



**Utah Division of Air Quality
New Source Review Section**

**Form 12
Incinerators**

Company _____

Site/Source _____

Date _____

General Information

1. Attach process diagrams of the incinerators described on this form

2. Describe the source of waste:

3. Manufacturer of incinerator:

4. Model name and number:

5. Type of incinerator: Flue Single Chamber
 Multiple Chamber

6. Maximum amount of waste to be incinerated:
_____ lb/hr

7. Estimated daily amount of waste to be incinerated: _____ lb

8. Height of stack above grade: _____ ft

9. Height of tallest structures within 150 feet:
_____ Feet

10. Primary burner used: Yes No
Maximum rating _____ BTU/hr

11. Secondary Burner used: Yes No Maximum rating _____ BTU/hr

Description of Typical Waste to Be Incinerated

12. Type of waste to be incinerated:

- Type 0 Trash with 8,500 BTU/lb
85% moisture, 5% incombustible
- Type 1 Rubbish with 6,500 BTU/lb
25% moisture, 10% incombustible
- Type 2 Refuse with 4,300 BTU/lb
50% moisture, 7% incombustible
- Type 3 Garbage with 2,500 BTU/lb
70% moisture, 5% incombustible

- Type 4 Human and animal parts, with 1,000 BTU/lb
10% moisture, 5% incombustible
- Type 5 Industrial by-product wastes which are gaseous,
liquid, & semi-liquid
- Type 6 Industrial solid byproduct waste rubber,
plastic, wood wastes
- Type 7 Municipal sewage sludge wastes residue
from processing of raw sludge

**Incinerator
Form 12 (Continued)**

Operational Information			
13. Average operation time of incinerator: _____ hrs/day _____ days/week _____ weeks/year			
14. Maximum operation time of incinerator: _____ hrs/day _____ days/week _____ weeks/year			
15. Average Temperature: Primary _____ °F Secondary _____ °F			
16. Residence time: Primary: _____ seconds Secondary: _____ seconds			
17. Type of feed to incinerator: <input type="checkbox"/> Manual <input type="checkbox"/> Ram <input type="checkbox"/> Other _____			
18. Proposed Control Technology:			
<input type="checkbox"/> Quench Tower <input type="checkbox"/> Heat Exchanger <input type="checkbox"/> Dry Scrubber (attach DAQ Form 9) <input type="checkbox"/> Wet Scrubber (attach DAQ Form 9) <input type="checkbox"/> Baghouse (attach DAQ Form 10)			
Emission Information			
19. Number of identical sources (describe)			
20. Average Operation			
Pollutants	Concentration or emission rate per identical source		Method used to determine concentration or emission rate
Particulate matter (PM ₁₀)	gr/dscf	<input type="checkbox"/> lb/10 ⁶ BTU <input type="checkbox"/> lb/hr	
Particulate matter (PM _{2.5})	gr/dscf	<input type="checkbox"/> lb/10 ⁶ BTU <input type="checkbox"/> lb/hr	
Carbon monoxide (CO)	ppm (vol)	<input type="checkbox"/> lb/10 ⁶ BTU <input type="checkbox"/> lb/hr	
Nitrogen oxides (NO _x)	ppm (vol)	<input type="checkbox"/> lb/10 ⁶ BTU <input type="checkbox"/> lb/hr	
Volatile organic Compounds (VOCs)	ppm (vol)	<input type="checkbox"/> lb/10 ⁶ BTU <input type="checkbox"/> lb/hr	
Sulfur dioxide (SO ₂)	ppm (vol)	<input type="checkbox"/> lb/10 ⁶ BTU <input type="checkbox"/> lb/hr	
Carbon dioxide (CO ₂)	ppm (vol)	<input type="checkbox"/> lb/10 ⁶ BTU <input type="checkbox"/> lb/hr	
Methane (CH ₄)	ppm (vol)	<input type="checkbox"/> lb/10 ⁶ BTU <input type="checkbox"/> lb/hr	
Nitrous oxide (N ₂ O)	ppm (vol)	<input type="checkbox"/> lb/10 ⁶ BTU <input type="checkbox"/> lb/hr	

**Incinerator
Form 12 (Continued)**

Maximum Operation			
Contaminant	Concentration or Emission Rate per Identical Source		Method used to determine concentration or emission rate
Particulate matter (PM ₁₀)	gr/dscf	<input type="checkbox"/> lb/10 ⁶ BTU <input type="checkbox"/> lb/hr	
Particulate matter (PM _{2.5})	gr/dscf	<input type="checkbox"/> lb/10 ⁶ BTU <input type="checkbox"/> lb/hr	
Carbon monoxide (CO)	ppm (vol)	<input type="checkbox"/> lb/10 ⁶ BTU <input type="checkbox"/> lb/hr	
Nitrogen oxides (NO _x)	ppm (vol)	<input type="checkbox"/> lb/10 ⁶ BTU <input type="checkbox"/> lb/hr	
Volatile organic Compounds (VOCs)	ppm (vol)	<input type="checkbox"/> lb/10 ⁶ BTU <input type="checkbox"/> lb/hr	
Sulfur dioxide (SO ₂)	ppm (vol)	<input type="checkbox"/> lb/10 ⁶ BTU <input type="checkbox"/> lb/hr	
Carbon dioxide CO ₂)	ppm (vol)	<input type="checkbox"/> lb/10 ⁶ BTU <input type="checkbox"/> lb/hr	
Methane (CH ₄)	ppm (vol)	<input type="checkbox"/> lb/10 ⁶ BTU <input type="checkbox"/> lb/hr	
Nitrous oxide (N ₂ O)	ppm (vol)	<input type="checkbox"/> lb/10 ⁶ BTU <input type="checkbox"/> lb/hr	
Metals (Maximum Operation)			
Arsenic	pounds/hour	Manganese	pounds/hour
Barium	pounds/hour	Mercury	pounds/hour
Cadmium	pounds/hour	Nickel	pounds/hour
Hexavalent chromium	pounds/hour	Selenium	pounds/hour
Total chromium	pounds/hour	Silver	pounds/hour
Copper	pounds/hour	Tin	pounds/hour
Lead	pounds/hour	Dioxins/furans	pounds/hour
21. Exhaust Point Information			
Flow diagram designation(s) of exhaust point(s):			
Description of exhaust point (location in relation to buildings, direction, hooding, etc.):			
Exhaust height above grade:		Feet	Exhaust diameter: Inches
Greatest height of nearby buildings:		Feet	Exhaust distance from nearest plant boundary: Feet
Average Operation		Maximum Operation	

Exhaust gas temperature: °F	Exhaust gas temperature: °F
Gas flow rate through each exhaust point:	Gas flow rate through each exhaust point:

Instructions - Form 12 Incinerator

NOTE: 1. **Submit this form in conjunction with Form 1 and Form 2.**
 2. Call the Division of Air Quality (DAQ) at **(801) 536-4000** if you have problems or questions in filling out this form. Ask to speak with a New Source Review engineer. We will be glad to help!

1. Attach flow diagram of the described incinerator.
2. Please describe the source of waste to be incinerated.
3. Supply the name of the manufacturer of the incinerator.
4. Supply the model and number of the incinerator.
5. Indicate the type of incinerator.
6. Specify the maximum amount of waste to be incinerated.
7. Specify the daily amount of waste to be incinerated.
8. Indicate the height of the stack above ground level.
9. Indicate the height of tallest structure within 150 feet.
10. Supply the specifications for primary burner used.
11. Supply the specifications for secondary burner used.
12. Indicate the type of typical waste to be incinerated.
13. Supply the average operation time of the incinerator.
14. Supply the maximum operation time of the incinerator.
15. Supply the average temperature in the primary and secondary chambers.
16. Supply the residence time in the primary and secondary chambers.
17. Indicate what type of feed is used to load the incinerator.
18. Indicate the control technology to be use. Submit the corresponding form, if available, for the control technology. Submit specifications for control technology which a form is not available for. Forms available are the following:
 - Form 3 Afterburners
 - Form 4 Flares
 - Form 5 Adsorption Unit
 - Form 6 Cyclone
 - Form 7 Condenser
 - Form 8 Electrostatic Precipitators
 - Form 9 Scrubber
 - Form 10 Fabric Filter
19. Indicate how many incinerators units are being used.
20. Specify the concentration or emission rate of the listed contaminants for both the average and maximum feed rate.
21. Supply the exhaust specifications listed.