DAQE-AN0572014-03

March 21, 2003

Lydia Salmon
Kennecott Utah Copper Corporation
8315 W. 3595 S.
PO Box 6001
Magna, Utah 84044-6001

Dear Ms. Salmon:

Re: Approval Order: Modification of Approval Order DAQE- 816-01 For North Concentrator, Salt Lake County, CDS A; NA; Title V
Project Code: N0572-014

The attached document is the Approval Order (AO) for the above-referenced project.

Future correspondence on this Approval Order should include the engineer's name as well as the DAQE number as shown on the upper right-hand corner of this letter. Please direct any technical questions you may have on this project to Mr. Nando Meli. He may be reached at (801) 536-4052.

Sincerely,

Richard W. Sprott, Executive Secretary
Utah Air Quality Board

RWS:NM:jc

cc: Salt Lake Valley Health Department

Mike Owens, EPA Region VIII

State of Utah
GARY R. HERBERT
Governor

Department of
Environmental Quality

Amanda Smith
Acting Executive Director

DIVISION OF AIR QUALITY
Cheryl Heying
Director

Title V Operating Permit

PERMIT NUMBER: 3500346002
DATE OF PERMIT: August 26, 2009
Date of Last Revision: August 26, 2009

This Operating Permit is issued to, and applies to the following:

Name of Permittee:

Kennecott Utah Copper LLC
8315 W. 3595 S.
PO Box 6001
Magna UT 840446001

Permitted Location:

Kennecott Utah Copper Corporation: Power Plant/ Lab/ Tailings Impoundment
9600 West 2100 South
Magna UT 84044

UTM coordinates: 405,000 m Easting, 4,506,000 m Northing
SIC code: 1021 (Copper Ores)

UTAH AIR QUALITY BOARD

By:

M. Cheryl Heying, Executive Secretary

Prepared By:

Jennifer He

ENFORCEABLE DATES AND TIMELINES

The following dates or timeframes are referenced in Section I: General Provisions of this permit.

Annual Certification Due:	February 24, of every calendar year that this permit is in force.
Renewal application due:	February 26, 2014
Permit expiration date:	August 26, 2014
Definition of "prompt":	written notification within 14 days.

ABSTRACT

Kennecott Utah Copper LLC operates Power Plant and Tailings Impoundment. The Power Plant is a four-unit, 175-megawatt capacity steam turbine generator facility. The initial plant was constructed in 1943, with the current output capacity and configuration since 1959. The plant operates on both coal and natural gas. The Tailings Impoundment stores tailings generated from the concentrating process. The North Impoundment covers approximately 3,300 acres, with capacity to hold an additional 1.6 billion tons of material. The Power Plant and Tailings Impoundment constitute a major source of PM_{10}, NO_x, SO_2 and CO. 40 CFR 64 applies to the boilers and 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ apply to the diesel engine (EU# UPPi202) in the power plant.

OPERATING PERMIT HISTORY

Permit/Activity	Date Issued	Recorded Changes
Title V renewal application (Project #OPP0105720006)	8/26/2009	Changes: CAM applies to the four boilers. Requirements on Tailings Impoundment have been modified in accordance with AO. A new LP emergency generator is included. A new diesel fire pump (175 hp) engine replaced the existing one (135 hp). Emission Unit #TAL-PS (phosphogypsum stack) is no longer exists and deleted.
Title V administrative amendment by DAQ (Project #OPP0105720005)	7/22/2004	Changes: due to issuance of AO DAQE-AN0572013-04, for adding the diesel engine at the ash loading.
Title V administrative amendment by DAQ (Project #OPP0105720004)	5/14/2003	Changes: due to issuance of AO DAQE-AN0572014-03, for closing the North Concentrator (Bonneville Concentrator).
Title V administrative amendment by DAQ (Project #OPP0105720003)	2/19/2002	Changes: This modification is to remove an opacity limit that was inadvertently included for the South and North Tailings Impoundment Group (TAL206)
Title V administrative amendment by DAQ (Project #OPP0105720002)	1/8/2002	Changes: Issuance of DAQE-816-01 to relocate lime handling system from Copperton Concentrator to Bonneville Crusher
Title V initial application (Project #OPP0105720001)	2/25/2000	Changes: Enter project description here.

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Issued under authority of Utah Code Ann. Section 19-2-104 and 19-2-109.1, and in accordance with Utah Administrative Code R307-415 Operating Permit Requirements.

All definitions, terms and abbreviations used in this permit conform to those used in Utah Administrative Code R307-101 and R307-415 (Rules), and 40 Code of Federal Regulations (CFR), except as otherwise defined in this permit. Unless noted otherwise, references cited in the permit conditions refer to the Rules.

Where a permit condition in Section I, General Provisions, partially recites or summarizes an applicable rule, the full text of the applicable portion of the rule shall govern interpretations of the requirements of the rule. In the case of a conflict between the Rules and the permit terms and conditions of Section II, Special Provisions, the permit terms and conditions of Section II shall govern except as noted in Provision I.M, Permit Shield.

SECTION I: GENERAL PROVISIONS

I.A **Federal Enforcement.**

All terms and conditions in this permit, including those provisions designed to limit the potential to emit, are enforceable by the EPA and citizens under the Clean Air Act of 1990 (CAA) except those terms and conditions that are specifically designated as "State Requirements". (R307-415-6b)

I.B **Permitted Activity(ies).**

Except as provided in R307-415-7b(1), the permittee may not operate except in compliance with this permit. (See also Provision I.E, Application Shield)

I.C **Duty to Comply.**

I.C.1 The permittee must comply with all conditions of the operating permit. Any permit noncompliance constitutes a violation of the Air Conservation Act and is grounds for any of the following: enforcement action; permit termination; revocation and reissuance; modification; or denial of a permit renewal application. (R307-415-6a(6)(a))

I.C.2 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. (R307-415-6a(6)(b))

I.C.3 The permittee shall furnish to the Executive Secretary, within a reasonable time, any information that the Executive Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Executive Secretary copies of records required to be kept by this permit or, for information claimed to be confidential, the permittee may furnish such records directly to the EPA along with a claim of confidentiality. (R307-415-6a(6)(e))

I.C.4 This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance shall not stay any permit condition, except as provided under R307-415-7f(1) for minor permit modifications. (R307-415-6a(6)(c))

I.D **Permit Expiration and Renewal.**

I.D.1 This permit is issued for a fixed term of five years and expires on the date shown under "Enforceable Dates and Timelines" at the front of this permit. (R307-415-6a(2))

I.D.2 Application for renewal of this permit is due on or before the date shown under "Enforceable Dates and Timelines" at the front of this permit. An application may be submitted early for any reason. (R307-415-5a(1)(c))

I.D.3 An application for renewal submitted after the due date listed in I.D.2 above shall be accepted for processing, but shall not be considered a timely application and shall not relieve the permittee of any enforcement actions resulting from submitting a late application. (R307-415-5a(5))

I.D.4 Permit expiration terminates the permittee's right to operate unless a timely and complete renewal application is submitted consistent with R307-415-7b (see also Provision I.E, Application Shield) and R307-415-5a(1)(c) (see also Provision I.D.2). (R307-415-7c(2))

I.E **Application Shield.**

If the permittee submits a timely and complete application for renewal, the permittee's failure to have an operating permit will not be a violation of R307-415, until the Executive Secretary takes final action on the permit renewal application. In such case, the terms and conditions of this permit shall remain in force until permit renewal or denial. This protection shall cease to apply if, subsequent to the completeness determination required pursuant to R307-415-7a(3), and as required by R307-415-5a(2), the applicant fails to submit by the deadline specified in writing by the Executive Secretary any additional information identified as being needed to process the application. (R307-415-7b(2))

I.F **Severability.**

In the event of a challenge to any portion of this permit, or if any portion of this permit is held invalid, the remaining permit conditions remain valid and in force. (R307-415-6a(5))

I.G **Permit Fee.**

I.G.1 The permittee shall pay an annual emission fee to the Executive Secretary consistent with R307-415-9. (R307-415-6a(7))

I.G.2 The emission fee shall be due on October 1 of each calendar year or 45 days after the source receives notice of the amount of the fee, whichever is later. (R307-415-9(4)(a))

I.H **No Property Rights.**

This permit does not convey any property rights of any sort, or any exclusive privilege. (R307-415-6a(6)(d))

I.I **Revision Exception.**

No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit. (R307-415-6a(8))

I.J **Inspection and Entry.**

I.J.1 Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Executive Secretary or an authorized representative to perform any of the following:

I.J.1.a Enter upon the permittee's premises where the source is located or emissions related activity is conducted, or where records are kept under the conditions of this permit. (R307-415-6c(2)(a))

I.J.1.b Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit. (R307-415-6c(2)(b))

I.J.1.c Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practice, or operation regulated or required under this permit. (R307-415-6c(2)(c))

I.J.1.d Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with this permit or applicable requirements. (R307-415-6c(2)(d))

I.J.2 Any claims of confidentiality made on the information obtained during an inspection shall be made pursuant to Utah Code Ann. Section 19-1-306. (R307-415-6c(2)(e))

I.K **Certification.**

Any application form, report, or compliance certification submitted pursuant to this permit shall contain certification as to its truth, accuracy, and completeness, by a responsible official as defined in R307-415-3. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. (R307-415-5d)

I.L **Compliance Certification.**

I.L.1 Permittee shall submit to the Executive Secretary an annual compliance certification, certifying compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. This certification shall be submitted no later than the date shown under "Enforceable Dates and Timelines" at the front of this permit, and that date each year following until this permit expires. The certification shall include all the following (permittee may cross-reference this permit or previous reports): (R307-415-6c(5))

I.L.1.a The identification of each term or condition of this permit that is the basis of the certification;

I.L.1.b The identification of the methods or other means used by the permittee for determining the compliance status with each term and condition during the certification period. Such methods and other means shall include, at a minimum, the monitoring and related recordkeeping and reporting requirements in this permit. If necessary, the permittee also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Act, which prohibits knowingly making a false certification or omitting material information;

I.L.1.c The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the method or means designated in Provision I.L.1.b. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 occurred; and

I.L.1.d Such other facts as the Executive Secretary may require to determine the compliance status.

I.L.2 The permittee shall also submit all compliance certifications to the EPA, Region VIII, at the following address or to such other address as may be required by the Executive Secretary: (R307-415-6c(5)(d))

Environmental Protection Agency, Region VIII
Office of Enforcement, Compliance and Environmental Justice
(mail code 8ENF)
1595 Wynkoop Street
Denver, CO 80202-1129

I.M **Permit Shield.**

I.M.1 Compliance with the provisions of this permit shall be deemed compliance with any applicable requirements as of the date of this permit, provided that:

I.M.1.a Such applicable requirements are included and are specifically identified in this permit, or (R307-415-6f(1)(a))

I.M.1.b Those requirements not applicable to the source are specifically identified and listed in this permit. (R307-415-6f(1)(b))

I.M.2 Nothing in this permit shall alter or affect any of the following:

I.M.2.a The emergency provisions of Utah Code Ann. Section 19-1-202 and Section 19-2-112, and the provisions of the CAA Section 303. (R307-415-6f(3)(a))

I.M.2.b The liability of the owner or operator of the source for any violation of applicable requirements under Utah Code Ann. Section 19-2-107(2)(g) and Section 19-2-110 prior to or at the time of issuance of this permit. (R307-415-6f(3)(b)

I.M.2.c The applicable requirements of the Acid Rain Program, consistent with the CAA Section 408(a). (R307-415-6f(3)(c))

I.M.2.d The ability of the Executive Secretary to obtain information from the source under Utah Code Ann. Section 19-2-120, and the ability of the EPA to obtain information from the source under the CAA Section 114. (R307-415-6f(3)(d))

I.N **Emergency Provision.**

I.N.1 An "emergency" is any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error. (R307-415-6g(1))

I.N.2 An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the affirmative defense is demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

I.N.2.a An emergency occurred and the permittee can identify the causes of the emergency. (R307-415-6g(3)(a))

I.N.2.b The permitted facility was at the time being properly operated. (R307-415-6g(3)(b))

I.N.2.c During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in this permit. (R307-415-6g(3)(c))

I.N.2.d The permittee submitted notice of the emergency to the Executive Secretary within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. This notice fulfills the requirement of Provision I.S.2.c below. (R307-415-6g(3)(d))

I.N.3 In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof. (R307-415-6g(4))

I.N.4 This emergency provision is in addition to any emergency or upset provision contained in any other section of this permit. (R307-415-6g(5))

I.O **Operational Flexibility.**

Operational flexibility is governed by R307-415-7d(1).

I.P **Off-permit Changes.**

Off-permit changes are governed by R307-415-7d(2).

I.Q **Administrative Permit Amendments.**

Administrative permit amendments are governed by R307-415-7e.

I.R **Permit Modifications.**

Permit modifications are governed by R307-415-7f.

I.S **Records and Reporting.**

I.S.1 Records.

I.S.1.a The records of all required monitoring data and support information shall be retained by the permittee for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, all original strip-charts or appropriate recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. (R307-415-6a(3)(b)(ii))

I.S.1.b For all monitoring requirements described in Section II, Special Provisions, the source shall record the following information, where applicable: (R307-415-6a(3)(b)(i))

I.S.1.b.1 The date, place as defined in this permit, and time of sampling or measurement.

I.S.1.b.2 The date analyses were performed.

I.S.1.b.3 The company or entity that performed the analyses.

I.S.1.b.4 The analytical techniques or methods used.

I.S.1.b.5 The results of such analyses.

I.S.1.b.6 The operating conditions as existing at the time of sampling or measurement.

I.S.1.c Additional record keeping requirements, if any, are described in Section II, Special Provisions.

I.S.2 Reports.

I.S.2.a Monitoring reports shall be submitted to the Executive Secretary every six months, or more frequently if specified in Section II. All instances of deviation from permit requirements shall be clearly identified in the reports. (R307-415-6a(3)(c)(i))

I.S.2.b All reports submitted pursuant to Provision I.S.2.a shall be certified by a responsible official in accordance with Provision I.K of this permit. (R307-415-6a(3)(c)(i)

I.S.2.c The Executive Secretary shall be notified promptly of any deviations from permit requirements including those attributable to upset conditions as defined in this permit, the probable cause of such deviations, and any corrective actions or preventative measures taken. Prompt, as used in this condition, shall be defined as written notification within the number of days shown under "Enforceable Dates and Timelines" at the front of this permit. Deviations from permit requirements due to unavoidable breakdowns shall be reported in accordance with the provisions of R307-107. (R307-415-6a(3)(c)(ii))

I.S.3 Notification Addresses.

I.S.3.a All reports, notifications, or other submissions required by this permit to be submitted to the Executive Secretary are to be sent to the following address or to such other address as may be required by the Executive Secretary:

Utah Division of Air Quality
P.O. Box 144820
Salt Lake City, UT 84114-4820
Phone: 801-536-4000

I.S.3.b All reports, notifications or other submissions required by this permit to be submitted to the EPA should be sent to one of the following addresses or to such other address as may be required by the Executive Secretary:

For annual compliance certifications:

Environmental Protection Agency, Region VIII
Office of Enforcement, Compliance and Environmental Justice
(mail code 8ENF)
1595 Wynkoop Street
Denver, CO 80202-1129

For reports, notifications, or other correspondence related to permit modifications, applications, etc.:

Environmental Protection Agency, Region VIII
Office of Partnerships & Regulatory Assistance Air & Radiation Program (mail code 8P-AR)
1595 Wynkoop Street
Denver, CO 80202-1129
Phone: 303-312-6440

I.T **Reopening for Cause.**

I.T.1 A permit shall be reopened and revised under any of the following circumstances:

I.T.1.a New applicable requirements become applicable to the permittee and there is a remaining permit term of three or more years. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire, unless the terms and conditions of this permit have been extended pursuant to R307-415-7c(3), application shield. (R307-415-7g(1)(a))

I.T.1.b The Executive Secretary or EPA determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit. (R307-415-7g(1)(c))

I.T.1.c EPA or the Executive Secretary determines that this permit must be revised or revoked to assure compliance with applicable requirements. (R307-415-7g(1)(d))

I.T.1.d Additional applicable requirements are to become effective before the renewal date of this permit and are in conflict with existing permit conditions. (R307-415-7g(1)(e))

I.T.2 Additional requirements, including excess emissions requirements, become applicable to a Title IV affected source under the Acid Rain Program. Upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into this permit. (R307-415-7g(1)(b))

I.T.3 Proceedings to reopen and issue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. (R307-415-7g(2))

I.U **Inventory Requirements.**

An emission inventory shall be submitted in accordance with the procedures of R307-150, Emission Inventories. (R307-150)

I.V **Title IV and Other, More Stringent Requirements**

Where an applicable requirement is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, Acid Deposition Control, both provisions shall be incorporated into this permit. (R307-415-6a(1)(b))

SECTION II: SPECIAL PROVISIONS

II.A **Emission Unit(s) Permitted to Discharge Air Contaminants.**
(R307-415-4(3)(a) and R307-415-4(4))

II.A.1 **Permitted Source**
Source-wide

II.A.2 **Natural Gas Heaters (EU# SMALLHEATERS)**
Space heaters, air conditioners, and water heaters, each rated at less than 5 MMBTU/hr, at various locations throughout the source. No unit-specific applicable requirements.

II.A.3 **Cold Solvent Parts Washers (EU# DEGREASERS)**
25 gal. per washer and approximately 200 gal. or less of solvent used every year for maintenance cleaners at various locations throughout the source.

II.A.4 **Gasoline Tanks (EU# GASTANKS)**
Includes two gasoline tanks located at the tailing facilities. They are all equipped with submerged fill pipes and have vapor recovery lines and connections.

II.A.5 **Petroleum Storage Tanks (EU# TANKS)**
Includes various diesel tanks with a capacity less than 40,000 gallons each.

II.A.6 **Power Plant Boiler #1 (EU# UPP001)**
Wet bottom wall-fired boiler capable of burning both coal and natural gas, rated at 431.4 MMBTU/hr (coal), or 453 MMBTU/hr (natural gas), equipped with low NO_x burners and an electrostatic precipitator (ESP).

II.A.7 **Power Plant Boiler #2 (EU# UPP002)**
Wet bottom wall-fired boiler capable of burning both coal and natural gas, rated at 431.4 MMBTU/hr (coal), or 453 MMBTU/hr (natural gas), equipped with low NO_x burners and an electrostatic precipitator.

II.A.8 **Power Plant Boiler #3 (EU# UPP003)**
Wet bottom wall-fired boiler capable of burning both coal and natural gas, rated at 431.4 MMBTU/hr (coal), or 453 MMBTU/hr (natural gas), equipped with low NO_x burners and an electrostatic precipitator.

II.A.9 **Power Plant Boiler #4 (EU# UPP004)**
Tangentially fired boiler capable of burning both coal and natural gas, rated at 838 MMBTU/hr (coal), or 872 MMBTU/hr (natural gas), equipped with an electrostatic precipitator.

II.A.10 **Boiler Group 1 (EU# UPPG1)**
Includes three boilers, Units# UPP001, 002 and 003.

II.A.11 **Boiler Group 2 (EU# UPPG2)**
Includes four boilers, Units # UPP001, 002, 003 and 004.

II.A.12 **Power Plant Coal Storage Drop and Pile(EU# PPCSDP)**
Fugitive emission source from the coal handling process, including coal pile, coal drop, and coal transfer. No unit-specific applicable requirements.

II.A.13 **Ash Handling System (EU# UPP110)**
Wet and closed fly ash capture system, handles ash from the electrostatic precipitators. No unit-

specific applicable requirements.

II.A.14 **Diesel Engine (EU# UPPi202)**

175 Hp Diesel Engine located in the power plant, operates an emergency fire water pump. Manufacture in 2008. NSPS IIII and NESHAP ZZZZ.

II.A.15 **Hydraulic Coal Unload System with Diesel Engine (EU# UPPi206)**

170 hp Diesel Engine located at the ash loading. Manufactured before 4/1/2006. No unit-specific applicable requirements.

II.A.16 **Natural Gas Generator (EU# UPPi203)**

1.2 MMBTU/hr natural gas fired generator, located in the power plant. No unit-specific applicable requirements.

II.A.17 **Wet Cooling Towers (5) (EU# UPPiWCT)**

Non-contact water-cooling towers. No unit-specific applicable requirements.

II.A.18 **Natural Gas Purge Exhaust (EU# UPPi205)**

Natural Gas Vent. No unit-specific applicable requirements.

II.A.19 **Tailings Impoundment Service Roads (EU# TAL204)**

Fugitive emissions from the service roads.

II.A.20 **Tailings Impoundment Complex (EU# TAL205)**

Tailings impoundment stores and manages tailings generated from the concentrating processes and includes South Tailings Impoundment (closed and existence prior to 1994) and North Tailing Impoundment (active and construction beginning 1994).

II.A.21 **LP Fired Emergency Generator (EU# TALEmGe)**

Liquefied petroleum (LP) fired emergency generator rated at 75 Brake Horsepower.

II.A.22 **Combined Analytical Laboratory (EU# CAL)**

Provides laboratory support, equipped with a horizontal flume scrubber, two dust collectors, and three filters.

II.A.23 **Hot Water Boiler (EU# NOC022)**

7.133 MMBTU/hr natural gas fired boiler, located in the laboratory. No unit-specific applicable requirements.

II.A.24 **Power Plant Roads (EU #UPP111)**

Paved roads servicing the Power Plant. No unit-specific applicable requirements.

II.B Requirements and Limitations

The following emission limitations, standards, and operational limitations apply to the permitted facility as indicated:

II.B.1 **Conditions on permitted source (Source-wide).**

II.B.1.a **Condition:**

At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any permitted plant equipment, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used

will be based on information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [Origin: DAQE-AN0105720022-09, DAQE-AN0572018-06, DAQE-261-95, DAQE-AN0572014-03]. [R307-401-8(2), 40 CFR 60 Subpart A]

II.B.1.a.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.1.a.2 **Recordkeeping:**

The permittee shall document activities performed to assure proper operation and maintenance. Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.1.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.b **Condition:**

Records shall be maintained of the material (salt, crushed slag, or sand) applied to the roads. [Origin: R307-307]. [R307-307]

II.B.1.b.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.1.b.2 **Recordkeeping:**

The following records shall be maintained as outlined in Provision I.S.1 of this permit:

For Salt - the quantity applied, the percent by weight of insoluble solids in the salt, and the percentage of the material that is sodium chloride (NaCl).

For Sand or Crushed Slag - the quantity applied and the percent by weight of fine material, which passes the number 200 sieve in a standard gradation analysis

II.B.1.b.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.c **Condition:**

The permittee shall comply with the applicable requirements for servicing of motor vehicle air conditioners pursuant to 40 CFR 82, Subpart B - Servicing of Motor Vehicle Air Conditioners. [Origin: 40 CFR 82.30(b)]. [40 CFR 82]

II.B.1.c.1 **Monitoring:**

The permittee shall certify, in the annual compliance statement required in Section I of this permit, its compliance status with the requirements of 40 CFR 82, Subpart B.

II.B.1.c.2 **Recordkeeping:**

All records required in 40 CFR 82, Subpart B shall be maintained consistent with the requirements of Provision S.1 in Section I of this permit.

II.B.1.c.3 **Reporting:**

All reports required in 40 CFR 82, Subpart B shall be submitted as required. There are no additional reporting requirements except as outlined in Section I of this permit.

II.B.1.d **Condition:**

The permittee shall comply with the applicable requirements for recycling and emission reduction for class I and class II refrigerants pursuant to 40 CFR 82, Subpart F - Recycling and Emissions Reduction. [Origin: 40 CFR 82.150(b)]. [40 CFR 82]

II.B.1.d.1 **Monitoring:**

The permittee shall certify, in the annual compliance statement required in Section I of this permit, its compliance status with the requirements of 40 CFR 82, Subpart F.

II.B.1.d.2 **Recordkeeping:**

All records required in 40 CFR 82, Subpart F shall be maintained consistent with the requirements of Provision S.1 in Section I of this permit.

II.B.1.d.3 **Reporting:**

All reports required in 40 CFR 82, Subpart F shall be submitted as required. There are no additional reporting requirements except as outlined in Section I of this permit.

II.B.1.e **Condition:**

Visible emissions shall be no greater than 20 percent opacity except as specified elsewhere in this permit. [Origin: DAQE-AN0572014-03]. [R307-201-3, R307-401-8(1)(a)]

II.B.1.e.1 **Monitoring:**

A visual opacity survey of each affected emission unit shall be performed on a weekly basis by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. The individual is not required to be a certified visible emissions observer (VEO). If visible emissions other than steam are observed from an emission unit, an opacity determination of that emission unit shall be performed by a certified VEO in accordance with 40 CFR 60, Appendix A, Method 9 within 24 hours of the initial survey. For each affected emission unit, if no visible emissions are observed for eight consecutive weeks the observation frequency shall be reduced to a monthly basis. If visible emissions are observed during any monthly observation the frequency shall revert back to a weekly basis.

Minor natural gas combustion sources (<5 MMBtu/hr), cold solvent degreasers, organic liquid storage tanks (<19,812 gallons), cooling towers, and units equipped with a continuous opacity monitor are not affected emission units subject to this condition

II.B.1.e.2 **Recordkeeping:**

A log of the visual opacity survey(s) shall be maintained in accordance with Provision I.S.1 of this permit. If an opacity determination is indicated, a notation of the determination will be made

in the log. All data required by 40 CFR 60, Appendix A, Method 9 shall also be maintained in accordance with Provision I.S.1 of this permit.

II.B.1.e.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.f **Condition:**

Visible emissions caused by fugitive dust shall not exceed 10% at the property boundary, and 20% onsite except during periods when wind speeds exceed the value specified in UAC R307-309 and control measures in the most recently approved fugitive dust control plan are being taken. The fugitive dust control plan shall consider fugitive dust control strategies listed in R307-309, including but not limited to: wetting or watering; chemical stabilization; enclosing or covering operation; reducing vehicular speed; etc. [Origin: DAQE-0572014-03, DAQE-AN0105720022-09, and DAQE-AN0572018-06]. [R307-309, SIP Section IX.H.2.b(z), SIP Section IX.H.2.b(BB)(B), R307-401-8(1)(a)(BACT)]

II.B.1.f.1 **Monitoring:**

In lieu of monitoring via visible emissions observations, adherence to the most recently approved fugitive dust control plan shall be monitored to demonstrate that appropriate measures are being implemented to control fugitive dust.

II.B.1.f.2 **Recordkeeping:**

Records of measures taken to control fugitive dust shall be maintained to demonstrate adherence to the most recently approved fugitive dust control plan. If wind speeds are measured to establish an exception from the above visible emissions limits, records of those measurements shall be maintained. Records shall be maintained as described in Provision I.S.1 of this permit.

II.B.1.f.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.g **Condition:**

Fugitive emission shall be not greater than 15 percent opacity. [Origin: DAQE-AN0105720022-09 and DAQE-AN0572014-03]. [R307-309-4, R307-401-8(1)(a)(BACT)]

II.B.1.g.1 **Monitoring:**

A visual observation of each affected emission unit shall be performed on a monthly basis by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. The individual is not required to be a certified visible emissions observer (VEO). If any visible emissions are observed, an opacity determination of that emission unit shall be performed by a certified VEO in accordance with 40 CFR 60, Appendix A, Method 9 within 24 hours of the initial observation.

II.B.1.g.2 **Recordkeeping:**

A log of the visual opacity survey(s) shall be maintained in accordance with Provision I.S.1 of this permit. If an opacity determination is indicated, a notation of the determination will be made in the log. All data required by 40 CFR 60, Appendix A, Method 9 shall also be maintained in accordance with Provision I.S.1 of this permit.

II.B.1.g.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.2 **Conditions on Cold Solvent Parts Washers (EU# DEGREASERS).**

II.B.2.a **Condition:**

The permittee shall ensure that the following conditions are met:
(1) A cover shall be installed which shall remain closed except during actual loading, unloading or handling of parts in cleaner. The cover shall be designed so that it can be easily operated with one hand if
(a) the volatility of the solvent is greater than 2 kPa (15 mm Hg or 0.3 psi) measured at 38 degrees C (100 degrees F),
(b) the solvent is agitated, or
(c) the solvent is heated.
(2) An internal draining rack for cleaned parts shall be installed on which parts shall be drained until all dripping ceases. If the volatility of the solvent is greater than 4.3 kPa (32 mm Hg at 38 degrees C (100 degrees F)), the drainage facility must be internal, so that parts are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
(3) Waste or used solvent shall be stored in covered containers. Waste solvents or waste materials, which contain solvents shall be disposed of by recycling, reclaiming, by incineration in an incinerator approved to process hazardous materials, or by an alternate means approved by the Executive Secretary.
(4) Tanks, containers and all associated equipment shall be maintained in good operating condition and leaks shall be repaired immediately or the degreaser shall be shutdown.
(5) Written procedures for the operation and maintenance of the degreasing or solvent cleaning equipment shall be permanently posted in an accessible and conspicuous location near the equipment.
(6) If the solvent volatility is greater than 4.3 kPa (33 mm Hg or 0.6 psi) measured at 38 degrees C (100 degrees F), or if solvent is heated above 50 degrees C (120 degrees F), then one of the following control devices shall be used:
(a) freeboard that gives a freeboard ratio greater than 0.7;
(b) water cover if the solvent is insoluble in and heavier than water;
(c) other systems of equivalent control, such as a refrigerated chiller or carbon absorption.
(7) If used, the solvent spray shall be a solid fluid stream at a pressure which does not cause excessive splashing and may not be a fine, atomized or shower type spray. [Origin: DAQE-AN0572014-03] [R307-335-4]

II.B.2.a.1 **Monitoring:**

A visual observation shall be conducted monthly for all equipment and applicable work practices.

II.B.2.a.2 **Recordkeeping:**

Results of monthly inspections and the volatility of the solvent(s) being used shall be recorded and maintained as described in Provision I.S.1 of this permit.

II.B.2.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.3 **Conditions on Gasoline Tanks (EU# GASTANKS).**

II.B.3.a **Condition:**

At least 90 percent of the gasoline vapor, by weight, displaced during the filling of the stationary storage container shall be prevented from being released to the atmosphere. [Origin: R307-328-5]. [R307-328-5]

II.B.3.a.1 **Monitoring:**

The 90 percent performance standard of the vapor control system shall be based on approved operating procedures and equipment specifications.

II.B.3.a.2 **Recordkeeping:**

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.3.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.3.b **Condition:**

The permittee shall maintain records of the average monthly storage temperature, the type of liquid, throughput quantities, and the maximum true vapor pressure. [Origin: R307-327-4]. [R307-327-4]

II.B.3.b.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.3.b.2 **Recordkeeping:**

Records required for this permit condition shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.3.b.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.4 **Conditions on Petroleum Storage Tanks (EU# TANKS).**

II.B.4.a **Condition:**

The permittee shall maintain records of the average monthly storage temperature, the type of liquid, throughput quantities, and the maximum true vapor pressure. [Origin: R307-327-4]. [R307-327-4]

II.B.4.a.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.4.a.2 **Recordkeeping:**

Records required for this permit condition shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.4.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.5 **Conditions on Power Plant Boiler #4 (EU # UPP004).**

II.B.5.a **Condition:**

Emissions of NO_x shall be no greater than 306 lbs/hr and 336 ppmdv (measured at 3% oxygen) during natural gas fired conditions during the period from November 1 to the last day in February, inclusive. [Origin: DAQE-AN0105720022-09]. [R307-401-8(1)(a)(BACT), SIP Section IX.H.2.b(z)]

II.B.5.a.1 **Monitoring:**

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested annually when the boiler is to be used between November 1 and the last day in February. The limited use of natural gas during startup, for maintenance firings, and break-in firings does not constitute operation and does not require stack testing. The source may also be tested at any time if directed by the Executive Secretary.

(b) Notification. At least 30 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.

(c) Methods.

(1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, and Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.

(2) 40 CFR 60, Appendix A, Method 7, 7A, 7B, 7C, 7D, or 7E shall be used to determine the pollutant emission rate.

(3) 40 CFR 60, Appendix A, Method 2 shall be used to determine the volumetric flow rate.

(d) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary to give the results in the specified units of the emission limitation.

(e) Conditions During Testing. The heat input during all compliance testing shall be no less than 90% of the design rate for each boiler

II.B.5.a.2 **Recordkeeping:**

Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.

II.B.5.a.3 **Reporting:**

The stack results shall be submitted to the Executive Secretary within 60 days of completion of the testing. Results shall clearly identify results as compared to permit limits and indicate

compliance status.

For the months of November, December, January, and February, permittee shall provide monthly reports to the Executive Secretary showing daily total emission estimates of NO_x based upon boiler usage, fuel consumption and previously available results of stack tests

II.B.5.b **Condition:**

Emissions of NO_x shall be no greater than 377 lbs/hr and 384 ppmdv (measured at 3% oxygen) during coal fired condition and during the period from March 1 to October 31, inclusive, for any fuel. [Origin: DAQE-AN0105720022-09]. [R307-401-8(1)(a)(BACT), SIP Section IX.H.2.b(z)]

II.B.5.b.1 **Monitoring:**

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested annually when (i) a fuel other than natural gas is used during the period from March 1 to October 31, inclusive (emission testing shall be performed for each fuel used other than natural gas) or (ii) natural gas is used from March 1 to October 31 but no testing was done between November 1 and the last day in February. The limited use of natural gas during startup, for maintenance firings, and break-in firings does not constitute operation and does not require stack testing. The source may also be tested at any time if directed by the Executive Secretary.

(b) Notification. At least 30 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.

(c) Methods.

(1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, and Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.

(2) 40 CFR 60, Appendix A, Method 7, 7A, 7B, 7C, 7D, or 7E shall be used to determine the pollutant emission rate.

(3) 40 CFR 60, Appendix A, Method 2 shall be used to determine the volumetric flow rate.

(d) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary to give the results in the specified units of the emission limitation.

(e) Conditions During Testing. The heat input during all compliance testing shall be no less than 90% of the design rate for each boiler

II.B.5.b.2 **Recordkeeping:**

Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.

II.B.5.b.3 **Reporting:**

In addition to the reporting requirements of Section I of this permit, the permittee shall submit the results of the stack tests to the Executive Secretary within 60 days of completion of the testing. Results shall clearly identify test results as compared to permit limits and indicate compliance status.

II.B.5.c **Condition:**

Emissions of PM_{10} shall be no greater than 0.004 grain/dscf (68 deg F, 29.92 in Hg) during natural gas fired conditions during the period from November 1 to the last day in February, inclusive. [Origin: DAQE-AN0105720022-09]. [R307-401-8(1)(a)(BACT), SIP Section IX.H.2.b(z)]

II.B.5.c.1 **Monitoring:**

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested annually when the boiler is to be used between November 1 and the last day in February. The limited use of natural gas during startup, for maintenance firings, and break-in firings does not constitute operation and does not require stack testing. The source may also be tested at any time if directed by the Executive Secretary.

(b) Notification. At least 30 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.

(c) Methods.

(1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, and Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.

(2) For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201 or 201a. Method 202 may be used to measure condensible particulate matter.

(3) For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, or 5e as appropriate. The back half condensibles shall also be tested using a method specified by the Executive Secretary. All particulate captured shall be considered PM_{10}.

(4) The back half condensibles shall not be used for compliance demonstration but shall be used for inventory purposes.

(d) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary to give the results in the specified units of the emission limitation.

(e) Production Rate During Testing. The heat input during all compliance testing shall be no less than 90% of the design rate for each boiler

II.B.5.c.2 **Recordkeeping:**

Results of all stack testing shall be recorded and maintained in accordance with the associated test

method and Provision S.1 in Section I of this permit.

II.B.5.c.3 **Reporting:**

The stack results shall be submitted to the Executive Secretary within 60 days of completion of the testing. Results shall clearly identify results as compared to permit limits and indicate compliance status.

For the months of November, December, January, and February, the permittee shall provide monthly reports to the Executive Secretary showing daily total emission estimates of PM_{10} based upon boiler usage, fuel consumption and previously available results of stack tests

II.B.5.d **Condition:**

Emissions of PM_{10} shall be no greater than 33.5 lbs/hr and 0.029 grains/dscf (68 degrees F, 29.92 in. Hg) during coal fired condition and during the period from March 1 to October 31, inclusive, for any fuel. [Origin: DAQE-AN0105720022-09]. [R307-401-8(1)(a)(BACT), SIP Section IX.H.2.b(z)]

II.B.5.d.1 **Monitoring:**

(a) Stack testing to show compliance with the PM_{10} emission limitation shall be performed as specified below:

(1) Frequency. Emissions shall be tested annually when (i) a fuel other than natural gas is used during the period from March 1 to October 31, inclusive (emission testing shall be performed for each fuel used other than natural gas) or (ii) natural gas is used from March 1 to October 31 but no testing was done between November 1 and the last day in February. The limited use of natural gas during startup, for maintenance firings, and break-in firings does not constitute operation and does not require stack testing for natural gas. The source may also be tested at any time if directed by the Executive Secretary.

(2) Notification. At least 30 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.

(3) Methods.

(A) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, and Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.

(B) For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201 or 201a. Method 202 may be used to measure condensible particulate matter.

(C) For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, or 5e as appropriate. The back half condensibles shall also be tested using a method specified by the Executive Secretary. All particulate captured shall be considered PM_{10}.

(D) The back half condensibles shall not be used for compliance demonstration but shall be used for inventory purposes.

(4) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and

any necessary conversion factors determined by the Executive Secretary to give the results in the specified units of the emission limitation.

(5) Production Rate During Testing. The heat input during all compliance testing shall be no less than 90% of the design rate for each boiler

(b) Flue gas opacity shall be used as a primary indicator and secondary corona power shall be used as a secondary indicator to provide a reasonable assurance of compliance with the PM_{10} emission limitation as specified below:

(1) Measurement Approach: Opacity shall be determined by using a COM located in the stack. Secondary corona power shall be determined by continuously monitoring secondary current and secondary voltage.

(2) Indicator Range: An excursion is defined as a 3-hour fix block average opacity measurement in excess of 20% and a 24-hourly block average (midnight-to-midnight) secondary corona power measurement less than 26 KW, except as provided in R307-305-3(4), simultaneously. Excursions trigger an inspection and review of ESP performance as indicated by other parameters (to confirm if opacity is valid and to determine ESP operating deficiencies), corrective action, and a reporting requirement.

(3) Performance Criteria:
(A) Data Representativeness: Measurements made by a COM shall provide a direct indicator of ESP performance. Each COM shall be installed, operated, and met the quality assurance requirements outlined at 40 CFR Part 60, Appendix B, Performance Specification 1 and R307-170. Secondary corona power calculated by multiplying secondary current and secondary voltage should provide a direct indicator of ESP performance. Each continuous secondary current and secondary voltage monitor shall be installed and operated in accordance with the manufacture's recommendations.
(B) QA/QC Practices and Criteria: Each COM shall be operated, calibrated, and maintained to meet 40 CFR 60, Appendix B, Performance Specification 1 R307-170. Each secondary current and secondary voltage monitor shall be operated, calibrated, and maintained to meet the manufacture's recommendations.
(C) Monitoring Frequency: Opacity shall be monitored continuously and a data point recorded every 10 seconds. Secondary current and secondary voltage for each field shall be monitored continuously and shall be multiplied together in the Data Acquisitions System and totalized across all operating fields to determine secondary corona power.
(D) Data Collection Procedure: COM and Secondary current and secondary voltage data shall be recorded and stored electronically.
(E) Averaging Period: The Data Acquisitions System shall calculate average COM every 6 minutes. The six-minute average COM values shall be used to calculate the 3-hour block average COM. When a 3-hourly block average COM value greater than 20%, the 24-hour block average secondary corona power value shall be calculated. The Data Acquisitions System shall calculate average secondary corona power every 6 minutes. The six-minute average secondary corona power values shall be used to calculate the 24-hour block average (midnight-to-midnight) secondary corona power

II.B.5.d.2 **Recordkeeping:**

In addition to the recordkeeping requirement described in Provision I.S.1 of this permit,

(a) The permittee shall maintain a file of all stack testing and all other information required by permit provision I.S.1.

(b) The permittee shall maintain a file of all continuous secondary current, secondary voltage, and opacity monitor (COM) measurements, including performance testing measurements, all

performance evaluations, all calibration checks, all adjustments and maintenance recorded in a permanent form suitable for inspection.

(c) The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the unit; or any malfunction of the air pollution control equipment.

(d) The permittee shall maintain a file of the occurrence and duration of any excursion, corrective actions taken, and any other supporting information required to be maintained under 40 CFR 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). Instead of paper records, the permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements

II.B.5.d.3 **Reporting:**

(a) The monitoring report required in Provision I.S.2 of this permit shall include, at a minimum, the following information, as applicable:

(1) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

(2) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable).

(b) The results of stack testing shall be submitted to the Executive Secretary within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status

II.B.5.e **Condition:**

Visible emissions shall be no greater than 10 percent opacity during natural gas fired conditions except as provided in R307-305-3(4). [Origin: DAQE-AN0105720022-09]. [R307-401-8(1)(a)(BACT)]

II.B.5.e.1 **Monitoring:**

The permittee shall calibrate, maintain and operate a continuous monitoring system for measuring the opacity of emissions discharged to the atmosphere in accordance with R307-170 and shall record the output of the system. The opacity shall be averaged over six-minute periods.

II.B.5.e.2 **Recordkeeping:**

Results of opacity observations shall be recorded and maintained as required in R307-170 and as described in Provision I.S.1 of this permit.

II.B.5.e.3 **Reporting:**

Reports shall be submitted as required by R307-170, Continuous Emission Monitoring Program. The reports are considered prompt notification of permit deviation required in Provision I.S.2.c of this permit, if all information required by Provision I.S.2.c is included in the report.

II.B.5.f **Condition:**

Visible emissions shall be no greater than 20 percent opacity during coal fired conditions except as

provided in R307-305-3(4). [Origin: DAQE-AN0105720022-09]. [R307-401-8(1)(a)(BACT), SIP Section IX.H.2.b(z)]

II.B.5.f.1 **Monitoring:**

The permittee shall calibrate, maintain and operate a continuous monitoring system for measuring the opacity of emissions discharged to the atmosphere in accordance with R307-170 and shall record the output of the system. The opacity shall be averaged over six-minute periods.

II.B.5.f.2 **Recordkeeping:**

Reports shall be submitted as required by R307-170, Continuous Emission Monitoring Program. The reports are considered prompt notification of permit deviation required in Provision I.S.2.c of this permit, if all information required by Provision I.S.2.c is included in the report.

II.B.5.f.3 **Reporting:**

Results of opacity observations shall be recorded and maintained as required in R307-170 and as described in Provision I.S.1 of this permit.

II.B.6 **Conditions on Boiler Group 1 (EU# UPPG1).**

II.B.6.a **Condition:**

Emissions of NO_x shall be no greater than 159 lbs/hr and 336 ppmdv (measured at 3% oxygen) for each boiler during natural gas fired conditions during the period from November 1 to the last day in February, inclusive. [Origin: DAQE-AN0105720022-09]. [SIP Section IX.H.2.b(z), R307-401-8(1)(a)]

II.B.6.a.1 **Monitoring:**

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested annually when the boiler is to be used between November 1 and the last day in February. The limited use of natural gas during startup, for maintenance firings, and break-in firings does not constitute operation and does not require stack testing. The source may also be tested at any time if directed by the Executive Secretary.

(b) Notification. At least 30 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.

(c) Methods.

(1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, and Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.

(2) 40 CFR 60, Appendix A, Method 7, 7A, 7B, 7C, 7D, or 7E shall be used to determine the pollutant emission rate.

(3) 40 CFR 60, Appendix A, Method 2 shall be used to determine the volumetric flow rate.

(d) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and

any necessary conversion factors determined by the Executive Secretary to give the results in the specified units of the emission limitation.

(e) Conditions During Testing. The heat input during all compliance testing shall be no less than 90% of the design rate for each boiler

II.B.6.a.2 **Recordkeeping:**

Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.

II.B.6.a.3 **Reporting:**

The stack results shall be submitted to the Executive Secretary within 60 days of completion of the testing. Results shall clearly identify results as compared to permit limits and indicate compliance status.

For the months of November, December, January, and February, the permittee shall provide monthly reports to the Executive Secretary showing daily total emission estimates of NO_x based upon boiler usage, fuel consumption and previously available results of stack tests.

II.B.6.b **Condition:**

Emissions of NO_x shall be no greater than 216 lbs/hr and 426.5 ppmdv (measured at 3% oxygen) for each boiler during coal fired condition and during the period from March 1 to October 31, inclusive, for any fuel. [Origin: DAQE-AN0105720022-09]. [SIP Section IX.H.2.b(z), R307-401-8(1)(a)(BACT)]

II.B.6.b.1 **Monitoring:**

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested annually when (i) a fuel other than natural gas is used during the period from March 1 to October 31, inclusive (emission testing shall be performed for each fuel used other than natural gas) or (ii) natural gas is used from March 1 to October 31 but no testing was done between November 1 and the last day in February. The limited use of natural gas during startup, for maintenance firings, and break-in firings does not constitute operation and does not require stack testing. The source may also be tested at any time if directed by the Executive Secretary.

(b) Notification. At least 30 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.

(c) Methods.

(1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, and Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.

(2) 40 CFR 60, Appendix A, Method 7, 7A, 7B, 7C, 7D, or 7E shall be used to determine the pollutant emission rate.

(3) 40 CFR 60, Appendix A, Method 2 shall be used to determine the volumetric flow rate.

(d) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary to give the results in the specified units of the emission limitation.

(e) Conditions During Testing. The heat input during all compliance testing shall be no less than 90% of the design rate for each boiler.

II.B.6.b.2 **Recordkeeping:**

Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.

II.B.6.b.3 **Reporting:**

In addition to the reporting requirements of Section I of this permit, the permittee shall submit the results of the stack tests to the Executive Secretary within 60 days of completion of the testing. Results shall clearly identify test results as compared to permit limits and indicate compliance status.

II.B.6.c **Condition:**

Emissions of PM_{10} shall be no greater than 0.004 grain/dscf (68 deg F, 29.92 in Hg) for each boiler during natural gas fired conditions during the period from November 1 to the last day in February, inclusive. [Origin: DAQE-AN0105720022-09]. [SIP Section IX.H.2.b(z), R307-401-8(1)(a)(BACT)]

II.B.6.c.1 **Monitoring:**

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested annually when the boiler is to be used between November 1 and the last day in February. The limited use of natural gas during startup, for maintenance firings, and break-in firings does not constitute operation and does not require stack testing. The source may also be tested at any time if directed by the Executive Secretary.

(b) Notification. At least 30 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.

(c) Methods.

(1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, and Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.

(2) For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201 or 201a. Method 202 may be used to measure condensible particulate matter.

(3) For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, or 5e as appropriate. The back half condensibles shall also be tested using a method specified by the Executive Secretary. All particulate captured shall be considered PM_{10}.

(4) The back half condensibles shall not be used for compliance demonstration but shall

be used for inventory purposes.

(d) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary to give the results in the specified units of the emission limitation.

(e) Production Rate During Testing. The heat input during all compliance testing shall be no less than 90% of the design rate for each boiler

II.B.6.c.2 **Recordkeeping:**

Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.

II.B.6.c.3 **Reporting:**

The stack results shall be submitted to the Executive Secretary within 60 days of completion of the testing. Results shall clearly identify results as compared to permit limits and indicate compliance status.

For the months of November, December, January, and February, the permittee shall provide monthly reports to the Executive Secretary showing daily total emission estimates of PM_{10} based upon boiler usage, fuel consumption and previously available results of stack tests.

II.B.6.d **Condition:**

Emissions of PM_{10} shall be no greater than 17.3 lbs/hr and 0.029 grains/dscf (68 degrees F, 29.92 in. Hg) for each boiler during coal fired condition and during the period from March 1 to October 31, inclusive, for any fuel. [Origin: DAQE-AN0105720022-09]. [SIP Section IX.H.2.b(z), R307-401-8(1)(a)(BACT)]

II.B.6.d.1 **Monitoring:**

(a) Stack testing to show compliance with the PM_{10} emission limitation shall be performed as specified below:

(1) Frequency. Emissions shall be tested annually when (i) a fuel other than natural gas is used during the period from March 1 to October 31, inclusive (emission testing shall be performed for each fuel used other than natural gas) or (ii) natural gas is used from March 1 to October 31 but no testing was done between November 1 and the last day in February. The limited use of natural gas during startup, for maintenance firings, and break-in firings does not constitute operation and does not require stack testing for natural gas. The source may also be tested at any time if directed by the Executive Secretary.

(2) Notification. At least 30 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.

(3) Methods.

(A) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, and Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.

(B) For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201 or 201a. Method 202 may be used to measure condensible

particulate matter.

(C) For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, or 5e as appropriate. The back half condensibles shall also be tested using a method specified by the Executive Secretary. All particulate captured shall be considered PM_{10}.

(D) The back half condensibles shall not be used for compliance demonstration but shall be used for inventory purposes.

(4) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary to give the results in the specified units of the emission limitation.

(5) Production Rate During Testing. The heat input during all compliance testing shall be no less than 90% of the design rate for each boiler

(b) Flue gas opacity shall be used as a primary indicator and secondary corona power shall be used as a secondary indicator to provide a reasonable assurance of compliance with the PM_{10} emission limitation as specified below:

(1) Measurement Approach: Opacity shall be determined by using a COM located in the stack. Secondary corona power shall be determined by continuously monitoring secondary current and secondary voltage.

(2) Indicator Range: An excursion is defined as a 3-hour fix block average opacity measurement in excess of 13% and a 24-hourly block average (midnight-to-midnight) secondary corona power measurement less than 5 KW, except as provided in R307-305-3(4), simultaneously. Excursions trigger an inspection and review of ESP performance as indicated by other parameters (to confirm if opacity is valid and to determine ESP operating deficiencies), corrective action, and a reporting requirement.

(3) Performance Criteria:
(A) Data Representativeness: Measurements made by a COM shall provide a direct indicator of ESP performance. Each COM shall be installed, operated, and met the quality assurance requirements outlined at 40 CFR Part 60, Appendix B, Performance Specification 1 and R307-170. Secondary corona power calculated by multiplying secondary current and secondary voltage should provide a direct indicator of ESP performance. Each continuous secondary current and secondary voltage monitor shall be installed and operated in accordance with the manufacture's recommendations.
(B) QA/QC Practices and Criteria: Each COM shall be operated, calibrated, and maintained to meet 40 CFR 60, Appendix B, Performance Specification 1 R307-170. Each secondary current and secondary voltage monitor shall be operated, calibrated, and maintained to meet the manufacture's recommendations.
(C) Monitoring Frequency: Opacity shall be monitored continuously and a data point recorded every 10 seconds. Secondary current and secondary voltage for each field shall be monitored continuously and shall be multiplied together in the Data Acquisitions System and totalized across all operating fields to determine secondary corona power.
(D) Data Collection Procedure: COM and Secondary current and secondary voltage data shall be recorded and stored electronically.
(E) Averaging Period: The Data Acquisitions System shall calculate average COM every 6 minutes. The six-minute average COM values shall be used to calculate the 3-hour block average COM. When a 3-hourly block average COM value greater than 13%, the 24-hour block average secondary corona power value shall be calculated. The Data Acquisitions System shall calculate

average secondary corona power every 6 minutes. The six-minute average secondary corona power values shall be used to calculate the 24-hour block average (midnight-to-midnight) secondary corona power

II.B.6.d.2 **Recordkeeping:**

In addition to the recordkeeping requirement described in Provision I.S.1 of this permit,

(a) The permittee shall maintain a file of all stack testing and all other information required by permit provision I.S.1.
(b) The permittee shall maintain a file of all continuous secondary current, secondary voltage, and opacity monitor (COM) measurements, including performance testing measurements, all performance evaluations, all calibration checks, all adjustments and maintenance recorded in a permanent form suitable for inspection.
(c) The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the unit; or any malfunction of the air pollution control equipment.
(d) The permittee shall maintain a file of the occurrence and duration of any excursion, corrective actions taken, and any other supporting information required to be maintained under 40 CFR 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). Instead of paper records, the permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements

II.B.6.d.3 **Reporting:**

(a) The monitoring report required in Provision I.S.2 of this permit shall include, at a minimum, the following information, as applicable:
(1) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken. (40 CFR 64.9(a)(2)(i))
(2) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable). (40 CFR 64.9(a)(2)(ii))
(b) The results of stack testing shall be submitted to the Executive Secretary within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status

II.B.6.e **Condition:**

Visible emissions shall be no greater than 10 percent opacity during natural gas fired conditions except as provided in R307-305-3(4). [Origin: DAQE-AN0105720022-09]. [SIP Section IX.H.2.b(z), R307-401-8(1)(a)(BACT)]

II.B.6.e.1 **Monitoring:**

The permittee shall calibrate, maintain and operate a continuous monitoring system for measuring the opacity of emissions discharged to the atmosphere in accordance with R307-170 and shall record the output of the system. The opacity shall be averaged over six-minute periods.

II.B.6.e.2 **Recordkeeping:**

Results of opacity observations shall be recorded and maintained as required in R307-170 and as described in Provision I.S.1 of this permit.

II.B.6.e.3 **Reporting:**

Reports shall be submitted as required by R307-170, Continuous Emission Monitoring Program. The reports are considered prompt notification of permit deviation required in Provision I.S.2.c of this permit, if all information required by Provision I.S.2.c is included in the report.

II.B.6.f **Condition:**

Visible emissions shall be no greater than 20 percent opacity during coal fired conditions except as provided in R307-305-3(4). [Origin: DAQE-AN0105720022-09]. [SIP Section IX.H.2.b(z), R307-401-8(1)(a)(BACT)]

II.B.6.f.1 **Monitoring:**

The permittee shall calibrate, maintain and operate a continuous monitoring system for measuring the opacity of emissions discharged to the atmosphere in accordance with R307-170 and shall record the output of the system. The opacity shall be averaged over six-minute periods.

II.B.6.f.2 **Recordkeeping:**

Results of opacity observations shall be recorded and maintained as required in R307-170 and as described in Provision I.S.1 of this permit.

II.B.6.f.3 **Reporting:**

Reports shall be submitted as required by R307-170, Continuous Emission Monitoring Program. The reports are considered prompt notification of permit deviation required in Provision I.S.2.c of this permit, if all information required by Provision I.S.2.c is included in the report.

II.B.7 **Conditions on Boiler Group 2 (EU# UPPG2).**

II.B.7.a **Condition:**

Natural gas consumption shall be no greater than 42,706 MM BTU per day during the period from November 1 to the last day of February, inclusive. [Origin: DAQE-AN0105720022-09]. [SIP Section IX.H.2.b(z), R307-401-8(1)(a)(BACT)]

II.B.7.a.1 **Monitoring:**

The permittee shall calculate the daily natural gas consumption to determine compliance with a daily limit. The BTU limit shall be determined by monitoring the daily natural gas consumption and multiplying that value with the BTU rating of the fuel consumed. The natural gas BTU used shall be that value supplied by the natural gas vendor from the previous month's bill.

II.B.7.a.2 **Recordkeeping:**

Records of fuel shall be kept on a daily basis and shall be maintained as described in Provision I.S of this permit.

II.B.7.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.7.b **Condition:**

Heat input shall be no greater than 50,400 MMBtu per day during the period from March 1 to October 31, inclusive. [Origin: DAQE-AN0105720022-09]. [R307-401-8(1)(a)(BACT), SIP Section IX.H.2.b(z)]

II.B.7.b.1 **Monitoring:**

The permittee shall calculate a daily heat input to determine compliance with a daily limit. The daily coal heat input shall be determined by daily coal consumption multiplied by the coal BTU rating. The coal BTU rating shall be determined by averaging the BTU rating of the fourteen (14) most recent test certifications for coal received from the coal vendor. This is representative of the mixing that occurs in the common coal stockpile. The permittee shall provide test certification for each load of coal and/or fuel oil received. Test certification for each load received shall be defined as test once per day for coal and/or oil received that day from each supplier. Certification of each load shall be determined by the coal vendor by KUC's testing. Certification of fuel oil shall be either KUC's testing or test reports from the fuel oil marketer.

II.B.7.b.2 **Recordkeeping:**

Record of BTU fuel usage shall be maintained as described by Provision S.1 in Section I of this permit.

II.B.7.b.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.7.c **Condition:**

The permittee shall use only natural gas as a fuel, during the period of November 1 to the last day in February, inclusive, unless the supplier or transporter of the natural gas imposes a curtailment. The permittee may then burn coal only for the duration of the curtailment plus sufficient time to empty the coal bins following the curtailment. Natural gas curtailment is defined as any period when the natural gas provider/supplier imposes an interruption of service, and the curtailment is involuntary and beyond the control of the permittee. [Origin: DAQE-AN0105720022-09]. [R307-401-8(1)(a)(BACT), SIP Section IX.H.2.b(z)]

II.B.7.c.1 **Monitoring:**

A log shall be maintained which identifies, the day a curtailment was imposed, the duration of curtailment, and the coal usage.

II.B.7.c.2 **Recordkeeping:**

The records required for monitoring shall be maintained as described by Provision S.1 in Section I of this permit.

II.B.7.c.3 **Reporting:**

In addition to the reporting requirements in Section I, the permittee shall notify the Executive Secretary of the curtailment within 48 hours of when it begins and within 48 hours of when it ends.

II.B.7.d **Condition:**

Sulfur content of any fuel burned shall be no greater than 0.52 lbs sulfur/MM Btu (12-month running average), nor shall any one test exceed 0.66 lbs of sulfur/MMBtu. [Origin: DAQE-AN0105720022-09]. [R307-401-8(1)(a)(BACT), SIP Section IX.H.2.b(z)]

II.B.7.d.1 **Monitoring:**

Coal samples shall be collected using ASTM method D2234, Type I conditions A, B, or C and systematic spacing (2 samples per day). Fuel lot size is defined as the weight of fuel consumed during three operational hours. Percent sulfur content and gross calorific value of the coal on a dry basis shall be determined for each gross sample using ASTM methods D2013, D3177, D3173, and D2015. Failure to measure at least 95% of the required increments in any month shall constitute a violation of this condition. As an alternative, verification of the sulfur content may be shown by providing copies of vendor test results for each delivery of coal to the permittee.

Sulfur content of natural gas can be verified by the analysis provided by the vendor.

Within 20 days of the end of each month, 12-month running average sulfur content shall be calculated using previous 12 months of record

II.B.7.d.2 **Recordkeeping:**

The following records shall be maintained as described by Provision S.1 in Section I of this permit: sulfur content, gross calorific value and moisture content for each gross coal sample; the gross calorific value of all coal and gas; the total amount of coal and gas burned per day; and the 12-month running average sulfur content; and the copies of vendor test results.

II.B.7.d.3 **Reporting:**

In addition to the reporting requirements in Section I of this permit, the permittee shall submit monthly reports of sulfur input to the boilers. The report shall include sulfur content, gross calorific value and moisture content for each gross coal sample; the gross calorific value of all coal and gas; the total amount of coal and gas burned; and the annual running average sulfur content calculated at the end of each month of operation.

II.B.7.e **Condition:**

During the period from March 1 to October 31, inclusive , the permittee may combust coal, natural gas, and oils that meet all the specifications of 40 CFR 266.40(e) and contain less than 1000 ppm total halogens, and or number two fuel oil or lighter in the boilers. [Origin: DAQE-AN0105720022-09]. [R307-401-8(1)(a)(BACT), SIP Section IX.H.2.b(z)]

II.B.7.e.1 **Monitoring:**

Each batch of used oil shall be analyzed for the constituents identified in 40 CFR 266.40(e) using acceptable analytical methods.

II.B.7.e.2 **Recordkeeping:**

The record of the contaminant character of the used oil shall be maintained.

II.B.7.e.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.7.f **Condition:**

Coal consumption shall be no greater than 31,510 MM BTU per day during curtailment of natural gas supply during the period from November 1 to the last day of February, inclusive. Natural gas curtailment is defined as any period when the natural gas provider/supplier imposes an interruption of service, and the curtailment is involuntary and beyond the control of the permittee. [Origin: DAQE-AN0105720022-09]. [R307-401-8(1)(a)(BACT), SIP Section IX.H.2.b(z)]

II.B.7.f.1 **Monitoring:**

The permittee shall calculate a daily heat input to determine compliance with a daily limit. The daily coal heat input shall be determined by daily coal consumption multiplied by the coal BTU rating. The coal BTU rating shall be determined by averaging the BTU rating of the fourteen (14) most recent test certifications for coal received from the coal vendor. This is representative of the mixing that occurs in the common coal stockpile. The permittee shall provide test certification for each load of coal and/or fuel oil received. Test certification for each load received shall be defined as test once per day for coal and/or oil received that day from each supplier. Certification of each load shall be determined by the coal vendor by KUC's testing. Certification of fuel oil shall be either KUC's testing or test reports from the fuel oil marketer.

II.B.7.f.2 **Recordkeeping:**

The records of BTU fuel usage shall be maintained as described by Provision S.1 in Section I of this permit.

II.B.7.f.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.8 **<u>Conditions on Diesel Engine (EU# UPPi202)</u>**

II.B.8.a **Condition:**

The permittee shall operate and maintain affected emission unit that achieve the emission standards as required in 40 CFR 60.4205(c) according to the manufacturer's written instructions or procedures developed by the permittee that are approved by the engine manufacturer, over the entire life of the engine. In addition, the permittee may only change those settings that are permitted by the manufacturer. The permittee shall also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to the permittee. [Origin: 40 CFR 60.4206 and 40 CFR 60.4211(a)]. [40 CFR 63 Subpart ZZZZ, 40 CFR 60 Subpart IIII]

II.B.8.a.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.8.a.2 **Recordkeeping:**

The permittee shall document activities performed to assure proper operation and maintenance. Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.8.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.8.b **Condition:**

The permittee shall use diesel fuel that meets the requirements of 40 CFR 80.510(a). Beginning October 1, 2010, any diesel fuel combusted in an affected emission unit with a displacement of less than 30 liters per cylinder shall meet the requirements of 40 CFR 80.510(b) for nonroad diesel fuel. [Origin: 40 CFR 60.4207]. [40 CFR 63 Subpart ZZZZ, 40 CFR 60 Subpart IIII]

II.B.8.b.1 **Monitoring:**

For each delivery of diesel fuel, the permittee shall either:

(1) Determine the fuel sulfur content expressed as wt% in accordance with the methods of the American Society for Testing Materials (ASTM); or

(2) Inspect the fuel sulfur content expressed as wt% determined by the vendor using methods of the ASTM; or

(3) Inspect documentation provided by the vendor that demonstrates compliance with this provision (directly or indirectly).

II.B.8.b.2 **Recordkeeping:**

For all diesel fuel combusted, the permittee shall maintain fuel receipt records and documentation demonstrating compliance with this provision. These records shall be maintained in accordance with Provision I.S.1. of this permit.

II.B.8.b.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.8.c **Condition:**

Each affected emission unit shall not exceed 100 hours of maintenance checks and readiness testing per year unless the permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of affected emission units beyond 100 hours per year. [Origin: 40 CFR 60.4211(e)]. [40 CFR 63 Subpart ZZZZ, 40 CFR 60 Subpart IIII]

II.B.8.c.1 **Monitoring:**

The permittee shall install a non-resettable hour meter prior to startup of affected emission units. Hours of operation shall be monitored using the non-resettable hour meter [origin: 40 CFR 60.4209(a)]. [40 CFR 60 Subpart IIII]

II.B.8.c.2 **Recordkeeping:**

Records of monitoring of each affected emission unit shall be kept on a monthly basis in an operation and maintenance log. Records shall distinguish between maintenance-related hours and emergency use-related hours. If maintenance and testing beyond 100 hours per year are required by Federal, State, or local standards, records of these standards shall also be kept.

Records shall be maintained as described in Provision I.S.1 of this permit.

II.B.8.c.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.8.d **Condition:**

Affected emission units with a displacement of less than 30 liters per cylinder shall comply with the emission standards in Table 4 of 40 CFR 60 Subpart IIII, for all pollutants. [Origin: 40 CFR 60.4205(c)]. [40 CFR 60 Subpart IIII, 40 CFR 63 Subpart ZZZZ]

II.B.8.d.1 **Monitoring:**

The permittee shall demonstrate compliance according to one of the methods specified in paragraphs (1) through (5) of this section.

(1) Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.

(2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in 40 CFR 60 Subpart IIII and these methods must have been followed correctly.

(3) Keeping records of engine manufacturer data indicating compliance with the standards.

(4) Keeping records of control device vendor data indicating compliance with the standards.

(5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in 40 CFR 60.4212, as applicable. (Origin: 40 CFR 60.4211(b)).

II.B.8.d.2 **Recordkeeping:**

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.8.d.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.9 **Conditions on Tailings Impoundment Service Roads (EU #TAL204).**

II.B.9.a **Condition:**

To minimize fugitive dust emissions at the Tailings Impoundment Complex, magnesium chloride or other stabilization methods approved by the Executive Secretary, shall be applied as necessary on all routinely used, unpaved roadways as discussed in the most recent Tailings Impoundment Fugitive Dust Abatement Program. All Fugitive Dust Abatement Programs shall be submitted to the Executive Secretary, attention Major New Source Review Section, for approval. Supplemental stabilization to include other dust causing activities shall be by water sprays or other methods on an as-needed basis or as determined necessary and approved by the Executive Secretary. The permittee shall comply with UAC R307-309. [Origin: DAQE-AN-0572018-06]. [R307-401-8(1)(a)(BACT), SIP Section IX.H.2.b(BB)(B)]

II.B.9.a.1 **Monitoring:**

Between February 15 and November 15 of each calendar year, the permittee shall inspect the unpaved roads at least once every two weeks. The frequency shall be increased to daily at least 48 hours prior to each wind event that is forecasted. A wind event is defined as: wind gusts exceeding 25 miles per hour (mph) for more than one hour, as measured by the permittee's station on top of the tailings impoundment.

II.B.9.a.2 **Recordkeeping:**

Records of treatments shall be kept for all periods including the following items: date, number of treatments made, dilution rate, and quantity, and the time of day treatments were made. In addition, records of days of freezing temperature shall be kept.

II.B.9.a.3 **Reporting:**

In addition to the reporting requirements in Section I of the permit, the permittee shall submit, on a quarterly basis, documentation showing areas of dust suppressant application during the quarter. The quarterly reports shall be submitted within 30 days of the end of each calendar quarter.

II.B.10 **Conditions on Tailings Impoundment (EU# TAL205).**

II.B.10.a **Condition:**

Exterior tailings impoundment areas determined by the permittee or the Executive Secretary to be sources of excess fugitive dust shall be stabilized through vegetation cover or other approved methods. The exterior tailings surface area of the North Impoundment shall be re-vegetated or stabilized so that no more than 5% of the total exterior surface area shall be subject to wind erosion. [Origin: DAQE-AN0572018-06]. [R307-401-8(1)(a)(BACT), SIP Section IX.H.2.b(BB)(B)]

II.B.10.a.1 **Monitoring:**

Between February 15 and November 15 of each calendar year, the permittee shall inspect the exterior dike area at least once every two weeks. The frequency shall be increased to daily at least 48 hours prior to each wind event that is forecasted. A wind event is defined as: wind gusts exceeding 25 mph for more than one hour, as measured by the permittee's station on top of the tailings impoundment.

II.B.10.a.2 **Recordkeeping:**

All inspections, vegetation, and other stabilization activities shall be documented in accordance with Provision I.S.1 of this permit.

II.B.10.a.3 **Reporting:**

In addition to the reporting requirements in Section I of the permit, the permittee shall submit, on a quarterly basis, documentation showing areas of planting during the quarter. The quarterly reports shall be submitted within 30 days of the end of each calendar quarter.

II.B.10.b **Condition:**

On the North Tailing Impoundment, as the embankment cells are filled during continual raising of the embankment, dust shall be controlled by the inherent high water content of the hydraulically placed cyclone underflow. Portions of the embankment that are not under active construction shall be kept wet or tackified by applying chemical stabilization agents or water pumped from the toe ditch. Newly formed exterior slopes shall be stabilized with tackifiers or vegetation. [Origin: DAQE-AN0572018-06]. [R307-

401-8(1)(a)(BACT), SIP Section IX.H.2.b(BB)(B)]

II.B.10.b.1 **Monitoring:**

The permittee shall monitor the fugitive dust stabilization activities daily.

II.B.10.b.2 **Recordkeeping:**

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.10.b.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.10.c **Condition:**

The minimum cycle time required for wetting all interior beach areas of the North Impoundment between February 15 and November 15 shall be at least every four days. [Origin: SIP Section IX.H.2.b(BB)(B)]. [SIP Section IX.H.2.b(BB)(B)]

II.B.10.c.1 **Monitoring:**

The permittee shall monitor the peripheral discharge pipe downtime (length of pipe, and duration) and the fugitive dust stabilization activities daily.

II.B.10.c.2 **Recordkeeping:**

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.10.c.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.10.d **Condition:**

Disturbed or stripped areas of the North Impoundment shall be kept sufficiently moist during the project to minimize fugitive dust. This control, or other equivalent control methods, shall remain operational during the project cycle and until the areas have been reclaimed. The control methods used shall be operational as needed 24 hours per day, 365 days per year or until the area has been reclaimed. [Origin: DAQE-AN0572018-06]. [R307-401-8(1)(a)(BACT), SIP Section IX.H.2.b(BB)(B)]

II.B.10.d.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.10.d.2 **Recordkeeping:**

The control method used and the date shall be recorded for all periods.

II.B.10.d.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.10.e **Condition:**

The permittee shall control the fugitive dust on all areas that have been closed for future tailings discharge and/or shutdown

A. The fugitive dust shall be controlled by reclaiming, re-vegetation, and/or by another plan that has been approved by the Executive Secretary

B. If a temporary or permanent shutdown occurs that would affect any area of the Tailings Impoundment, the permittee shall follow the dust control procedures in Condition A above for all areas of the Tailings Impoundment and shall submit a final dust control plan for all areas of the Tailings Impoundment and have it approved at least 60 days prior to the shutdown. [Origin: DAQE-AO0572018-06]. [R307-401-8(1)(a)(BACT), SIP Section IX.H.2.b(BB)(B)]

II.B.10.e.1 **Monitoring:**

The dust control plan required for this permit condition will serve as monitoring.

II.B.10.e.2 **Recordkeeping:**

The dust control plan required for this permit condition will serve as recordkeeping.

II.B.10.e.3 **Reporting:**

In addition to the reporting requirements in Section I of this permit, the permittee shall notify the Executive Secretary as soon as they become aware of the shutdown.

II.B.10.f **Condition:**

(a) The tailings distribution system consisting of the North Tailing Impoundment shall be operated to maximize surface wetness. Wind erosion potential is the area that is not wet, frozen, vegetated, crusted, or treated and has the potential for wind erosion. No more than 50 contiguous acres or more than 5% of the total North tailings area shall be permitted to have potential for wind erosion, unless those areas are stabilized by vegetation, tackifier, or other methods of fugitive dust control approved by the Executive Secretary. If the permittee or the Executive Secretary, determines that the percentage of wind erosion potential is exceeded, the permittee shall meet with the Executive Secretary, or Executive Secretary's staff, to discuss additional or modified fugitive dust control/operational practices and implementation schedule for such within five working days after verbal notification by either party.

(b) No more than 50 contiguous acres or more than 5% of the total South Tailings impoundment area shall be permitted to have the potential for wind erosion. Wind erosion potential is the area that is not wet, frozen, vegetated, crusted or treated and has the potential for wind erosion. Inactive but non-reclaimed areas shall be stabilized by chemical stabilizing agents, ponded water, sprinklers, vegetation or other methods of fugitive dust control. Ponded water is the inactive non reclaimed areas on the south impoundment where water collects (ponds) resulting in standing water and/or damp, moist, or saturated ground conditions that prevent planting equipment access and/or the establishment of stable vegetation growth. If the permittee or the Executive Secretary, determines that the percentage of wind erosion potential is exceeded, the permittee shall meet with the Executive Secretary, or Executive Secretary's staff, to discuss additional or modified fugitive dust controls/operational practices, and an implementation schedule for such, within five working days following verbal notification by either party. [Origin: DAQE-AN0572018-06]. [R307-401-8(1)(a)(BACT), SIP Section IX.H.2.b(BB)(B)]

II.B.10.f.1 **Monitoring:**

The permittee shall conduct wind erosion potential inspections monthly between February 15 and November 15 for the North and inactive non-reclaimed South Impoundment. Observations shall be taken from the North Crest of the South Tailings Impoundment at a height sufficient enough to be able to visually assess the surface of the impoundment.

If it is determined by the permittee or the Executive Secretary that the percentage of wind erosion potential is greater than 5 percent, or at the request of the Executive Secretary, a inspection schedule shall be immediately initiated by the permittee that will result in inspections being conducted once every five working days and results reported to the Executive Secretary within 24 hours of the determination, until the permittee measures a total surface with the potential for wind erosion, less than or equal to 5 percent.

Between February 15 and November 15 of each calendar year, the permittee shall inspect the interior surface area at least once every two weeks. The frequency shall be increased to daily at least 48 hours prior to each wind event that is forecasted. A wind event is defined as: wind gusts exceeding 25 mph for more than one hour, as measured by the permittee's station on top of the tailings impoundment. The grid inspection shall serve as one of these inspections.

Between February 15 and November 15 of each calendar year, the permittee shall alert the DAQ promptly, and continue surveillance and coordination if a wind event is forecasted within 48 hours. A wind event is defined as: wind gusts exceeding 25 mph for more than one hour, as measured by the permittee's station on top of the tailings impoundment

II.B.10.f.2 **Recordkeeping:**

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.10.f.3 **Reporting:**

In addition to the reporting requirements in Section I of this permit, and in the monitoring requirement, the permittee shall submit, on a quarterly basis, documentation of the monthly grid inspection of the tailings surface area, including the wind erosion potential of the tailings surface area, and wind direction and speed data for days that winds exceed 25 mph for a period of one hour or greater during which no precipitation occurred. The quarterly reports shall be submitted within 30 days of the end of each calendar quarter.

II.B.10.g **Condition:**

The permittee shall give periodic updates, as requested by the executive Secretary concerning the status of the tailings impoundment. When it is determined by the permittee or the Executive Secretary, that additional tailings dust control should be considered or tailing Impoundment operational problems are occurring, the permittee shall meet with the Executive Secretary, or Executive Secretary's staff, to discuss proposed fugitive duct control and implementation schedule within five working day s after verbal notification either party. [Origin: DAQE-AN0572018-06]. [R307-401-8(1)(a)(BACT), SIP Section IX.H.2.b(BB)(B)]

II.B.10.g.1 **Monitoring:**

Reports required for this permit condition will serve as monitoring requirement.

II.B.10.g.2 **Recordkeeping:**

Reports required for this permit condition will serve as monitoring requirement.

II.B.10.g.3 **Reporting:**

In addition to the reporting requirements in Section I of this permit, the permittee shall notify the Executive Secretary as soon as they become aware of the necessarily of additional tailing dust controls.

II.B.11 **Conditions on LP Fired Emergency Generator (EU# TALEmGe).**

II.B.11.a **Condition:**

The permittee shall only use liquefied petroleum (LP) in the communications emergency generator. [Origin: DAQE-AN0572018-06]. [R307-401-8(1)(a)(BACT)]

II.B.11.a.1 **Monitoring:**

Record required for the LP fired emergency generator will serve as monitoring.

II.B.11.a.2 **Recordkeeping:**

The permittee shall keep one of the following sets of records, as applicable:
(a) Documentation that the emission unit can only burn LP gas;
(b) Documentation that the fuels other than LP gas cannot be supplied to the emission unit without modification of the fuel supply system.

II.B.11.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.12 **Conditions on Combined Analytical Laboratory (EU# CAL).**

II.B.12.a **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Origin: DAQE-261-95]. [R307-401-8(1)(a)(BACT)]

II.B.12.a.1 **Monitoring:**

A visual observation of each affected emission unit shall be performed on a quarterly basis by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. The individual is not required to be a certified visible emissions observer (VEO). If any visible emissions are observed, an opacity determination of that emission unit shall be performed by a certified VEO in accordance with 40 CFR 60, Appendix A, Method 9 within 24 hours of the initial observation.

II.B.12.a.2 **Recordkeeping:**

Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9 for each determination shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.12.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.C **Emissions Trading**
(R307-415-6a(10))

Not applicable to this source.

II.D **Alternative Operating Scenarios**.
(R307-415-6a(9))

Not applicable to this source.

II.E **Source-specific Definitions**.

Not applicable to this source

SECTION III: PERMIT SHIELD

The following requirements have been determined to be not applicable to this source in accordance with Provision I.M, Permit Shield:

III.A. 40 CFR 72, 73, 75, 76, 77, 78, and R307-417-1 (Acid Rain Requirements)

This regulation is not applicable to the Permitted Source for the following reason(s): the power plant generates power for Kennecott's use, not for sale

III.B. 40 CFR, Part 60, Subparts K, Ka, Kb (NSPS/ Volatile Organic Liquid Storage Vessels)

This regulation is not applicable to the Permitted Source for the following reason(s): none of the petroleum liquid storage tanks (except TK-101) are large enough to be subject to NSPS and TK-101 is located at a gasoline fueling station which is exempt from NSPS in accordance with 40 CFR 60.110b(d)(6).

III.C. 40 CFR Part 60, Subpart D, Da, Db, Dc (Standards of Performance for New Stationary Sources)

This regulation is not applicable to the Permitted Source for the following reason(s): none of the boilers (excluding Boiler Group 2) are large enough to subject to NSPS

III.D. 40 CFR Part 60, Subpart D, Da, Db, Dc (Standards of Performance for New Stationary Sources)

This regulation is not applicable to the Boiler Group 2 (EU# UPPG2) for the following reason(s): the boilers were constructed in the 1940's and 1959-1960, long before 1971, 1978, 1984, and 1989 when Subparts D, Da, Db and Dc were proposed

SECTION IV: ACID RAIN PROVISIONS

IV.A **This source is not subject to Title IV. This section is not applicable.**

REVIEWER COMMENTS

This operating permit incorporates all applicable requirements contained in the following documents:

Incorporates	DAQE-AN0105720022-09 dated May 14, 2009
Incorporates	DAQE-AN0572018-06 dated April 6, 2006
Incorporates	DAQE-AN0572014-03 dated March 21, 2003
Incorporates	DAQE-261-95 dated March 27, 1995
Incorporates	Utah SIP Sections IX.H.2.b.z and IX.H.2.b.bb dated December 8, 1992

1. Comment on an item originating in renewal Title V permit (2009) regarding Permitted Source

   Changes in the renewal permit:

   (1) CAM applicability: ESPs are the control equipments for PM_{10} for four boilers but ESPs are not operated during natural gas fired condition. Therefore, four boilers are subject to CAM for PM_{10} during coal or fuels other than natural gas fired condition. COM (primary indicator) and (secondary indicator) secondary corona power are selected as the performance indicators to provide a reasonable assurance of compliance with the PM_{10} emission limitation. The CAM correlation stack testing for PM_{10} emission was performed in 2005. The correlation test results indicated a strong correlation of the opacity and secondary corona power to emission rates. For Boilers #1, #2, and #3, an excursion is defined as 3-hour block average opacity measurements in excess of 13% as measured by COM and the 24-hour block average secondary corona power less than 5 KW simultaneously. For Boiler #4, an excursion is defined as the 3-hour block average opacity measurements in excess of 20% as measured by COM and the 24-hour block average secondary corona power less than 26 KW simultaneously.

   (2) New Emission Unit TALEMGe and new condition II.B.11 are included.

   (3) Emission Units # TAL201 and #TAL203 (South Tailing Impoundment and associated activities) and associated condition in the previous permit are deleted. Emission Units #TAL203 and #TAL204 are modified to include both North and South Tailing Impoundments. Emission Unit#TAL205 is deleted as well because this unit is covered under Emission Unit#TAL204 now. Some obsolete conditions associated with Tailings Impoundment are deleted in accordance with AO conditions.

   (4) Emission Unit #TAL-PS (phosphogypsum stack) no longer exists and is deleted

   (5) A new diesel water fire pump (175 hp) replaced the existing one (EU# UPPi202) and is subject to NSPS IIII and NESHAP ZZZZ.
   [Last updated April 2, 2009]

2. Comment on an item originating in AO DAQE-AN0572014-03 regarding Permitted Source
   Provision II.B.1.e: This condition is for the point sources only but is not applied to four boilers and the combined analytical laboratory. Because the opacity limits for the boilers and the combined analytical laboratory are addressed in this permit elsewhere. The weekly survey for emergency generators is not required when the emergency generator is not operating. The emissions from fugitive dust and fugitive emission sources are covered by Provisions II.B.1.f and Provision II.B.1.g, respectively. [Last updated 06/01/2007]

3. Comment on an item originating in this permit regarding Boiler Group 2 (EU# UPPG2)

Alternative Monitoring of sulfur content of coal: Kennecott requested and received an alternative testing plan for the sulfur content of the coal used at the Kennecott Utah Power Plant. The approval was issued in DAQC-1016-92 letter, dated August 21, 1992. Therefore, monitoring allows the alternative of relying on vendor data, as previously approved. [Last updated October 6/1/2007]

4. Comment on an item originating in AO DAQE-261-95 regarding Combined Analytical Laboratory (EU# CAL)

Monitor pressure drop: No pressure drop range has been established. This condition is useless and does not add any values to the permit. For that reason, the condition to continuously monitor the pressure drop across the scrubbers (condition #8) has not been carried over to this permit. [Last updated 2/07/2000]

6. The sulfur content of any fuel burned shall not exceed 0.52 lb of sulfur per million Btu (annual running average) , nor shall any one test exceed 0.66 lb of sulfur per million Btu.

A. Coal increments will be collected using ASTM 2234, Type I conditions A, B, or C and systematic spacing. Fuel lot size is defined as the weight of fuel consumed during three operational hours.

B. Percent sulfur content and gross calorific value of the coal on a dry basis will be determined for each gross sample using ASTM D methods 2013, 3177, 3173 and 2015.

C. Failure of the owner/ operator to measure at least 95% of the required increments in any one month shall constitute a violation of this provision.

D. The owner/ operator shall submit monthly reports of sulfur input to the boilers. The reports shall include sulfur content, gross calorific value and moisture content of each gross coal sample; the gross calorific value of all coal and gas; the total amount of coal and gas burned; and the running annual average sulfur input calculated at the end of each month of operation.

4.5 Fugitive Emissions and Fugitive Dust.

The provisions of this subsection 4.5 shall not apply to any sources for which limitations for fugitive dust or fugitive emissions are assigned pursuant to subsection 3.1 or subsection 3.2 of R307-1-3 nor shall they apply to agricultural or horticultural activities.

4.5.1 Fugitive Emissions

A. In actual areas of non-attainment for particulates, fugitive emissions from any source shall not exceed 20% opacity.

B. Fugitive emissions from sources in other areas of the State which were constructed before April 25, 1971 shall not exceed 40% opacity. Fugitive emissions from sources constructed after April 25, 1971 shall not exceed 20% opacity.

4.5.2 Fugitive Dust - The following control and/or operating procedures are applicable to minimize fugitive dust:

A. Storage and Handling of Aggregate Materials.

(1) Any person owning, operating or maintaining a new or existing material storage, handling and/or hauling operation shall minimize fugitive dust from such an operation. Such control may include the use of enclosures, covers, stabilization and/or other equivalent methods or techniques as approved by the Executive Secretary.

(2) Any person owning and/or operating an existing material storage, handling and/or hauling operation in an actual area of non-attainment for particulate shall submit plans for control of fugitive dust from such operations to the Executive Secretary for approval no later than 180 days after the effective date of this regulation.

B. Construction/Demolition Activities.

(1) Any person engaging in clearing or leveling of land over 1/4 acre in size, earthmoving, excavation, or movement of trucks or construction equipment over cleared land over 1/4 acre in size or access haul roads shall take steps to minimize fugitive dust from such activities. Such control may include but is not limited to watering and/or chemical stabilization of potential fugitive dust sources or other equivalent methods or techniques approved by the Executive Secretary.

(2) The owner or operator of land areas over 1/4 acre in size that have been cleared or excavated shall take measures to prevent fugitive particulate matter from becoming airborne. Such measures may include, but are not limited to:

(a) planting vegetative cover,

(b) providing synthetic cover,

(c) watering and/or chemical stabilization,

(d) wind breaks, and/or

(e) other equivalent methods or techniques approved by the Executive Secretary.

(3) Any person engaging in demolition activities including razing of homes, buildings, or other structures; or removing of paving material from roads and/or parking areas shall take steps to minimize fugitive dust from such activities. Such control may include watering and/or chemical stabilization or other equivalent methods or techniques approved by the Executive Secretary.

4.5.3 Road Ways

A. Any person responsible for construction or maintenance of any existing road or having right-of-way easement or possessing the right to use the same in an actual area of non-attainment for particulate whose activities result in fugitive dust from such road shall be required to minimize fugitive dust.

(1) When such roads have an average daily traffic volume of less than 150 vehicle trips per day, averaged over a consecutive 5 day period, fugitive dust shall be minimized by appropriate control techniques. Such control may include but not be limited to watering, chemical stabilization and/or other equivalent methods or techniques approved by the Executive Secretary.

(2) When such roads have an average daily traffic volume of 150 vehicle trips per day or greater, averaged over a consecutive 5 day period, control techniques must be used which are equal to or better than 2" bituminous surface.

B. Any person planning to construct or operate a new unpaved road which is anticipated to have an average daily traffic volume of 150 vehicle trips per day or greater, averaged over a consecutive 5 day period, shall submit a notice of intent to construct/operate such a road to the Executive Secretary pursuant to subsection 3.1 of R307-1-3. Such notice shall include proposed action to minimize fugitive dust emissions from the road.

C. The Executive Secretary may require persons owning, operating or maintaining any new or existing road, or having right-of-way easement or possessory right to use the same to supply traffic count information as determined necessary to ascertain whether or not control tecnniques are adequate or additional controls are necessary.

D. Any person who through his/her operations deposits materials which may create fugitive dust on a public or private road is required to clean the road such that fugitive dust as a result of his/her operations is minimized.

4.5.4 Mining Activities

A. Fugitive dust, construction activities, and roadways associated with mining activities are regulated under the provisions of this paragraph 4.5.4 and not by paragraphs 4.5.2 and 4.5.3.

B. Any person who owns or operates a mining operation shall minimize fugitive dust as an integral part of site preparation, mining activities, and reclamation operations.

C. The fugitive dust control measures to be used may include, but are not limited to:

(1) periodic watering of unpaved roads,

(2) chemical stabilization of unpaved roads,

(3) paving of roads,

(4) prompt removal of coal, rock minerals, soil, and other dust-forming debris from roads and frequent scraping and compaction of unpaved roads to stabilize the road surface,

(5) restricting the speed of vehicles in and around the mining operation,

(6) revegetating, mulching, or otherwise stabilizing the surface of all areas adjoining roads that are a source of fugitive dust,

(7) restricting the travel of vehicles on other than established roads,

(8) enclosing, covering, watering, or otherwise treating loaded haul trucks and/or railroad cars, to minimize loss of material to wind and spillage,

(9) substitution of conveyor systems for haul trucks and covering of conveyor systems when conveyed loads are subject to wind erosion,

(10) minimizing the area of disturbed land,

(11) prompt revegetation of regraded lands,

(12) planting of special windbreak vegetation at critical points in the permit area,

(13) control of dust from drilling, using water sprays,

hoods, dust collectors or other controls approved by the Executive Secretary.

(14) restricting the areas to be blasted at any one time,

(15) reducing the period of time between initially disturbing the soil and revegetating or other surface stabilization,

(16) restricting fugitive dust at spoil and coal transfer and loading points,

(17) control of dust from storage piles through use of enclosures, covers, or stabilization and/or other equivalent methods or techniques as approved by the Executive Secretary, and/or

(18) other techniques as determined necessary by the Executive Secretary.

D. Any person owning and/or operating an existing mining operation in an actual area of non-attainment for particulate or an existing mining operation outside an actual area of non-attainment from which fugitive dust impacts an actual area of non-attainment for particulate shall submit plans for control of fugitive dust from such operations to the Executive Secretary for approval no later than 180 days after the effective date of this regulation.

4.5.5 Tailings Piles and Ponds

A. Fugitive dust, construction activities, and roadways associated with tailings piles and ponds are regulated under the provisions of this paragraph 4.5.5 and not by paragraphs 4.5.2 and 4.5.3.

B. Any person owning and/or operating an existing tailings operation where fugitive dust results from grading, excavating, depositing, or natural erosion or other causes in association with such operation shall take steps to minimize fugitive dust from such activities. Such controls may include but are not limited to:

(1) watering and/or chemical stabilization,

(2) synthetic and/or vegetative covers,

(3) wind breaks,

(4) minimizing the area of disturbed tailings,

(5) restricting the speed of vehicles in and around the tailings operation, and/or

(6) other equivalent methods or techniques which may be approvable by the Executive Secretary.

C. Any person owning and/or operating an existing tailings operation in a non-attainment area for particulate or an existing mining operation outside an actual area of non-attainment from which fugitive dust impact an actual area of non-attainment for particulate shall submit plans for control of fugitive dust from such operations to the Executive Secretary for approval no later than 180 days after the effective date of this regulation.

Kennecott Power Plant & Tailings

		PM10	PM2.5	SO2	NOx
Unit #5	Natural Gas	64.98	64.98	12.42	65.34
Unit #4	Bituminous Coal	10.6281	8.78445	1011.562	409.941
	Natural Gas	6.27	6.27	0.73	44.06
Tailings	Storage Pile	17.83285	2.674928		

Company: Kennecott Utah Copper LLC- Pc
Site ID: 10572
Project: PM10 SIP
Date: 3/17/2015

County FIPS	Category NAICS	NAICS	SIC	Site ID
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County FIPS	Category NAICS	NAICS	SIC	Site ID
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35	2	212234	1021	10572

County FIPS	Category NAICS	NAICS	SIC	Site ID
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35	2	212234	1021	10572
35	2	212234	1021	10572
35	2	212234	1021	10572

ower Plant Lab Tailings Impoundment

Site Name	Comp ID	Process ID	Process Code
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	8	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	67	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	853	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1414	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1424	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1441	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1443	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1450	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1451	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1452	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1453	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1454	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1455	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4038	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4039	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4039	2	b
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4040	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4041	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4042	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4043	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4043	2	b
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4044	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4044	2	b
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4045	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4045	2	b
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4934	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	6912	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	8851	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13945	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13946	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13947	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13948	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13949	1	a

Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13950	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13951	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13952	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13953	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13956	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	14148	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	14520	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	15248	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	15249	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	15250	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	15251	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	18019	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	21083	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	168208	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	172361	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	172364	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	174132	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	176546	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	176547	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	176548	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	176831	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	177540	1	a

Site Name	Comp ID	Process ID	Process Code
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	8	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	67	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	853	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1414	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1424	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1441	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1443	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1450	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1451	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1452	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1453	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1454	1	a

Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1455	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4038	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4039	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4039	2	b
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4040	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4041	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4042	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4043	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4043	2	b
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4044	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4044	2	b
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4045	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4045	2	b
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4934	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	6912	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	8851	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13945	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13946	1	a
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Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13949	1	a
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Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13953	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13956	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	14148	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	14520	1	a
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Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	18019	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	21083	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	168208	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	172361	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	172364	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	174132	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	176546	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	176547	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	176548	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	176831	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	177540	1	a

Site Name	Comp ID	Process ID	Process Code
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	8	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	67	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	853	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1414	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1424	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1441	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1443	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1450	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1451	1	a
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Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1453	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1454	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1455	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4038	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4039	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4039	2	b
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4040	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4041	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4042	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4043	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4043	2	b
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4044	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4044	2	b
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4045	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4045	2	b
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4934	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	6912	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	8851	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13945	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13946	1	a
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Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13951	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13952	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13953	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13956	1	a
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Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	14520	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	15248	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	15249	1	a

Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	15250	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	15251	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	18019	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	21083	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	168208	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	172361	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	172364	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	174132	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	176546	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	176547	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	176548	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	176831	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	177540	1	a

Site Name	Comp ID	Process ID	Process Code
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	8	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	67	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	853	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1414	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1424	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1441	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1443	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1450	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1451	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1452	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1453	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1454	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1455	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4038	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4039	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4039	2	b
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4040	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4041	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4042	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4043	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4043	2	b
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4044	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4044	2	b

Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4045	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4045	2	b
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4934	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	6912	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	8851	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13945	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13946	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13947	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13948	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13949	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13950	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13951	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13952	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13953	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13956	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	14148	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	14520	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	15248	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	15249	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	15250	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	15251	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	18019	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	21083	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	168208	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	172361	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	172364	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	174132	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	176546	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	176547	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	176548	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	176831	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	177540	1	a

Site Name	Comp ID	Process ID	Process Code
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	8	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	67	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	853	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1414	1	a

Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1424	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1441	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1443	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1450	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1451	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1452	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1453	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1454	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1455	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4038	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4039	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4039	2	b
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4040	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4041	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4042	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4043	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4043	2	b
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4044	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4044	2	b
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4045	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4045	2	b
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4934	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	6912	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	8851	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13945	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13946	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13947	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13948	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13949	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13950	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13951	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13952	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13953	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13956	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	14148	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	14520	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	15248	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	15249	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	15250	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	15251	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	18019	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	21083	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	168208	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	172361	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	172364	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	174132	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	176546	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	176547	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	176548	1	a

Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	176831	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	177540	1	a

Site Name	Comp ID	Process ID	Process Code
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	8	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	67	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	853	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1414	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1424	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1441	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1443	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1450	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1451	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1452	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1453	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1454	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	1455	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4038	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4039	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4039	2	b
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4040	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4041	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4042	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4043	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4043	2	b
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4044	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4044	2	b
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4045	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4045	2	b
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	4934	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	6912	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	8851	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13945	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13946	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13947	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13948	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13949	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13950	1	a

Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13951	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13952	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13953	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	13956	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	14148	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	14520	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	15248	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	15249	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	15250	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	15251	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	18019	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	21083	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	168208	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	172361	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	172364	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	174132	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	176546	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	176547	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	176548	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	176831	1	a
Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	177540	1	a

Component Description	Material or Fuel	Component SCC		
			ID	Height
18 Cold solvent deg part washer	Degreaser	40100398	926648	10
(3)Cold Solv. Degreas. Washers	Degreaser	40100398	926707	10
Storage Pile	Storage Pile	30302404	927459	10
Primary Crusher	Copper Ore	30302401	203	35
Syntron Feeder	Copper Ore	30302404	204	14
Screen & Conveyor	Copper Ore	30302404	205	19.5
Secondary Crusher	Copper Ore	30300599	206	19.5
Scissor Belt	Copper Ore	30302404	207	26
Tertiary Crusher	Copper Ore	30302403	208	19.5
Tertiary Discharge	Copper Ore	30302404	209	19.5
Storage	Copper Ore	30302404	1791	67
Discharge	Copper Ore	30302404	1792	67
Transfer and Storage	Copper Ore	30302404	210	67
Boiler #1 Coal	Bituminous Coal	10200201	1310	135
Boiler #1 STK (EF)	Natural Gas	10200601	1311	135
Boiler #1 NG	Natural Gas	10200601	1311	135
Boiler #2 Coal	Bituminous Coal	10200201	1312	135
Boiler #3 Coal	Bituminous Coal	10200201	1314	135
Boiler #4 Coal	Bituminous Coal	10200201	1316	180
Boiler #2 STK (EF)	Natural Gas	10200601	1313	135
Boiler #2 NG	Natural Gas	10200601	1313	135
Boiler #3 STK (EF)	Natural Gas	10200601	1315	135
Boiler #3 NG	Natural Gas	10200601	1315	135
Boiler #4 STK (EF)	Natural Gas	10200601	1317	180
Boiler #4 NG	Natural Gas	10200601	1317	180
Drop to Ore Storage Pile	Copper Ore	30302404	930763	10
Gravel	Vehicle Miles Traveled	30300519	932731	10
Storage Pile	Tailings	30302404	934512	10
Drop to Coal Storage Pile	Bituminous Coal	39000299	939452	10
Coal Storage Pile	Bituminous Coal	39000299	939453	10
Coal Transfer Point	Bituminous Coal	39000299	939454	10
Ash Handling	Ash	39000299	939455	10
Cooling Tower	Cooling Water	39999996	939456	10

Cooling Tower	Cooling Water	39999996	939457	10
Cooling Tower	Cooling Water	39999996	939458	10
Cooling Tower	Cooling Water	39999996	939459	10
Cooling Tower	Cooling Water	39999996	939460	10
Gravel	Vehicle Miles Traveled	30300519	939463	10
Natural Gas Steam Boiler	Natural Gas	10200601	939654	10
Nat Gas Purge Vents	Natural Gas	39000689	939995	10
Diesel Engine	Distillate Oil (No. 1)	20300101	940650	10
Natural Gas Generator	Natural Gas	20200253	940651	10
Diesel Engine	Distillate Oil (No. 1)	20300101	940652	10
Diesel Engine	Distillate Oil (No. 1)	20300101	940653	10
Space Heaters	Natural Gas	10500106	943202	10
TIOGA Space Heaters	Natural Gas	10500106	946202	10
Gasoline Fueling	Gasoline	40600499	948046	10
Multiclone Exhaust	Exhaust Gas	30502513	952097	10
Paved	Vehicle Miles Traveled	30300519	952100	10
Temp. Diesel Engine	Distillate Oil (No. 1)	20300101	925101	10
Salt Lake City Biosolids	Rubber Cement	50300820	954137	10
South Valley Biosolids	Rubber Cement	50300820	954138	10
Diesel Engine to Power Hydraulic System	Distillate Oil (No. 1)	20300101	174807	10
Gasoline Fueling	Gasoline	40600499	957568	10
LPG Engine 1	Liquified Petroleum Ga	20201012	178818	10

Component Description	Material or Fuel	Component SCC	ID	Height
18 Cold solvent deg part washer	Degreaser	40100398	926648	10
(3)Cold Solv. Degreas. Washers	Degreaser	40100398	926707	10
Storage Pile	Storage Pile	30302404	927459	10
Primary Crusher	Copper Ore	30302401	203	35
Syntron Feeder	Copper Ore	30302404	204	14
Screen & Conveyor	Copper Ore	30302404	205	19.5
Secondary Crusher	Copper Ore	30300599	206	19.5
Scissor Belt	Copper Ore	30302404	207	26
Tertiary Crusher	Copper Ore	30302403	208	19.5
Tertiary Discharge	Copper Ore	30302404	209	19.5
Storage	Copper Ore	30302404	1791	67
Discharge	Copper Ore	30302404	1792	67

Transfer and Storage	Copper Ore	30302404	210	67
Boiler #1 Coal	Bituminous Coal	10200201	1310	135
Boiler #1 STK (EF)	Natural Gas	10200601	1311	135
Boiler #1 NG	Natural Gas	10200601	1311	135
Boiler #2 Coal	Bituminous Coal	10200201	1312	135
Boiler #3 Coal	Bituminous Coal	10200201	1314	135
Boiler #4 Coal	Bituminous Coal	10200201	1316	180
Boiler #2 STK (EF)	Natural Gas	10200601	1313	135
Boiler #2 NG	Natural Gas	10200601	1313	135
Boiler #3 STK (EF)	Natural Gas	10200601	1315	135
Boiler #3 NG	Natural Gas	10200601	1315	135
Boiler #4 STK (EF)	Natural Gas	10200601	1317	180
Boiler #4 NG	Natural Gas	10200601	1317	180
Drop to Ore Storage Pile	Copper Ore	30302404	930763	10
Gravel	hicle Miles Traveled (VI	30300519	932731	10
Storage Pile	Tailings	30302404	934512	10
Drop to Coal Storage Pile	Bituminous Coal	39000299	939452	10
Coal Storage Pile	Bituminous Coal	39000299	939453	10
Coal Transfer Point	Bituminous Coal	39000299	939454	10
Ash Handling	Ash	39000299	939455	10
Cooling Tower	Cooling Water	39999996	939456	10
Cooling Tower	Cooling Water	39999996	939457	10
Cooling Tower	Cooling Water	39999996	939458	10
Cooling Tower	Cooling Water	39999996	939459	10
Cooling Tower	Cooling Water	39999996	939460	10
Gravel	hicle Miles Traveled (VI	30300519	939463	10
Natural Gas Steam Boiler	Natural Gas	10200601	939654	10
Nat Gas Purge Vents	Natural Gas	39000689	939995	10
Diesel Engine	Distillate Oil (No. 1)	20300101	940650	10
Natural Gas Generator	Natural Gas	20200253	940651	10
Diesel Engine	Distillate Oil (No. 1)	20300101	940652	10
Diesel Engine	Distillate Oil (No. 1)	20300101	940653	10
Space Heaters	Natural Gas	10500106	943202	10
TIOGA Space Heaters	Natural Gas	10500106	946202	10
Gasoline Fueling	Gasoline	40600499	948046	10
Multiclone Exhaust	Exhaust Gas	30502513	952097	10
Paved	hicle Miles Traveled (VI	30300519	952100	10
Temp. Diesel Engine	Distillate Oil (No. 1)	20300101	925101	10
Salt Lake City Biosolids	Rubber Cement	50300820	954137	10
South Valley Biosolids	Rubber Cement	50300820	954138	10
Diesel Engine to Power Hydraulic System	Distillate Oil (No. 1)	20300101	174807	10
Gasoline Fueling	Gasoline	40600499	957568	10
LPG Engine 1	ified Petroleum Gas (L	20201012	178818	10

Component Description	Material or Fuel	Component SCC		
			ID	Height
18 Cold solvent deg part washer	Degreaser	40100398	926648	10
(3)Cold Solv. Degreas. Washers	Degreaser	40100398	926707	10
Storage Pile	Storage Pile	30302404	927459	10
Primary Crusher	Copper Ore	30302401	203	35
Syntron Feeder	Copper Ore	30302404	204	14
Screen & Conveyor	Copper Ore	30302404	205	19.5
Secondary Crusher	Copper Ore	30300599	206	19.5
Scissor Belt	Copper Ore	30302404	207	26
Tertiary Crusher	Copper Ore	30302403	208	19.5
Tertiary Discharge	Copper Ore	30302404	209	19.5
Storage	Copper Ore	30302404	1791	67
Discharge	Copper Ore	30302404	1792	67
Transfer and Storage	Copper Ore	30302404	210	67
Boiler #1 Coal	Bituminous Coal	10200201	1310	135
Boiler #1 STK (EF)	Natural Gas	10200601	1311	135
Boiler #1 NG	Natural Gas	10200601	1311	135
Boiler #2 Coal	Bituminous Coal	10200201	1312	135
Boiler #3 Coal	Bituminous Coal	10200201	1314	135
Boiler #4 Coal	Bituminous Coal	10200201	1316	180
Boiler #2 STK (EF)	Natural Gas	10200601	1313	135
Boiler #2 NG	Natural Gas	10200601	1313	135
Boiler #3 STK (EF)	Natural Gas	10200601	1315	135
Boiler #3 NG	Natural Gas	10200601	1315	135
Boiler #4 STK (EF)	Natural Gas	10200601	1317	180
Boiler #4 NG	Natural Gas	10200601	1317	180
Drop to Ore Storage Pile	Copper Ore	30302404	930763	10
Gravel	hicle Miles Traveled (VI	30300519	932731	10
Storage Pile	Tailings	30302404	934512	10
Drop to Coal Storage Pile	Bituminous Coal	39000299	939452	10
Coal Storage Pile	Bituminous Coal	39000299	939453	10
Coal Transfer Point	Bituminous Coal	39000299	939454	10
Ash Handling	Ash	39000299	939455	10
Cooling Tower	Cooling Water	39999996	939456	10
Cooling Tower	Cooling Water	39999996	939457	10
Cooling Tower	Cooling Water	39999996	939458	10
Cooling Tower	Cooling Water	39999996	939459	10
Cooling Tower	Cooling Water	39999996	939460	10
Gravel	hicle Miles Traveled (VI	30300519	939463	10
Natural Gas Steam Boiler	Natural Gas	10200601	939654	10
Nat Gas Purge Vents	Natural Gas	39000689	939995	10
Diesel Engine	Distillate Oil (No. 1)	20300101	940650	10
Natural Gas Generator	Natural Gas	20200253	940651	10

Diesel Engine	Distillate Oil (No. 1)	20300101	940652	10
Diesel Engine	Distillate Oil (No. 1)	20300101	940653	10
Space Heaters	Natural Gas	10500106	943202	10
TIOGA Space Heaters	Natural Gas	10500106	946202	10
Gasoline Fueling	Gasoline	40600499	948046	10
Multiclone Exhaust	Exhaust Gas	30502513	952097	10
Paved	hicle Miles Traveled (VI	30300519	952100	10
Temp. Diesel Engine	Distillate Oil (No. 1)	20300101	925101	10
Salt Lake City Biosolids	Rubber Cement	50300820	954137	10
South Valley Biosolids	Rubber Cement	50300820	954138	10
Diesel Engine to Power Hydraulic System	Distillate Oil (No. 1)	20300101	174807	10
Gasoline Fueling	Gasoline	40600499	957568	10
LPG Engine 1	ified Petroleum Gas (L	20201012	178818	10

Component Description	Material or Fuel	Component SCC		
			ID	Height
18 Cold solvent deg part washer	Degreaser	40100398	926648	10
(3)Cold Solv. Degreas. Washers	Degreaser	40100398	926707	10
Storage Pile	Storage Pile	30302404	927459	10
Primary Crusher	Copper Ore	30302401	203	35
Syntron Feeder	Copper Ore	30302404	204	14
Screen & Conveyor	Copper Ore	30302404	205	19.5
Secondary Crusher	Copper Ore	30300599	206	19.5
Scissor Belt	Copper Ore	30302404	207	26
Tertiary Crusher	Copper Ore	30302403	208	19.5
Tertiary Discharge	Copper Ore	30302404	209	19.5
Storage	Copper Ore	30302404	1791	67
Discharge	Copper Ore	30302404	1792	67
Transfer and Storage	Copper Ore	30302404	210	67
Boiler #1 Coal	Bituminous Coal	10200201	1310	135
Boiler #1 STK (EF)	Natural Gas	10200601	1311	135
Boiler #1 NG	Natural Gas	10200601	1311	135
Boiler #2 Coal	Bituminous Coal	10200201	1312	135
Boiler #3 Coal	Bituminous Coal	10200201	1314	135
Boiler #4 Coal	Bituminous Coal	10200201	1316	180
Boiler #2 STK (EF)	Natural Gas	10200601	1313	135
Boiler #2 NG	Natural Gas	10200601	1313	135
Boiler #3 STK (EF)	Natural Gas	10200601	1315	135
Boiler #3 NG	Natural Gas	10200601	1315	135

Boiler #4 STK (EF)	Natural Gas	10200601	1317	180
Boiler #4 NG	Natural Gas	10200601	1317	180
Drop to Ore Storage Pile	Copper Ore	30302404	930763	10
Gravel	hicle Miles Traveled (VI	30300519	932731	10
Storage Pile	Tailings	30302404	934512	10
Drop to Coal Storage Pile	Bituminous Coal	39000299	939452	10
Coal Storage Pile	Bituminous Coal	39000299	939453	10
Coal Transfer Point	Bituminous Coal	39000299	939454	10
Ash Handling	Ash	39000299	939455	10
Cooling Tower	Cooling Water	39999996	939456	10
Cooling Tower	Cooling Water	39999996	939457	10
Cooling Tower	Cooling Water	39999996	939458	10
Cooling Tower	Cooling Water	39999996	939459	10
Cooling Tower	Cooling Water	39999996	939460	10
Gravel	hicle Miles Traveled (VI	30300519	939463	10
Natural Gas Steam Boiler	Natural Gas	10200601	939654	10
Nat Gas Purge Vents	Natural Gas	39000689	939995	10
Diesel Engine	Distillate Oil (No. 1)	20300101	940650	10
Natural Gas Generator	Natural Gas	20200253	940651	10
Diesel Engine	Distillate Oil (No. 1)	20300101	940652	10
Diesel Engine	Distillate Oil (No. 1)	20300101	940653	10
Space Heaters	Natural Gas	10500106	943202	10
TIOGA Space Heaters	Natural Gas	10500106	946202	10
Gasoline Fueling	Gasoline	40600499	948046	10
Multiclone Exhaust	Exhaust Gas	30502513	952097	10
Paved	hicle Miles Traveled (VI	30300519	952100	10
Temp. Diesel Engine	Distillate Oil (No. 1)	20300101	925101	10
Salt Lake City Biosolids	Rubber Cement	50300820	954137	10
South Valley Biosolids	Rubber Cement	50300820	954138	10
Diesel Engine to Power Hydraulic System	Distillate Oil (No. 1)	20300101	174807	10
Gasoline Fueling	Gasoline	40600499	957568	10
LPG Engine 1	ified Petroleum Gas (L	20201012	178818	10

Component Description	Material or Fuel	Component SCC		
			ID	Height
18 Cold solvent deg part washer	Degreaser	40100398	926648	10
(3)Cold Solv. Degreas. Washers	Degreaser	40100398	926707	10
Storage Pile	Storage Pile	30302404	927459	10
Primary Crusher	Copper Ore	30302401	203	35

Syntron Feeder	Copper Ore	30302404	204	14
Screen & Conveyor	Copper Ore	30302404	205	19.5
Secondary Crusher	Copper Ore	30300599	206	19.5
Scissor Belt	Copper Ore	30302404	207	26
Tertiary Crusher	Copper Ore	30302403	208	19.5
Tertiary Discharge	Copper Ore	30302404	209	19.5
Storage	Copper Ore	30302404	1791	67
Discharge	Copper Ore	30302404	1792	67
Transfer and Storage	Copper Ore	30302404	210	67
Boiler #1 Coal	Bituminous Coal	10200201	1310	135
Boiler #1 STK (EF)	Natural Gas	10200601	1311	135
Boiler #1 NG	Natural Gas	10200601	1311	135
Boiler #2 Coal	Bituminous Coal	10200201	1312	135
Boiler #3 Coal	Bituminous Coal	10200201	1314	135
Boiler #4 Coal	Bituminous Coal	10200201	1316	180
Boiler #2 STK (EF)	Natural Gas	10200601	1313	135
Boiler #2 NG	Natural Gas	10200601	1313	135
Boiler #3 STK (EF)	Natural Gas	10200601	1315	135
Boiler #3 NG	Natural Gas	10200601	1315	135
Boiler #4 STK (EF)	Natural Gas	10200601	1317	180
Boiler #4 NG	Natural Gas	10200601	1317	180
Drop to Ore Storage Pile	Copper Ore	30302404	930763	10
Gravel	hicle Miles Traveled (VI	30300519	932731	10
Storage Pile	Tailings	30302404	934512	10
Drop to Coal Storage Pile	Bituminous Coal	39000299	939452	10
Coal Storage Pile	Bituminous Coal	39000299	939453	10
Coal Transfer Point	Bituminous Coal	39000299	939454	10
Ash Handling	Ash	39000299	939455	10
Cooling Tower	Cooling Water	39999996	939456	10
Cooling Tower	Cooling Water	39999996	939457	10
Cooling Tower	Cooling Water	39999996	939458	10
Cooling Tower	Cooling Water	39999996	939459	10
Cooling Tower	Cooling Water	39999996	939460	10
Gravel	hicle Miles Traveled (VI	30300519	939463	10
Natural Gas Steam Boiler	Natural Gas	10200601	939654	10
Nat Gas Purge Vents	Natural Gas	39000689	939995	10
Diesel Engine	Distillate Oil (No. 1)	20300101	940650	10
Natural Gas Generator	Natural Gas	20200253	940651	10
Diesel Engine	Distillate Oil (No. 1)	20300101	940652	10
Diesel Engine	Distillate Oil (No. 1)	20300101	940653	10
Space Heaters	Natural Gas	10500106	943202	10
TIOGA Space Heaters	Natural Gas	10500106	946202	10
Gasoline Fueling	Gasoline	40600499	948046	10
Multiclone Exhaust	Exhaust Gas	30502513	952097	10
Paved	hicle Miles Traveled (VI	30300519	952100	10
Temp. Diesel Engine	Distillate Oil (No. 1)	20300101	925101	10
Salt Lake City Biosolids	Rubber Cement	50300820	954137	10
South Valley Biosolids	Rubber Cement	50300820	954138	10
Diesel Engine to Power Hydraulic System	Distillate Oil (No. 1)	20300101	174807	10

Gasoline Fueling	Gasoline	40600499	957568	10
LPG Engine 1	ified Petroleum Gas (L	20201012	178818	10

Component Description	Material or Fuel	Component SCC	ID	Height
18 Cold solvent deg part washer	Degreaser	40100398	926648	10
(3)Cold Solv. Degreas. Washers	Degreaser	40100398	926707	10
Storage Pile	Storage Pile	30302404	927459	10
Primary Crusher	Copper Ore	30302401	203	35
Syntron Feeder	Copper Ore	30302404	204	14
Screen & Conveyor	Copper Ore	30302404	205	19.5
Secondary Crusher	Copper Ore	30300599	206	19.5
Scissor Belt	Copper Ore	30302404	207	26
Tertiary Crusher	Copper Ore	30302403	208	19.5
Tertiary Discharge	Copper Ore	30302404	209	19.5
Storage	Copper Ore	30302404	1791	67
Discharge	Copper Ore	30302404	1792	67
Transfer and Storage	Copper Ore	30302404	210	67
Boiler #1 Coal	Bituminous Coal	10200201	1310	135
Boiler #1 STK (EF)	Natural Gas	10200601	1311	135
Boiler #1 NG	Natural Gas	10200601	1311	135
Boiler #2 Coal	Bituminous Coal	10200201	1312	135
Boiler #3 Coal	Bituminous Coal	10200201	1314	135
Boiler #4 Coal	Bituminous Coal	10200201	1316	180
Boiler #2 STK (EF)	Natural Gas	10200601	1313	135
Boiler #2 NG	Natural Gas	10200601	1313	135
Boiler #3 STK (EF)	Natural Gas	10200601	1315	135
Boiler #3 NG	Natural Gas	10200601	1315	135
Boiler #4 STK (EF)	Natural Gas	10200601	1317	180
Boiler #4 NG	Natural Gas	10200601	1317	180
Drop to Ore Storage Pile	Copper Ore	30302404	930763	10
Gravel	hicle Miles Traveled (VI	30300519	932731	10
Storage Pile	Tailings	30302404	934512	10
Drop to Coal Storage Pile	Bituminous Coal	39000299	939452	10
Coal Storage Pile	Bituminous Coal	39000299	939453	10
Coal Transfer Point	Bituminous Coal	39000299	939454	10
Ash Handling	Ash	39000299	939455	10
Cooling Tower	Cooling Water	39999996	939456	10
Cooling Tower	Cooling Water	39999996	939457	10

Cooling Tower	Cooling Water	39999996	939458	10
Cooling Tower	Cooling Water	39999996	939459	10
Cooling Tower	Cooling Water	39999996	939460	10
Gravel	hicle Miles Traveled (VI	30300519	939463	10
Natural Gas Steam Boiler	Natural Gas	10200601	939654	10
Nat Gas Purge Vents	Natural Gas	39000689	939995	10
Diesel Engine	Distillate Oil (No. 1)	20300101	940650	10
Natural Gas Generator	Natural Gas	20200253	940651	10
Diesel Engine	Distillate Oil (No. 1)	20300101	940652	10
Diesel Engine	Distillate Oil (No. 1)	20300101	940653	10
Space Heaters	Natural Gas	10500106	943202	10
TIOGA Space Heaters	Natural Gas	10500106	946202	10
Gasoline Fueling	Gasoline	40600499	948046	10
Multiclone Exhaust	Exhaust Gas	30502513	952097	10
Paved	hicle Miles Traveled (VI	30300519	952100	10
Temp. Diesel Engine	Distillate Oil (No. 1)	20300101	925101	10
Salt Lake City Biosolids	Rubber Cement	50300820	954137	10
South Valley Biosolids	Rubber Cement	50300820	954138	10
Diesel Engine to Power Hydraulic System	Distillate Oil (No. 1)	20300101	174807	10
Gasoline Fueling	Gasoline	40600499	957568	10
LPG Engine 1	ified Petroleum Gas (L	20201012	178818	10

Stack					Location			
Diameter	Temp	Flow	Area	Velocity	Lat	Long	Hrs/Day	Days/Wk
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	2	1
0	72	0	0	0	40.76248	-112.1255	0	0
3.95	72	884	12.25417	72.14	40.76248	-112.1255	0	0
2.82	72	311	6.2458	49.79	40.76248	-112.1255	0	0
3.39	72	512	9.025874	56.73	40.76248	-112.1255	0	0
3.39	72	592	9.025874	65.59	40.76248	-112.1255	0	0
2.82	72	72	6.2458	11.53	40.76248	-112.1255	0	0
3.39	72	699	9.025874	77.44	40.76248	-112.1255	0	0
3.39	72	519	9.025874	57.5	40.76248	-112.1255	0	0
2.3	72	208	4.154756	50.06	40.76248	-112.1255	0	0
2.3	72	333	4.154756	80.15	40.76248	-112.1255	0	0
2.26	72	293	4.0115	73.04	40.76248	-112.1255	0	0
10.5	292	2328.13	86.59015	26.89	40.76248	-112.1255	24	7
10.5	270	3872	86.59015	44.72	40.76248	-112.1255	0	0
10.5	270	3872	86.59015	44.72	40.76248	-112.1255	0	0
10.5	269	2479.73	86.59015	28.64	40.76248	-112.1255	24	7
10.5	298	2680.83	86.59015	30.96	40.76248	-112.1255	24	7
15.5	270	3036.97	188.6919	16.09	40.76248	-112.1255	24	7
10.5	273	2904	86.59015	33.54	40.76248	-112.1255	0	0
10.5	273	2904	86.59015	33.54	40.76248	-112.1255	0	0
10.62	262	2666.15	88.58066	30.07	40.76248	-112.1255	0	0
10.62	262	2666.15	88.58066	30.07	40.76248	-112.1255	0	0
15.5	211	4226.35	188.6919	22.4	40.76248	-112.1255	24	7
15.5	211	4226.35	188.6919	22.4	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7

0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	3	7
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
1	72	12	0.785398	15.28	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	24	7
1	72	12	0.785398	15.28	40.76248	-112.1255	24	1

Stack					**Location**			
Diameter	**Temp**	**Flow**	**Area**	**Velocity**	**Lat**	**Long**	**Hrs/Day**	**Days/Wk**
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	2	1
0	72	0	0	0	40.76248	-112.1255	0	0
3.95	72	884	12.25417	72.14	40.76248	-112.1255	0	0
2.82	72	311	6.2458	49.79	40.76248	-112.1255	0	0
3.39	72	512	9.025874	56.73	40.76248	-112.1255	0	0
3.39	72	592	9.025874	65.59	40.76248	-112.1255	0	0
2.82	72	72	6.2458	11.53	40.76248	-112.1255	0	0
3.39	72	699	9.025874	77.44	40.76248	-112.1255	0	0
3.39	72	519	9.025874	57.5	40.76248	-112.1255	0	0
2.3	72	208	4.154756	50.06	40.76248	-112.1255	0	0
2.3	72	333	4.154756	80.15	40.76248	-112.1255	0	0

2.26	72	293	4.0115	73.04	40.76248	-112.1255	0	0
10.5	292	2328.13	86.59015	26.89	40.76248	-112.1255	24	7
10.5	270	3872	86.59015	44.72	40.76248	-112.1255	0	0
10.5	270	3872	86.59015	44.72	40.76248	-112.1255	0	0
10.5	269	2479.73	86.59015	28.64	40.76248	-112.1255	24	7
10.5	298	2680.83	86.59015	30.96	40.76248	-112.1255	24	7
15.5	270	3036.97	188.6919	16.09	40.76248	-112.1255	24	7
10.5	273	2904	86.59015	33.54	40.76248	-112.1255	0	0
10.5	273	2904	86.59015	33.54	40.76248	-112.1255	0	0
10.62	262	2666.15	88.58066	30.07	40.76248	-112.1255	0	0
10.62	262	2666.15	88.58066	30.07	40.76248	-112.1255	0	0
15.5	211	4226.35	188.6919	22.4	40.76248	-112.1255	24	7
15.5	211	4226.35	188.6919	22.4	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	3	7
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
1	72	12	0.785398	15.28	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	24	7
1	72	12	0.785398	15.28	40.76248	-112.1255	24	1

Stack					Location			
Diameter	**Temp**	**Flow**	**Area**	**Velocity**	**Lat**	**Long**	**Hrs/Day**	**Days/Wk**
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	2	1
0	72	0	0	0	40.76248	-112.1255	0	0
3.95	72	884	12.25417	72.14	40.76248	-112.1255	0	0
2.82	72	311	6.2458	49.79	40.76248	-112.1255	0	0
3.39	72	512	9.025874	56.73	40.76248	-112.1255	0	0
3.39	72	592	9.025874	65.59	40.76248	-112.1255	0	0
2.82	72	72	6.2458	11.53	40.76248	-112.1255	0	0
3.39	72	699	9.025874	77.44	40.76248	-112.1255	0	0
3.39	72	519	9.025874	57.5	40.76248	-112.1255	0	0
2.3	72	208	4.154756	50.06	40.76248	-112.1255	0	0
2.3	72	333	4.154756	80.15	40.76248	-112.1255	0	0
2.26	72	293	4.0115	73.04	40.76248	-112.1255	0	0
10.5	292	2328.13	86.59015	26.89	40.76248	-112.1255	24	7
10.5	270	3872	86.59015	44.72	40.76248	-112.1255	0	0
10.5	270	3872	86.59015	44.72	40.76248	-112.1255	0	0
10.5	269	2479.73	86.59015	28.64	40.76248	-112.1255	24	7
10.5	298	2680.83	86.59015	30.96	40.76248	-112.1255	24	7
15.5	270	3036.97	188.6919	16.09	40.76248	-112.1255	24	7
10.5	273	2904	86.59015	33.54	40.76248	-112.1255	0	0
10.5	273	2904	86.59015	33.54	40.76248	-112.1255	0	0
10.62	262	2666.15	88.58066	30.07	40.76248	-112.1255	0	0
10.62	262	2666.15	88.58066	30.07	40.76248	-112.1255	0	0
15.5	211	4226.35	188.6919	22.4	40.76248	-112.1255	24	7
15.5	211	4226.35	188.6919	22.4	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	3	7
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	0	0

0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
1	72	12	0.785398	15.28	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	24	7
1	72	12	0.785398	15.28	40.76248	-112.1255	24	1

Stack					**Location**			
Diameter	**Temp**	**Flow**	**Area**	**Velocity**	**Lat**	**Long**	**Hrs/Day**	**Days/Wk**
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	2	1
0	72	0	0	0	40.76248	-112.1255	0	0
3.95	72	884	12.25417	72.14	40.76248	-112.1255	0	0
2.82	72	311	6.2458	49.79	40.76248	-112.1255	0	0
3.39	72	512	9.025874	56.73	40.76248	-112.1255	0	0
3.39	72	592	9.025874	65.59	40.76248	-112.1255	0	0
2.82	72	72	6.2458	11.53	40.76248	-112.1255	0	0
3.39	72	699	9.025874	77.44	40.76248	-112.1255	0	0
3.39	72	519	9.025874	57.5	40.76248	-112.1255	0	0
2.3	72	208	4.154756	50.06	40.76248	-112.1255	0	0
2.3	72	333	4.154756	80.15	40.76248	-112.1255	0	0
2.26	72	293	4.0115	73.04	40.76248	-112.1255	0	0
10.5	292	2328.13	86.59015	26.89	40.76248	-112.1255	24	7
10.5	270	3872	86.59015	44.72	40.76248	-112.1255	0	0
10.5	270	3872	86.59015	44.72	40.76248	-112.1255	0	0
10.5	269	2479.73	86.59015	28.64	40.76248	-112.1255	24	7
10.5	298	2680.83	86.59015	30.96	40.76248	-112.1255	24	7
15.5	270	3036.97	188.6919	16.09	40.76248	-112.1255	24	7
10.5	273	2904	86.59015	33.54	40.76248	-112.1255	0	0
10.5	273	2904	86.59015	33.54	40.76248	-112.1255	0	0
10.62	262	2666.15	88.58066	30.07	40.76248	-112.1255	0	0
10.62	262	2666.15	88.58066	30.07	40.76248	-112.1255	0	0

15.5	211	4226.35	188.6919	22.4	40.76248	-112.1255	24	7
15.5	211	4226.35	188.6919	22.4	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	3	7
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
1	72	12	0.785398	15.28	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	24	7
1	72	12	0.785398	15.28	40.76248	-112.1255	24	1

Stack					**Location**			
Diameter	**Temp**	**Flow**	**Area**	**Velocity**	**Lat**	**Long**	**Hrs/Day**	**Days/Wk**
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	2	1
0	72	0	0	0	40.76248	-112.1255	0	0
3.95	72	884	12.25417	72.14	40.76248	-112.1255	0	0

2.82	72	311	6.2458	49.79	40.76248	-112.1255	0	0
3.39	72	512	9.025874	56.73	40.76248	-112.1255	0	0
3.39	72	592	9.025874	65.59	40.76248	-112.1255	0	0
2.82	72	72	6.2458	11.53	40.76248	-112.1255	0	0
3.39	72	699	9.025874	77.44	40.76248	-112.1255	0	0
3.39	72	519	9.025874	57.5	40.76248	-112.1255	0	0
2.3	72	208	4.154756	50.06	40.76248	-112.1255	0	0
2.3	72	333	4.154756	80.15	40.76248	-112.1255	0	0
2.26	72	293	4.0115	73.04	40.76248	-112.1255	0	0
10.5	292	2328.13	86.59015	26.89	40.76248	-112.1255	24	7
10.5	270	3872	86.59015	44.72	40.76248	-112.1255	0	0
10.5	270	3872	86.59015	44.72	40.76248	-112.1255	0	0
10.5	269	2479.73	86.59015	28.64	40.76248	-112.1255	24	7
10.5	298	2680.83	86.59015	30.96	40.76248	-112.1255	24	7
15.5	270	3036.97	188.6919	16.09	40.76248	-112.1255	24	7
10.5	273	2904	86.59015	33.54	40.76248	-112.1255	0	0
10.5	273	2904	86.59015	33.54	40.76248	-112.1255	0	0
10.62	262	2666.15	88.58066	30.07	40.76248	-112.1255	0	0
10.62	262	2666.15	88.58066	30.07	40.76248	-112.1255	0	0
15.5	211	4226.35	188.6919	22.4	40.76248	-112.1255	24	7
15.5	211	4226.35	188.6919	22.4	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	3	7
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
1	72	12	0.785398	15.28	40.76248	-112.1255	0	0

0	72	0	0	0	40.76248	-112.1255	24	7
1	72	12	0.785398	15.28	40.76248	-112.1255	24	1

Stack					Location			
Diameter	**Temp**	**Flow**	**Area**	**Velocity**	**Lat**	**Long**	**Hrs/Day**	**Days/Wk**
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	2	1
0	72	0	0	0	40.76248	-112.1255	0	0
3.95	72	884	12.25417	72.14	40.76248	-112.1255	0	0
2.82	72	311	6.2458	49.79	40.76248	-112.1255	0	0
3.39	72	512	9.025874	56.73	40.76248	-112.1255	0	0
3.39	72	592	9.025874	65.59	40.76248	-112.1255	0	0
2.82	72	72	6.2458	11.53	40.76248	-112.1255	0	0
3.39	72	699	9.025874	77.44	40.76248	-112.1255	0	0
3.39	72	519	9.025874	57.5	40.76248	-112.1255	0	0
2.3	72	208	4.154756	50.06	40.76248	-112.1255	0	0
2.3	72	333	4.154756	80.15	40.76248	-112.1255	0	0
2.26	72	293	4.0115	73.04	40.76248	-112.1255	0	0
10.5	292	2328.13	86.59015	26.89	40.76248	-112.1255	24	7
10.5	270	3872	86.59015	44.72	40.76248	-112.1255	0	0
10.5	270	3872	86.59015	44.72	40.76248	-112.1255	0	0
10.5	269	2479.73	86.59015	28.64	40.76248	-112.1255	24	7
10.5	298	2680.83	86.59015	30.96	40.76248	-112.1255	24	7
15.5	270	3036.97	188.6919	16.09	40.76248	-112.1255	24	7
10.5	273	2904	86.59015	33.54	40.76248	-112.1255	0	0
10.5	273	2904	86.59015	33.54	40.76248	-112.1255	0	0
10.62	262	2666.15	88.58066	30.07	40.76248	-112.1255	0	0
10.62	262	2666.15	88.58066	30.07	40.76248	-112.1255	0	0
15.5	211	4226.35	188.6919	22.4	40.76248	-112.1255	24	7
15.5	211	4226.35	188.6919	22.4	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7

0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	3	7
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
0	72	0	0	0	40.76248	-112.1255	24	7
1	72	12	0.785398	15.28	40.76248	-112.1255	0	0
0	72	0	0	0	40.76248	-112.1255	24	7
1	72	12	0.785398	15.28	40.76248	-112.1255	24	1

Temporal Operating Information								
Wks/Yr	**Hrs/Yr**	**% Jan**	**% Feb**	**% Mar**	**% Apr**	**% May**	**% Jun**	**% Jul**
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	192	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
34	1887	0	0	0	0	0	0	30.5
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
34	2074	0	0	0	0	0	1.76	34.37
34	1881	0	0	0	0	0	0	30.09
34	4338	0	0	0	0	16.03	16.34	17.15
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	76	0	0	0	68.6	31.4	0	0
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	8760	8.33	8.33	8.33	8.33	8.33	8.33	8.33
44	7104	0	10	10	10	10	10	10
35	6096	0	3.54	12.2	11.82	12.2	11.82	12.2
52	8760	0	6.2	9.5	9.2	9.5	9.2	9.5
35	5880	0	0	12.5	12.5	12.5	12.5	12.5
35	5880	0	0	12.5	12.5	12.5	12.5	12.5
35	1887	0	0	0	0	0	0	30.5

35	2075	0	0	13.61	12.34	13.63	7.7	13.62
35	1882	0	0	0	0	0	1.76	34.37
24	4415	0	0	0	0	0	0	30.09
52	8359	8.89	3.26	8.89	8.61	8.9	8.61	8.9
35	6096	0	3.54	12.2	11.82	12.2	11.82	12.2
52	3099	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
1	27	8.35	8.23	8.35	8.33	8.35	8.33	8.35
52	52	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
26	4296	17.32	15.08	17.32	16.76	0	0	0
26	4296	17.32	15.08	17.32	16.76	0	0	0
52	8760	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	8760	0	0	12.5	12.5	12.5	12.5	12.5
35	6096	0	3.54	12.2	11.82	12.2	11.82	12.2
8	0	5	5	9	9	9	9	9
52	5880	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	8760	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	46	8.33	8.33	8.33	8.33	8.33	8.33	8.33

Temporal Operating Information								
Wks/Yr	**Hrs/Yr**	**% Jan**	**% Feb**	**% Mar**	**% Apr**	**% May**	**% Jun**	**% Jul**
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	192	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33

0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
34	1887	0	0	0	0	0	0	30.5
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
34	2074	0	0	0	0	0	1.76	34.37
34	1881	0	0	0	0	0	0	30.09
34	4338	0	0	0	0	16.03	16.34	17.15
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	76	0	0	0	68.6	31.4	0	0
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	8760	8.33	8.33	8.33	8.33	8.33	8.33	8.33
44	7104	0	10	10	10	10	10	10
35	6096	0	3.54	12.2	11.82	12.2	11.82	12.2
52	8760	0	6.2	9.5	9.2	9.5	9.2	9.5
35	5880	0	0	12.5	12.5	12.5	12.5	12.5
35	5880	0	0	12.5	12.5	12.5	12.5	12.5
35	1887	0	0	0	0	0	0	30.5
35	2075	0	0	13.61	12.34	13.63	7.7	13.62
35	1882	0	0	0	0	0	1.76	34.37
24	4415	0	0	0	0	0	0	30.09
52	8359	8.89	3.26	8.89	8.61	8.9	8.61	8.9
35	6096	0	3.54	12.2	11.82	12.2	11.82	12.2
52	3099	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
1	27	8.35	8.23	8.35	8.33	8.35	8.33	8.35
52	52	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
26	4296	17.32	15.08	17.32	16.76	0	0	0
26	4296	17.32	15.08	17.32	16.76	0	0	0
52	8760	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	8760	0	0	12.5	12.5	12.5	12.5	12.5
35	6096	0	3.54	12.2	11.82	12.2	11.82	12.2
8	0	5	5	9	9	9	9	9
52	5880	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	8760	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	46	8.33	8.33	8.33	8.33	8.33	8.33	8.33

Temporal Operating Information								
Wks/Yr	**Hrs/Yr**	**% Jan**	**% Feb**	**% Mar**	**% Apr**	**% May**	**% Jun**	**% Jul**
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	192	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
34	1887	0	0	0	0	0	0	30.5
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
34	2074	0	0	0	0	0	1.76	34.37
34	1881	0	0	0	0	0	0	30.09
34	4338	0	0	0	0	16.03	16.34	17.15
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	76	0	0	0	68.6	31.4	0	0
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	8760	8.33	8.33	8.33	8.33	8.33	8.33	8.33
44	7104	0	10	10	10	10	10	10
35	6096	0	3.54	12.2	11.82	12.2	11.82	12.2
52	8760	0	6.2	9.5	9.2	9.5	9.2	9.5
35	5880	0	0	12.5	12.5	12.5	12.5	12.5
35	5880	0	0	12.5	12.5	12.5	12.5	12.5
35	1887	0	0	0	0	0	0	30.5
35	2075	0	0	13.61	12.34	13.63	7.7	13.62
35	1882	0	0	0	0	0	1.76	34.37
24	4415	0	0	0	0	0	0	30.09
52	8359	8.89	3.26	8.89	8.61	8.9	8.61	8.9
35	6096	0	3.54	12.2	11.82	12.2	11.82	12.2
52	3099	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
1	27	8.35	8.23	8.35	8.33	8.35	8.33	8.35
52	52	8.33	8.33	8.33	8.33	8.33	8.33	8.33

0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
26	4296	17.32	15.08	17.32	16.76	0	0	0
26	4296	17.32	15.08	17.32	16.76	0	0	0
52	8760	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	8760	0	0	12.5	12.5	12.5	12.5	12.5
35	6096	0	3.54	12.2	11.82	12.2	11.82	12.2
8	0	5	5	9	9	9	9	9
52	5880	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	8760	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	46	8.33	8.33	8.33	8.33	8.33	8.33	8.33

Temporal Operating Information								
Wks/Yr	**Hrs/Yr**	**% Jan**	**% Feb**	**% Mar**	**% Apr**	**% May**	**% Jun**	**% Jul**
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	192	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
34	1887	0	0	0	0	0	0	30.5
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
34	2074	0	0	0	0	0	1.76	34.37
34	1881	0	0	0	0	0	0	30.09
34	4338	0	0	0	0	16.03	16.34	17.15
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33

52	76	0	0	0	68.6	31.4	0	0
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	8760	8.33	8.33	8.33	8.33	8.33	8.33	8.33
44	7104	0	10	10	10	10	10	10
35	6096	0	3.54	12.2	11.82	12.2	11.82	12.2
52	8760	0	6.2	9.5	9.2	9.5	9.2	9.5
35	5880	0	0	12.5	12.5	12.5	12.5	12.5
35	5880	0	0	12.5	12.5	12.5	12.5	12.5
35	1887	0	0	0	0	0	0	30.5
35	2075	0	0	13.61	12.34	13.63	7.7	13.62
35	1882	0	0	0	0	0	1.76	34.37
24	4415	0	0	0	0	0	0	30.09
52	8359	8.89	3.26	8.89	8.61	8.9	8.61	8.9
35	6096	0	3.54	12.2	11.82	12.2	11.82	12.2
52	3099	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
1	27	8.35	8.23	8.35	8.33	8.35	8.33	8.35
52	52	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
26	4296	17.32	15.08	17.32	16.76	0	0	0
26	4296	17.32	15.08	17.32	16.76	0	0	0
52	8760	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	8760	0	0	12.5	12.5	12.5	12.5	12.5
35	6096	0	3.54	12.2	11.82	12.2	11.82	12.2
8	0	5	5	9	9	9	9	9
52	5880	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	8760	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	46	8.33	8.33	8.33	8.33	8.33	8.33	8.33

		Temporal Operating Information						
Wks/Yr	**Hrs/Yr**	**% Jan**	**% Feb**	**% Mar**	**% Apr**	**% May**	**% Jun**	**% Jul**
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	192	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33

0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
34	1887	0	0	0	0	0	0	30.5
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
34	2074	0	0	0	0	0	1.76	34.37
34	1881	0	0	0	0	0	0	30.09
34	4338	0	0	0	0	16.03	16.34	17.15
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	76	0	0	0	68.6	31.4	0	0
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	8760	8.33	8.33	8.33	8.33	8.33	8.33	8.33
44	7104	0	10	10	10	10	10	10
35	6096	0	3.54	12.2	11.82	12.2	11.82	12.2
52	8760	0	6.2	9.5	9.2	9.5	9.2	9.5
35	5880	0	0	12.5	12.5	12.5	12.5	12.5
35	5880	0	0	12.5	12.5	12.5	12.5	12.5
35	1887	0	0	0	0	0	0	30.5
35	2075	0	0	13.61	12.34	13.63	7.7	13.62
35	1882	0	0	0	0	0	1.76	34.37
24	4415	0	0	0	0	0	0	30.09
52	8359	8.89	3.26	8.89	8.61	8.9	8.61	8.9
35	6096	0	3.54	12.2	11.82	12.2	11.82	12.2
52	3099	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
1	27	8.35	8.23	8.35	8.33	8.35	8.33	8.35
52	52	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
26	4296	17.32	15.08	17.32	16.76	0	0	0
26	4296	17.32	15.08	17.32	16.76	0	0	0
52	8760	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	8760	0	0	12.5	12.5	12.5	12.5	12.5
35	6096	0	3.54	12.2	11.82	12.2	11.82	12.2
8	0	5	5	9	9	9	9	9
52	5880	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33

52	8760	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	46	8.33	8.33	8.33	8.33	8.33	8.33	8.33

Temporal Operating Information								
Wks/Yr	**Hrs/Yr**	**% Jan**	**% Feb**	**% Mar**	**% Apr**	**% May**	**% Jun**	**% Jul**
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	192	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
34	1887	0	0	0	0	0	0	30.5
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
34	2074	0	0	0	0	0	1.76	34.37
34	1881	0	0	0	0	0	0	30.09
34	4338	0	0	0	0	16.03	16.34	17.15
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	76	0	0	0	68.6	31.4	0	0
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	8760	8.33	8.33	8.33	8.33	8.33	8.33	8.33
44	7104	0	10	10	10	10	10	10
35	6096	0	3.54	12.2	11.82	12.2	11.82	12.2
52	8760	0	6.2	9.5	9.2	9.5	9.2	9.5
35	5880	0	0	12.5	12.5	12.5	12.5	12.5
35	5880	0	0	12.5	12.5	12.5	12.5	12.5
35	1887	0	0	0	0	0	0	30.5
35	2075	0	0	13.61	12.34	13.63	7.7	13.62

35	1882	0	0	0	0	0	1.76	34.37
24	4415	0	0	0	0	0	0	30.09
52	8359	8.89	3.26	8.89	8.61	8.9	8.61	8.9
35	6096	0	3.54	12.2	11.82	12.2	11.82	12.2
52	3099	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
1	27	8.35	8.23	8.35	8.33	8.35	8.33	8.35
52	52	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
26	4296	17.32	15.08	17.32	16.76	0	0	0
26	4296	17.32	15.08	17.32	16.76	0	0	0
52	8760	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	8760	0	0	12.5	12.5	12.5	12.5	12.5
35	6096	0	3.54	12.2	11.82	12.2	11.82	12.2
8	0	5	5	9	9	9	9	9
52	5880	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
0	0	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	8760	8.33	8.33	8.33	8.33	8.33	8.33	8.33
52	46	8.33	8.33	8.33	8.33	8.33	8.33	8.33

PM10	PM2.5	SO2
61.760	30.367	1704.166

Pwr plt	43.927	27.692	1704.166
Tailings	17.833	2.675	0.000

% Aug	% Sep	% Oct	% Nov	% Dec	Permit Status	PM10	PM2.5	SO2
8.33	8.33	8.33	8.33	8.33	No	0.000	0.000	
8.33	8.33	8.33	8.33	8.33	Yes	0.000	0.000	
8.33	8.33	8.33	8.33	8.33	No	0.000	0.000	
8.33	8.33	8.33	8.33	8.33	No	0.000	0.000	0.000
8.33	8.33	8.33	8.33	8.33	No	0.000	0.000	0.000
8.33	8.33	8.33	8.33	8.33	No	0.000	0.000	0.000
8.33	8.33	8.33	8.33	8.33	No	0.000	0.000	0.000
8.33	8.33	8.33	8.33	8.33	No	0.000	0.000	0.000
8.33	8.33	8.33	8.33	8.33	No	0.000	0.000	0.000
8.33	8.33	8.33	8.33	8.33	No	0.000	0.000	0.000
8.33	8.33	8.33	8.33	8.33	No	0.000	0.000	0.000
8.33	8.33	8.33	8.33	8.33	No	0.000	0.000	0.000
8.33	8.33	8.33	8.33	8.33	No	0.000	0.000	0.000
39.42	30.08	0	0	0	Yes	3.085	2.802	230.225
8.33	8.33	8.33	8.33	8.33	Yes	0.000	0.000	0.000
8.33	8.33	8.33	8.33	8.33	Yes	0.000	0.000	0.001
35.86	28.01	0	0	0	Yes	8.006	7.238	229.602
39.54	30.37	0	0	0	Yes	2.934	2.408	232.727
17.15	16.28	17.05	0	0	Yes	10.628	8.784	1011.562
8.33	8.33	8.33	8.33	8.33	Yes	0.000	0.000	0.000
8.33	8.33	8.33	8.33	8.33	Yes	0.009	0.009	0.001
8.33	8.33	8.33	8.33	8.33	Yes	0.000	0.000	0.000
8.33	8.33	8.33	8.33	8.33	Yes	0.009	0.009	0.001
0	0	0	0	0	Yes	0.141	0.141	0.000
8.33	8.33	8.33	8.33	8.33	Yes	0.249	0.249	0.022
8.33	8.33	8.33	8.33	8.33	No	0.000	0.000	0.000
8.33	8.33	8.33	8.33	8.33	No	5.204	0.517	
10	10	10	10	0	Yes	17.833	2.675	
12.2	11.82	12.2	0	0	Yes	0.028	0.004	0.000
9.5	9.2	9.5	9.2	9.5	Yes	2.387	0.361	0.000
12.5	12.5	12.5	0	0	Yes	0.026	0.004	0.000
12.5	12.5	12.5	0	0	Yes	0.860	0.500	0.000
39.42	30.08	0	0	0	No	1.260	0.630	

13.4	12.37	13.33	0	0	No	1.386	0.693	
35.86	28.01	0	0	0	No	1.257	0.629	
39.54	30.37	0	0	0	No	3.523	1.762	
8.9	8.61	8.9	8.61	8.9	No	0.541	0.270	
12.2	11.82	12.2	0	0	No	1.135	0.114	
8.33	8.33	8.33	8.33	8.33	Yes	0.083	0.083	0.007
8.33	8.33	8.33	8.33	8.33	Yes	0.000	0.000	0.000
8.35	8.33	8.35	8.33	8.35	Yes	0.002	0.002	0.002
8.33	8.33	8.33	8.33	8.33	Yes	0.000	0.000	0.000
8.33	8.33	8.33	8.33	8.33	Yes	0.000	0.000	0.000
8.33	8.33	8.33	8.33	8.33	Yes	0.000	0.000	0.000
0	0	0	16.2	17.32	Yes	0.010	0.010	0.001
0	0	0	16.2	17.32	Yes	0.216	0.216	0.017
8.33	8.33	8.33	8.33	8.33	Yes	0.000	0.000	0.000
12.5	12.5	12.5	0	0	Yes	0.350	0.110	0.000
12.2	11.82	12.2	0	0	No	0.598	0.147	
9	9	9	9	9	No	0.000	0.000	0.000
8.33	8.33	8.33	8.33	8.33	No	0.000	0.000	0.000
8.33	8.33	8.33	8.33	8.33	No	0.000	0.000	0.000
8.33	8.33	8.33	8.33	8.33	Yes	0.000	0.000	0.000
8.33	8.33	8.33	8.33	8.33	Yes	0.000	0.000	0.000
8.33	8.33	8.33	8.33	8.33		0.000	0.000	0.000

PM10	**PM2.5**	**SO2**
61.760	30.367	1704.166

Does the 2019 True-Up In

					Permit Status			
% Aug	**% Sep**	**% Oct**	**% Nov**	**% Dec**		**PM10**	**PM2.5**	**SO2**
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0

8.33	8.33	8.33	8.33	8.33	No	0	0	0
39.42	30.08	0	0	0	Yes	3.085245	2.802195	230.2247
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0.000697
35.86	28.01	0	0	0	Yes	8.00564	7.23826	229.6019
39.54	30.37	0	0	0	Yes	2.93436	2.40768	232.7273
17.15	16.28	17.05	0	0	Yes	10.6281	8.78445	1011.562
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0.009386	0.009386	0.000741
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0.008523	0.008523	0.000673
0	0	0	0	0	Yes	0.1406	0.1406	0
8.33	8.33	8.33	8.33	8.33	Yes	0.249185	0.249185	0.022155
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	5.204314	0.517391	0
10	10	10	10	0	Yes	17.83285	2.674928	0
12.2	11.82	12.2	0	0	Yes	0.028408	0.004302	0
9.5	9.2	9.5	9.2	9.5	Yes	2.386508	0.361386	0
12.5	12.5	12.5	0	0	Yes	0.025668	0.003887	0
12.5	12.5	12.5	0	0	Yes	0.86	0.5	0
39.42	30.08	0	0	0	No	1.26047	0.630235	0
13.4	12.37	13.33	0	0	No	1.386049	0.693024	0
35.86	28.01	0	0	0	No	1.25713	0.628565	0
39.54	30.37	0	0	0	No	3.523229	1.761615	0
8.9	8.61	8.9	8.61	8.9	No	0.540554	0.270277	0
12.2	11.82	12.2	0	0	No	1.135253	0.113525	0
8.33	8.33	8.33	8.33	8.33	Yes	0.082758	0.082758	0.006534
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.35	8.33	8.35	8.33	8.35	Yes	0.001867	0.001867	0.001746
8.33	8.33	8.33	8.33	8.33	Yes	0.000126	0.000126	0.000008
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
0	0	0	16.2	17.32	Yes	0.009603	0.009603	0.000758
0	0	0	16.2	17.32	Yes	0.216064	0.216064	0.017058
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
12.5	12.5	12.5	0	0	Yes	0.35	0.11	0
12.2	11.82	12.2	0	0	No	0.597731	0.146716	0
9	9	9	9	9	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	0	0.000042	0.000042	0.000002

PM10	PM2.5	SO2
65.637	32.273	1811.142

% Aug	% Sep	% Oct	% Nov	% Dec	Permit Status	PM10	PM2.5	SO2
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
39.42	30.08	0	0	0	Yes	3.278917	2.978099	244.6767
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0.000741
35.86	28.01	0	0	0	Yes	8.508183	7.692632	244.0149
39.54	30.37	0	0	0	Yes	3.118561	2.558819	247.3364
17.15	16.28	17.05	0	0	Yes	11.29526	9.335882	1075.061
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0.009975	0.009975	0.000788
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0.009058	0.009058	0.000715
0	0	0	0	0	Yes	0.149426	0.149426	0
8.33	8.33	8.33	8.33	8.33	Yes	0.264827	0.264827	0.023546
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	5.531008	0.54987	0
10	10	10	10	0	Yes	18.95229	2.842843	0
12.2	11.82	12.2	0	0	Yes	0.030191	0.004572	0
9.5	9.2	9.5	9.2	9.5	Yes	2.536318	0.384072	0
12.5	12.5	12.5	0	0	Yes	0.027279	0.004131	0
12.5	12.5	12.5	0	0	Yes	0.913985	0.531387	0
39.42	30.08	0	0	0	No	1.339594	0.669797	0
13.4	12.37	13.33	0	0	No	1.473056	0.736528	0
35.86	28.01	0	0	0	No	1.336045	0.668022	0
39.54	30.37	0	0	0	No	3.744395	1.872198	0
8.9	8.61	8.9	8.61	8.9	No	0.574487	0.287243	0
12.2	11.82	12.2	0	0	No	1.206517	0.120651	0
8.33	8.33	8.33	8.33	8.33	Yes	0.087953	0.087953	0.006944
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.35	8.33	8.35	8.33	8.35	Yes	0.001984	0.001984	0.001856
8.33	8.33	8.33	8.33	8.33	Yes	0.000134	0.000134	8.5E-06

8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
0	0	0	16.2	17.32	Yes	0.010206	0.010206	0.000806
0	0	0	16.2	17.32	Yes	0.229627	0.229627	0.018129
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
12.5	12.5	12.5	0	0	Yes	0.371971	0.116905	0
12.2	11.82	12.2	0	0	No	0.635253	0.155926	0
9	9	9	9	9	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	0	4.46E-05	4.46E-05	2.13E-06

PM10	PM2.5	SO2
63.136	31.043	1742.148

% Aug	% Sep	% Oct	% Nov	% Dec	Permit Status	PM10	PM2.5	SO2
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
39.42	30.08	0	0	0	Yes	3.154009	2.86465	235.3559
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0.000713
35.86	28.01	0	0	0	Yes	8.184069	7.399586	234.7193
39.54	30.37	0	0	0	Yes	2.999761	2.461342	237.9143
17.15	16.28	17.05	0	0	Yes	10.86498	8.980237	1034.107
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0.009595	0.009595	0.000758
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0.008713	0.008713	0.000688

0	0	0	0	0	Yes	0.143734	0.143734	0
8.33	8.33	8.33	8.33	8.33	Yes	0.254739	0.254739	0.022649
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	5.320307	0.528923	0
10	10	10	10	0	Yes	18.23031	2.734547	0
12.2	11.82	12.2	0	0	Yes	0.029041	0.004398	0
9.5	9.2	9.5	9.2	9.5	Yes	2.439698	0.369441	0
12.5	12.5	12.5	0	0	Yes	0.02624	0.003974	0
12.5	12.5	12.5	0	0	Yes	0.879168	0.511144	0
39.42	30.08	0	0	0	No	1.288563	0.644282	0
13.4	12.37	13.33	0	0	No	1.416941	0.70847	0
35.86	28.01	0	0	0	No	1.285149	0.642574	0
39.54	30.37	0	0	0	No	3.601754	1.800878	0
8.9	8.61	8.9	8.61	8.9	No	0.552602	0.276301	0
12.2	11.82	12.2	0	0	No	1.160555	0.116055	0
8.33	8.33	8.33	8.33	8.33	Yes	0.084603	0.084603	0.00668
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.35	8.33	8.35	8.33	8.35	Yes	0.001909	0.001909	0.001785
8.33	8.33	8.33	8.33	8.33	Yes	0.000129	0.000129	8.18E-06
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
0	0	0	16.2	17.32	Yes	0.009817	0.009817	0.000775
0	0	0	16.2	17.32	Yes	0.22088	0.22088	0.017438
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
12.5	12.5	12.5	0	0	Yes	0.357801	0.112452	0
12.2	11.82	12.2	0	0	No	0.611053	0.149986	0
9	9	9	9	9	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	0	4.29E-05	4.29E-05	2.04E-06

PM10	**PM2.5**	**SO2**
61.836	30.404	1706.266

					Permit			
% Aug	**% Sep**	**% Oct**	**% Nov**	**% Dec**	**Status**	**PM10**	**PM2.5**	**SO2**
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0

8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
39.42	30.08	0	0	0	Yes	3.089046	2.805648	230.5083
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0.000698
35.86	28.01	0	0	0	Yes	8.015504	7.247178	229.8848
39.54	30.37	0	0	0	Yes	2.937975	2.410647	233.014
17.15	16.28	17.05	0	0	Yes	10.6412	8.795274	1012.808
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0.009398	0.009398	0.000742
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0.008534	0.008534	0.000674
0	0	0	0	0	Yes	0.140773	0.140773	0
8.33	8.33	8.33	8.33	8.33	Yes	0.249492	0.249492	0.022182
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	5.210726	0.518028	0
10	10	10	10	0	Yes	17.85482	2.678224	0
12.2	11.82	12.2	0	0	Yes	0.028443	0.004307	0
9.5	9.2	9.5	9.2	9.5	Yes	2.389448	0.361831	0
12.5	12.5	12.5	0	0	Yes	0.0257	0.003892	0
12.5	12.5	12.5	0	0	Yes	0.86106	0.500616	0
39.42	30.08	0	0	0	No	1.262023	0.631012	0
13.4	12.37	13.33	0	0	No	1.387757	0.693878	0
35.86	28.01	0	0	0	No	1.258679	0.629339	0
39.54	30.37	0	0	0	No	3.52757	1.763786	0
8.9	8.61	8.9	8.61	8.9	No	0.54122	0.27061	0
12.2	11.82	12.2	0	0	No	1.136652	0.113665	0
8.33	8.33	8.33	8.33	8.33	Yes	0.08286	0.08286	0.006542
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.35	8.33	8.35	8.33	8.35	Yes	0.001869	0.001869	0.001748
8.33	8.33	8.33	8.33	8.33	Yes	0.000126	0.000126	8.01E-06
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
0	0	0	16.2	17.32	Yes	0.009615	0.009615	0.000759
0	0	0	16.2	17.32	Yes	0.21633	0.21633	0.017079
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
12.5	12.5	12.5	0	0	Yes	0.350431	0.110136	0
12.2	11.82	12.2	0	0	No	0.598467	0.146897	0
9	9	9	9	9	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0

8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	0	4.21E-05	4.21E-05	2E-06

PM10	PM2.5	SO2
62.223	30.595	1716.957

% Aug	% Sep	% Oct	% Nov	% Dec	Permit Status	PM10	PM2.5	SO2
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
39.42	30.08	0	0	0	Yes	3.108402	2.823228	231.9527
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0.000702
35.86	28.01	0	0	0	Yes	8.065729	7.292589	231.3253
39.54	30.37	0	0	0	Yes	2.956385	2.425752	234.4741
17.15	16.28	17.05	0	0	Yes	10.70787	8.850385	1019.154
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0.009456	0.009456	0.000747
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0.008587	0.008587	0.000678
0	0	0	0	0	Yes	0.141655	0.141655	0
8.33	8.33	8.33	8.33	8.33	Yes	0.251055	0.251055	0.022321
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	5.243377	0.521274	0
10	10	10	10	0	Yes	17.9667	2.695006	0
12.2	11.82	12.2	0	0	Yes	0.028621	0.004334	0
9.5	9.2	9.5	9.2	9.5	Yes	2.404421	0.364099	0
12.5	12.5	12.5	0	0	Yes	0.025861	0.003916	0
12.5	12.5	12.5	0	0	Yes	0.866455	0.503753	0
39.42	30.08	0	0	0	No	1.269931	0.634965	0
13.4	12.37	13.33	0	0	No	1.396452	0.698226	0

35.86	28.01	0	0	0	No	1.266566	0.633283	0
39.54	30.37	0	0	0	No	3.549674	1.774837	0
8.9	8.61	8.9	8.61	8.9	No	0.544611	0.272306	0
12.2	11.82	12.2	0	0	No	1.143774	0.114377	0
8.33	8.33	8.33	8.33	8.33	Yes	0.083379	0.083379	0.006583
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.35	8.33	8.35	8.33	8.35	Yes	0.001881	0.001881	0.001759
8.33	8.33	8.33	8.33	8.33	Yes	0.000127	0.000127	8.06E-06
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
0	0	0	16.2	17.32	Yes	0.009675	0.009675	0.000764
0	0	0	16.2	17.32	Yes	0.217686	0.217686	0.017186
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
12.5	12.5	12.5	0	0	Yes	0.352627	0.110826	0
12.2	11.82	12.2	0	0	No	0.602217	0.147817	0
9	9	9	9	9	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	No	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	Yes	0	0	0
8.33	8.33	8.33	8.33	8.33	0	4.23E-05	4.23E-05	2.02E-06

2011 Actual Emissions (tons/yr)

NOx	VOC	CO	NH3	Benzene	Chlorine	HCl
920.177	8.152	62.940	0.362	0.000	0.000	1.428

920.154	8.152	62.940	0.362	0.000	0.000	1.428
0.023	0.000	0.000	0.000	0.000	0.000	0.000

2011 Actual Emissions

NOx	VOC	CO	NH3	Benzene	Chlorine	HCl	
	0.000						0.000
	0.017						0.000
							0.000
0.000	0.000	0.000	0.000				0.000
0.000	0.000	0.000	0.000				0.000
0.000	0.000	0.000	0.000				0.000
0.000	0.000	0.000	0.000				0.000
0.000	0.000	0.000	0.000				0.000
0.000	0.000	0.000	0.000				0.000
0.000	0.000	0.000	0.000				0.000
0.000	0.000	0.000	0.000				0.000
0.000	0.000	0.000	0.000				0.000
0.000	0.000	0.000	0.000				0.000
177.755	0.636	7.955	0.009			0.181	0.283
0.000	0.000	0.000	0.000				0.000
0.163	0.006	0.098	0.004				0.000
201.178	0.634	7.923	0.009			0.199	0.767
118.409	0.643	8.043	0.009			0.181	0.527
409.941	4.282	35.683	0.040			0.868	1.844
0.000	0.000	0.000	0.000				0.000
0.173	0.007	0.104	0.004				0.000
0.000	0.000	0.000	0.000				0.000
0.157	0.006	0.094	0.004				0.000
3.412	0.000	0.000	0.000				0.000
5.574	0.203	0.886	0.118				0.000
0.000	0.000	0.000	0.000				0.000
							4.687
							15.158
0.000	0.000	0.000	0.000				0.024
0.000	0.000	0.000	0.000				2.025
0.000	0.000	0.000	0.000				0.022
0.000	0.000	0.000	0.000				0.360
	0.000						0.630

	0.000						0.693
	0.000						0.629
	0.000						1.762
	0.000						0.270
							1.022
0.544	0.060	0.915	0.035				0.000
0.000	1.000	0.000	0.000				0.000
0.027	0.002	0.006	0.000				0.000
0.030	0.000	0.046	0.000				0.000
0.000	0.000	0.000	0.000				0.000
0.000	0.000	0.000	0.000				0.000
0.119	0.007	0.051	0.004				0.000
2.672	0.156	1.137	0.091				0.000
0.000	0.491	0.000	0.000				0.000
0.000	0.000	0.000	0.000				0.240
							0.451
0.000	0.000	0.000	0.000				0.000
0.000	0.000	0.000	0.035				0.000
0.000	0.000	0.000	0.000				0.000
0.000	0.000	0.000	0.000				0.000
0.000	0.000	0.000	0.000				0.000
0.023	0.000	0.000	0.000				0.000

2019 True-Up Emissions (tons/yr)						
NOx	**VOC**	**CO**	**NH3**	**Benzene**	**Chlorine**	**HCl**
920.177	8.152	62.940	0.362	0.000	0.000	1.428

clude Growth?	

2019 True-Up Emissions							
NOx	**VOC**	**CO**	**NH3**	**Benzene**	**Chlorine**	**HCl**	
0	0	0	0	0	0	0	0.000
0	0.016892	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000

0	0	0	0	0	0	0	0.000
177.7554	0.63638	7.95475	0.008989	0	0	0.181	0.283
0	0	0	0	0	0	0	0.000
0.16268	0.006391	0.097608	0.003718	0	0	0	0.000
201.178	0.63386	7.92325	0.008953	0	0	0.199	0.767
118.409	0.64346	8.04325	0.009089	0	0	0.1805	0.527
409.941	4.2819	35.6825	0.040321	0	0	0.8675	1.844
0	0	0	0	0	0	0	0.000
0.1729	0.006793	0.10374	0.003952	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0.15701	0.006168	0.094206	0.003589	0	0	0	0.000
3.4124	0	0	0	0	0	0	0.000
5.573875	0.203087	0.8862	0.11816	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	4.687
0	0	0	0	0	0	0	15.158
0	0	0	0	0	0	0	0.024
0	0	0	0	0	0	0	2.025
0	0	0	0	0	0	0	0.022
0	0	0	0	0	0	0	0.360
0	0	0	0	0	0	0	0.630
0	0	0	0	0	0	0	0.693
0	0	0	0	0	0	0	0.629
0	0	0	0	0	0	0	1.762
0	0	0	0	0	0	0	0.270
0	0	0	0	0	0	0	1.022
0.544462	0.059891	0.914697	0.034846	0	0	0	0.000
0	1	0	0	0	0	0	0.000
0.026553	0.002168	0.00572	0.000035	0	0	0	0.000
0.030012	0.000391	0.046406	0.000041	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0.118772	0.006949	0.050541	0.004043	0	0	0	0.000
2.672365	0.156362	1.137176	0.090974	0	0	0	0.000
0	0.491043	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.240
0	0	0	0	0	0	0	0.451
0	0	0	0	0	0	0	0.000
0	0	0	0.03548	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0.022797	0.000009	0.000255	0	0	0	0	0.000

2019 Projected Emissions (tons/yr)

NOx	VOC	CO	NH3	Benzene	Chlorine	HCl
977.940	8.663	66.891	0.385	0.000	0.000	1.518

2019 Projected Emissions							
NOx	VOC	CO	NH3	Benzene	Chlorine	HCl	
0	0	0	0	0	0	0	0.000
0	0.017952	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
188.9138	0.676328	8.454099	0.009553	0	0	0.192362	0.301
0	0	0	0	0	0	0	0.000
0.172892	0.006792	0.103735	0.003951	0	0	0	0.000
213.8067	0.67365	8.420621	0.009515	0	0	0.211492	0.816
125.8419	0.683852	8.548154	0.00966	0	0	0.191831	0.560
435.6745	4.550691	37.92242	0.042852	0	0	0.921956	1.959
0	0	0	0	0	0	0	0.000
0.183754	0.007219	0.110252	0.0042	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0.166866	0.006555	0.10012	0.003814	0	0	0	0.000
3.626609	0	0	0	0	0	0	0.000
5.923768	0.215836	0.94183	0.125577	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	4.981
0	0	0	0	0	0	0	16.109
0	0	0	0	0	0	0	0.026
0	0	0	0	0	0	0	2.152
0	0	0	0	0	0	0	0.023
0	0	0	0	0	0	0	0.383
0	0	0	0	0	0	0	0.670
0	0	0	0	0	0	0	0.737
0	0	0	0	0	0	0	0.668
0	0	0	0	0	0	0	1.872
0	0	0	0	0	0	0	0.287
0	0	0	0	0	0	0	1.086
0.57864	0.063651	0.972116	0.037033	0	0	0	0.000
0	1.062774	0	0	0	0	0	0.000
0.02822	0.002304	0.006079	3.72E-05	0	0	0	0.000
0.031896	0.000416	0.049319	4.36E-05	0	0	0	0.000

0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0.126228	0.007385	0.053714	0.004297	0	0	0	0.000
2.840119	0.166177	1.208561	0.096685	0	0	0	0.000
0	0.521868	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.255
0	0	0	0	0	0	0	0.479
0	0	0	0	0	0	0	0.000
0	0	0	0.037707	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0.024228	9.56E-06	0.000271	0	0	0	0	0.000

2024 Projected Emissions (tons/yr)						
NOx	**VOC**	**CO**	**NH3**	**Benzene**	**Chlorine**	**HCl**
940.686	8.333	64.343	0.370	0.000	0.000	1.460

2024 Projected Emissions							
NOx	**VOC**	**CO**	**NH3**	**Benzene**	**Chlorine**	**HCl**	
0	0	0	0	0	0	0	0.000
0	0.017268	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
181.7172	0.650564	8.132045	0.009189	0	0	0.185034	0.289
0	0	0	0	0	0	0	0.000
0.166306	0.006533	0.099783	0.003801	0	0	0	0.000
205.6618	0.647987	8.099843	0.009153	0	0	0.203435	0.784
121.048	0.657801	8.222517	0.009292	0	0	0.184523	0.538
419.0777	4.377335	36.47779	0.04122	0	0	0.886835	1.885
0	0	0	0	0	0	0	0.000
0.176754	0.006944	0.106052	0.00404	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0.160509	0.006305	0.096306	0.003669	0	0	0	0.000

3.488455	0	0	0	0	0	0	0.000
5.698105	0.207613	0.905952	0.120794	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	4.791
0	0	0	0	0	0	0	15.496
0	0	0	0	0	0	0	0.025
0	0	0	0	0	0	0	2.070
0	0	0	0	0	0	0	0.022
0	0	0	0	0	0	0	0.368
0	0	0	0	0	0	0	0.644
0	0	0	0	0	0	0	0.708
0	0	0	0	0	0	0	0.643
0	0	0	0	0	0	0	1.801
0	0	0	0	0	0	0	0.276
0	0	0	0	0	0	0	1.045
0.556597	0.061226	0.935084	0.035623	0	0	0	0.000
0	1.022288	0	0	0	0	0	0.000
0.027145	0.002216	0.005847	3.58E-05	0	0	0	0.000
0.030681	0.0004	0.04744	4.19E-05	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0.121419	0.007104	0.051667	0.004133	0	0	0	0.000
2.731926	0.159847	1.162521	0.093002	0	0	0	0.000
0	0.501987	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.245
0	0	0	0	0	0	0	0.461
0	0	0	0	0	0	0	0.000
0	0	0	0.036271	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0.023305	9.2E-06	0.000261	0	0	0	0	0.000

2028 Projected Emissions (tons/yr)						
NOx	**VOC**	**CO**	**NH3**	**Benzene**	**Chlorine**	**HCl**
921.311	8.162	63.018	0.363	0.000	0.000	1.430

2028 Projected Emissions							
NOx	**VOC**	**CO**	**NH3**	**Benzene**	**Chlorine**	**HCl**	
0	0	0	0	0	0	0	0.000
0	0.016913	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000

0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
177.9744	0.637164	7.964551	0.009	0	0	0.181223	0.283
0	0	0	0	0	0	0	0.000
0.16288	0.006399	0.097728	0.003723	0	0	0	0.000
201.4259	0.634641	7.933012	0.008964	0	0	0.199245	0.768
118.5548	0.644253	8.05316	0.0091	0	0	0.180722	0.527
410.4461	4.287176	35.72647	0.040371	0	0	0.868569	1.846
0	0	0	0	0	0	0	0.000
0.173113	0.006801	0.103868	0.003957	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0.157203	0.006176	0.094322	0.003593	0	0	0	0.000
3.416604	0	0	0	0	0	0	0.000
5.580743	0.203337	0.887292	0.118306	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	4.693
0	0	0	0	0	0	0	15.177
0	0	0	0	0	0	0	0.024
0	0	0	0	0	0	0	2.028
0	0	0	0	0	0	0	0.022
0	0	0	0	0	0	0	0.360
0	0	0	0	0	0	0	0.631
0	0	0	0	0	0	0	0.694
0	0	0	0	0	0	0	0.629
0	0	0	0	0	0	0	1.764
0	0	0	0	0	0	0	0.271
0	0	0	0	0	0	0	1.023
0.545133	0.059965	0.915824	0.034889	0	0	0	0.000
0	1.001232	0	0	0	0	0	0.000
0.026586	0.002171	0.005727	3.5E-05	0	0	0	0.000
0.030049	0.000391	0.046463	4.11E-05	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0.118918	0.006958	0.050603	0.004048	0	0	0	0.000
2.675658	0.156555	1.138577	0.091086	0	0	0	0.000
0	0.491648	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.240
0	0	0	0	0	0	0	0.452
0	0	0	0	0	0	0	0.000
0	0	0	0.035524	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000

0	0	0	0	0	0	0	0.000
0.022825	9.01E-06	0.000255	0	0	0	0	0.000

2030 Projected Emissions (tons/yr)						
NOx	**VOC**	**CO**	**NH3**	**Benzene**	**Chlorine**	**HCl**
927.084	8.213	63.413	0.365	0.000	0.000	1.439

2030 Projected Emissions							
NOx	**VOC**	**CO**	**NH3**	**Benzene**	**Chlorine**	**HCl**	
0	0	0	0	0	0	0	0.000
0	0.017019	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
179.0896	0.641157	8.014457	0.009056	0	0	0.182359	0.285
0	0	0	0	0	0	0	0.000
0.163901	0.006439	0.098341	0.003746	0	0	0	0.000
202.688	0.638618	7.982721	0.00902	0	0	0.200494	0.773
119.2977	0.64829	8.103621	0.009157	0	0	0.181855	0.531
413.018	4.314039	35.95033	0.040624	0	0	0.874011	1.857
0	0	0	0	0	0	0	0.000
0.174198	0.006844	0.104519	0.003982	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0.158188	0.006214	0.094913	0.003616	0	0	0	0.000
3.438013	0	0	0	0	0	0	0.000
5.615712	0.204611	0.892852	0.119047	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	4.722
0	0	0	0	0	0	0	15.272
0	0	0	0	0	0	0	0.024
0	0	0	0	0	0	0	2.040
0	0	0	0	0	0	0	0.022
0	0	0	0	0	0	0	0.363
0	0	0	0	0	0	0	0.635
0	0	0	0	0	0	0	0.698

0	0	0	0	0	0	0	0.633
0	0	0	0	0	0	0	1.775
0	0	0	0	0	0	0	0.272
0	0	0	0	0	0	0	1.029
0.548549	0.060341	0.921563	0.035108	0	0	0	0.000
0	1.007506	0	0	0	0	0	0.000
0.026752	0.002184	0.005763	3.53E-05	0	0	0	0.000
0.030237	0.000394	0.046754	4.13E-05	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0.119663	0.007001	0.05092	0.004073	0	0	0	0.000
2.692423	0.157536	1.145711	0.091657	0	0	0	0.000
0	0.494729	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.242
0	0	0	0	0	0	0	0.454
0	0	0	0	0	0	0	0.000
0	0	0	0.035746	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0	0	0	0	0	0	0	0.000
0.022968	9.07E-06	0.000257	0	0	0	0	0.000

State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQE-IN105720029-14

March 18, 2014

Chris Kaiser
Kennecott Utah Copper LLC
4700 Daybreak Parkway
South Jordan, UT 84095

Dear Mr. Kaiser:

Re: Intent to Approve: Modification of Approval Orders DAQE-AN0572018-06 for the Expansion of the Tailings Impoundment
Project Number: N10572-0029

The attached document is the Intent to Approve for the above-referenced project. The Intent to Approve is subject to public review. Any comments received shall be considered before an Approval Order is issued. The Division of Air Quality is authorized to charge a fee for reimbursement of the actual costs incurred in the issuance of an Approval Order. An invoice will follow upon issuance of the final Approval Order.

Future correspondence on this Intent to Approve should include the engineer's name as well as the DAQE number as shown on the upper right-hand corner of this letter. The project engineer for this action is Nando Meli Jr., who may be reached at (801) 536-4052.

Sincerely,

Martin D. Gray, Manager
New Source Review Section

MDG:NM:kw

cc: Mike Owens
Salt Lake Valley Health Department

STATE OF UTAH

Department of Environmental Quality

Division of Air Quality

INTENT TO APPROVE: Modification of Approval Order DAQE-AN0572018-06 for the Expansion of the Tailings Impoundment

Prepared by: Nando Meli Jr., Engineer
Phone: (801) 536-4052
Email: nmeli@utah.gov

INTENT TO APPROVE NUMBER

DAQE-IN105720029-14

Date: March 18, 2014

Kennecott Utah Copper LLC
Power Plant/ Lab/ Tailings Impoundment

Source Contact:
Chris Lilley, Manager
Phone: (801) 204-2134

Martin D. Gray, Manager
New Source Review Section

ABSTRACT

Kennecott Utah Copper (KUC) has requested approval to expand the existing Tailings site. As part of the expansion plan, the Tailings site is being redesigned in two Phases to handle a total of 2.2 billion tons of tailings storage. To achieve this required storage amount, modifications to the existing operation are proposed along with an increase in the overall Tailing's site footprint. The first phase of construction will consist of a new expansion to the northeast of the existing Tailing site. When this Northeast Impoundment is combined with the existing North Impoundment, the total footprint will be approximately 4,490 acres. The final phase will consist of raising the North Impoundment and combining it with a portion of the South Impoundment. This will result in a total foot print area of approximately 10,190 acres. Infrastructure modifications and equipment relocations will be required during the proposed expansion project.

Salt Lake County is a Non-attainment area of the NAAQS for PM_{10}, $PM_{2.5}$ and SO_2, and is a Maintenance area for Ozone. The Tailings Impoundment is listed in Section IX, Part H, Subpart 2.i(2) of the PM_{10} SIP. Title V of the 1990 Clean Air Act applies to this source. The fugitive emission increases associated with the Tailings site expansion (in TPY) are estimated as follows: PM_{10} = 46.79, $PM_{2.5}$ = 7.10. The PTE for all sources associated with the Tailings site will be as follows: PM_{10} (including $PM_{2.5}$) = 83.05, $PM_{2.5}$ = 12.58, NO_x = 0.28, CO = 1.12, VOC = 0.04, and CO_2e = 20.04. In accordance with R307-403-5, the increase in PM_{10} emissions of 46.79 TPY from the Tailings and the increase from the Bonneville Borrow Plant combined together will be over 50 TPY, and they will be offset at a ratio of 1.2:1. Offsets held in the Emission Credit Registry by KUC will be relinquished prior to the issuance of the AO.

The NOI for the above-referenced project has been evaluated and has been found to be consistent with the requirements of UAC R307. Air pollution producing sources and/or their air control facilities may not be constructed, installed, established, or modified prior to the issuance of an AO by the Director.

A 30-day public comment period will be held in accordance with UAC R307-401-7. A notification of the intent to approve will be published in the Salt Lake Tribune and Deseret News on March 22, 2014. During the public comment period the proposal and the evaluation of its impact on air quality will be available for the public to review and provide comment. If anyone so requests a public hearing within 15 days of publication, it will be held in accordance with UAC R307-401-7. The hearing will be held as close as practicable to the location of the source. Any comments received during the public comment period and the hearing will be evaluated. The proposed conditions of the AO may be changed as a result of the comments received.

Name of Permittee:

Kennecott Utah Copper LLC
4700 Daybreak Parkway
South Jordan, UT 84095

Permitted Location:

Power Plant/ Lab/ Tailings Impoundment
11984 West Highway 202
Magna, UT 84044

UTM coordinates: 405,000 m Easting, 4,513,000 m Northing, UTM Zone 12
SIC code: 1021 (Copper Ores)

Section I: GENERAL PROVISIONS

I.1 All definitions, terms, abbreviations, and references used in this AO conform to those used in the UAC R307 and 40 CFR. Unless noted otherwise, references cited in these AO conditions refer to those rules. [R307-101]

I.2 The limits set forth in this AO shall not be exceeded without prior approval. [R307-401]

I.3 Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved. [R307-401-1]

I.4 All records referenced in this AO or in other applicable rules, which are required to be kept by the owner/operator, shall be made available to the Director or Director's representative upon request, and the records shall include the two-year period prior to the date of the request. Unless otherwise specified in this AO or in other applicable state and federal rules, records shall be kept for a minimum of five (5) years. [R307-401-8]

I.5 At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this AO, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. All maintenance performed on equipment authorized by this AO shall be recorded. [R307-401-4]

I.6 The owner/operator shall comply with UAC R307-107. General Requirements: Breakdowns. [R307-107]

I.7 The owner/operator shall comply with UAC R307-150 Series. Inventories, Testing and Monitoring. [R307-150]

Section II: SPECIAL PROVISIONS

II.A The approved installations shall consist of the following equipment:

II.A.1 **Plantwide**

Tailings Site

II.A.2 **Emergency Generator**

Fuel Type	Liquid Petroleum (LP)
Maximum Rating	75 Brake Horsepower

II.B Requirements and Limitations

II.B.1 **Sitewide Conditions**

II.B.1.a The minimum cycle time required for wetting all interior beach areas of the Tailings Impoundment between February 15 and November 15 shall be at least every four days.

Monitoring:

KUC shall monitor the peripheral discharge pipe downtime (length of pipe, and duration) and the fugitive dust stabilization activities daily.

Recordkeeping:

Results of monitoring shall be maintained in accordance with Condition I.4 of this permit. [R307-401]

II.B.1.b Visible emissions caused by fugitive dust from the tailings site shall not exceed the following values:

A. 10% at the property boundary, and
B. 20% onsite except as defined in R307-309(3).

The fugitive dust control plan shall utilize the fugitive dust control strategies listed in UAC R307-309. Opacity observations of emissions from stationary sources shall be conducted according to R307-309-5(3). [R307-309]

Monitoring:

A visual opacity survey of the tailings impoundment, tailings embankment and tailings service roads shall be performed on a weekly basis by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. The individual is not required to be a certified visible emissions observer (VEO). If visible emissions other than steam are observed from an emission unit, an opacity determination of that emission unit shall be performed by a certified VEO in accordance with 40 CFR 60, Appendix A, Method 9 within 24 hours of the initial survey. If no visible emissions are observed for eight consecutive weeks, the observation frequency shall be reduced to a monthly basis. If visible emissions are observed during any monthly observation the frequency shall revert back to a weekly basis.

Minor natural gas combustion sources (<5 MMBtu/hr), cold solvent degreasers, organic liquid storage tanks (<19,812 gallons), cooling towers, and units equipped with a continuous opacity monitor are not affected emission units subject to this condition.

Recordkeeping:

A log of the visual opacity survey(s) shall be maintained in accordance with Condition I.4 of this permit. If an opacity determination is indicated, a notation of the determination will be made in the log. All data required by 40 CFR 60, Appendix A, Method 9 shall also be maintained in accordance with Condition I.4 of this permit. [R307-309]

II.B.1.c All unpaved access roads and other unpaved operational areas that are used by mobile equipment shall be water sprayed and/or chemically treated to control fugitive dust. Treatment shall be of sufficient frequency and quantity to maintain the surface material in a damp/moist or crusted condition. If chemical treatment other than magnesium chloride is to be used, the plan must be approved by the Director. Records of water and/or chemical treatment shall be kept for all periods when the plant is in operation. The records shall include the following items:

A. Date
B. Number of treatments made, dilution ratio, and quantity
C. Rainfall received, if any, and approximate amount
D. Time of day treatments were made

Records of treatment shall be made available to the Director upon request and shall include a period of two years ending with the date of the request. [R307-309]

II.B.1.d Between February 15 and November 15 of each calendar year, KUC shall inspect the interior surface area, unpaved roads, and exterior dike area at least once every two weeks and daily when 48 hours before a wind event, when wind gusts are forecasted to exceed 25 mph for more than one hour by the Tailings site forecast. Wind events may be measured by KUC's station at the Tailings site or the Salt Lake International airport. [R307-309]

II.B.1.e The tailings distribution system shall be operated to maximize surface wetness. Wind erosion potential is the area that is not wet, frozen, vegetated, crusted or treated and has the potential for wind erosion. No more than 50 contiguous acres or more than 5% of the total tailings area shall be permitted to have the potential for wind erosion. If it is determined that the area with the potential for wind erosion is more than 50 contiguous acres or greater than 5% of the total surface area, or at the request of the Director, inspections shall be conducted once every five working days. KUC shall immediately initiate the revised inspection schedule and the results reported to the Director within 24 hours of the inspection. The schedule shall continue to be implemented until KUC measures a total surface area with the potential for wind erosion is less than or equal to 5% of the total surface area and less than 50 contiguous acres. If KUC or the Director determines that the percentage of wind erosion potential is exceeded, KUC shall meet with the Director, or Director's staff, to discuss additional or modified fugitive dust controls/operational practices, and an implementation schedule for such, within five working days following verbal notification by either party.

Inactive but non-reclaimed areas are to be stabilized by chemical stabilizing agents, ponded water, sprinklers, vegetation or other methods of fugitive dust control. Ponded water is the inactive non reclaimed areas on the impoundment where water collects (ponds) resulting in standing water and/or damp, moist, or saturated ground conditions that prevent planting equipment access and/or the establishment of stable vegetation growth.

Monitoring:

KUC shall conduct wind erosion potential inspections monthly between February 15 and November 15 for the Impoundment areas. Observations shall be taken from the Tailings embankment at a height sufficient enough to be able to visually assess the surface of the tailings interior Impoundment surface and exterior embankment surface.

If it is determined by KUC or the Director that the percentage of wind erosion potential is greater than 5 percent, or at the request of the Director, an inspection schedule shall be immediately initiated by KUC that will result in inspections being conducted once every five working days and results reported to the Director within 24 hours of the determination, until KUC measures a total surface with the potential for wind erosion, less than or equal to 5 percent.

Between February 15 and November 15 of each calendar year, KUC shall alert the DAQ promptly, continue surveillance and coordination if a wind event is forecasted within 48 hours, and shall water spray unreclaimed dikes.

Recordkeeping:

Results of monitoring shall be maintained in accordance with Condition I.4 of this permit. [R307-309]

II.B.1.f KUC shall control the fugitive dust on all areas that have been closed for future tailings discharge and/or shutdown

A. The fugitive dust shall be controlled by reclaiming, revegetation, and/or by another plan that has been approved by the Director.

B. If a temporary or permanent shutdown occurs that would affect any area of the KUC Tailings site, KUC shall follow the dust control procedures in Condition II.B.1.f.A for all areas of the Tailings site and shall submit a final dust control plan for all areas of the Tailings site and have it approved at least 60 days prior to the shutdown.

All fugitive dust control plans for the Tailings site shall be submitted to the Director, attention Major New Source Review Section, and Compliance Section, for approval. [R307-309]

Monitoring:

The dust control plan required for this permit condition will serve as monitoring.

Recordkeeping:

The dust control plan required for this permit condition will serve as recordkeeping. [R307-309]

II.B.1.g Exterior tailings site areas that are determined by KUC or the Director to be sources of excessive fugitive dust, shall be stabilized through vegetation cover or other approved methods. The exterior tailings surface area shall be re-vegetated or stabilized so that no more than 50 contiguous acres and 5% of the total surface area shall be subject to wind erosion. [R307-309]

Monitoring:

Between February 15 and November 15 of each calendar year, KUC shall inspect the exterior dike area at least once every two weeks. The frequency shall be increased to daily at least 48 hours prior to each wind event that is forecasted. A wind event is defined as: wind gusts exceeding 25 mph for more than one hour, as measured by KUC's weather monitoring station on top of the tailings site or alternately at the Salt Lake International airport.

Recordkeeping:

All inspections, vegetation, and other stabilization activities shall be documented in accordance with Condition I.4 of this permit. [R307-309]

II.B.1.h As the embankment cells are filled during continual raising of the embankment, dust shall be controlled by the inherent high water content of the hydraulically placed cyclone underflow. Portions of the embankment that are not under active construction shall be kept wet or tackified by applying chemical stabilizing agents or water pumped from the toe ditch. Newly formed exterior slopes shall be stabilized with tackifiers or vegetation.

Monitoring:

KUC shall monitor the fugitive dust stabilization activities daily.

Recordkeeping:

Results of monitoring shall be maintained in accordance with Condition I.4 of this permit. [R307-309]

II.B.1.i Disturbed or stripped areas of the Tailings site shall be kept sufficiently moist during the project to minimize fugitive dust. This control, or other equivalent control methods, shall remain operational during the project cycle and until the areas have been reclaimed. The control methods used shall be operational as needed 24 hours per day, 365 days per year or until the area has been reclaimed. [R307-309]

Monitoring:

Records required for this permit condition will serve as monitoring.

Recordkeeping:

The control method used and the date shall be recorded for all periods. Results of monitoring shall be maintained in accordance with Condition I.4 of this permit. [R307-309]

II.B.1.j On a quarterly basis, KUC shall summarize the following fugitive dust abatement program activities for the Director:

A. Documentation of the wind direction and speed data for days that winds exceeded 25 mph for a period greater than one hour during which no preceding or concurrent precipitation occurred.

B. Documentation of the inspections of the tailings surface area, including the wind erosion potential of the tailings surface area.

C. Documentation showing areas of dust suppressant application and planting during the quarter.

D. Quarterly reports shall be submitted to the Director within 30 days following the end of each calendar quarter.

Monitoring:

Records required for this permit condition will serve as monitoring.

Recordkeeping:

Results of monitoring shall be maintained in accordance with Condition I.4 of this permit. [R307-309]

II.B.1.k Construction of the Tailings embankment shall be with coarse tailings (less than 25% of material passing #200 sieve).

Monitoring:

Records required for this permit condition will serve as monitoring.

Recordkeeping:

The control method used and the date shall be recorded for all periods. Results shall be maintained in accordance with Condition I.4 of this permit. [R307-401-8]

II.B.1.l All areas that are inactive but non-reclaimed are to be stabilized by chemical stabilizing agents, ponded water, sprinklers, vegetation or other methods of fugitive dust control. Those areas shall be kept wet or tackified by applying chemical stabilizing agents or water as necessary.

Monitoring:

Between February 15 and November 15 of each calendar year, KUC shall inspect the Tailings Impoundments areas at least once every two weeks. The frequency shall be increased to daily at least 48 hours prior to each wind event that is forecasted.

Recordkeeping:

Records of treatments shall be kept for all periods including the following items: date, number of treatments made, dilution rate, and quantity, and the time of day treatments were made. In addition, records of days of freezing temperature shall be kept. [R307-309]

Section III: APPLICABLE FEDERAL REQUIREMENTS

In addition to the requirements of this AO, all applicable provisions of the following federal programs have been found to apply to this installation. This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including UAC R307.

Title V (Part 70) major source

PERMIT HISTORY

The final AO will be based on the following documents:

Incorporates	Additional Information dated October 31, 2013
Incorporates	Additional Information dated September 16, 2013
Incorporates	Additional Information dated August 15, 2013
Incorporates	Additional Information dated August 5, 2013
Incorporates	Additional Information dated July 1, 2013
Incorporates	Additional Information dated June 19, 2013
Incorporates	Additional Information dated February 7, 2013
Incorporates	Additional Information dated September 17, 2012
Incorporates	Additional Information dated August 9, 2012
Incorporates	Additional Information dated May 21, 2012
Incorporates	Additional Information dated December 28, 2011
Is Derived From	NOI dated December 19, 2011
Supersedes	AO DAQE-AN0572018-06 dated April 6, 2006

ADMINISTRATIVE CODING

The following information is for UDAQ internal classification use only:

Salt Lake County
CDS A
PM_{10} SIP / Maint Plan, Nonattainment or Maintenance Area, Title V (Part 70) major source,

ACRONYMS

The following lists commonly used acronyms as they apply to this document:

40 CFR	Title 40 of the Code of Federal Regulations
AO	Approval Order
BACT	Best Available Control Technology
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CDS	Classification Data System (used by EPA to classify sources by size/type)
CEM	Continuous emissions monitor
CEMS	Continuous emissions monitoring system
CFR	Code of Federal Regulations
CMS	Continuous monitoring system
CO	Carbon monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent - 40 CFR Part 98, Subpart A, Table A-1
COM	Continuous opacity monitor
DAQ	Division of Air Quality (typically interchangeable with UDAQ)
DAQE	This is a document tracking code for internal UDAQ use
EPA	Environmental Protection Agency
FDCP	Fugitive Dust Control Plan
GHG	Greenhouse Gas(es) - 40 CFR 52.21 (b)(49)(i)
GWP	Global Warming Potential - 40 CFR Part 86.1818-12(a)
HAP or HAPs	Hazardous air pollutant(s)
ITA	Intent to Approve
LB/HR	Pounds per hour
MACT	Maximum Achievable Control Technology
MMBTU	Million British Thermal Units
NAA	Nonattainment Area
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants
NOI	Notice of Intent
NO_x	Oxides of nitrogen
NSPS	New Source Performance Standard
NSR	New Source Review
PM_{10}	Particulate matter less than 10 microns in size
$PM_{2.5}$	Particulate matter less than 2.5 microns in size
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
R307	Rules Series 307
R307-401	Rules Series 307 - Section 401
SO_2	Sulfur dioxide
Title IV	Title IV of the Clean Air Act
Title V	Title V of the Clean Air Act
TPY	Tons per year
UAC	Utah Administrative Code
UDAQ	Utah Division of Air Quality (typically interchangeable with DAQ)
VOC	Volatile organic compounds

State of Utah

GARY R. HERBERT
Governor

GREG BELL
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQE-AN105720026-11

November 22, 2011

Chris Kaiser
Kennecott Utah Copper LLC
4700 Daybreak Parkway
South Jordan, UT 84095

Dear Mr. Kaiser:

Re: Approval Order: Modify Approval Order DAQE-AN0105720022-09 to Replace Boilers (Units 1, 2 and 3) with a New Combined-Cycle Turbine
Project Number: N10572-0026

The attached document is the Approval Order for the above-referenced project. Future correspondence on this Approval Order should include the engineer's name as well as the DAQE number as shown on the upper right-hand corner of this letter. The project engineer for this action is John Jenks, who may be reached at (801) 536-4459.

Sincerely,

Bryce C. Bird, Executive Secretary
Utah Air Quality Board

BCB:JJ:kw

cc: Mike Owens
Salt Lake Valley Health Department

STATE OF UTAH

Department of Environmental Quality

Division of Air Quality

APPROVAL ORDER: Modify Approval Order DAQE-AN0105720022-09 to Replace Boilers (Units 1, 2 and 3) with a New Combined-Cycle Turbine

Prepared By: John Jenks, Engineer
Phone: (801) 536-4459
Email: jjenks@utah.gov

APPROVAL ORDER NUMBER

DAQE-AN105720026-11

Date: November 22, 2011

Kennecott Utah Copper LLC
Power Plant/ Lab/ Tailings Impoundment

Source Contact:
Ray Gottling
Phone: (801) 569-7110

Bryce C. Bird
Executive Secretary
Utah Air Quality Board

Abstract

On December 15, 2010 Kennecott Utah Copper, LLC (KUC) submitted a NOI to install and operate a new combined-cycle, natural gas-fired combustion turbine (CT) to replace three existing coal-fired boilers (identified as Units 1, 2 and 3 boilers). The new CT will have a nominal generating capacity of approximately 275 megawatts (MW) and will limit emissions through a combination of dry low-NO_x combustors, selective catalytic reduction (SCR) and catalytic oxidation (CatOx). The CT will be located at KUC's existing power plant in Salt Lake County. Salt Lake County is a non-attainment area of the NAAQS for PM_{10}, $PM_{2.5}$ (a subset of PM_{10}) and SO_2, and is a maintenance area for ozone. Title V of the 1990 Clean Air Act applies to this source and this modification will result in a Title V amendment. The requirements for Title V shall be followed until the operating permit for this source has been amended. Current potential to emit for the facility are estimated at: PM_{10} = 256; $PM_{2.5}$ = 256; NO_x = 4,160; SO_2 = 6,522; CO = 384; and VOC = 33. Using a two-year average of KUC's actual emissions from Units 1, 2 and 3 boilers as a baseline, the change in emissions from this project, in TPY, is as follows: PM_{10} -100; $PM_{2.5}$ -20; NO_x -1,543; SO_2 -1,961; CO +93; VOC +19 and GHG (CO_2e) +278,703. The facility-wide potential to emit totals following the installation of the new CT and after the shut-down of Units 1, 2 and 3 boilers are as follows (again in TPY): PM_{10} = 248, $PM_{2.5}$ = 248, NO_x = 1,641, SO_2 = 2,577, CO = 328, VOC = 41 and total HAPs = 9. Potential GHG emissions for the new CT are estimated to be 1,162,552 TPY (expressed as CO_2e). While classified as a minor modification for the criteria pollutants listed above, this project represents a major modification for GHG emissions.

This air quality AO authorizes the project with the following conditions and failure to comply with any of the conditions may constitute a violation of this order. This AO is issued to, and applies to the following:

Name of Permittee:

Kennecott Utah Copper LLC
4700 Daybreak Parkway
South Jordan, UT 84095

Permitted Location:

Power Plant/ Lab/ Tailings Impoundment
9600 West 2100 South
Magna, UT 84044-6001

UTM coordinates: 405000 m Easting, 4507000 m Northing, UTM Zone 12
SIC code: 4911 (Electric Services)

Section I: GENERAL PROVISIONS

I.1 All definitions, terms, abbreviations, and references used in this AO conform to those used in the UAC R307 and 40 CFR. Unless noted otherwise, references cited in these AO conditions refer to those rules. [R307-101]

I.2 The limits set forth in this AO shall not be exceeded without prior approval. [R307-401]

I.3 Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved. [R307-401-1]

I.4 All records referenced in this AO or in other applicable rules, which are required to be kept by the owner/operator, shall be made available to the Executive Secretary or Executive Secretary's representative upon request, and the records shall include the two-year period prior to the date of

the request. Unless otherwise specified in this AO or in other applicable state and federal rules, records shall be kept for a minimum of five years. [R307-401]. [R307-415-6b]

I.5 At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this AO, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. All maintenance performed on equipment authorized by this AO shall be recorded. [R307-401-4]

I.6 The owner/operator shall comply with R307-150 Series. Inventories, Testing and Monitoring. [R307-150]

I.7 The owner/operator shall comply with UAC R307-107. General Requirements: Unavoidable Breakdowns. [R307-107]

Section II: SPECIAL PROVISIONS

II.A The approved installations shall consist of the following equipment:

II.A.1 **Plant Wide**
Power Plant

II.A.2 **Power Plant Boiler #1**
Rated at:
431 MMBtu/hr maximum heat input when burning coal
453 MMBtu/hr maximum heat input when burning natural gas

II.A.3 **Power Plant Boiler #2**
Rated at:
431 MMBtu/hr maximum heat input when burning coal
453 MMBtu/hr maximum heat input when burning natural gas

II.A.4 **Power Plant Boiler #3**
Rated at:
431 MMBtu/hr maximum heat input when burning coal
453 MMBtu/hr maximum heat input when burning natural gas

II.A.5 **Power Plant Boiler #4**
Rated at:
838 MMBTU/hr maximum heat input when burning coal
872 MMBTU/hr maximum heat input when burning natural gas

II.A.6 **Power Plant Turbine (Unit #5)**
Nominal 275 MW combustion turbine and HRSG unit, SCR and CatOx

II.A.7 **Hot Water Boiler**
7.133 MMBTU/hr natural gas fired boiler, located in the laboratory

II.A.8 **Cold Solvent Parts Washers**
25 gal. of solvent per washer and approximately 200 gal. or less of solvent used every year for maintenance cleaners at various locations throughout the source.

II.A.9 **Wet Cooling Towers**
Five Non-contact water-cooling towers

II.A.10 **Natural Gas Generator**
1.2 MMBTU/hr natural gas fired generator, located in the Power Plant

II.A.11 **Hydraulic Coal Unloader System with Diesel Engine**
Manufacturer: John Deere
Maximum Rating: 170 Hp

II.A.12 **Coal and Ash Handling Equipment**
Wet and closed fly ash capture system, handles ash from the electrostatic precipitators

II.A.13 **Diesel Engine**
175 Hp diesel engine located in the Power Plant, to operate an emergency fire water pump

II.B Requirements and Limitations

II.B.1 **Plantwide Conditions**

II.B.1.a The sulfur content of any fuel burned shall not exceed 0.52 lb of sulfur per million BTU (annual running average), nor shall any one test exceed 0.66 lb of sulfur per million BTU.

A. Coal increments will be collected using ASTM 2234, Type I conditions A, B, or C and systematic spacing. Fuel lot size is defined as the weight of fuel consumed during three operational hours.

B. Percent sulfur content and gross calorific value of the coal on a dry basis will be determined for each gross sample using ASTM D methods 2013, 3177, 3173, and 2015.

C. Failure of KUC to measure at least 95% of the required increments in any one month shall constitute a violation of this provision.

D. KUC shall submit monthly reports of sulfur input to the boilers. The reports shall include sulfur content, gross calorific value and moisture content of each gross coal sample; the gross calorific value of all coal and gas; the total amount of coal and gas burned; and the running annual average sulfur input calculated at the end of each month of operation.

Conditions II.B.1.a.A, II.B.1.a.B, and II.B.1.a.C above may be replaced by an alternative testing plan for use with a given source of coal in accordance with R307-203-1. [R307-401]

II.B.1.b Visible emissions from the boiler stacks shall not exceed the associated opacity on a six-minute average, based on 40 CFR 60, Appendix A, Method 9, or as measured by a CEM, except as provided for in R307-201 and R307-305:

Natural Gas Fuel	10% opacity
Coal and Oil Fuel	20% opacity

Visible emissions from the following types of stationary sources shall not exceed the associated opacity on a six minute average, based on 40 CFR 60, Appendix A, Method 9:

Baghouses	10% opacity
Fugitive Emissions	15% opacity
Fugitive Dust and Diesel Engines	20% opacity

[R307-201]

II.B.2 **Conditions on combined-cycle CT/HRSG unit (Unit #5)**

II.B.2.a The height of the turbine/HRSG stack shall be no less than 185 feet, as measured from ground level at the base of the stack. [R307-401-8]

II.B.2.b Emissions from the CT/HRSG stack shall not exceed the following values:

NO_x: 2.0 ppmvd at 15% O_2*
CO: 2.0 ppmvd at 15% O_2*
VOC: 2.0 ppmvd at 15% O_2*
$PM_{10}/PM_{2.5}$: 18.8 lb/hr with duct firing

* Under steady state operation. Steady state operation means all periods of combustion turbine operation, except for periods of startup and shutdown as defined below, and periods of transient load conditions.

[R307-401-8]

II.B.2.c Stack testing to show compliance with the above Unit #5 emission limitations shall be performed for the following air contaminants, as determined by the following test methods in accordance with 40 CFR 60, Appendix A, 40 CFR 51, Appendix M (see Section IX, Part H.2.a for more details), and as directed by the Executive Secretary:

	Pollutant	Method	Retest every
A.	$PM_{10}/PM_{2.5}$	201/201a/202**	3 years
B.	NO_x	7	3 years
C.	VOC	25/25a	3 years
D.	CO	10	3 years

** or other testing methods approved by the Executive Secretary

The heat input during all compliance testing shall be no less than 90% of the design rate, which is 1,725 MMBTU/hr. The limited use of natural gas during startup, for maintenance firings and break-in firings does not constitute operation and does not require stack testing.

E. Notification

The Executive Secretary shall be notified at least 30 days prior to conducting any required emission testing. A source test protocol shall be submitted to DAQ when the testing notification is submitted to the Executive Secretary. The source test protocol shall be approved by the Executive Secretary prior to performing the test(s). The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Executive Secretary.

F. Sample Location

The emission point shall be designed to conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other methods as approved by the Executive Secretary. An Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location

[R307-401]

G. Volumetric Flow Rate

40 CFR 60, Appendix A, Method 2 or other testing methods approved by the Executive Secretary.

H. $PM_{10}/PM_{2.5}$

For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201, 201a, 202, or other testing methods approved by the Executive Secretary, such as the OTM 28 Dry Impinger Method. The back half condensibles shall also be tested using the method specified by the Executive Secretary. All particulate captured shall be considered $PM_{10}/PM_{2.5}$ as appropriate.

For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, or 5e as appropriate, or other testing methods approved by the Executive Secretary. The back half condensibles shall also be tested using the method specified by the Executive Secretary. All particulate captured shall be considered $PM_{10}/PM_{2.5}$ as appropriate.

I. NO_x

40 CFR 60, Appendix A, Method 7, 7A, 7B, 7C, 7D, 7E, or other testing methods approved by the Executive Secretary.

J. CO

40 CFR 60 Appendix A, Method 10, or other testing methods approved by the Executive Secretary.

K. Calculations

To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary, to give the results in the specified units of the emission limitation

[R307-150, R307-401]

II.B.2.d Emissions of GHG from Unit 5 shall not exceed 1,090,736 short tons of CO_2e per rolling 12-month period. GHG emissions shall include combined emissions of CO_2, CH4 and N2O. Compliance with the rolling 12-month period shall be determined as follows:

KUC shall multiply the actual rolling 12-month heat input for Unit 5 by the appropriate emissions factor and global warming potential listed below to estimate emissions of each GHG. Total CO_2e emissions equals the sum of all GHG emissions.

GHG	Emission Factor	Global Warming Potential
CO_2	53.02 kg/MMBtu	1
CH4	0.001 kg/MMBtu	21
N2O	0.0001 kg/MMBtu	310

[R307-401-8]

II.B.2.e KUC shall conduct stack testing to verify the CO_2 emission factor listed in condition II.B.2.d. This stack testing shall be conducted at least once every three (3) years. CO_2 emissions shall be determined using the procedures outlined in 40 CFR 60 Appendix A, Method 20. [40 CFR 60, R307-165]

II.B.3 **Boiler Conditions**

II.B.3.a The following conditions as applicable to the Unit #1 Boiler, Unit #2 Boiler and Unit #3 Boiler shall only apply until Unit #5 becomes operational. Upon commencing operation of Unit #5, KUC shall not operate Unit #1, #2 and #3 Boilers. [R307-401]

II.B.3.b During the period from November 1, to the last day in February of the following year, inclusive, the following conditions shall apply:

A. The four boilers shall use only natural gas as a fuel, unless the supplier or transporter of natural gas imposes a curtailment. If the power plant is in operation using natural gas when the curtailment is imposed, the power plant may then burn coal, only for the duration of the curtailment plus sufficient time to empty the coal bins following the curtailment. The Executive Secretary shall be notified of the curtailment within 48 hours of when it begins and within 48 hours of when it ends.

B. The following consumption limits on fuel usage shall not be exceeded:

1) 42,706 MMBTU per day for natural gas usage
2) 31,510 MMBTU per day for coal usage

Compliance with the consumption limits on fuel usage above shall be determined by calculating the MMBTU used per day. The BTU limit shall be determined by monitoring the daily natural gas, and/or coal consumption and multiplying that value with the BTU rating of the fuel consumed. The natural gas BTU used shall be that value supplied by the natural gas vendor from the previous month's bill. The BTU limit for coal shall be determined by monitoring the daily coal consumption and multiplying that value with the coal BTU rating. Appendix A outlines how the coal BTU rating is calculated. KUC shall provide test certification for each load of coal received. Test certification for each load received shall be defined as test once per day for coal received that day from each supplier. Certification shall be either by their own testing or test reports from the coal marketer. Records of BTU fuel usage shall be kept on a daily basis. [R307-401]

C. Natural gas used as fuel

Except during a curtailment of natural gas supply, emissions to the atmosphere from the indicated emission point shall not exceed the following rates and concentrations:

1) For each of boilers no 1, 2 & 3:
   a) PM_{10}: 0.004 grain/dscf (68oF, 29.92 in Hg)
   b) NO_x: 159 lb/hr and 336 ppmdv (measured at 3% oxygen)

2) For boiler no. 4:
   a) PM_{10}: 0.004 grain/dscf (68oF, 29.92 in Hg)
   b) NO_x: 306 lb/hr and 336 ppmdv (measured at 3% oxygen)

D. Coal used as fuel

During a curtailment of natural gas supply, emissions to the atmosphere from the indicated emission point shall not exceed the following rates and concentrations:

1) For each of boilers no 1, 2 & 3:
   aa) PM_{10}: 17.3 lb/hr and 0.029 grain/dscf (68oF, 29.92 in Hg)
   b) NO_x: 216 lb/hr and 426.5 ppmdv (measured at 3% oxygen)

2) For boiler no. 4:
   a) PM_{10}: 33.5 lb/hr and 0.029 grain/dscf (68oF, 29.92 in Hg)
   b) NO_x: 377 lb/hr and 384 ppmdv (measured at 3% oxygen)

E. KUC shall provide monthly reports to the Executive Secretary showing daily total emission estimates based upon boiler usage, fuel consumption and previously available results of stack tests.

[R307-401]

II.B.3.c During each annual period from March 1 to October 31, inclusive, the following conditions shall apply:

A. KUC shall use coal, natural gas, and/or oils that meet all the specifications of 40 CFR 266.40(e) and contains less than 1000 ppm total halogens, and/or number two fuel oil or lighter in the boilers.

B. Fuel usage shall not exceed 50,400 MMBTU per day of heat input.

Compliance with the consumption limit on fuel usage shall be determined by calculating the MMBTU used per day. The BTU limit shall be determined by monitoring the daily natural gas, and/or coal consumption and multiplying that value with the BTU rating of the fuel consumed. The natural gas BTU used shall be that value supplied by the natural gas vendor from the previous month's bill. The BTU limit for coal shall be determined by monitoring the daily coal consumption and multiplying that value with the coal BTU rating. Appendix A outlines how the coal BTU rating is calculated. KUC shall provide test certification for each load of coal received. Test certification for each load received shall be defined as test once per day for coal received that day from each supplier. Certification shall be either by KUC's own testing or test reports from the coal marketer. Records of BTU fuel usage shall be kept on a daily basis.

[R307-401]

C. Emissions to the atmosphere from each emission point shall not exceed the following rates and concentrations:

1) For each of boilers no. 1, 2 &3:
   a) PM_{10}: 17.3 lb/hr and 0.029 grain/dscf (68 degrees F, 29.92 in Hg)
   b) NO_x: 216 lb/hr and 426.5 ppmdv (measured at 3% oxygen)

2) For boiler no. 4:
   a) PM_{10}: 33.5 lb/hr and 0.029 grain/dscf (68 degrees F, 29.92 in Hg)
   b) NO_x: 377 lb/hr and 384 ppmdv (measured at 3% oxygen)

[R307-401]

II.B.3.d Stack testing to show compliance with the above emission limitations shall be performed for the following air contaminants, as determined by the following test methods in accordance with 40 CFR 60, Appendix A, 40 CFR 51, Appendix M (see Section IX, Part H.2.a for more details), and as directed by the Executive Secretary:

	Pollutant	Method	Retest every
A.	PM_{10}	201/201a	1 year
B.	NO_x	7	1 year

The heat input during all compliance testing shall be no less than 90% of the design rate, which is 388 MMBtu/hr for each of boilers 1, 2 & 3 and 754 MMBTU/hr for boiler #4. The

limited use of natural gas during startup, for maintenance firings and break-in firings does not constitute operation and does not require stack testing.

C. Notification

The Executive Secretary shall be notified at least 30 days prior to conducting any required emission testing. A source test protocol shall be submitted to DAQ when the testing notification is submitted to the Executive Secretary. The source test protocol shall be approved by the Executive Secretary prior to performing the test(s). The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Executive Secretary.

D. Sample Location

The emission point shall be designed to conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other methods as approved by the Executive Secretary. An Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location

[R307-401]

E. Volumetric Flow Rate

40 CFR 60, Appendix A, Method 2 or other testing methods approved by the Executive Secretary.

F. PM_{10}

For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201, 201a, or other testing methods approved by the Executive Secretary. The back half condensibles shall also be tested using the method specified by the Executive Secretary. All particulate captured shall be considered PM_{10}. The back half condensibles shall not be used for compliance demonstration but shall be used for inventory purposes.

For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, or 5e as appropriate, or other testing methods approved by the Executive Secretary. The back half condensibles shall also be tested using the method specified by the Executive Secretary. The portion of the front half of the catch considered PM_{10} shall be based on information in Appendix B of the fifth edition of the EPA document, AP-42, or other data acceptable to the Executive Secretary. The back half condensibles shall not be used for compliance demonstration but shall be used for inventory purposes.

G. NO_x

40 CFR 60, Appendix A, Method 7, 7A, 7B, 7C, 7D, 7E, or other testing methods approved by the Executive Secretary.

H. Calculations

To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary, to give the results in the specified units of the emission limitation

[R307-401]

Section III: APPLICABLE FEDERAL REQUIREMENTS

In addition to the requirements of this AO, all applicable provisions of the following federal programs have been found to apply to this installation. This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including UAC R307.

NSPS (Part 60), IIII: Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
NSPS (Part 60), KKKK: Standards of Performance for Stationary Combustion Turbines
MACT (Part 63), YYYY: National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines
MACT (Part 63), ZZZZ: National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
Title V (Part 70) Major source

PERMIT HISTORY

This AO is based on the following documents:

Incorporates	Source Submitted NOI dated December 15, 2010
Incorporates	Additional Information Received dated January 20, 2011
Incorporates	Additional Information Received dated April 20, 2011
Incorporates	Additional Information Received dated July 20, 2011
Supersedes	DAQE-AN0105720022-09 dated May 14, 2009

ADMINISTRATIVE CODING

The following information is for UDAQ internal classification use only:

Salt Lake County
CDS A
Compliance Assurance Monitoring (CAM), MACT (Part 63), NSPS (Part 60), Nonattainment or Maintenance Area, PM_{10} SIP / Maint Plan, Title V (Part 70) Major source

ACRONYMS

The following lists commonly used acronyms and associated translations as they apply to this document:

40 CFR	Title 40 of the Code of Federal Regulations
AO	Approval Order
BACT	Best Available Control Technology
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CDS	Classification Data System (used by EPA to classify sources by size/type)
CEM	Continuous emissions monitor
CEMS	Continuous emissions monitoring system
CFR	Code of Federal Regulations
CO	Carbon monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent - 40 CFR Part 98, Subpart A, Table A-1
COM	Continuous opacity monitor
DAQ	Division of Air Quality (typically interchangeable with UDAQ)
DAQE	This is a document tracking code for internal UDAQ use
EPA	Environmental Protection Agency
FDCP	Fugitive dust control plan
GHG	Greenhouse Gas(es) - 40 CFR 52.21 (b)(49)(i)
GWP	Global Warming Potential - 40 CFR Part 86.1818-12(a)
HAP or HAPs	Hazardous air pollutant(s)
ITA	Intent to Approve
LB/HR	Pounds per hour
MACT	Maximum Achievable Control Technology
MMBTU	Million British Thermal Units
NAA	Nonattainment Area
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants
NOI	Notice of Intent
NO_x	Oxides of nitrogen
NSPS	New Source Performance Standard
NSR	New Source Review
PM_{10}	Particulate matter less than 10 microns in size
$PM_{2.5}$	Particulate matter less than 2.5 microns in size
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
R307	Rules Series 307
R307-401	Rules Series 307 - Section 401
SO_2	Sulfur dioxide
Title IV	Title IV of the Clean Air Act
Title V	Title V of the Clean Air Act
TPY	Tons per year
UAC	Utah Administrative Code
UDAQ	Utah Division of Air Quality (typically interchangeable with DAQ)
VOC	Volatile organic compounds

STATE OF UTAH

Department of Environmental Quality

Division of Air Quality

APPROVAL ORDER: MODIFICATION OF APPROVAL ORDER DAQE-816-01 FOR NORTH CONCENTRATOR

Prepared By: Nando Meli, Engineer
(801) 536-4052
Email: nmeli@utah.gov

APPROVAL ORDER NUMBER

DAQE-AN0572014-03

Date: March 21, 2003

Kennecott Utah Copper Corporation

Source Contact
Lydia Salmon
(801) 569-7499

Richard W. Sprott
Executive Secretary
Utah Air Quality Board

Abstract

Kennecott Utah Copper Corporation (KUCC) has closed the North Concentrator (Bonneville Concentrator) and has requested that the Approval Order (AO) dated November 20, 2001 (DAQE-816-01) and the Title V permit, 3500346001, be modified to reflect the closure. KUCC has also requested that the AO be modified to include the equipment that is listed in the Title V permit. Salt Lake County is a Non-attainment area of the National Ambient Air Quality Standards (NAAQS) for PM_{10} and SO_2, and is a Maintenance area for Ozone. Title V of the 1990 Clean Air Act applies to this source. This AO modification will result in a TITLE V Administrative Amendment. There will be a 124.63 tons per year (tpy) decrease in calculated PM_{10} emissions. The VOC estimated emissions will remain at 3.00 tpy.

The project has been evaluated and found to be consistent with the requirements of the Utah Administrative Code Rule 307 (UAC R307). A public comment period was held in accordance with UAC R307-401-4 and no comments were received. This air quality Approval Order (AO) authorizes the project with the following conditions, and failure to comply with any of the conditions may constitute a violation of this order.

General Conditions:

1. This Approval Order (AO) applies to the following company:

Site Office	Corporate Office Location
Kennecott Utah Copper Tailings 11984 West Utah Highway 202 Magna, Utah 84044 (five miles west of Magna, Utah)	Kennecott Utah Copper Corporation 8362 West 10200 South Bingham Canyon, Utah 84006 P. O. Box 6001 Magna, Utah 84044-6001
Phone Number: Fax Number:	(801) 569-7596 (801) 569-6408

The equipment listed in this AO shall be operated at the following location:

Power Plant, Tailings Impoundment & Locomotive Shop, Magna, Utah

Universal Transverse Mercator (UTM) Coordinate System: UTM Datum NAD27
4,508 kilometers Northing, 405 kilometers Easting, Zone 12

2. All definitions, terms, abbreviations, and references used in this AO conform to those used in the Utah Administrative Code (UAC) Rule 307 (R307) and Title 40 of the Code of Federal Regulations (40 CFR). Unless noted otherwise, references cited in these AO conditions refer to those rules.

3. The limits set forth in this AO shall not be exceeded without prior approval in accordance with R307-401.

4. Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved in accordance with R307-401-1.

5. All records referenced in this AO or in applicable NSPS and/or NESHAP and/or MACT standards, which are required to be kept by the owner/operator, shall be made available to the Executive Secretary or Executive Secretary's representative upon request, and the records shall include the two-year period prior to the date of the request. Records shall be kept for the following minimum periods:

   A. Emission inventories Five years from the due date of each emission statement or until the next inventory is due, whichever is longer.

   B. All other records Five years

6. Kennecott Utah Copper (KUC) shall conduct its operations of the listed equipment at the Tailings Impoundment, Power Plant and Locomotive Shop in accordance with the terms and conditions of this AO, which was written pursuant to Kennecott's Notice of Intent submitted to the Division of Air Quality (DAQ) on November 8, 2002, and additional information submitted to DAQ on January 21, 2003, and January 30, 2003.

7. Regardless of any inconsistency between conditions of this AO and Section IX, Part H, and Subparts H.2.b.BB of Section IX, Part H (Emission Limitations) of the SIP, this AO shall take precedence as provided by R307-305-2, UAC.

8. This AO shall replace the AO (DAQE-816-01) dated November 20, 2001.

9. The approved installations shall consist of the following equipment or equivalent*:

   A. Storage Tanks

      1) Diesel tank TAL 316 (tank # TWS-4) at the South Tailings compound north of Highway 201 at 9600 West.
      2) Diesel tank (30,000 gallon tank # TK-101) at the North Tailings Office complex fueling station north of Highway 202.
      3) Diesel tank UPP323 (tank # PP-44) at the Power Plant.
      4) Diesel tank (tank # RR-1) at the Arthur Locomotive Shop.
      5) Gasoline tank NOC 323 (1,000 gallon tank #MC-1) at the South Tailings compound north of Highway 201 at 9600 West.
      6) Gasoline tank NOC 302 (10,000 gallon tank #MC-36) north of the Magna Pipe Shop.
      7) Gasoline tank (6,000 gallon tank # TK-102) at the North Tailings Office complex fueling station north of Highway 202.
      8) Kerosene tank NOC308 (tank #NC-11) at the #1 Pump station area north of Highway 201.

   B. Cold solvent parts washers are located at the Power Plant, Tailings Impoundment area, and/or Locomotive Shop.

   C. Gasoline fueling stations.

D. Natural gas space heaters, air conditioners, and water heaters each rated less than 5.0×10^6 BTU/hr that are located at the Power Plant, Tailings Impoundment area, and/or Locomotive Shop.**

* Equivalency shall be determined by the Executive Secretary.
**This equipment is listed for informational purposes only.

Limitations and Tests Procedures

10. Visible emissions from the following emission points shall not exceed the following values:

A. All fugitive emissions - 15% opacity
B. All other points - 20% opacity

Opacity observations of emissions from stationary sources shall be conducted according to 40 CFR 60, Appendix A, Method 9.

Volatile Organic Compound (VOC)

11. The facility shall abide by all applicable requirements of R307-335 for Degreasing and Solvent Cleaning Operations located in Davis and Salt Lake Counties and Ozone nonattainment Areas.

Roads and Fugitive Dust

12. The facility shall abide by all applicable requirements of UAC R307- 205 and R307-309 for PM_{10} nonattainment areas for Fugitive Emission and Fugitive Dust sources. The provisions of R307-205 or 309 shall not apply to any sources for which limitations for fugitive dust or fugitive emissions are assigned pursuant to R307-401 or R307-305 nor shall they apply to agricultural or horticultural activities.

Records & Miscellaneous

13. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this Approval Order including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. All maintenance performed on equipment authorized by this AO shall be recorded.

14. The owner/operator shall comply with R307-150 Series. Inventories, Testing and Monitoring.

15. The owner/operator shall comply with R307-107. General Requirements: Unavoidable Breakdowns.

The Executive Secretary shall be notified in writing if the company is sold or changes its name.

This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including R307.

A copy of the rules, regulations and/or attachments addressed in this AO may be obtained by contacting the Division of Air Quality. The Utah Administrative Code R307 rules used by DAQ, the Notice of Intent (NOI) guide, and other air quality documents and forms may also be obtained on the Internet at the following web site:
http://www.deq.state.ut.us/eqair/aq_home.htm

The annual emission estimations below include point source, fugitive emissions and fugitive dust, and do not include road dust, tail pipe emissions and grandfathered emissions. These emissions are for the purpose of determining the applicability of Prevention of Significant Deterioration, non-attainment area, maintenance area, and Title V source requirements of the R307. They are not to be used for determining compliance.

The Potential To Emit (PTE) emissions for the equipment listed in this document are currently calculated at the following values:

Pollutant	Tons/yr
VOC	3.00

Approved By:

Richard W. Sprott, Executive Secretary
Utah Air Quality Board