startup, shutdown, or malfunction events, including releases from emergency safety vents either:

(IIi) Upon permit renewal, or, if warranted;

(IIii) By modifying the permit under Subsection R315-270-41(a) or Section R315-270-42.

(iii) Remove permit conditions. Under this option:

(A) The owner or operator shall document that the startup, shutdown, and malfunction plan required under 40 CFR 63.1206(c)(2), which is incorporated by reference in Subsection R307-214-2(39), has been approved by the Director of the Division of Air Quality under 40 CFR 63.1206(c)(2)(ii)(B), which is incorporated by reference in Subsection R307-214-2(39); and

(B) The Director shall remove permit conditions that are no longer applicable according to Subsections R315-264-340(b) and R315-266-100(b).

(2) Addressing permit conditions upon permit reissuance. The owner or operator of an incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace that has conducted a comprehensive performance test and submitted to the Director of the Division of Air Quality a Notification of Compliance documenting compliance with the standards of Subsection R315-214-2(39), which adopts 40 CDR 63 subpart EEE by reference, may request in the application to reissue the permit for the combustion unit that the Director control emissions from startup, shutdown, and malfunction events under any of the following options:

(i) RCRA option A.

(A) Under this option, the Director shall:

(I) Include, in the permit, conditions that ensure compliance with Subsections R315-264-345(a) and 345(c) or Subsections R315-266-102(e)(1) and 102(e)(2)(iii) to minimize emissions of toxic compounds from startup, shutdown, and malfunction events, including releases from emergency safety vents; and

(II) Specify that these permit requirements apply only when the facility is operating under its startup, shutdown, and malfunction plan; or

(ii) RCRA option B.

(A) Under this option, the Director shall:

(I) Include, in the permit conditions, that ensure emissions of toxic compounds are minimized from startup, shutdown, and malfunction events, including releases from emergency safety vents, based on review of information including the source's startup, shutdown, and malfunction plan, design, and operating history; and

(II) Specify that these permit requirements apply only when the facility is operating under its startup, shutdown, and malfunction plan.

(B) Changes that may significantly increase emissions.

(I) You shall notify the Director in writing of changes to the startup, shutdown, and malfunction plan or changes to the design of the source that may significantly increase emissions of toxic compounds from startup, shutdown, or malfunction events, including releases from emergency safety vents. You shall notify the Director of such changes within five days of making such changes. You shall identify in the notification recommended revisions to permit conditions necessary as a result of the changes to ensure that emissions of toxic compounds are minimized during these events.

(II) The Director may revise permit conditions as a result of these changes to ensure that emissions of toxic compounds are minimized during startup, shutdown, or malfunction events, including releases from emergency safety vents either:

(IIi) Upon permit renewal, or, if warranted;

(IIii) By modifying the permit under Subsection R315-270-41(a) or Section R315-270-42; or

(iii) CAA option. Under this option:

(A) The owner or operator shall document that the startup, shutdown, and malfunction plan required under 40

CFR 63.1206(c)(2), which is incorporated by reference in Subsection R307-214-2(39), has been approved by the Director of the Division of Air Quality under 40 CFR 63.1206(c)(2)(ii)(B), which is incorporated by reference in Subsection R307-214-2(39); and

(B) The Director shall omit from the permit conditions that are not applicable under Subsections R315-264-340(b) and R315-266-100(b).

(b) Interim status facilities

(1) Interim status operations. In compliance with Section R315-265-340 and Subsection R315-266-100(b), the owner or operator of an incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace that is operating under the interim status standards of Rule R315-265 or 266 may control emissions of toxic compounds during startup, shutdown, and malfunction events under either of the following options after conducting a comprehensive performance test and submitting to the Director of the Division of Air Quality a Notification of Compliance documenting compliance with the standards of Subsection R307-214-2(39), which adopts 40 CFR 63 subpart EEE by reference.

(i) RCRA option. Under this option, the owner or operator continues to comply with the interim status emission standards and operating requirements of Rules R315-265 or 266 relevant to control of emissions from startup, shutdown, and malfunction events. Those standards and requirements apply only during startup, shutdown, and malfunction events; or

(ii) CAA option. Under this option, the owner or operator is exempt from the interim status standards of Rules R315-265 or 266 relevant to control of emissions of toxic compounds during startup, shutdown, and malfunction events upon submission of written notification and documentation to the Director that the startup, shutdown, and malfunction plan required under 40 CFR 63.1206(c)(2), which is incorporated by reference in Subsection R307-214-2(39), has been approved by the Director of the Division of Air Quality under 40 CFR 63.1206(c)(2)(ii)(B), which is incorporated by reference in Subsection R307-214-2(39).

(2) Operations under a subsequent RCRA permit. When an owner or operator of an incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace that is

operating under the interim status standards of Rules R315-265 or 266 submits a RCRA permit application, the owner or operator may request that the Director control emissions from startup, shutdown, and malfunction events under any of the options provided by Subsection R315-270-235(a)(2)(i), (a)(2)(ii), or (a)(2)(iii).

(c) New units. Hazardous waste incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace units that become subject to hazardous waste permit requirements after October 12, 2005 shall control emissions of toxic compounds during startup, shutdown, and malfunction events under either of the following options:

(1) Comply with the requirements specified in 40 CFR 63.1206(c)(2), which is incorporated by reference in Subsection R307-214-2(39); or

(2) Request to include in the hazardous waste permit, conditions that ensure emissions of toxic compounds are minimized from startup, shutdown, and malfunction events, including releases from emergency safety vents, based on review of information including the source's startup, shutdown, and malfunction plan and design. The Director shall specify that these permit conditions apply only when the facility is operating under its startup, shutdown, and malfunction plan.

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.

Rule R315-273. Standards For Universal Waste Management.

R315-273-1. Standards For Universal Waste Management - Scope.

(a) Rule R315-273 establishes requirements for managing the following:

(1) Batteries as described in Section R315-273-2;

(2) Pesticides as described in Section R315-273-3;

(3) Mercury-containing equipment as described in Section R315-273-4;

(4) Lamps as described in Section R315-273-5;

(5) Antifreeze as described in Subsection R315-273-6(a); and

(6) Aerosol cans as described in Subsection R315-273-6(b).

(b) Rule R315-273 provides an alternative set of management standards in lieu of regulation under Rules R315-260 through 266, 268, and 270. If a waste handler chooses to manage its universal waste under the Rule R315-273, but fails to meet requirements in this rule, the waste handler remains subject to, and shall comply with, all applicable requirements of Rules R315-260 through 266, 268, 270 and 124.

Note: Only wastes that are hazardous, i.e., are listed or exhibit one or more characteristics of hazardous waste, are subject to the Rule R315-273 universal waste regulations. Compliance with the reduced set of Rule R315-273 requirements is an option that waste handlers may choose for managing their universal wastes, batteries, pesticides, mercury-containing devices, aerosol cans, lamps, and antifreeze. If universal waste handlers wish, they may instead continue to manage these hazardous wastes under the full hazardous waste regulations for generators, transporters, and treatment, storage, and disposal facilities.

R315-273-2. Standards For Universal Waste Management - Applicability-Batteries.

(a) Batteries covered under Section R315-273.

(1) The requirements of Rule R315-273 apply to persons managing batteries, as described in Section R315-273-9, except those listed in Section R315-273-2(b).

(2) Spent lead-acid batteries which are not managed under Section R315-266-80 are subject to management under Rule R315-273.

(b) Batteries not covered under Rule R315-273. The requirements of Rule R315-273 do not apply to persons managing the following batteries:

(1) Spent lead-acid batteries that are managed under Section R315-266-80.

(2) Batteries, as described in Section R315-273-9, that are not yet wastes under Rule R315-261, including those that do not meet the criteria for waste generation in Subsection R315-273-2(c).

(3) Batteries, as described in Section R315-273-9 that are not hazardous waste. A battery is a hazardous waste if it exhibits one or more of the characteristics identified in Sections R315-261-20 through 24.

(c) Generation of waste batteries.

(1) A used battery becomes a waste on the date it is discarded, e.g., when sent for reclamation.

(2) An unused battery becomes a waste on the date the handler decides to discard it.

R315-273-3. Standards For Universal Waste Management - Applicability-Pesticides.

(a) Pesticides covered under Rule R315-273. The requirements of Rule R315-273 apply to persons managing pesticides, as described in Section R315-273-9, meeting the following conditions, except those listed in Subsection R315-273-3(b):

(1) Recalled pesticides that are:

(i) Stocks of a suspended and canceled pesticide that are part of a voluntary or mandatory recall under FIFRA Section 19(b), including, but not limited to those owned by the registrant responsible for conducting the recall; or

(ii) Stocks of a suspended or cancelled pesticide, or a pesticide that is not in compliance with FIFRA, that are part of a voluntary recall by the registrant.

(2) Stocks of other unused pesticide products that are collected and managed as part of a waste pesticide collection program.

(b) Pesticides not covered under Rule R315-273. The requirements of Rule R315-273 do not apply to persons managing the following pesticides:

(1) Recalled pesticides described in Subsection R315-273-3(a)(1), and unused pesticide products described in

Subsection R315-273-3(a)(2), that are managed by farmers in compliance with Section R315-262-70.
Section R315-262-70 addresses pesticides disposed of on the farmer's own farm in a manner consistent with the disposal instructions on the pesticide label, providing the container is triple rinsed in accordance with Subsection R315-261-7(b)(3);

(2) Pesticides not meeting the conditions set forth in Subsection R315-273-3(a). These pesticides shall be managed in compliance with the hazardous waste regulations in Rules R315-260 through 266, 268, and 270;

(3) Pesticides that are not wastes under Rule R315-261, including those that do not meet the criteria for waste generation in Subsection R315-273-3(c) or those that are not wastes as described in Subsection R315-273-3(d); and

(4) Pesticides that are not hazardous waste. A pesticide is a hazardous waste if it is listed in Sections R315-261-30 through 35 or if it exhibits one or more of the characteristics identified in Sections R315-261-20 through 24.

(c) When a pesticide becomes a waste.

(1) A recalled pesticide described in Subsection R315-273-3(a)(1) becomes a waste on the first date on which both of the following conditions apply:

(i) The generator of the recalled pesticide agrees to participate in the recall; and

(ii) The person conducting the recall decides to discard, e.g., burn the pesticide for energy recovery.

(2) An unused pesticide product described in Subsection R315-273-3(a)(2) becomes a waste on the date the generator decides to discard it.

(d) Pesticides that are not wastes. The following pesticides are not wastes:

(1) Recalled pesticides described in Subsection R315-273-3(a)(1), provided that the person conducting the recall:

(i) Has not made a decision to discard, e.g., burn for energy recovery, the pesticide. Until such a decision is made, the pesticide does not meet the definition of “solid waste” under Section R315-261.2; thus the pesticide is not a hazardous waste and is not subject to hazardous waste requirements, including Rule R315-273. This pesticide remains subject to the requirements of FIFRA; or

(ii) Has made a decision to use a management option that, under Section R315-261-2, does not cause the pesticide to be a solid waste; i.e., the selected option is use, other than use constituting disposal, or reuse, other than burning for energy recovery, or reclamation. Such a pesticide is not a solid waste and therefore is not a hazardous waste, and is not subject to the hazardous waste requirements including Rule R315-273. This pesticide, including a recalled pesticide that is exported to a foreign destination for use or reuse, remains subject to the requirements of FIFRA.

(2) Unused pesticide products described in Subsection R315-273-3(a)(2), if the generator of the unused pesticide product has not decided to discard, e.g., burn for energy recovery, them. These pesticides remain subject to the requirements of FIFRA.

R315-273-4. Standards For Universal Waste Management - Applicability - Mercury-Containing Equipment.

(a) Mercury-containing equipment covered under Rule R315-273. The requirements of Rule R315-273 apply to persons managing mercury-containing equipment, as described in Section R315-273-9, except those listed in Subsection R315-273-4(b).

(b) Mercury-containing equipment not covered under Rule R315-273. The requirements of Rule R315-273 do not apply to persons managing the following mercury-containing equipment:

(1) Mercury-containing equipment that is not yet a waste under Rule R315-261. Subsection R315-273-4(c) describes when mercury-containing equipment becomes a waste;

(2) Mercury-containing equipment that is not a hazardous waste. Mercury-containing equipment is a hazardous waste if it exhibits one or more of the characteristics identified in Sections R315-261-20 through 24 or is listed in Sections R315-261-30 through 35; and

(3) Equipment and devices from which the mercury-containing components have been removed.

(c) Generation of waste mercury-containing equipment.

(1) Used mercury-containing equipment becomes a waste on the date it is discarded.

(2) Unused mercury-containing equipment becomes a waste on the date the handler decides to discard it.

R315-273-5. Standards For Universal Waste Management - Applicability-Lamps.

(a) Lamps covered under Rule R315-273. The requirements of Rule R315-273 apply to persons managing lamps as described in Section R315-273-9, except those listed in Subsection R315-273-5(b).

(b) Lamps not covered under Rule R315-273. The requirements of Rule R315-273 do not apply to persons managing the following lamps:

(1) Lamps that are not yet wastes under Rule R315-261 as provided in Subsection R315-273-5(c).

(2) Lamps that are not hazardous waste. A lamp is a hazardous waste if it exhibits one or more of the characteristics identified in Sections R315-261-20 through 24.

(c) Generation of waste lamps.

(1) A used lamp becomes a waste on the date it is discarded, e.g., sent for reclamation.

(2) An unused lamp becomes a waste on the date the handler decides to discard it.

R315-273-6. Standards For Universal Waste Management - Applicability for Utah Specific Wastes

(a) Antifreeze.

(1) The requirements of Rule R315-273 apply to persons managing antifreeze, as described in Section R315-273-9, except those listed in Subsection R315-273-6(a)(2).

(2) Antifreeze not covered under Rule R315-273. The requirements of Rule R315-273 do not apply to persons managing the following antifreeze:

(i) Antifreeze, as described in Section R315-273-9,that is not yet a waste under Rule R315-261, including antifreeze that does not meet the criteria for waste generation in Subsection R315-273-6(a)(4).

(ii) Antifreeze, as described in Section R315-273-9 that is not hazardous waste. Antifreeze is a hazardous waste if it exhibits one or more of the characteristics identified in Sections R315-261-20 through 24.

(4) Generation of waste antifreeze.

(i) Antifreeze becomes a waste on the date it is discarded, e.g., when sent for reclamation.

(ii) Antifreeze becomes a waste on the date the handler decides to discard it.

(b) Aerosol Cans

(1) The requirements of Rule R315-273 apply to persons managing aerosol cans, as described in Section R315-273-9, except those listed in Subsection R315-273-6(b)(2).

(2) Aerosol cans not covered under Rule R315-273. The requirements of Rule R315-273 do not apply to persons managing the following aerosol cans:

(i) Aerosol cans, as described in Section R315-273-9, that are not yet wastes under Rule R315-261, including those that do not meet the criteria for waste generation in subsection R315-273(b)(3).

(ii) Aerosol cans, as described in Section R315-273-9, that are not hazardous waste. An aerosol can shall be managed as a hazardous waste if the can or its contents exhibit one or more of the characteristics identified in Sections R315-261-20 through 24, or if its contents are listed in Sections R315-261-30 through 35.

(3) Generation of waste aerosol cans.

(i) An aerosol can becomes a waste on the date it is discarded or is no longer useable. For purposes of Rule R315-273, an aerosol can is considered to be no longer useable when:

(A) the can is as empty as proper work practices allow;

(B) the spray mechanism no longer operates as designed;

(C) the propellant is spent; or

(D) the product is no longer used.

(ii) An unused aerosol can becomes a waste on the date the handler decides to discard it.

R315-273-8. Standards For Universal Waste Management - Applicability - Household And Conditionally Exempt Small Quantity Generator Waste.

(a) Persons managing the wastes listed below may, at their option, manage them under the requirements of Rule R315-273:

(1) Household wastes that are exempt under Subsection R315-261-4(b)(1) and are also of the same type as the universal wastes defined at Section R315-273-9; and/or

(2) Conditionally exempt small quantity generator wastes that are exempt under Section R315-261-5 and are also of the same type as the universal wastes defined at Section R315-273-9.

(b) Persons who commingle the wastes described in Subsections R315-273-8(a)(1) and (a)(2) together with universal waste regulated under Rule R315-273 shall manage the commingled waste under the requirements of Rule R315-273.

R315-273-9. Standards For Universal Waste Management - Definitions.

(a) "Aerosol can" means a container with a total capacity of no more than 24 ounces of gas under pressure and is used to aerate and dispense any material through a valve in the form of a spray or foam.

(b)"Ampule" means an airtight vial made of glass, plastic, metal, or any combination of these materials.

(c) "Antifreeze" means an ethylene glycol based mixture that lowers the freezing point of water and is used as an engine coolant.

(d) "Battery" means a device consisting of one or more electrically connected electrochemical cells, which is designed to receive, store, and deliver electric energy. An electrochemical cell is a system consisting of an anode, cathode, and an electrolyte, plus such connections, electrical and mechanical, as may be needed to allow the cell to deliver or receive electrical energy. The term battery also includes an intact, unbroken battery from which the electrolyte has been removed.

(e) "Destination facility" means a facility that treats, disposes of, or recycles a particular category of universal waste, except those management activities described in Subsections R315-273-13(a) and (c) and Subsections R315-273-33(a) and (c). A facility, at which a particular category of universal waste is only accumulated, is not a destination facility for purposes of managing that category of universal waste.

(f) "Drum-top lamp crusher" means a device attached to a drum or container that mechanically reduces the size of lamps and includes a bag filter followed in series by a HEPA filter and an activated carbon filter. Drum-top crushers are the only devices that can be approved for the use of crushing lamps.

(g) "FIFRA" means the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136-136y).

(h) "Generator" means any person, by site, whose act or process produces hazardous waste identified or listed in

Rule R315-261 or whose act first causes a hazardous waste to become subject to regulation.

(i) "Lamp," also referred to as “universal waste lamp” is defined as the bulb or tube portion of an electric lighting device. A lamp is specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infra-red regions of the electromagnetic spectrum. Examples of common universal waste electric lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps.

(j) "Large Quantity Handler of Universal Waste" means a universal waste handler, as defined in Section R315-273-9 who accumulates 5,000 kilograms or more total of universal waste; batteries, pesticides, mercury-containing equipment, lamps, or any other universal waste regulated in Rule R315-273, calculated collectively; at any time. This designation as a large quantity handler of universal waste is retained through the end of the calendar year in which the 5,000 kilogram limit is met or exceeded.

(k) "Mercury-containing equipment" means a device or part of a device, including thermostats, but excluding batteries and lamps, that contains elemental mercury integral to its function.

(l) "On-site" means the same or geographically contiguous property which may be divided by public or private right-of-way, provided that the entrance and exit between the properties is at a cross-roads intersection, and access is by crossing as opposed to going along the right of way. Non-contiguous properties owned by the same person but connected by a right-of-way which he controls and to which the public does not have access, are also considered on-site property.

(m) "Pesticide" means any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or desiccant, other than any article that:

(1) Is a new animal drug under FFDCA section 201(w), or

(2) Is an animal drug that has been determined by regulation of the Secretary of Health and Human Services not to be a new animal drug, or

(3) Is an animal feed under FFDCA section 201(x) that bears or contains any substances described by (1) or (2) above.

(n) "Small Quantity Handler of Universal Waste" means a universal waste handler, as defined in this Section R315-273-9 who does not accumulate 5,000 kilograms or more of universal waste at any time.

(o) "Thermostat" means a temperature control device that contains metallic mercury in an ampule attached to a bimetal sensing element, and mercury-containing ampules that have been removed from these temperature control devices in compliance with the requirements of Subsection R315-273-13(c)(2) or 33(c)(2).

(p) "Universal Waste" means any of the following hazardous wastes that are subject to the universal waste requirements of Rule R315-273:

(1) Batteries as described in Section R315-273-2;

(2) Pesticides as described in Section R315-273-3;

(3) Mercury-containing equipment as described in Section R315-273-4;

(4) Lamps as described in Section R315-273-5;

(5) Antifreeze as described in Subsection R315-273-6(a); and

(6) Aerosol cans as described in Subsection R315-273-6(b).

(q) "Universal Waste Handler:"

(1) Means:

(i) A generator, as defined in Section R315-273-9, of universal waste; or

(ii) The owner or operator of a facility, including all contiguous property, that receives universal waste from other universal waste handlers, accumulates universal waste, and sends universal waste to another universal waste handler, to a destination facility, or to a foreign destination.

(2) Does not mean:

(i) A person who treats, except under the provisions of Subsection R315-273-13(a) or (c), or 33(a) or (c), disposes of, or recycles universal waste; or

(ii) A person engaged in the off-site transportation of universal waste by air, rail, highway, or water, including a universal waste transfer facility.

(r) "Universal Waste Transfer Facility" means any transportation-related facility including loading docks, parking areas, storage areas and other similar areas where

shipments of universal waste are held during the normal course of transportation for ten days or less.

(s) "Universal Waste Transporter" means a person engaged in the off-site transportation of universal waste by air, rail, highway, or water.

R315-273-10. Standards For Universal Waste Management, Standards for Small Quantity Handlers of Universal Waste - Applicability.

Sections R315-273-10 through 20 apply to small quantity handlers of universal waste, as defined in Section R315-273-9 except that the registration requirement of Subsection R315-273-13(d)(3) and Subsections R315-273-13(d)(6) and (7) do not apply to generators.

R315-273-11. Standards For Universal Waste Management, Standards for Small Quantity Handlers of Universal Waste - Prohibitions.

A small quantity handler of universal waste is:

(a) Prohibited from disposing of universal waste; and

(b) Prohibited from diluting or treating universal waste, except by responding to releases as provided in Section R315-273-17; or by managing specific wastes as provided in Section R315-273-13.

R315-273-12. Standards For Universal Waste Management, Standards for Small Quantity Handlers of Universal Waste - Notification.

A small quantity handler of universal waste is not required to notify the Director of universal waste handling activities except as required under Subsection R315-273-13(3).

R315-273-13. Standards For Universal Waste Management, Standards for Small Quantity Handlers of Universal Waste - Waste management.

(a) Batteries. A small quantity handler of universal waste shall manage universal waste batteries in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) A small quantity handler of universal waste shall contain any universal waste battery that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions in a container. The container shall be closed, structurally sound, compatible

with the contents of the battery, and shall lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(2) A small quantity handler of universal waste may conduct the following activities as long as the casing of each individual battery cell is not breached and remains intact and closed, except that cells may be opened to remove electrolyte but shall be immediately closed after removal:

(i) Sorting batteries by type;

(ii) Mixing battery types in one container;

(iii) Discharging batteries so as to remove the electric charge;

(iv) Regenerating used batteries;

(v) Disassembling batteries or battery packs into individual batteries or cells;

(vi) Removing batteries from consumer products; or

(vii) Removing electrolyte from batteries.

(3) A small quantity handler of universal waste who removes electrolyte from batteries, or who generates other solid waste, e.g., battery pack materials, discarded consumer products, as a result of the activities listed above, shall determine whether the electrolyte and/or other solid waste exhibit a characteristic of hazardous waste identified in Sections R315-261-20 through 24.

(i) If the electrolyte and/or other solid waste exhibit a characteristic of hazardous waste, it is subject to all applicable requirements of Rules R315-260 through 266, 268 and 270. The handler is considered the generator of the hazardous electrolyte and/or other waste and is subject to Rule R315-262.

(ii) If the electrolyte or other solid waste is not hazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.

(b) Pesticides. A small quantity handler of universal waste shall manage universal waste pesticides in a way that prevents releases of any universal waste or component of a universal waste to the environment. The universal waste pesticides shall be contained in one or more of the following:

(1) A container that remains closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions; or

(2) A container that does not meet the requirements of Subsection R315-273-13(b)(1), provided that the unacceptable container is overpacked in a container that does meet the requirements of Subsection R315-273-13(b)(1); or

(3) A tank that meets the requirements of Sections R315-265-190 through 202, except for Subsection R315-265-197(c) and Sections R315-265-200 and 201; or

(4) A transport vehicle or vessel that is closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(c) Mercury-containing equipment. A small quantity handler of universal waste shall manage universal waste mercury-containing equipment in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) A small quantity handler of universal waste shall place in a container any universal waste mercury-containing equipment with non-contained elemental mercury or that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. The container shall be closed, structurally sound, compatible with the contents of the device, shall lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions, and shall be reasonably designed to prevent the escape of mercury into the environment by volatilization or any other means.

(2) A small quantity handler of universal waste may remove mercury-containing ampules from universal waste mercury-containing equipment provided the handler:

(i) Removes and manages the ampules in a manner designed to prevent breakage of the ampules;

(ii) Removes the ampules only over or in a containment device, e.g., tray or pan sufficient to collect and contain any mercury released from an ampule in case of breakage;

(iii) Ensures that a mercury clean-up system is readily available to immediately transfer any mercury resulting from spills or leaks from broken ampules from that containment device to a container that meets the requirements of Section R315-262-34;

(iv) Immediately transfers any mercury resulting from spills or leaks from broken ampules from the containment

device to a container that meets the requirements of Section R315-262-34;

(v) Ensures that the area in which ampules are removed is well ventilated and monitored to ensure compliance with applicable OSHA exposure levels for mercury;

(vi) Ensures that employees removing ampules are thoroughly familiar with proper waste mercury handling and emergency procedures, including transfer of mercury from containment devices to appropriate containers;

(vii) Stores removed ampules in closed, non-leaking containers that are in good condition;

(viii) Packs removed ampules in the container with packing materials adequate to prevent breakage during storage, handling, and transportation;

(3) A small quantity handler of universal waste mercury-containing equipment that does not contain an ampule may remove the open original housing holding the mercury from universal waste mercury-containing equipment provided the handler:

(i) Immediately seals the original housing holding the mercury with an air-tight seal to prevent the release of any mercury to the environment; and

(ii) Follows all requirements for removing ampules and managing removed ampules under Subsection R315-273-13(c)(2); and

(4)(i) A small quantity handler of universal waste who removes mercury-containing ampules from mercury-containing equipment or seals mercury from mercury-containing equipment in its original housing shall determine whether the following exhibit a characteristic of hazardous waste identified in Sections R315-261-20 through 24:

(A) Mercury or clean-up residues resulting from spills or leaks; and/or

(B) Other solid waste generated as a result of the removal of mercury-containing ampules or housings, e.g., the remaining mercury-containing device.

(ii) If the mercury, residues, and/or other solid waste exhibits a characteristic of hazardous waste, it shall be managed in compliance with all applicable requirements of Rules R315-260 through 266, 268, and 270. The handler is considered the generator of the mercury, residues, and/or other waste and shall manage it in compliance with Rule R315-262.

(iii) If the mercury, residues, and/or other solid waste is not hazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.

(d) Lamps. A small quantity handler of universal waste shall manage lamps in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) A small quantity handler of universal waste shall contain any lamp in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps. Such containers and packages shall remain closed and shall lack evidence of leakage, spillage or damage that could cause leakage under reasonably foreseeable conditions.

(2) A small quantity handler of universal waste shall immediately clean up and place in a container any lamp that is broken and shall place in a container any lamp that shows evidence of breakage, leakage, or damage that could cause the release of mercury or other hazardous constituents to the environment. Containers shall be closed, structurally sound, compatible with the contents of the lamps and shall lack evidence of leakage, spillage or damage that could cause leakage or releases of mercury or other hazardous constituents to the environment under reasonably foreseeable conditions.

(3) A small quantity handler of universal waste may crush universal waste lamps using a drum-top lamp crusher designed specifically for crushing lamps provided that the small quantity handler submits a drum-top lamp crusher registration application to and receives approval from the Director. The registration application shall demonstrate that the small quantity handler shall operate the drum-top lamp crusher to ensure the following:

(i) The lamps are crushed in a closed accumulation container designed specifically for crushing lamps;

(ii) The lamps are crushed in a controlled manner that prevents the release of mercury vapor or other contaminants in exceedance of the manufacturer's specifications;

(iii) The drum-top lamp crusher shall consist of a bag filter followed in series by a HEPA filter and an activated carbon filter;

(iv) The drum-top lamp crusher is installed, maintained, and operated in accordance with written

procedures developed by the manufacturer of the equipment including specific instructions for the frequency of filter changes;

(v) Filters are either characterized to demonstrate that they are not a hazardous waste or managed as a hazardous waste;

(vi) A spill clean-up kit is available;

(vii) The area in which the drum-top crusher is operated is well ventilated and monitored to ensure compliance with applicable OSHA exposure levels for mercury;

(viii) An employee using the drum-top lamp crusher is trained annually on the written operating, safety, personal protection and maintenance procedures of the system;

(ix) An employee using the drum-top lamp crusher is trained annually in emergency procedures;

(x) An operating record is kept and consists of the following:

(A) the number and size of lamps crushed per calendar day, per calendar month, and per calendar year;

(B) the schedule for the change out of filters;

(C) date and time of filter change out;

(D) date, type, and time of equipment maintenance;

(E) any occurrence of equipment malfunction; and

(F) procedures for preventing equipment malfunctions.

(4) The operating record shall be maintained for at least three years.

(5) When a drum–top crusher is no longer used or is relocated, the area where the crusher was located shall be decontaminated of all mercury and other contaminants caused by the use of the drum-top lamp crusher. A report documenting the decontamination steps as well as supporting analytical data demonstrating successful remediation shall be submitted to the Director for approval within 30 days following completion of decontamination.

(6) The small quantity handler shall provide a closure plan along with a detailed written estimate, in current dollars, of the cost of disposing of the drum-top lamp crusher; decontamination of the area surrounding the drum-top lamp crusher, and any analytical costs required to show that decontamination is complete.

(7) The small quantity handler shall demonstrate financial assurance for the detailed cost estimates determined in Subsection R315-273-13(d)(6) using one of the options in Subsections R315-261-143(a) through (e).

(8) Crushed universal waste lamps may be managed as universal waste lamps under Rule R315-273 or they may be managed as hazardous waste in accordance with all applicable requirements of Rules R315-260 through 266 and 268.

(e) Antifreeze. A small quantity handler of universal waste shall manage universal waste antifreeze in a way that prevents releases of any universal waste or component of a universal waste to the environment. The universal waste antifreeze shall be contained in one or more of the following:

(1) A container that remains closed, structurally sound, compatible with the antifreeze, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions; or

(2) A container that does not meet the requirements of Subsection R315-273-13(e)(1), provided that the unacceptable container is overpacked in a container that does meet the requirements of Subsection R315-273-13(e)(1); or

(3) A tank that meets the requirements of Sections R315-265-190 through 202, except for Subsection R315-265-197(c) and Sections R315-265-200 and 201; or

(4) A transport vehicle or vessel that is closed, structurally sound, compatible with the antifreeze, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(f) Aerosol cans. A small quantity handler of universal waste shall manage universal waste aerosol cans in a way that prevents release of any universal waste or component of a universal waste or accelerant to the environment as follows:

(1) A small quantity handler of universal waste shall immediately contain any universal waste aerosol can that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions in a separate individual container. The individual container shall be closed, structurally sound, compatible with the contents of the universal waste aerosol can, and shall lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(2) A small quantity handler of universal waste may accumulate universal waste aerosol cans in a specially designated accumulation container provided it is clearly

marked for such use. The accumulation container shall be closed, structurally sound, compatible with the contents of the universal waste aerosol can, and shall lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. The universal waste aerosol cans shall be sorted by type and compatibility of contents to ensure that incompatible materials are segregated and managed appropriately in separate accumulation containers.

(3) A small quantity handler of universal waste may puncture universal waste aerosol cans to remove and collect the contents of the aerosol can provided the handler:

(i) Ensures that the universal waste aerosol can is punctured in a manner designed to prevent the release of any universal waste or component of universal waste or accelerant to the environment;

(ii) Ensures that the puncturing operations are performed safely by developing and implementing a written procedure detailing how to safely puncture universal waste aerosol cans. This procedure shall include:

(A) the type of equipment to be used to puncture the universal waste aerosol cans safely;

(B) operation and maintenance of the unit;

(C) segregation of incompatible wastes;

(D) proper waste management practices, i.e., ensuring that flammable wastes are stored away from heat or open flames; and

(E) waste characterization;

(iii) Ensures that a spill clean-up kit is readily available to immediately clean up spills or leaks of the contents of the universal waste aerosol can which may occur during the can-puncturing operation;

(iv) Immediately transfers the contents of the universal waste aerosol can, or puncturing device if applicable, to a container that meets the requirements of Section R315-262-34;

(v) Ensures that the area in which the universal waste aerosol cans are punctured is well ventilated; and

(vi) Ensures that employees are thoroughly familiar with the procedure for sorting and puncturing universal waste aerosol cans, and proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.

(4)(i) A small quantity handler of universal waste who punctures universal waste aerosol cans to remove the

contents of the aerosol can, or who generates other solid waste as a result of the activities listed above, shall determine whether the contents of the universal waste aerosol can, residues and/or other solid wastes exhibit a characteristic of hazardous waste identified in Sections R315-261-20 through 24, or are listed as a hazardous waste identified in Sections R315-261-30 through 35.

(ii) If the contents of the universal waste aerosol can, residues and/or other solid waste exhibit a characteristic of hazardous waste or are listed hazardous wastes, they shall be managed in compliance with all applicable requirements of Rules R315-260 through 266, 268, 270 and 124. The handler is considered the generator of the contents of the universal waste aerosol can, residues, and/or other waste and is subject to the requirements of Rule R315-262. In addition to the Rule R315-262 labeling requirements, the container used to accumulate, store, or transport the hazardous waste contents removed from the punctured universal waste aerosol can shall be labeled with all applicable EPA Hazardous Waste Codes found in Sections R315-261-20 through 24 and Sections R315-261-30 through 35.

(iii) If the contents of the universal waste aerosol can, residues, and/or other solid waste are not hazardous, the handler may manage the waste in a way that is in compliance with applicable federal, state or local solid waste regulations.

R315-273-14. Standards For Universal Waste Management, Standards for Small Quantity Handlers of Universal Waste - Labeling/Marking.

A small quantity handler of universal waste shall label or mark the universal waste to identify the type of universal waste as specified below:

(a) Universal waste batteries, i.e., each battery, or a container in which the batteries are contained, shall be labeled or marked clearly with any one of the following phrases: “Universal Waste-Battery(ies),” or “Waste Battery(ies),” or “Used Battery(ies);”

(b) A container, or multiple container package unit, tank, transport vehicle or vessel in which recalled universal waste pesticides as described in Subsection R315-273-3(a)(1) are contained shall be labeled or marked clearly with:

(1) The label that was on or accompanied the product as sold or distributed; and

(2) The words “Universal Waste-Pesticide(s)” or “Waste-Pesticide(s);”

(c) A container, tank, or transport vehicle or vessel in which unused pesticide products as described in Subsection R315-273-3(a)(2) are contained shall be labeled or marked clearly with:

(1)(i) The label that was on the product when purchased, if still legible;

(ii) If using the labels described in Subsection R315-273-14(c)(1)(i) is not feasible, the appropriate label as required under the Department of Transportation regulation 49 CFR part 172;

(iii) If using the labels described in Subsections R315-273-14(c)(1)(i) and (ii) is not feasible, another label prescribed or designated by the waste pesticide collection program administered or recognized by a state; and

(2) The words “Universal Waste-Pesticide(s)” or “Waste-Pesticide(s).”

(d)(1) Universal waste mercury-containing equipment, i.e., each device, or a container in which the equipment is contained, shall be labeled or marked clearly with any of the following phrases: “Universal Waste-Mercury Containing Equipment,” “Waste Mercury-Containing Equipment,” or “Used Mercury-Containing Equipment.”

(2) A universal waste mercury-containing thermostat or container containing only universal waste mercury-containing thermostats may be labeled or marked clearly with any of the following phrases: “Universal Waste-Mercury Thermostat(s),” “Waste Mercury Thermostat(s),” or “Used Mercury Thermostat(s).”

(e) Each lamp or a container or package in which such lamps are contained shall be labeled or marked clearly with one of the following phrases: “Universal Waste-Lamp(s),” or “Waste Lamp(s),” or “Used Lamp(s)”.

(f) A container, tank, or transport vehicle or vessel in which antifreeze is contained shall be labeled or marked clearly with the words “Universal Waste- antifreeze” or “Waste- antifreeze.”

(g) Universal waste aerosol cans, i.e., each can, or a container in which the universal waste aerosol cans are contained or accumulated, shall be labeled or marked clearly with any one of the following phrases: "Universal Waste-Aerosol Can(s)", or "Waste Aerosol Can(s)".

R315-273-15. Standards For Universal Waste Management, Standards For Small Quantity Handlers Of Universal Waste - Accumulation Time Limits.

(a) A small quantity handler of universal waste may accumulate universal waste for no longer than one year from the date the universal waste is generated, or received from another handler, unless the requirements of Subsection R315-273-15(b) are met.

(b) A small quantity handler of universal waste may accumulate universal waste for longer than one year from the date the universal waste is generated, or received from another handler, if such activity is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal. However, the handler bears the burden of proving that such activity is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal.

(c) A small quantity handler of universal waste who accumulates universal waste shall be able to demonstrate the length of time that the universal waste has been accumulated from the date it becomes a waste or is received. The handler may make this demonstration by:

(1) Placing the universal waste in a container and marking or labeling the container with the earliest date that any universal waste in the container became a waste or was received;

(2) Marking or labeling each individual item of universal waste with the date it became a waste or was received;

(3) Maintaining an inventory system on-site that identifies the date each universal waste became a waste or was received;

(4) Maintaining an inventory system on-site that identifies the earliest date that any universal waste in a group of universal waste items or a group of containers of universal waste became a waste or was received;

(5) Placing the universal waste in a specific accumulation area and identifying the earliest date that any universal waste in the area became a waste or was received; or

(6) Any other method which clearly demonstrates the length of time that the universal waste has been

accumulated from the date it becomes a waste or is received.

R315-273-16. Standards For Universal Waste Management, Standards For Small Quantity Handlers Of Universal Waste - Employee Training.

A small quantity handler of universal waste shall inform all employees who handle or have responsibility for managing universal waste. The information shall describe proper handling and emergency procedures appropriate to the type(s) of universal waste handled at the facility.

R315-273-17. Standards For Universal Waste Management, Standards For Small Quantity Handlers Of Universal Waste - Response To Releases.

(a) A small quantity handler of universal waste shall immediately contain all releases of universal wastes and other residues from universal wastes.

(b) A small quantity handler of universal waste shall determine whether any material resulting from the release is hazardous waste, and if so, shall manage the hazardous waste in compliance with all applicable requirements of Rules R315-260 through 266, 268 and 270. The handler is considered the generator of the material resulting from the release, and shall manage it in compliance with Rule R315-262.

R315-273-18. Standards For Universal Waste Management, Standards For Small Quantity Handlers Of Universal Waste - Off-Site Shipments.

(a) A small quantity handler of universal waste is prohibited from sending or taking universal waste to a place other than another universal waste handler, a destination facility, or a foreign destination.

(b) If a small quantity handler of universal waste self-transports universal waste off-site, the handler becomes a universal waste transporter for those self-transportation activities and shall comply with the transporter requirements of Sections R315-273-50 through 56 while transporting the universal waste.

(c) If a universal waste being offered for off-site transportation meets the definition of hazardous materials under 49 CFR parts 171 through 180, a small quantity handler of universal waste shall package, label, mark and placard the shipment, and prepare the proper shipping

papers in accordance with the applicable Department of Transportation regulations under 49 CFR parts 172 through 180;

(d) Prior to sending a shipment of universal waste to another universal waste handler, the originating handler shall ensure that the receiving handler agrees to receive the shipment.

(e) If a small quantity handler of universal waste sends a shipment of universal waste to another handler or to a destination facility and the shipment is rejected by the receiving handler or destination facility, the originating handler shall either:

(1) Receive the waste back when notified that the shipment has been rejected, or

(2) Agree with the receiving handler on a destination facility to which the shipment will be sent.

(f) A small quantity handler of universal waste may reject a shipment containing universal waste, or a portion of a shipment containing universal waste that he has received from another handler. If a handler rejects a shipment or a portion of a shipment, he shall contact the originating handler to notify him of the rejection and to discuss reshipment of the load. The handler shall:

(1) Send the shipment back to the originating handler, or

(2) If agreed to by both the originating and receiving handler, send the shipment to a destination facility.

(g) If a small quantity handler of universal waste receives a shipment containing hazardous waste that is not a universal waste, the handler shall immediately notify the Director of the illegal shipment, and provide the name, address, and phone number of the originating shipper. The Director shall provide instructions for managing the hazardous waste.

(h) If a small quantity handler of universal waste receives a shipment of non-hazardous, non-universal waste, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.

R315-273-19. Standards For Universal Waste Management, Standards For Small Quantity Handlers Of Universal Waste - Tracking Universal Waste Shipments.

A small quantity handler of universal waste is not required to keep records of shipments of universal waste.

R315-273-20. Standards For Universal Waste Management, Standards For Small Quantity Handlers Of Universal Waste - Exports.

A small quantity handler of universal waste who sends universal waste to a foreign destination other than to those OECD countries specified in Subsection R315-262-58(a)(1), in which case the handler is subject to the requirements of Sections R315-262-80 through 89, shall:

(a) Comply with the requirements applicable to a primary exporter in Section R315-262-53, Subsections R315-262-56(a)(1) through (4), (6), and (b) and Section R315-262-57;

(b) Export such universal waste only upon consent of the receiving country and in conformance with the EPA Acknowledgement of Consent as defined in Sections R315-262-50 through 58; and

(c) Provide a copy of the EPA Acknowledgment of Consent for the shipment to the transporter transporting the shipment for export.

R315-273-30. Standards For Universal Waste Management, Standards for Large Quantity Handlers of Universal Waste - Applicability.

Sections R315-273-30 through 40 apply to large quantity handlers of universal waste, as defined in Section R315-273-9 except that the registration requirement of Subsection R315-273-33(d)(3) and Subsections R315-273-33(d)(6) and (7) do not apply to generators.

R315-273-31. Standards For Universal Waste Management, Standards For Large Quantity Handlers Of Universal Waste - Prohibitions.

A large quantity handler of universal waste is:

(a) Prohibited from disposing of universal waste; and

(b) Prohibited from diluting or treating universal waste, except by responding to releases as provided in Section R315-273-37; or by managing specific wastes as provided in Section R315-273-33.

R315-273-32. Standards For Universal Waste Management, Standards for Large Quantity Handlers of Universal Waste - Notification.

(a)(1) Except as provided in Subsections R315-273-32(a)(2) and (3), a large quantity handler of universal waste shall have sent written notification of universal waste management to the Director, and received an EPA Identification Number, before meeting or exceeding the 5,000 kilogram storage limit.

(2) A large quantity handler of universal waste who has already notified the Director of his hazardous waste management activities and has received an EPA Identification Number is not required to renotify under this section except as required in Subsection R315-273-33(d)(3).

(3) A large quantity handler of universal waste who manages recalled universal waste pesticides as described in Subsection R315-273-3(a)(1) and who has sent notification to EPA as required by 40 CFR part 165 is not required to notify for those recalled universal waste pesticides under this section.

(b) This notification shall include:

(1) The universal waste handler's name and mailing address;

(2) The name and business telephone number of the person at the universal waste handler's site who should be contacted regarding universal waste management activities;

(3) The address or physical location of the universal waste management activities;

(4) A list of all the types of universal waste managed by the handler; and

(5) A statement indicating that the handler is accumulating more than 5,000 kilograms of universal waste at one time.

R315-273-33. Standards For Universal Waste Management, Standards For Large Quantity Handlers Of Universal Waste - Waste Management.

(a) Batteries. A large quantity handler of universal waste shall manage universal waste batteries in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) A large quantity handler of universal waste shall contain any universal waste battery that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions in a container. The container shall be closed, structurally sound, compatible with the contents of the battery, and shall lack evidence

of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(2) A large quantity handler of universal waste may conduct the following activities as long as the casing of each individual battery cell is not breached and remains intact and closed, except that cells may be opened to remove electrolyte but shall be immediately closed after removal:

(i) Sorting batteries by type;

(ii) Mixing battery types in one container;

(iii) Discharging batteries so as to remove the electric charge;

(iv) Regenerating used batteries;

(v) Disassembling batteries or battery packs into individual batteries or cells;

(vi) Removing batteries from consumer products; or

(vii) Removing electrolyte from batteries.

(3) A large quantity handler of universal waste who removes electrolyte from batteries, or who generates other solid waste, e.g., battery pack materials, discarded consumer products, as a result of the activities listed above, shall determine whether the electrolyte and/or other solid waste exhibit a characteristic of hazardous waste identified in Sections R315-261-20 through 24.

(i) If the electrolyte and/or other solid waste exhibit a characteristic of hazardous waste, it shall be managed in compliance with all applicable requirements of Rules R315-260 through 266, 268 and 270. The handler is considered the generator of the hazardous electrolyte and/or other waste and is subject to Rule R315-262.

(ii) If the electrolyte or other solid waste is not hazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.

(b) Pesticides. A large quantity handler of universal waste shall manage universal waste pesticides in a way that prevents releases of any universal waste or component of a universal waste to the environment. The universal waste pesticides shall be contained in one or more of the following:

(1) A container that remains closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions; or

(2) A container that does not meet the requirements of Subsection R315-273-33(b)(1), provided that the unacceptable container is overpacked in a container that does meet the requirements of Subsection R315-273-33(b)(1); or

(3) A tank that meets the requirements of Sections R315-265-190 through 202, except for Subsection R315-265-197(c) and Sections R315-265-200, and 201; or

(4) A transport vehicle or vessel that is closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(c) Mercury-containing equipment. A large quantity handler of universal waste shall manage universal waste mercury-containing equipment in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) A large quantity handler of universal waste shall place in a container any universal waste mercury-containing equipment with non-contained elemental mercury or that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. The container shall be closed, structurally sound, compatible with the contents of the device, shall lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions, and shall be reasonably designed to prevent the escape of mercury into the environment by volatilization or any other means.

(2) A large quantity handler of universal waste may remove mercury-containing ampules from universal waste mercury-containing equipment provided the handler:

(i) Removes and manages the ampules in a manner designed to prevent breakage of the ampules;

(ii) Removes the ampules only over or in a containment device, e.g., tray or pan sufficient to collect and contain any mercury released from an ampule in case of breakage;

(iii) Ensures that a mercury clean-up system is readily available to immediately transfer any mercury resulting from spills or leaks of broken ampules from that containment device to a container that meets the requirements of Section R315-262-34;

(iv) Immediately transfers any mercury resulting from spills or leaks from broken ampules from the containment

device to a container that meets the requirements of Section R315-262-34;

(v) Ensures that the area in which ampules are removed is well ventilated and monitored to ensure compliance with applicable OSHA exposure levels for mercury;

(vi) Ensures that employees removing ampules are thoroughly familiar with proper waste mercury handling and emergency procedures, including transfer of mercury from containment devices to appropriate containers;

(vii) Stores removed ampules in closed, non-leaking containers that are in good condition;

(viii) Packs removed ampules in the container with packing materials adequate to prevent breakage during storage, handling, and transportation;

(3) A large quantity handler of universal waste mercury-containing equipment that does not contain an ampule may remove the open original housing holding the mercury from universal waste mercury-containing equipment provided the handler:

(i) Immediately seals the original housing holding the mercury with an air-tight seal to prevent the release of any mercury to the environment; and

(ii) Follows all requirements for removing ampules and managing removed ampules under Subsection R315-273-33(c)(2); and

(4) (i) A large quantity handler of universal waste who removes mercury-containing ampules from mercury-containing equipment or seals mercury from mercury-containing equipment in its original housing shall determine whether the following exhibit a characteristic of hazardous waste identified in Sections R315-261-20 through 24:

(A) Mercury or clean-up residues resulting from spills or leaks and/or

(B) Other solid waste generated as a result of the removal of mercury-containing ampules or housings, e.g., the remaining mercury-containing device.

(ii) If the mercury, residues, and/or other solid waste exhibits a characteristic of hazardous waste, it shall be managed in compliance with all applicable requirements of Rules R315-260 through 266, 268 and 270. The handler is considered the generator of the mercury, residues, and/or other waste and shall manage it in compliance with Rule R315-262.

(iii) If the mercury, residues, and/or other solid waste is not hazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.

(d) Lamps. A large quantity handler of universal waste shall manage lamps in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) A large quantity handler of universal waste shall contain any lamp in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps. Such containers and packages shall remain closed and shall lack evidence of leakage, spillage or damage that could cause leakage under reasonably foreseeable conditions.

(2) A large quantity handler of universal waste shall immediately clean up and place in a container any lamp that is broken and shall place in a container any lamp that shows evidence of breakage, leakage, or damage that could cause the release of mercury or other hazardous constituents to the environment. Containers shall be closed, structurally sound, compatible with the contents of the lamps and shall lack evidence of leakage, spillage or damage that could cause leakage or releases of mercury or other hazardous constituents to the environment under reasonably foreseeable conditions.

(3) A large quantity handler of universal waste may crush universal waste lamps using a drum-top lamp crusher designed specifically for crushing lamps provided that the Large quantity handler submits a drum-top lamp crusher registration application to and receives approval from the Director. The registration application shall demonstrate that the large quantity handler shall operate the drum-top lamp crusher to ensure the following:

(i) The lamps are crushed in a closed accumulation container designed specifically for crushing lamps;

(ii) The lamps are crushed in a controlled manner that prevents the release of mercury vapor or other contaminants in exceedance of the manufacturer's specifications;

(iii) The drum-top lamp crusher shall consist of a bag filter followed in series by a HEPA filter and an activated carbon filter;

(iv) The drum-top lamp crusher is installed, maintained, and operated in accordance with written

procedures developed by the manufacturer of the equipment including specific instructions for the frequency of filter changes;

(v) Filters are either characterized to demonstrate that they are not a hazardous waste or managed as a hazardous waste;

(vi) A spill clean-up kit is available;

(vii) The area in which the drum-top crusher is operated is well ventilated and monitored to ensure compliance with applicable OSHA exposure levels for mercury;

(viii) The employee using the drum-top lamp crusher is trained annually on the written operating, safety, personal protection and maintenance procedures of the system;

(ix) The employee using the drum-top lamp crusher is trained annually in emergency procedures;

(x) An operating record is kept and consists of the following:

(A) the number and size of lamps crushed per calendar day, per calendar month, and per calendar year;

(B) the schedule for the change out of filters;

(C) date and time of filter change out;

(D) date, type, and time of equipment maintenance;

(E) any occurrence of equipment malfunction; and

(F) procedures for preventing equipment malfunctions.

(4) The operating record shall be maintained for at least three years.

(5) When a drum–top crusher is no longer used or is relocated, the area where the crusher was located shall be decontaminated of all mercury and other contaminants caused by the use of the drum-top lamp crusher. A report documenting the decontamination steps as well as supporting analytical data demonstrating successful remediation shall be submitted to the Director for approval within 30 days following completion of decontamination.

(6) The large quantity handler shall provide a closure plan along with a detailed written estimate, in current dollars, of the cost of disposing the drum-top lamp crusher; decontamination of the area surrounding the drum-top lamp crusher, and any analytical costs required to show that decontamination is complete.

(7) The large quantity handler shall demonstrate financial assurance for the detailed cost estimates

determined in Subsection R315-273-33(d)(6) using one of the options in Subsections R315-261-143(a) through (e).

(8) Crushed universal waste lamps may be managed as universal waste lamps under Rule R315-273 or they may be managed as hazardous waste in accordance with all applicable requirements of Rules R315-260 through 266 and 268.

(e) Antifreeze. A large quantity handler of universal waste shall manage universal waste antifreeze in a way that prevents releases of any universal waste or component of a universal waste to the environment. The universal waste antifreeze shall be contained in one or more of the following:

(1) A container that remains closed, structurally sound, compatible with the antifreeze, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions; or

(2) A container that does not meet the requirements of Subsection R315-273-13(e)(1), provided that the unacceptable container is overpacked in a container that does meet the requirements of Subsection R315-273-13(e)(1); or

(3) A tank that meets the requirements of Sections R315-265-190 through 202, except for Subsection R315-265-197(c) and Sections R315-265-200 and 201; or

(4) A transport vehicle or vessel that is closed, structurally sound, compatible with the antifreeze, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(f) Aerosol cans. A large quantity handler of universal waste shall manage universal waste aerosol cans in a way that prevents release of any universal waste or component of a universal waste or accelerant to the environment as follows:

(1) A large quantity handler of universal waste shall immediately contain any universal waste aerosol can that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions in a separate individual container. The individual container shall be closed, structurally sound, compatible with the contents of the universal waste aerosol can, and shall lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(2) A large quantity handler of universal waste may accumulate universal waste aerosol cans in a specially designated accumulation container provided it is clearly marked for such use. The accumulation container shall be closed, structurally sound, compatible with the contents of the universal waste aerosol can, and shall lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. The universal waste aerosol cans shall be sorted by type and compatibility of contents to ensure that incompatible materials are segregated and managed appropriately in separate accumulation containers.

(3) A large quantity handler of universal waste may puncture universal waste aerosol cans to remove and collect the contents of the aerosol can provided the handler:

(i) Ensures that the universal waste aerosol can is punctured in a manner designed to prevent the release of any universal waste or component of universal waste or accelerant to the environment;

(ii) Ensures that the puncturing operations are performed safely by developing and implementing a written procedure detailing how to safely puncture universal waste aerosol cans. This procedure shall include:

(A) the type of equipment to be used to puncture the universal waste aerosol cans safely;

(B) operation and maintenance of the unit;

(C) segregation of incompatible wastes;

(D) proper waste management practices, i.e., ensuring that flammable wastes are stored away from heat or open flames; and

(E) waste characterization;

(iii) Ensures that a spill clean-up kit is readily available to immediately clean up spills or leaks of the contents of the universal waste aerosol can which may occur during the can-puncturing operation;

(iv) Immediately transfers the contents of the universal waste aerosol can, or puncturing device if applicable, to a container that meets the requirements of Section R315-262-34;

(v) Ensures that the area in which the universal waste aerosol cans are punctured is well ventilated; and

(vi) Ensures that employees are thoroughly familiar with the procedure for sorting and puncturing universal waste aerosol cans, and proper waste handling and emergency

procedures, relevant to their responsibilities during normal facility operations and emergencies.

(4)(i) A large quantity handler of universal waste who punctures universal waste aerosol cans to remove the contents of the aerosol can, or who generates other solid waste as a result of the activities listed above, shall determine whether the contents of the universal waste aerosol can, residues and/or other solid wastes exhibit a characteristic of hazardous waste identified in Sections R315-261-20 through 24, or are listed as a hazardous waste identified in Sections R315-261-30 through 35.

(ii) If the contents of the universal waste aerosol can, residues and/or other solid waste exhibit a characteristic of hazardous waste or are listed hazardous wastes, they shall be managed in compliance with all applicable requirements of Rules R315-260 through 266, 268, 270 and 124. The handler is considered the generator of the contents of the universal waste aerosol can, residues, and/or other waste and is subject to the requirements of Rule R315-262. In addition to the Rule R315-262 labeling requirements, the container used to accumulate, store, or transport the hazardous waste contents removed from the punctured universal waste aerosol can shall be labeled with all applicable EPA Hazardous Waste Codes found in Sections R315-261-20 through 24 and Sections R315-261-30 through 35.

(iii) If the contents of the universal waste aerosol can, residues, and/or other solid waste are not hazardous, the handler may manage the waste in a way that is in compliance with applicable federal, state or local solid waste regulations.

R315-273-34. Standards For Universal Waste Management, Standards For Large Quantity Handlers Of Universal Waste - Labeling/Marking.

A large quantity handler of universal waste shall label or mark the universal waste to identify the type of universal waste as specified below:

(a) Universal waste batteries, i.e., each battery, or a container or tank in which the batteries are contained, shall be labeled or marked clearly with any one of the following phrases: “Universal Waste-Battery(ies),” or “Waste Battery(ies),” or “Used Battery(ies);”

(b) A container, or multiple container package unit, tank, transport vehicle or vessel in which recalled universal waste pesticides as described in Subsection R315-

273-3(a)(1) are contained shall be labeled or marked clearly with:

(1) The label that was on or accompanied the product as sold or distributed; and

(2) The words “Universal Waste-Pesticide(s)” or “Waste-Pesticide(s);”

(c) A container, tank, or transport vehicle or vessel in which unused pesticide products as described in Subsection R315-273-3(a)(2) are contained shall be labeled or marked clearly with:

(1)(i) The label that was on the product when purchased, if still legible;

(ii) If using the labels described in Subsection R315-273-34(c)(1)(i) is not feasible, the appropriate label as required under the Department of Transportation regulation 49 CFR part 172;

(iii) If using the labels described in Subsections R315-273-34(c)(1)(i) and (1)(ii) is not feasible, another label prescribed or designated by the pesticide collection program; and

(2) The words “Universal Waste-Pesticide(s)” or “Waste-Pesticide(s).”

(d)(1) Mercury-containing equipment, i.e., each device, or a container in which the equipment is contained, shall be labeled or marked clearly with any of the following phrases: “Universal Waste-Mercury Containing Equipment,” “Waste Mercury-Containing Equipment,” or “Used Mercury-Containing Equipment.”

(2) A universal waste mercury-containing thermostat or container containing only universal waste mercury-containing thermostats may be labeled or marked clearly with any of the following phrases: “Universal Waste-Mercury Thermostat(s),” “Waste Mercury Thermostat(s),” or “Used Mercury Thermostat(s).”

(e) Each lamp or a container or package in which such lamps are contained shall be labeled or marked clearly with any one of the following phrases: “Universal Waste-Lamp(s),” or “Waste Lamp(s),” or “Used Lamp(s)”.

(f) A container, tank, or transport vehicle or vessel in which antifreeze is contained shall be labeled or marked clearly with the words “Universal Waste- antifreeze” or “Waste- antifreeze.”

(g) Universal waste aerosol cans, i.e., each can, or a container in which the universal waste aerosol cans are contained or accumulated, shall be labeled or marked

clearly with any one of the following phrases: "Universal Waste-Aerosol Can(s)", or "Waste Aerosol Can(s)".

R315-273-35. Standards For Universal Waste Management, Standards For Large Quantity Handlers Of Universal Waste - Accumulation Time Limits.

(a) A large quantity handler of universal waste may accumulate universal waste for no longer than one year from the date the universal waste is generated, or received from another handler, unless the requirements of Subsection R315-273-35(b) are met.

(b) A large quantity handler of universal waste may accumulate universal waste for longer than one year from the date the universal waste is generated, or received from another handler, if such activity is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal. However, the handler bears the burden of proving that such activity was solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal.

(c) A large quantity handler of universal waste shall be able to demonstrate the length of time that the universal waste has been accumulated from the date it becomes a waste or is received. The handler may make this demonstration by:

(1) Placing the universal waste in a container and marking or labeling the container with the earliest date that any universal waste in the container became a waste or was received;

(2) Marking or labeling the individual item of universal waste, e.g., each battery or thermostat, with the date it became a waste or was received;

(3) Maintaining an inventory system on-site that identifies the date the universal waste being accumulated became a waste or was received;

(4) Maintaining an inventory system on-site that identifies the earliest date that any universal waste in a group of universal waste items or a group of containers of universal waste became a waste or was received;

(5) Placing the universal waste in a specific accumulation area and identifying the earliest date that any universal waste in the area became a waste or was received; or

(6) Any other method which clearly demonstrates the length of time that the universal waste has been accumulated from the date it becomes a waste or is received.

R315-273-36. Standards For Universal Waste Management, Standards For Large Quantity Handlers Of Universal Waste - Employee Training.

A large quantity handler of universal waste shall ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relative to their responsibilities during normal facility operations and emergencies.

R315-273-37. Standards For Universal Waste Management, Standards For Large Quantity Handlers Of Universal Waste - Response To Releases.

(a) A large quantity handler of universal waste shall immediately contain all releases of universal wastes and other residues from universal wastes.

(b) A large quantity handler of universal waste shall determine whether any material resulting from the release is hazardous waste, and if so, shall manage the hazardous waste in compliance with all applicable requirements of Rules R315-260 through 266, 268 and 270. The handler is considered the generator of the material resulting from the release, and is subject to Rule R315-262.

R315-273-38. Standards For Universal Waste Management, Standards For Large Quantity Handlers Of Universal Waste - Off-Site Shipments.

(a) A large quantity handler of universal waste is prohibited from sending or taking universal waste to a place other than another universal waste handler, a destination facility, or a foreign destination.

(b) If a large quantity handler of universal waste self-transports universal waste off-site, the handler becomes a universal waste transporter for those self-transportation activities and shall comply with the transporter requirements of Sections R315-273-50 through 56 while transporting the universal waste.

(c) If a universal waste being offered for off-site transportation meets the definition of hazardous materials under 49 CFR 171 through 180, a large quantity handler of universal waste shall package, label, mark and placard the

shipment, and prepare the proper shipping papers in accordance with the applicable Department of Transportation regulations under 49 CFR parts 172 through 180;

(d) Prior to sending a shipment of universal waste to another universal waste handler, the originating handler shall ensure that the receiving handler agrees to receive the shipment.

(e) If a large quantity handler of universal waste sends a shipment of universal waste to another handler or to a destination facility and the shipment is rejected by the receiving handler or destination facility, the originating handler shall either:

(1) Receive the waste back when notified that the shipment has been rejected, or

(2) Agree with the receiving handler on a destination facility to which the shipment will be sent.

(f) A large quantity handler of universal waste may reject a shipment containing universal waste, or a portion of a shipment containing universal waste that he has received from another handler. If a handler rejects a shipment or a portion of a shipment, he shall contact the originating handler to notify him of the rejection and to discuss reshipment of the load. The handler shall:

(1) Send the shipment back to the originating handler, or

(2) If agreed to by both the originating and receiving handler, send the shipment to a destination facility.

(g) If a large quantity handler of universal waste receives a shipment containing hazardous waste that is not a universal waste, the handler shall immediately notify the Director of the illegal shipment, and provide the name, address, and phone number of the originating shipper. The Director shall provide instructions for managing the hazardous waste.

(h) If a large quantity handler of universal waste receives a shipment of non-hazardous, non-universal waste, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.

R315-273-39. Standards For Universal Waste Management, Standards For Large Quantity Handlers Of Universal Waste - Tracking Universal Waste Shipments.

(a) Receipt of shipments. A large quantity handler of universal waste shall keep a record of each shipment of universal waste received at the facility. The record may take the form of a log, invoice, manifest, bill of lading, or other shipping document. The record for each shipment of universal waste received shall include the following information:

(1) The name and address of the originating universal waste handler or foreign shipper from whom the universal waste was sent;

(2) The quantity of each type of universal waste received;

(3) The date of receipt of the shipment of universal waste.

(b) Shipments off-site. A large quantity handler of universal waste shall keep a record of each shipment of universal waste sent from the handler to other facilities. The record may take the form of a log, invoice, manifest, bill of lading or other shipping document. The record for each shipment of universal waste sent shall include the following information:

(1) The name and address of the universal waste handler, destination facility, or foreign destination to whom the universal waste was sent;

(2) The quantity of each type of universal waste sent;

(3) The date the shipment of universal waste left the facility.

(c) Record retention.

(1) A large quantity handler of universal waste shall retain the records described in Subsection R315-273-39(a) for at least three years from the date of receipt of a shipment of universal waste.

(2) A large quantity handler of universal waste shall retain the records described in Subsection R315-273-39(b) for at least three years from the date a shipment of universal waste left the facility.

R315-273-40. Standards For Universal Waste Management, Standards For Large Quantity Handlers Of Universal Waste - Exports.

A large quantity handler of universal waste who sends universal waste to a foreign destination other than to those OECD countries specified in Subsection R315-262-

58(a)(1), in which case the handler is subject to the requirements of Sections R315-262-80 through 89, shall:

(a) Comply with the requirements applicable to a primary exporter in Section R315-262-53, Subsections R315-262-56(a)(1) through (4), (6), and (b) and Section R315-262-57;

(b) Export such universal waste only upon consent of the receiving country and in conformance with the EPA Acknowledgement of Consent as defined in Sections R315-262-50 through 58; and

(c) Provide a copy of the EPA Acknowledgement of Consent for the shipment to the transporter transporting the shipment for export.

R315-273-50. Standards For Universal Waste Management, Standards for Universal Waste Transporters - Applicability. Sections R315-273-50 through 56 apply to universal waste transporters, as defined in Section R315-273-9.

R315-273-51. Standards For Universal Waste Management, Standards for Universal Waste Transporters - Prohibitions. A universal waste transporter is:

(a) Prohibited from disposing of universal waste; and

(b) Prohibited from diluting or treating universal waste, except by responding to releases as provided in Section R315-273-54.

R315-273-52. Standards For Universal Waste Management, Standards for Universal Waste Transporters - Waste Management.

(a) A universal waste transporter shall comply with all applicable U.S. Department of Transportation regulations in 49 CFR part 171 through 180 for transport of any universal waste that meets the definition of hazardous material in 49 CFR 171.8. For purposes of the Department of Transportation regulations, a material is considered a hazardous waste if it is subject to the Hazardous Waste Manifest Requirements of Rule R315-262. Because universal waste does not require a hazardous waste manifest, it is not considered hazardous waste under the Department of Transportation regulations.

(b) Some universal waste materials are regulated by the Department of Transportation as hazardous materials because they meet the criteria for one or more hazard classes specified in 49 CFR 173.2. As universal waste

shipments do not require a manifest under Rule R315-262, they may not be described by the DOT proper shipping name “hazardous waste, (l) or (s), n.o.s.”, nor may the hazardous material's proper shipping name be modified by adding the word “waste”.

R315-273-53. Standards For Universal Waste Management, Standards for Universal Waste Transporters - Storage Time Limits.

(a) A universal waste transporter may only store the universal waste at a universal waste transfer facility for ten days or less.

(b) If a universal waste transporter stores universal waste for more than ten days, the transporter becomes a universal waste handler and shall comply with the applicable requirements of Sections R315-273-10 through 20 and 30 through 40 while storing the universal waste.

R315-273-54. Standards For Universal Waste Management, Standards for Universal Waste Transporters - Response to Releases.

(a) A universal waste transporter shall immediately contain all releases of universal wastes and other residues from universal wastes.

(b) A universal waste transporter shall determine whether any material resulting from the release is hazardous waste, and if so, it is subject to all applicable requirements of Rules R315-260 through 266, 268 and 270. If the waste is determined to be a hazardous waste, the transporter is subject to Rule R315-262.

R315-273-55. Standards For Universal Waste Management, Standards for Universal Waste Transporters - Off-site Shipments.

(a) A universal waste transporter is prohibited from transporting the universal waste to a place other than a universal waste handler, a destination facility, or a foreign destination.

(b) If the universal waste being shipped off-site meets the Department of Transportation's definition of hazardous materials under 49 CFR 171.8, the shipment shall be properly described on a shipping paper in accordance with the applicable Department of Transportation regulations under 49 CFR part 172.

R315-273-56. Standards For Universal Waste Management, Standards for Universal Waste Transporters - Exports.
A universal waste transporter transporting a shipment of universal waste to a foreign destination other than to those OECD countries specified in Subsection R315-262-58(a)(1), in which case the transporter is subject to the requirements of Sections R315-262-80 through 89, may not accept a shipment if the transporter knows the shipment does not conform to the EPA Acknowledgment of Consent. In addition the transporter shall ensure that:

(a) A copy of the EPA Acknowledgment of Consent accompanies the shipment; and

(b) The shipment is delivered to the facility designated by the person initiating the shipment.

R315-273-60. Standards For Universal Waste Management, Standards for Destination Facilities - Applicability.

(a) The owner or operator of a destination facility, as defined in Section R315-273-9, is subject to all applicable requirements of Rules R315-264, 265, 266, 268, 270, and 124, and the notification requirement under section 3010 of RCRA.

(b) The owner or operator of a destination facility that recycles a particular universal waste without storing that universal waste before it is recycled shall comply with Subsection R315-261-6(c)(2).

R315-273-61. Standards For Universal Waste Management, Standards for Destination Facilities - Off-site Shipments.

(a) The owner or operator of a destination facility is prohibited from sending or taking universal waste to a place other than a universal waste handler, another destination facility or foreign destination.

(b) The owner or operator of a destination facility may reject a shipment containing universal waste, or a portion of a shipment containing universal waste. If the owner or operator of the destination facility rejects a shipment or a portion of a shipment, he shall contact the shipper to notify him of the rejection and to discuss reshipment of the load. The owner or operator of the destination facility shall:

(1) Send the shipment back to the original shipper, or

(2) If agreed to by both the shipper and the owner or operator of the destination facility, send the shipment to another destination facility.

(c) If the owner or operator of a destination facility receives a shipment containing hazardous waste that is not a universal waste, the owner or operator of the destination facility shall immediately notify the Director of the illegal shipment, and provide the name, address, and phone number of the shipper. The Director shall provide instructions for managing the hazardous waste.

(d) If the owner or operator of a destination facility receives a shipment of non-hazardous, non-universal waste, the owner or operator may manage the waste in any way that is in compliance with applicable federal or state solid waste regulations.

R315-273-62. Standards For Universal Waste Management, Standards For Destination Facilities - Tracking Universal Waste Shipments.

(a) The owner or operator of a destination facility shall keep a record of each shipment of universal waste received at the facility. The record may take the form of a log, invoice, manifest, bill of lading, or other shipping document. The record for each shipment of universal waste received shall include the following information:

(1) The name and address of the universal waste handler, destination facility, or foreign shipper from whom the universal waste was sent;

(2) The quantity of each type of universal waste received;

(3) The date of receipt of the shipment of universal waste.

(b) The owner or operator of a destination facility shall retain the records described in Subsection R315-273-62(a) for at least three years from the date of receipt of a shipment of universal waste.

R315-273-70. Standards For Universal Waste Management - Imports.

Persons managing universal waste that is imported from a foreign country into the United States are subject to the applicable requirements of Rule R315-273, immediately after the waste enters the United States, as indicated in Subsection R315-273-70(a) through (c):

(a) A universal waste transporter is subject to the universal waste transporter requirements of Sections R315-273-50 through 56.

(b) A universal waste handler is subject to the small or large quantity handler of universal waste requirements of Sections R315-273-10 through 20 or 30 through 40, as applicable.

(c) An owner or operator of a destination facility is subject to the destination facility requirements of Sections R315-273-60 through 62.

(d) Persons managing universal waste that is imported from an OECD country as specified in Subsection R315-262-58(a)(1) are subject to Subsections R315-273-70(a) through (c), in addition to the requirements of Sections R315-262-80 through 89.

R315-273-80. Standards For Universal Waste Management, Petitions To Include Other Wastes Under Rule R315-273 - General.

(a) Any person seeking to add a hazardous waste or a category of hazardous waste to Rule R315-273 may petition for a regulatory amendment under Sections R315-273-80 and 81 and Sections R315-260-20 and 23.

(b) To be successful, the petitioner shall demonstrate to the satisfaction of the Board that regulation under the universal waste regulations of Rule R315-273 is: appropriate for the waste or category of waste; will improve management practices for the waste or category of waste; and will improve implementation of the hazardous waste program. The petition shall include the information required by Subsection R315-260-20(b). The petition should also address as many of the factors listed in Section R315-273-81 as are appropriate for the waste or waste category addressed in the petition.

(c) The Board shall evaluate petitions using the factors listed in Section R315-273-81. The Board shall grant or deny a petition using the factors listed in Section R315-273-81. The decision shall be based on the weight of evidence showing that regulation under Rule R315-273 is appropriate for the waste or category of waste, shall improve management practices for the waste or category of waste, and shall improve implementation of the hazardous waste program.

(d) The Board may request additional information needed to evaluate the merits of the petition.

R315-273-81. Standards For Universal Waste Management - Factors For Petitions To Include Other Wastes Under Rule R315-273.

(a) The waste or category of waste, as generated by a wide variety of generators, is listed in Sections R315-261-30 through 3, or, if not listed, a proportion of the waste stream exhibits one or more characteristics of hazardous waste identified in Sections R315-261-20 through 24. When a characteristic waste is added to the universal waste regulations of this Rule R315-273 by using a generic name to identify the waste category, e.g., batteries, the definition of universal waste in Section R315-260-10 and Section R315-273-9 shal be amended to include only the hazardous waste portion of the waste category, e.g., hazardous waste batteries. Thus, only the portion of the waste stream that does exhibit one or more characteristics, i.e., is hazardous waste, is subject to the universal waste regulations of Rule R315-273;

(b) The waste or category of waste is not exclusive to a specific industry or group of industries, is commonly generated by a wide variety of types of establishments, including, for example, households, retail and commercial businesses, office complexes, conditionally exempt small quantity generators, small businesses, government organizations, as well as large industrial facilities;

(c) The waste or category of waste is generated by a large number of generators, e.g., more than 1,000 nationally, and is frequently generated in relatively small quantities by each generator;

(d) Systems to be used for collecting the waste or category of waste, including packaging, marking, and labeling practices, would ensure close stewardship of the waste;

(e) The risk posed by the waste or category of waste during accumulation and transport is relatively low compared to other hazardous wastes, and specific management standards proposed or referenced by the petitioner, e.g., waste management requirements appropriate to be added to Sections R315-273-13, 33, and 52; and/or applicable Department of Transportation requirements, would be protective of human health and the environment during accumulation and transport;

(f) Regulation of the waste or category of waste under Rule R315-273 will increase the likelihood that the

waste will be diverted from non-hazardous waste management systems; e.g., the municipal waste stream, non-hazardous industrial or commercial waste stream, municipal sewer or stormwater systems; to recycling; treatment; or disposal in compliance with Title 19 Chapter 6.

(g) Regulation of the waste or category of waste under Rule R315-273 will improve implementation of and compliance with the hazardous waste regulatory program; and/or

(h) Such other factors as may be appropriate.