State of Utah
SPENCER J. COX
Governor

DEIDRE HENDERSON
Lieutenant Governor

Department of
Environmental Quality

Kimberly D. Shelley
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

10346

Title V Operating Permit

PERMIT NUMBER: 3500030004 -**DRAFT**
DATE OF PERMIT: September 18, 2020
Date of Last Revision: TBD

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

Name of Permittee:

Kennecott Utah Copper, LLC
4700 Daybreak Parkway
South Jordan, UT 84009

Permitted Location:

Kennecott Smelter & Refinery
12000 West 2100 South(Smelter)
11500 West 2100 South (Refinery)
Magna, UT 84044

UTM coordinates: 399,000 m Easting, 4,508,000 m Northing
SIC code: 3331 (Primary Smelting & Refining of Copper)

By:

_____
Bryce C. Bird, Director

Prepared By:

Brandy Cannon
bcannon@utah.gov

ENFORCEABLE DATES AND TIMELINES

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

Annual Certification Due:	December 15 of every calendar year that this permit is in force.
Renewal application due:	March 18, 2025
Permit expiration date:	September 18, 2025
Definition of "prompt":	written notification within 14 days.

ABSTRACT

Kennecott Utah Copper, LLC (Kennecott) operates a copper smelter and refinery in Salt Lake County, Utah. The smelter and refinery were recently modernized with a new refinery facility completed in 1995 and smelter facility completed during 1995 and again modified in 1997. The smelter employs flash smelting technology with flash converting technology to produce copper anodes which yields offgases including high concentration sulfur dioxide gases. The gases are treated by electrostatic precipitators (ESP), baghouses, scrubbers, and a high-efficiency double contact acid plant. The refinery uses an electrolytic refining process to convert the smelter-produced anode copper to cathode copper and also recovers precious metals from the electrolytic refining slimes in a precious metals circuit. Kennecott Smelter & Refinery is a major source for emissions of NO_x, SO_2, $PM_{2.5}$, PM_{10}, and CO. The source is subject to 40 CFR 60 Subpart A-General Provisions, 40 CFR 60 Subpart Db-Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60 Subpart Dc-Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60 Subpart P-Standards of Performance for Primary Copper Smelters, 40 CFR 60 Subpart OOO-Standards of Performance for Nonmetallic Mineral Processing Plants, 40 CFR 60 Subpart IIII-Standards of Performance for Stationary Compression Ignition (CI) Internal Combustion Engines (ICE), 40 CFR 60 Subpart JJJJ-Standards of Performance for Stationary Spark Ignition (SI) Internal Combustion Engines (ICE), 40 CFR 60 Subpart KKKK-Standards of Performance for Stationary Combustion Turbines, 40 CFR 63 Subpart A-General Provisions, 40 CFR 63 Subpart ZZZZ-National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 CFR 63 Subpart CCCCCC-National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities, 40 CFR 63 Subpart EEEEEE-National Emission Standards for Hazardous Air Pollutants for Primary Copper Smelting Area Sources, 40 CFR 68 Subpart G-Risk Management Plan, 40 CFR 82 Subpart B-Servicing of Motor Vehicle Air Conditioners, and 40 CFR 82 Subpart F-Recycling and Emissions Reduction.

OPERATING PERMIT HISTORY

Permit/Activity	Date Issued	Recorded Changes
Title V significant modification (Project #OPP0103460017)	TBD	Changes: Incorporate smelter approval order DAQE-AN103460061-22, dated 6/23/2022, that replaced the burners on the Holman boiler, added material handling equipment to better blend copper concentrate and by-product materials, revised auxiliary boiler ID to Rentech boiler, and reduced the PM_{10} limit on the wet feed storage building baghouse (SME 002). DAQE-AN103460061-22 superseded smelter approval order DAQE-AN103460060-21, dated 4/13/2021, that added a furnace dust crusher system and a co-jet technology burner system, updated PM monitoring language, and changed the pressure drop requirement on the anode refining furnaces scrubber; the revision also incorporates refinery approval order DAQE-AN103460058-20, dated 11/12/2020, to add a 150 kw natural gas-fired emergency engine, add a tellurium recovery process (no emissions), and update CHP conditions. This revision adds requirements from 40 CFR 60 Subpart JJJJ and removes conditions on the decommissioned north tankhouse boiler at the refinery.
Title V renewal application (Project #OPP0103460014)	09/18/2020	Changes: Incorporate smelter approval order DAQE-AN103460056-20, dated 1/10/2020, to replace the Foster Wheeler boiler with a new auxiliary boiler, adjust NO_x limits associated with the boilers, add a dust crusher system to the flash smelting furnace, adjust baghouse stack testing conditions, update venting of matte granulation scrubbers; add requirement for risk management plan (RMP); incorporate refinery approval order DAQE-AN103460057-20, dated 4/3/2020, to retrofit Boiler (south) with an ultra-low NO_x burner and to decommission Boiler (north); updates to conditions from state and federal rules.
Title V significant modification (Project #OPP0103460013)	04/11/2018	Changes: Incorporate requirements from 40 CFR 60 Subpart OOO applicable to the crushing/screening operation included in unit #SME SLAG: Slag Concentrator, updates to conditions from state rules.
Title V renewal application (Project #OPP0103460012)	02/02/2015	Changes: Incorporate changes approved in DAQE-AN103460054-14, dated 6/10/2014, to correct PM monitoring language and include the $PM_{2.5}$ limit on the main stack. The revision includes changes originally permitted in DAQE-AN103460053-14 for a crushing/screening operation, a new emergency generator and updates to the fuel sulfur content at the smelter operation. Other changes include updates to rule language, monitoring language and typographical corrections.

Title V significant modification (Project #OPP0103460011)	12/27/2010	Changes: Incorporates approval order DAQE-AN0103460045-10, dated 4/6/2010, that added a combined heat and power unit to the refinery and updated some of the refinery's emission unit descriptions. Applicable requirements from 40 CFR 60 Subpart KKKK and 40 CFR 63 Subpart ZZZZ have been incorporated in this permit revision.
Title V administrative amendment - enhanced AO (Project #OPP0103460010)	03/15/2010	Changes: To incorporate changes to the smelter approved in DAQE-AN0103460043-10, dated February 2, 2010, including scrubber design change on the slag and matte granulators with updates to the associated conditions, addition of optional co-jet lances on the anode refining furnaces, update to pressure drop on the secondary gas system, and burner replacement on the powerhouse superheater.
Title V renewal application (Project #OPP0103460007)	07/09/2007	Changes: The renewal permit incorporates new approval orders, DAQE-AN0346030-07 (dated January 8, 2007) and DAQE-AN103460029-07 (dated February 27, 2007) for the refinery and smelter respectively. One unit (Unit #REF 006) is subject to CAM.
Title V administrative amendment by DAQ (Project #OPP0103460008)	04/15/2005	Changes: To incorporate changes approved in DAQE-AN0346026-05, dated February 23, 2005, including the following: removal of the PM_{10} emission limit and stack testing requirements on the selenium crushing and packaging baghouse, and addition of a pressure drop monitoring condition for the selenium crushing and packaging baghouse.
Title V administrative amendment by DAQ (Project #OPP0103460006)	08/11/2003	Changes: due to issuance of AO DAQE-AN0346024-03, for using the existing selenium production baghouse to control dust from the filter presses; modifying the fuel limit expressed in terms of heat input rather than gas volume; adding the option to use landfill gas in the two boilers; deleting PM_{10} limit for Precious Metals Filter Presses Unit; and deleting RMP requirement from the permit due to de-register action on Nov 11, 2002.
Title V significant modification (Project #OPP0103460005)	10/12/2001	Changes: A request by KUCC was made on August 1, 2000 for addition and revision of operating ranges for anode area baghouses and scrubber. The pressure drop range for the new anode furnace baghouse SME011h1 will be 1- 9 inches water gauge. The pressure drop for the existing anode furnace off-gas scrubber will be revised from 33.5 - 50.5 inches water gauge to 25 - 50.5 inches water gauge, and scrubbing liquid flow rate will be revised from greater than 4000 gpm to greater than 2000 gpm. This operating condition change is due to the addition of new anode furnace baghouse in the upstream. The

		pressure drop for the existing anode shaft furnace baghouse SME011h2 will be revised from 3 - 5 inches water gauge to 1 - 8 inches water gauge due to the unique way the furnace operates. No change in emissions will result from this modification.
Title V administrative amendment by source (Project #OPP0103460004)	03/08/2001	Changes: A Notice Of Intent was submitted by KUCC on April 12, 2000 to: increase the annual average NO_x emissions limit on the smelter main stack from 26.6 lb/hr to 35.0 lb/hr, change from annual NO_x stack testing to continuous emissions monitoring, and delete individual NO_x emission limits on three ducts leading to the smelter main stack. An Approval Order was issued December 22, 2000 (DAQE-836-00) and EPA review was completed on February 2, 2001 with no further comments.
Title V administrative amendment by source (Project #OPP0103460003)	10/16/2000	Changes: A Notice of Intent was submitted by KUCC on September 30, 1999, to: install a spray cooler, a lime injection system, and a baghouse upstream of the existing anode furnace scrubbers (reduces emissions of particulate matter containing hazardous air pollutants); to duct emissions from the holding furnace to the existing shaft furnace baghouse; allow routing of FSF & FCF emissions to secondary baghouse/scrubber during shutdown; and to modify approval order requirements identified as being obsolete or unnecessary & add existing equipment to the approval order not previously listed.
Title V significant modification (Project #OPP0103460002)	05/16/2000	Changes: A request by KUCC was made on February 1, 2000, that the pressure drop range for unit SME-011g Matte Drying and Grinding Plant Baghouse be revised from 5 - 10 inches water gauge to 5 - 13 inches water gauge. KUCC has made adjustments to the Matte Grinding Mill to reduce the grind size resulting in an increase in pressure drop across the baghouse. The off-gases from this area are transported to the main stack which is well below its emission limits, thus no change in emissions will result from this modification.
Title V initial application (Project #OPP0103460001)	01/05/2000	

Table of Contents

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 Director, within a reasonable time, any information that the Director 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 Director 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 Director 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 Director 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 Director 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 Director 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 Director 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 Director 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 Director: (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)(a)(xiii) 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 Director 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 Director 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 Director 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 Director 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 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 Director are to be sent to the following address or to such other address as may be required by the Director:

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 Director:

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
Air Permitting and Monitoring Branch (mail code 8ARD-PM)
1595 Wynkoop Street
Denver, CO 80202-1129
Phone: 303-312-6927

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 Director 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 Director 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 **#Smelter:**
Smelter Operations

II.A.3 **#SME 001: Filter Plant Wet Feed Conveyor (Stack 1)**
Wet copper concentrate filter cake is transferred from the filter plant along an enclosed conveyor system directly to the feed storage building. The conveyor and transfer points are vented to a baghouse.

II.A.4 **#SME 002: Wet Feed Storage Building (Stack 2)**
Wet copper concentrate feed is stored in the enclosed wet feed storage building. Particulate emissions from loading materials into the feed storage building, from reclaiming materials, and from conveyor/transfer point SME 002-A are vented to a baghouse. Also located adjacent to the building: one hopper (vents to the atmosphere) and conveyors equipped with water sprays.

II.A.5 **#SME 003: Wet Feed Conveyor Transfer Point (Stack 3)**
Copper concentrate reclaimed from the storage building is delivered to a loading bin by two enclosed conveyors. Particulate emissions from the transfer point of wet feed from one belt to the other are controlled by a baghouse.

II.A.6 **#SME 002-A: Partially Enclosed Wet Feed Hopper**
Copper concentrate is loaded into a hopper located outside the wet feed storage building. The hopper is partially enclosed by a roof and 3 sides. The enclosed conveyor and transfer point are ducted to the wet feed storage building baghouse.

II.A.7 **#SME 004: Wet Feed Bins (Stack 4)**
Silica flux, concentrate, and converter slag are transferred directly to feed bins then conveyed to the dryer. Particulate emissions from the loading of wet flux & concentrate and from transfer points of the conveyor are vented to a baghouse. Also located within the building: two storage bins (each bin is equipped with a bin vent that vents inside the building).

II.A.8 **#SME 005: Flash Smelting Furnace Dry Feed Bin (Stack 5)**
Product leaving the concentrate rotary dryer is delivered in an enclosed pneumatic transfer to the flash smelting furnace (FSF) feed bin. Dry feed bin loading, bin discharge points, and chain conveyors are vented to a baghouse.

II.A.9 **#SME 011e: Rotary Dryer**
Feed for the flash smelting furnace is dried in a natural gas fired rotary dryer. The dryer uses low NO_x burners. Dryer off gas is vented through a baghouse, an alkaline scrubber, and then vented to the main stack.

II.A.10 **#SME 011b1: Flash Smelting Furnace (FSF)**
Copper concentrate & flux with oxygen are fed into the flash smelting furnace to produce molten products. The process gas is exhausted to a waste heat boiler, ESP, wet scrubber, then to a wet ESP & acid plant also used by FCF, & then vented to the main stack. One diesel-fired emergency generator with a maximum rating of 998 Hp used for emergency powering of the waste heat boiler. The generator has a displacement of less than 10 liters per cylinder and is equipped with a turbo charger and after cooling. 40 CFR 60 Subpart IIII applies to the emergency generator.

II.A.11 **#SME SLAG: Slag Concentrator**

Slag from the FSF or FCF is delivered to slag pots, cooled, crushed, and transferred to the slag mill or stockpiled. Fugitive emissions from the crusher and conveyor transfer points are controlled by water sprays. Unit also includes a crushing and screening operation for slag material and nonmetallic mineral material that cannot be handled by the slag mill. This crushing and screening operation includes: 3 crushers (jaw, cone, fines), each crusher 600 tph max capacity, screens, and conveyors with partially enclosed transfer points equipped with water sprays.

II.A.12 **#SME 011g: Matte Drying and Grinding Plant**

Grinds and dries wet granulated matte copper. Warmed air is blown through the mill to dry the matte. Ground matte is separated from the drying air by a baghouse. Cleaned air is discharged to the main stack and matte conveyed to a bin.

II.A.13 **#SME 006: Smelter Limestone Flux Bin (Stack 6)**

Dry lime or limestone flux for use in the converting process is delivered to the smelter and pneumatically conveyed from an enclosed delivery truck to the limestone storage bin. Displaced air from the loading of the bin is vented to a baghouse.

II.A.14 **#SME 013: Dry Matte Bin (Stack 13)**

Dry ground matte is conveyed by pneumatic pipeline from the matte grinding plant to the dry matte bin. Particulate emissions from the loading of the dry matte bin are controlled by a baghouse.

II.A.15 **#SME 011b2: Flash Converting Furnace (FCF)**

Ground copper matte & flux with oxygen are fed into the flash converting furnace to produce molten product (blister). The process gas is exhausted to a waste heat boiler, ESP, wet scrubber, then to a wet ESP & acid plant also used by FSF, & then vented to the main stack.

II.A.16 **#SME FSF/FCF: Flash Smelting & Converting Combined**

Identical conditions on Flash Smelting Furnace (SME 011b1) and Flash Converting Furnace (SME 011b2). Unit also includes a co-jet technology burner system (SME 011b3) consisting of three natural gas/oxy-fuel fired co-jet injectors rated at 13 MMBtu/hr each. The burners remove copper slag or other build-up that negatively impacts the integrity of the FSF or FCF.

II.A.17 **#SME 011a: Secondary Gas System**

Hoods over launders, slag pot filling stations, matte and slag granulation tanks, FSF & FCF tapholes, FSF VCS, directed to secondary gas baghouse (w/ lime injection system), secondary gas scrubbers (reverse jet scrubbers A, B), then to main stack. FSF & FCF gases may be directed to this system during shutdown.

II.A.18 **#SME 011a1: Matte Granulation Exhaust Scrubbers**

Molten matte from the FSF is granulated with water in two separate granulation tanks, the North and South Matte Granulators. Each granulator is equipped with a three stage impingement plate scrubber and demister pads. Emissions are directed to the scrubber and then to the secondary gas system.

II.A.19 **#SME 010: Slag Granulation Exhaust Scrubber (Stack 10)**

Converter slag from the FCF is granulated with water in a separate granulation tank. The granulator is equipped with a three stage impingement plate scrubber. Emissions are either directed a) to the scrubber and then to the atmosphere through the vent stack or b) to the scrubber and then to the secondary gas system.

II.A.20 **#SME 011a2: Slag Pot Filling Stations**

Slag from the FSF and FCF is laundered into slag pots. Emissions are captured by hoods and directed to the secondary gas system.

II.A.21 **#SME 011h1: Anode Refining Furnaces (2)**
Blister copper produced in the FCF is laundered to one of two anode furnaces. The anode furnaces are natural gas fired with oxyfuel burners. Optional co-jet lances used for material heating and melting on a non-continuous basis. Off-gas is vented (in series) to quench tower, lime injection, baghouse, & two scrubbers, then to the main stack.

II.A.22 **#SME 029: Secondary Gas System Lime Silo (Stack 29)**
Secondary gas system lime silo with bin vent baghouse.

II.A.23 **#SME 011h4: Anode Casting Wheels**
Anode copper is cast in one of two circular casting wheels. Casting wheel cooling is hooded to collect steam. Casting wheel emissions are vented to a quench tower then to the main stack.

II.A.24 **#SME 028: Anode Area Lime Silo (Stack 28)**
Lime silo with bin vent baghouse.

II.A.25 **#SME MOLD: Mold Casting Unit**
A small natural gas fired mold casting unit is operated to support casting wheel maintenance. Any emissions from this unit would be fugitive.

II.A.26 **#SME 011h2: Anode Shaft Furnace**
The shaft furnace melts rejected copper anodes and anode scrap from the refinery. The melted copper is then recast into new anodes. Exhaust gases from the shaft furnace are quenched then cleaned in a baghouse then discharged to the main stack. The baghouse also controls emissions from the anode holding furnace.

II.A.27 **#SME 011h3: Anode Holding Furnace**
Molten copper from the shaft furnace is transferred to a holding furnace. Ventilation gases from the holding furnace join the other anode gases before being ducted to a baghouse and then to the main stack. The baghouse also controls emissions from the anode shaft furnace.

II.A.28 **#SME 011h: Anode Area**
The anode area consists of the two anode refining furnaces (SME 011h1), the shaft furnace (SME 011h2), the anode holding furnace (SME 011h3), and the casting wheels (SME 011h4). Gases from these units are ducted together then ducted to the main stack.

II.A.29 **#SME ROOF: Hot Metals Building Roof Vents**
Emissions not captured by the primary or secondary gas systems in the hot metals building, including the dryer area, FSF & FCF area, and the anode area, are ventilated to the atmosphere through roof vents.

II.A.30 **#SME 015: Mold Coating (Barite) Bin (Stack 15)**
Barium sulfate (Barite) is delivered to the smelter in enclosed delivery trucks and pneumatically conveyed to a storage bin. Displaced air from bin loading is vented to a baghouse.

II.A.31 **#SME 008: Acid Plant Preheater (Stack 8)**
The acid plant is brought up to proper temperature with a preheater. The preheater is natural gas fired and equipped with a low NO_x burner. Exhaust from the preheater is vented to the atmosphere through its own stack.

II.A.32 **#SME 011b: Acid Plant**
Double contact acid plant for removal of sulfur dioxide from the off-gases of the FSF and FCF. Produced sulfuric acid is sold. The system is equipped with tubular candle fiber mist eliminators and the tail gas discharges to the main stack.

II.A.33 **#SME GLCS: Acid Plant Process Gas Leak Collection System**
Adjustable negative pressure ductwork and collection hoses placed as needed to control the opacity of leaks of SO_2, SO_3, or other process gas emissions that do not pass through a stack at the acid plant.

II.A.34 **#SME 019: Hydrometallurgical Plant Limestone Bin (Stack 19)**
Limestone used in the hydrometallurgical plant is pneumatically conveyed from delivery trucks to a storage bin. Displaced air from bin loading is vented to a baghouse.

II.A.35 **#SME 020: Hydrometallurgical Plant Lime Bin (Stack 20)**
Lime used in the hydrometallurgical plant is pneumatically conveyed from delivery trucks to a storage bin. Displaced air from bin loading is vented to a baghouse.

II.A.36 **#SME 011d: Hydrometallurgical Plant**
ESP dust from FSF & FCF, discharge from wet scrubbers, and decopperized refinery solutions are slurried to the hydromet plant for processing metals. The hydromet plant has 2 dedicated alkaline scrubbers that discharge to the main stack.

II.A.37 **#SME 030: Powerhouse Rentech Boiler**
The natural gas-fired Rentech boiler (#SME 030), rated at 183 MMBtu/hr, is equipped with a low-NO_x burner and flue gas recirculation (FGR) and produces superheated steam to start the smelter, drive acid plant compressors, and for standby power. Combustion emissions from the Rentech boiler are discharged from the boiler stack. The Rentech boiler and Holman boiler operate in tandem to produce steam for smelter operations.

II.A.38 **#SME 026: Powerhouse Holman Boiler (Stack 26)**
The natural gas-fired Holman boiler (#SME 026), rated at 187 MMBtu/hr, is equipped with low NO_x burners and flue gas recirculation and produces process steam for the smelter. Combustion emissions from the Holman boiler are discharged from the boiler stack. The Rentech boiler and Holman boiler operate in tandem to produce steam for smelter operations.

II.A.39 **#SME 011: Main Stack (Stack 11)**
Gases from the acid plant, secondary gas system, rotary dryer, powerhouse superheater, matte grinding plant, anode area, and hydrometallurgical plant are vented to the smelter main stack.

II.A.40 **#SME 027: Recycle Crushing and Storage Building (Stack 27)**
Waste heat boiler & electrostatic precipitator dust, dry pond sediment, and other materials are crushed and agglomerated in a pelletizer, then stored in a building for reprocessing through the smelter. A furnace dust crusher system, 12 ton/hr capacity, is also included in this unit. The building and processes are vented to a baghouse.

II.A.41 **#SME PH: Powerhouse**
The natural gas-fired superheater (#SME 011f) rated at 45 MMBtu/hr, is equipped with ultra low NO_x burners, heats steam from FSF & FCF waste heat boilers, and vents to the main stack. This unit also includes the Rentech boiler (#SME 030) and the Holman boiler (#SME 026).

II.A.42 **#SME NG: Pyrometallurgical Process Group**
Natural gas consumption is limited for total combined consumption in the following units: anode area (SME 011h), mold casting furnace (SME MOLD), launder heaters (SME 011b1-FSF, SME 011b2-FCF, SME 011b3-Co-jet burner system), matte grinding plant (SME 011g), and rotary concentrate dryer (SME 011e).

II.A.43 **#SME 022: Smelter Laboratory Sample Preparation (Stack 22)**
Samples of concentrate, matte, slag, etc. are crushed in preparation for laboratory analysis. The Laboratory crushers are vented through a baghouse.

II.A.44 **#SME 017a, c: Vacuum Cleaning Systems (Stacks 17a, 17c)**
3 vacuum cleaning systems (VCS) with remote pickups are used to vacuum up spilled concentrate, feed mix, ground matte, etc. The matte handling VCS and FCF VCS (17a & 17c) vent through separate baghouses & discharge through separate stacks. The FSF VCS ducts to the secondary gas system (SME 011a).

II.A.45 **#SME SA-1: Smelter Unleaded Gasoline Storage Tank**
10,000-gallon capacity above ground unleaded gasoline storage tank. The gasoline is delivered to the tank by bulk truck and is dispensed to light duty vehicles as needed. Throughput is less than 10,000 gallons per month.

II.A.46 **#SMEi210: Smelter Cold Solvent Degreasers**
Organic solvent is used in degreasing tanks for small parts washing. The cold solvent degreasers have a total throughput of approximately 300 gallons solvent per year.

II.A.47 **#SME GEN: Smelter Powerhouse Emergency Generators**
Two #2 diesel fired emergency generators, rated at 2,847 hp each, capable of operating essential equipment (such as pumps and fans) for preventing damage in the event of a power outage. 40 CFR 63 Subpart ZZZZ applies to these units.

II.A.48 **#SME CT311, 316, 321: Smelter Cooling Towers**
Three cooling towers serve the acid plant, powerhouse, and granulators, respectively. No unit-specific applicable requirements.

II.A.49 **#SME SH, WH: Space Heaters and Water Heaters**
Numerous small natural gas fired space heaters and water heaters. No unit-specific applicable requirements.

II.A.50 **#SME STRG: Storage Piles**
Concentrate, granulated matte, slag, and other materials are stored in outdoor storage piles on pads.

II.A.51 **#SME COM GEN: Emergency Generator - Communications**
One liquid propane fired emergency generator with a maximum rating of 75 horsepower used for emergency powering of the smelter communication systems during primary power supply outages.

II.A.52 **#Refinery:**
Refinery Operations

II.A.53 **#REF TH: Electrolytic Refining Tanks**
Copper anodes produced at the smelter are immersed in heated electrolyte, a solution of sulfuric acid and copper sulfate, in polymer concrete tanks in the tankhouse building. Copper cathodes are produced by an electrolytic refining process.

II.A.54 **#REF 001: Electrolyte Purification Liberator**
A small amount of electrolyte is circulated from the electrolytic tanks to the liberator electrowinning process, used to control concentration of copper in solution. The electrolyte purification demister pad collects mist emitted from the liberator.

II.A.55 **#REF 002/003: Refinery Boilers (Tankhouse)**
Two boilers (north, south) capable of burning natural gas as primary fuel and #2 fuel oil as backup fuel generate steam to heat electrolyte solution. The north boiler has been decommissioned. The south boiler is rated at 85 MMBtu/hr on natural gas (82 MMBtu/hr on oil).

II.A.56 **#REF 004: Cathode Wash**
Cathodes are transported from the tankhouse by transfer cars to the machine and product control building (MPC) where they are washed. Acid mist produced is collected through local hooding and passed through demister pads.

II.A.57 **#REF 005: Anode Scrap Wash**
Spent anodes are transported from the tankhouse by transfer cars to the machine and product control building (MPC) where they are washed. Acid mist produced is collected through local hooding and passed through demister pads.

II.A.58 **#REF 006: Hydrometallurgical Precious Metals Recovery**
Gold, silver, selenium, copper telluride, and lead salts are recovered in a series of hydrometallurgical processes. Acidic gases from the processes are collected, scrubbed with a soda ash solution, and exhausted through the sodium based scrubber. No emissions are associated with the copper telluride (tellurium) recovery process.

II.A.59 **#REF 011: Soda Ash Silo**
Soda ash for feeding sodium based scrubber is stored in a silo. Air displaced in the silo during soda ash loading is passed through a baghouse.

II.A.60 **#REF 007: Hydrometallurgical Silver Production**
Ammonium hydroxide is used to leach silver from a solid mixture. Ammonia is recovered and regenerated in a closed loop system. H_2SO_4 is used to precipitate the silver chloride salt. Ammonia vapor from this process is ducted to an acidic scrubber.

II.A.61 **#REF 008: Precious Metals Filter Presses**
Product lead carbonate and crude selenium are dewatered in filter presses, which are vented during emptying and cleaning through the precious metals filter press baghouse.

II.A.62 **#REF 009: Selenium Crushing and Packaging**
Either Purified (retorted and condensed) selenium is crushed, sized, and packaged for shipment or filtered crude selenium is packaged for shipment. This system vents to a baghouse.

II.A.63 **#REF 010: Gold/Silver Recovery**
Following leaching and solvent extraction processes, gold and silver are melted in furnaces to produce bullion. Emissions from drying of precious metals sands and from metals volatilized during melting processes are vented to a baghouse.

II.A.64 **Emergency Generators - Precious Metals**
One #2 diesel fired emergency generator (#REFi 210), maximum rating of 487.5 hp, used for emergency powering of the refinery precious metals plant. 40 CFR 63 Subpart ZZZZ applies to this engine. This unit also includes one natural gas-fired emergency generator (#2), maximum rating of 150 kW (201 hp), subject to the requirements in 40 CFR 60 Subpart JJJJ.

II.A.65 **#REF PREP: Refinery Laboratory Sample Preparation**
A laboratory induction furnace is hooded and vented inside the Machine and Product Control (MPC) building. No unit-specific applicable requirements.

II.A.66 **#REF SA-1: Refinery Unleaded Gasoline Storage Tank**
2,500-gallon capacity above ground unleaded gasoline storage tank with approximately 12,800 gallons throughput per year. The gasoline is delivered to the storage tank by bulk truck and is dispensed to light duty vehicles as required. Throughput is less than 10,000 gallons per month.

II.A.67 **#REF VOL: Refinery Volatile Organic Liquid Storage Tanks**
Two 37,000 gallon and one 500 gallon fuel oil storage tanks located in the refinery area. No unit-specific applicable requirements.

II.A.68 **#REFi 201: Refinery Cold Solvent Degreasers**
Organic solvent is used in degreasing tanks for small parts washing. The cold solvent degreasers have a total throughput of approximately 25 gallons solvent per year.

II.A.69 **#REFi 202: Refinery Paint Shop**
Paint shop surface coating with organic solvent evaporation from stripping. Annual usage equals approximately 23 gallons per year of paint primer & 106 gallons per year of paint. No unit-specific applicable requirements.

II.A.70 **#REFi204, 205, 206, 207, 208: Miscellaneous Natural Gas-fired Equipment**
Various natural gas-fired water heaters or comfort heaters that are each individually rated at less than 5 MMBTU/hr are located throughout the refinery. No unit-specific applicable requirements.

II.A.71 **#REF CT 001, 002: Refinery Cooling Towers**
Two water cooling towers are in operation at the refinery. No unit-specific applicable requirements.

II.A.72 **#REF COM GEN: Emergency Generator - Communications**
One liquefied petroleum gas (LPG) fired emergency generator with a maximum rating of 75 brake horsepower used for emergency powering of the refinery communication systems during primary power supply outages.

II.A.73 **#REF CHP: Refinery Combined Heat and Power Unit**
One natural gas fired axial turbine, with a turbine electric generator (TEG); one natural gas fired supplemental duct burner, and one heat recovery steam generator. Operating Mode Ratings: 100 MMBtu/hr (LHV) and 110.3 MMBtu/hr (HHV) for TEG firing and 45 MMBtu/hr (LHV) and 49.9 MMBtu/hr (HHV) for fresh air firing. The natural gas firing the turbine and duct burner shall meet the definition in 40 CFR 60.4420.

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 #Smelter: Smelter Operations.

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

At all times, including periods of startup, shutdown, and malfunction, the permittee shall maintain and operate any permitted plant equipment, including associated air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices 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 installations and facilities authorized by this permit shall be adequately and properly maintained. Maintenance records shall be maintained while the plant is in operation. All pollution control equipment shall be installed, maintained, and operated properly. Instructions from the vendor or established maintenance practices that maximize pollution control shall be followed. All necessary equipment control and operating devices, such as pressure gauges, amp meters, volt meters, flow rate indicators, temperature gauges, continuous emissions monitoring systems, etc., shall be installed, operated

properly and easily accessible to compliance inspectors. A copy of all manufacturers' operating instructions for pollution control equipment and pollution emitting equipment shall be kept on site. These instructions shall be available to all employees who operate the equipment and shall be made available to compliance inspectors upon request. Maintenance records shall be made available to the Director or Director's representative upon request. [Origin: DAQE-AN103460061-22, SIP Section IX.H.2.i, SIP Section IX.H.12.j]. [40 CFR 63 Subpart EEEEEE, R307-401-8, SIP Section IX.H.12.j, SIP Section IX.H.2.i]

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

Records required for this permit condition will serve as monitoring.

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

Permittee shall document activities performed to assure proper operation and maintenance of the air pollution control equipment and monitoring systems or devices. 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:**

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]. [40 CFR 82.30(b)]

II.B.1.b.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.b.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.b.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.c **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]. [40 CFR 82.150(b)]

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 F.

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

Visible emissions shall be no greater than 20 percent opacity unless otherwise specified in this permit. [Origin: R307-305-3, DAQE-AN103460061-22]. [R307-305-3, R307-401-8]

II.B.1.d.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. If any visible emissions other than steam are observed, an opacity determination of that emission unit shall be performed by a certified visible emissions observer in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, within 24 hours of the initial observation. 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.d.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 shall be made in the log. All data required by 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, shall also be maintained in accordance with Provision I.S.1 of this permit.

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

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

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

The permittee shall only combust diesel fuel (e.g. fuel oil #1, #2, or diesel fuel oil additives) that meets the definition of ultra-low sulfur diesel (ULSD), which has a sulfur content of 15 ppm or less. [Origin: DAQE-AN103460061-22]. [R307-203-1, R307-401-8]

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

Compliance with this limitation shall be demonstrated either by testing each fuel delivery for the sulfur content or by inspection of the fuel sulfur-content certifications provided by the diesel fuel supplier in purchase records. Sulfur content in either instance shall be determined in accordance with ASTM-4294, or equivalent. Records required for this permit condition will also serve as monitoring.

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

The permittee shall maintain records that demonstrate compliance with the limitation. Records of diesel fuel purchase invoices that indicate the diesel fuel meets the ULSD requirements, fuel supplier certifications of sulfur content, or records of sulfur content testing shall 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:**

The permittee shall use natural gas as a primary fuel and propane as back-up fuel in the following smelter operations: acid plant preheater, anode plant (including shaft furnace, anode furnaces, holding furnaces, and mold furnace), launder heaters, matte grinding and concentrate drying. The propane shall only be used during periods of natural gas 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-AN103460061-22]. [R307-401-8]

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

The backup fuel shall be monitored by use of level sensors in the tanks, which shall be observed following each use of backup fuel.

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

The permittee shall maintain records that document the reason for backup fuel usage (i.e. natural gas curtailment, maintenance, etc.), date, and duration. All readings required to be taken shall be documented and maintained consistent with the requirements of Provision S.1 in Section I 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:**

The permittee shall implement a fugitive dust control plan that has been approved by the director. Activities regulated by R307-309 shall not commence before the fugitive dust control plan is approved by the director. The plan shall include the minimum fugitive dust control plan requirements in R307-309-6(4), as applicable, and the information required in R307-309-6(5). Natural sources of dust and fugitive emissions are not fugitive dust within the meaning of this condition. [Origin: DAQE-AN103460061-22, R307-309-6]. [R307-309-6, R307-401-8]

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

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.g.2 **Recordkeeping:**

Records that demonstrate compliance with this condition and records required by the most recently approved fugitive dust control plan shall be maintained in accordance with the plan and section I.S.1 of this permit.

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

If site modifications that result in changes to fugitive dust emissions are made, an updated fugitive dust control plan shall be submitted as required by R307-309-6(3). There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.h **Condition:**

All roads, permanent parking lots, and service yards directly servicing the permittee's approved constructed installations listed as emission units II.A.2 through II.A.51, with the exception of II.A.49 and II.A.50, shall be paved. The permittee shall comply with the fugitive dust requirements and work practices contained in R307-309-7 and R307-309-9, as applicable. [Origin: DAQE-AN103460061-22, R307-309]. [R307-309-7, R307-309-9, R307-401-8]

II.B.1.h.1 **Monitoring:**

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.h.2 **Recordkeeping:**

Records that demonstrate compliance with this condition and records required by the most recently approved fugitive dust control plan shall be maintained in accordance with the plan and section I.S.1 of this permit.

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

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

II.B.1.i **Condition:**

Pressure drops and liquid flow rates for each scrubber listed below shall be maintained within the given ranges. (All pressure drop readings in inches Water Gauge)

SME 011d - Hydrometallurgical Plant Scrubber:
Model # 480 - Pressure Drop = 5" - 10" Liquid Flow Rate = greater than 50 gpm
Model # 575 - Pressure Drop = 6" - 12" Liquid Flow Rate = greater than 40 gpm

SME 011a - Secondary Gas System (2 scrubbers):

Pressure Drop = 3.5" minimum (across both scrubbers combined) Liquid Flow Rate = greater than 4800 gpm (each)

SME 011e - Rotary Dryer Scrubber:
Pressure Drop = 5" - 19.25" Liquid Flow Rate = greater than 7360 gpm

SME 011h1 - Anode Refining Furnaces Scrubber:
Pressure Drop = 18" - 50.5" Liquid Flow Rate = greater than 2000 gpm.
[Origin: DAQE-AN103460061-22]. [R307-401-8]

II.B.1.i.1 **Monitoring:**

The permittee shall make at least one pressure drop and one liquid flow observation each week for each scrubber listed above that has operated during the week. The pressure drop reading shall be made to the nearest 1/4 inch W.G. and the liquid flow reading shall be made to within +/- 10 percent of maximum scrubber flow rate. The observation shall be made during typical operating conditions. The instrument(s) shall be calibrated in accordance with manufacturer's instructions. Additionally, the pressure drop and liquid flow rate for each scrubber shall be observed and recorded at the time of any compliance stack testing. If the pressure drop or liquid flow rate is outside of the listed ranges, the permittee shall initiate corrective action and perform daily pressure drop and/or liquid flow observations until the scrubber is operating within the listed ranges. If the pressure drop or the liquid flow rate remains outside of the listed ranges for greater than 48 operating hours from the initial out of range reading it shall be considered a deviation from this permit term.

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

The permittee shall record at least one pressure drop and one liquid flow observation each week for each scrubber listed above that has operated during the week. If the pressure drop or liquid flow rate is outside of the listed ranges, the permittee shall record the pressure drop and/or liquid flow observations daily until the scrubber is operating within the listed ranges. Records shall be maintained in accordance with Provision I.S.1 of this permit.

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

The permittee shall report the following on a quarterly basis:
a) Periods when the weekly pressure drop and/or liquid flow observations trigger daily observations, and
b) Periods when the pressure drop and/or liquid flow observations are outside the listed ranges for greater than 48 operating hours from the initial deviation reading.

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

The quarterly reports are considered prompt notification of permit deviations 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.1.j **Condition:**

Pressure drops for each baghouse listed below shall be maintained within the given ranges. (All pressure drop readings in inches Water Gauge)
SME 001 -Filter Plant Wet Feed Conveyor Baghouse:
Pressure Drop = 0.5 - 4
SME 002 - Wet Feed Storage Building Baghouse:

Pressure Drop = 1.5 - 5
SME 003 - Wet Feed Conveyor Belt Transfer Point Baghouse:
Pressure Drop = 0.5 - 5.25
SME 004 - Wet Feed Bin(s) Baghouse:
Pressure Drop = 2.75 - 5
SME 005 - Flash Smelting Furnace Dry Feed Bin Baghouse:
Pressure Drop = 0.25 - 11
SME 006 - Limestone Flux Bin Baghouse:
Pressure Drop = 0.5 - 4
SME 011a - Secondary Gas Handling System Baghouse:
Pressure Drop = 6 - 15
SME 011g - Matte Drying and Grinding Plant Baghouse:
Pressure Drop = 5 - 15
SME 013 - Dry Matte Bin Baghouse:
Pressure Drop = 0.5 - 13
SME 011h1 - Anode Refining Furnace Baghouse:
Pressure Drop = 1 - 9
SME 011h2 - Anode Shaft Furnace Baghouse:
Pressure Drop = 1 - 10
SME 015 - Mold Coating (Barite) Bin Baghouse:
Pressure Drop = 0.25 - 4
SME 017a, c - Vacuum Cleaning Systems (2 Baghouses):
Pressure Drop = 0.25 - 6 (each)
SME 019 - Hydrometallurgical Plant Limestone Storage Bin Baghouse:
Pressure Drop = 0.5 - 4
SME 020 - Hydrometallurgical Plant Lime Storage Bin Baghouse:
Pressure Drop = 0.25 - 4
SME 027 - Recycle Materials Crushing and Storage Building Baghouse:
Pressure Drop = 1 - 5
[Origin: DAQE-AN103460061-22]. [R307-401-8]

II.B.1.j.1 **Monitoring:**

The permittee shall make at least one pressure drop observation each week for each baghouse listed above that has operated during the week. The pressure drop reading shall be made to the nearest 1/4 inch W.G. The observation shall be made during typical operating conditions. The instrument(s) shall be calibrated in accordance with manufacturer's instructions. Additionally, the pressure drop for each baghouse shall be observed and recorded at the time of any compliance stack testing. If the pressure drop is outside of the listed ranges, the permittee shall initiate corrective action and perform daily pressure drop observations until the baghouse is operating within the listed ranges. If the pressure drop remains outside of the listed ranges for greater than 48 operating hours from the initial out of range reading it shall be considered a deviation from this permit term.

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

The permittee shall record at least one pressure drop observation each week for each baghouse listed above that has operated during the week. If the pressure drop is outside of the listed ranges, the permittee shall record the pressure drop observations daily until the baghouse is operating within the listed ranges. Records shall be maintained in accordance with Provision I.S.1 of this permit.

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

The permittee shall report the following on a quarterly basis:
a) Periods when the weekly pressure drop observations trigger daily observations, and
b) Periods when the pressure drop observations are outside the listed ranges for greater than 48 operating hours from the initial deviation reading.
There are no additional reporting requirements for this provision except those specified in Section I of this permit.

The quarterly reports are considered prompt notification of permit deviations 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.1.k **Condition:**

The permittee shall maintain an Emergency Episode Plan outlining the procedures that will be taken in the event of an emergency episode as outlined in R307-105-2. The plan shall identify what control/production measures shall be implemented when an emergency episode is declared. Specific control/production measures shall be outlined for all three levels (Alert, Warning, Emergency). The plan shall be submitted and approved by the Director within 60 days of the issue date of this permit, unless a previously submitted and approved plan is available. [Origin: SIP Section VII.F]. [R307-105-2, R307-110-8]

II.B.1.k.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

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

A copy of the approved Emergency Episode Plan shall be made available to the Director upon request.

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

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

II.B.1.l **Condition:**

Any open storage pile(s) shall be watered, covered, or chemically treated to minimize generation of fugitive dusts, as dry conditions warrant or as determined necessary by the Director. [Origin: DAQE-AN103460061-22]. [R307-401-8]

II.B.1.l.1 **Monitoring:**

Visual inspections of any open storage pile(s) shall be made on a daily basis to ensure minimization of fugitive dust generation. If visual inspection results for eight consecutive weeks confirm the minimization of fugitive dust generation, the inspection frequency shall be reduced to a weekly basis. If minimization of fugitive dust generation is not confirmed during any weekly inspection, the frequency shall revert back to a daily basis for the storage pile(s) generating fugitive dust.

Any storage pile that has been covered, undisturbed, or chemically treated to minimize fugitive

dust generation shall be visually inspected on a monthly basis to ensure covers are properly in place and/or chemical treatments are working properly.

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

During each visual inspection, the permittee shall record in a log the specific piles determined to be undisturbed. Records of inspections and determinations shall be maintained as described in Provision I.S.1 of this permit.

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

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

II.B.1.m **Condition:**

The permittee shall operate and maintain an upwind/downwind fugitive SO_2 monitoring system. [Origin: DAQE-AN103460061-22]. [R307-401-8]

II.B.1.m.1 **Monitoring:**

The permittee shall monitor the output of the fugitive upwind/downwind SO_2 monitoring system on a daily basis to ensure that no high levels of SO_2 have passed over the monitors. The daily monitoring will not be required if the system is equipped with an alarm system to notify personnel when high levels of SO_2 have passed over the monitors. The monitoring system shall be calibrated in accordance with the manufacturer's recommendations.

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

Continuous recording of the monitoring device(s) is not required for systems equipped with an alarm. Records of all alarm events and the corrective action taken shall be maintained as described in Provision I.S.1 of this permit.

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

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

II.B.1.n **Condition:**

Fugitive emissions shall be no greater than 15 percent opacity unless otherwise specified in this permit. [Origin: R307-309-4]. [R307-309-4]

II.B.1.n.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. 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 observer within 24 hours of the initial survey. The opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, for point sources, and in accordance with 58 FR 61640 Method 203C, or other EPA-approved testing method, as acceptable to the Director, for intermittent sources. Fugitive dust is not a fugitive emission within the meaning of this condition.

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.

II.B.1.n.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, 58 FR 61640, Method 203C, or other EPA-approved testing method, as acceptable to the Director, shall also be maintained in accordance with Provision I.S.1 of this permit.

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

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

II.B.1.o **Condition:**

Visible emissions caused by fugitive dust shall not exceed 10 percent at the property boundary and 20 percent on site. Opacity shall not apply when the wind speed exceeds 25 miles per hour if the permittee has implemented, and continues to implement, the most recently approved fugitive dust control plan and administers one or more of the following contingency measures:
(1) Pre-event watering;
(2) Hourly watering;
(3) Additional chemical stabilization;
(4) Cease or reduce fugitive dust producing operations to the extent practicable.
[Origin: DAQE-AN103460061-22, R307-309-5]. [R307-309-5, R307-401-8]

II.B.1.o.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. Wind speed shall be measured by an anemometer to establish an exception from the visible emissions limit.

II.B.1.o.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 limit, records of the administered contingency measures and the wind speed measurements shall be maintained. Records shall be maintained as described in Provision I.S.1 of this permit.

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

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

II.B.1.p **Condition:**

A Risk Management Plan (RMP) developed in accordance with 40 CFR Part 68 shall be submitted to the United States Environmental Protection Agency not later than the applicable date in 40 CFR 68. [Origin: 40 CFR 68]. [40 CFR 68]

II.B.1.p.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

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

A copy of the Risk Management Plan shall be available to the Director upon request. Records shall be maintained as described in Provision I.S.1 of this permit.

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

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

II.B.1.q **Condition:**

(1) For all solvent cleaning operations, the permittee shall not use solvent products with a VOC content greater than the amounts specified in Table 1 of R307-304-5.
(2) As an alternative to the limits in Table 1 and for all general miscellaneous cleaning operations, the permittee may use a cleaning material with a VOC composite vapor pressure no greater than 8 mm Hg at 20 degrees Celsius.
(3) The permittee shall store used applicators and shop towels in closed fireproof containers.

These requirements do not apply to the exemptions listed in R307-304-3.
[Origin: R307-304]. [R307-304]

II.B.1.q.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

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

The permittee shall maintain records demonstrating compliance with this condition. Records shall include the VOC content or composite vapor pressure of the solvent product applied. Records shall be maintained in accordance with Provision I.S.1 of this permit and shall be available to the director upon request.

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

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

II.B.1.r **Condition:**

Except as provided in R307-361-4, the permittee shall not supply, solicit for application, or apply within the counties in R307-361-2 any architectural coating with a VOC content in excess of the corresponding limit specified in Table 1 of R307-361-5. The permittee shall comply with the additional standards and work practices contained in R307-361-5, as applicable. [Origin: R307-361]. [R307-361]

II.B.1.r.1 **Monitoring:**

Compliance shall be demonstrated as specified in R307-361-8.

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

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

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

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

II.B.1.s **Condition:**

1. The permittee shall not sell supply or offer for sale any adhesive, sealant, adhesive primer or sealant primer with a VOC content in excess of the limits in Table 1 of R307-342-5 and that was manufactured on or after September 1, 2014.
2. The permittee shall not apply any adhesive, sealant, adhesive primer or sealant primer with a VOC content in excess of the limits specified in Table 1 of R307-342-5 unless an add-on control device as specified in R307-342-8 is used or unless the adhesive, sealant, adhesive primer or sealant primer was manufactured before September 1, 2014.
3. The VOC content limits in Table 1 of R307-342-5 for adhesives applied to particular substrates shall apply as specified in R307-342-5(4).
4. The permittee shall comply with the additional standards and work practices contained in R307-342-6 and R307-342-7, as applicable.
5. These requirements do not apply if exempted in accordance with R307-342-3.

[Origin: R307-342]. [R307-342]

II.B.1.s.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

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

(a) For operations that are not exempt under R307-342-3, the permittee shall maintain records demonstrating compliance as specified in R307-342-7(2).
(b) If an exemption is claimed pursuant to R307-342-3 the permittee shall record and maintain operational records sufficient to demonstrate compliance. (R307-342-3(7))

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

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

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

II.B.2 **Conditions on #SME 001: Filter Plant Wet Feed Conveyor (Stack 1).**

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

Emissions of PM_{10} shall be no greater than 0.7 lbs/hour (filterable) and 0.016 grains/dscfm (68 degrees F, 29.92" Hg). [Origin: DAQE-AN103460061-22]. [R307-401-8]

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

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every five years based on the date of the most recent stack test. The source may also be tested at any time if directed by the Director.

(b) Notification. At least 30 days before the test, the source shall notify the Director 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 Director.

(c) Methods.

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

(2) $PM_{10}/PM_{2.5}$ (filterable):
For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201 or 201a or other EPA-approved testing method acceptable to the Director.

For stacks in which liquid drops are present, methods to eliminate the liquid drops shall 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, 5i or other EPA-approved testing method acceptable to the Director. If using Method 5 or any variation of Method 5, a scanning electron microscopy analysis or other equivalent method shall be used to determine the fraction of PM_{10} and/or $PM_{2.5}$, as approved by the Director.

$PM_{10}/PM_{2.5}$ (condensable):
Not applicable.

(3) 40 CFR 60, Appendix A, Method 2, Method 19, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine 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 Director to give the results in the specified units of the emission limitation.

(e) Conditions During Testing: Stack testing shall be performed during representative operations. The production rate during all compliance tests shall be no less than 90% of the maximum average hourly production rate achieved in a 24-hour period during the previous three (3) years.

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

The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.2.b **Condition:**

Visible emissions shall be no greater than 7 percent opacity. [Origin: DAQE-AN103460061-22]. [R307-401-8]

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

A visual observation 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. If any visible emissions other than steam are observed, an opacity determination of that emission unit shall be performed by a certified visible emissions observer in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, within 24 hours of the initial observation. 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.

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

Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, for each determination shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

II.B.3 **Conditions on #SME 002: Wet Feed Storage Building (Stack 2).**

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

Emissions of PM_{10} shall be no greater than 3.91 lbs/hour (filterable) and 0.008 grains/dscfm (68 degrees F, 29.92" Hg). [Origin: DAQE-AN103460061-22]. [R307-401-8]

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

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every five years based on the date of the most recent stack test. The source may also be tested at any time if directed by the Director.

(b) Notification. At least 30 days before the test, the source shall notify the Director 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 Director.

(c) Methods.

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

(2) $PM_{10}/PM_{2.5}$ (filterable):
For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201 or 201a or other EPA-approved testing method acceptable to the Director.

For stacks in which liquid drops are present, methods to eliminate the liquid drops shall 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, 5i or other EPA-approved testing method acceptable to the Director. If using Method 5 or any variation of Method 5, a scanning electron microscopy analysis or other equivalent method shall be used to determine the fraction of PM_{10} and/or $PM_{2.5}$, as approved by the Director.

$PM_{10}/PM_{2.5}$ (condensable):
Not applicable.

(3) 40 CFR 60, Appendix A, Method 2, Method 19, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine 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 Director to give the results in the specified units of the emission limitation.

(e) Conditions During Testing: Stack testing shall be performed during representative operations. The production rate during all compliance tests shall be no less than 90% of the maximum average hourly production rate achieved in a 24-hour period during the previous three (3) years.

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

The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

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

Visible emissions shall be no greater than 7 percent opacity. [Origin: DAQE-AN103460061-22]. [R307-401-8]

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

A visual observation 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. If any visible emissions other than steam are observed, an opacity determination of that emission unit shall be performed by a certified visible emissions observer in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, within 24 hours of the initial observation. 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.

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

Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, for each determination 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.3.c **Condition:**

Water sprays or chemical dust suppression sprays shall be installed at all stationary conveyor transfer points if they are not enclosed or do not have baghouses to control fugitive emissions. The sprays shall operate whenever dry conditions warrant or as determined necessary by the Director. [Origin: DAQE-AN103460061-22]. [R307-401-8, R307-309]

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

Visual inspections of the water spray system(s) shall be made weekly to ensure proper operating condition.

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

A log of the visual inspections containing all applicable information required by Provision I.S.1 of this permit shall be kept for all periods of operation. Records shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

II.B.4 **Conditions on #SME 003: Wet Feed Conveyor Transfer Point (Stack 3).**

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

Emissions of PM_{10} shall be no greater than 0.4 lbs/hour (filterable) and 0.016 grains/dscfm (68 degrees F, 29.92" Hg). [Origin: DAQE-AN103460061-22]. [R307-401-8]

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

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every five years based on the date of the most recent stack test. The source may also be tested at any time if directed by the Director.

(b) Notification. At least 30 days before the test, the source shall notify the Director 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 Director.

(c) Methods.

(1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other EPA-approved testing method, as acceptable to the Director, and Occupational Safety and Health Administration (OSHA)-approved and/or

Mine Safety and Health Administration (MSHA)-approved access shall be provided to the test location.

(2) $PM_{10}/PM_{2.5}$ (filterable):
For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201 or 201a or other EPA-approved testing method acceptable to the Director.

For stacks in which liquid drops are present, methods to eliminate the liquid drops shall 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, 5i or other EPA-approved testing method acceptable to the Director. If using Method 5 or any variation of Method 5, a scanning electron microscopy analysis or other equivalent method shall be used to determine the fraction of PM_{10} and/or $PM_{2.5}$, as approved by the Director.

$PM_{10}/PM_{2.5}$ (condensable):
Not applicable.

(3) 40 CFR 60, Appendix A, Method 2, Method 19, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine 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 Director to give the results in the specified units of the emission limitation.

(e) Conditions During Testing: Stack testing shall be performed during representative operations. The production rate during all compliance tests shall be no less than 90% of the maximum average hourly production rate achieved in a 24-hour period during the previous three (3) years.

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

The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.4.b **Condition:**

Visible emissions shall be no greater than 7 percent opacity. [Origin: DAQE-AN103460061-22]. [R307-401-8]

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

A visual observation 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. If any visible emissions other than steam are observed, an opacity determination of that emission unit shall be performed by a certified visible emissions observer in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, within 24 hours of the initial observation. 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.

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

Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, for each determination shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

II.B.5 **Conditions on #SME 004: Wet Feed Bins (Stack 4).**

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

Emissions of PM_{10} shall be no greater than 3.4 lbs/hour (filterable) and 0.016 grains/dscfm (68 degrees F, 29.92" Hg). [Origin: DAQE-AN103460061-22]. [R307-401-8]

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

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every five years based on the date of the most recent stack test. The source may also be tested at any time if directed by the Director.

(b) Notification. At least 30 days before the test, the source shall notify the Director 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 Director.

(c) Methods.

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

(2) $PM_{10}/PM_{2.5}$ (filterable):
For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201 or 201a or other EPA-approved testing method acceptable to the Director.

For stacks in which liquid drops are present, methods to eliminate the liquid drops shall 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, 5i or other EPA-approved testing method acceptable to the Director. If using Method 5 or any variation of Method 5, a scanning electron microscopy analysis or other equivalent method shall be used to determine the fraction of PM_{10} and/or $PM_{2.5}$, as approved by the Director.

$PM_{10}/PM_{2.5}$ (condensable):
Not applicable.

(3) 40 CFR 60, Appendix A, Method 2, Method 19, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine 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 Director to give the results in the specified units of the emission limitation.

(e) Conditions During Testing: Stack testing shall be performed during representative operations. The production rate during all compliance tests shall be no less than 90% of the maximum average hourly production rate achieved in a 24-hour period during the previous three (3) years.

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 results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

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

Visible emissions shall be no greater than 7 percent opacity. [Origin: DAQE-AN103460061-22]. [R307-401-8]

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

A visual observation 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. If any visible emissions other than steam are observed, an opacity determination of that emission unit shall be performed by a certified visible emissions observer in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, within 24 hours of the initial observation. 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.

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

Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, for each determination shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

II.B.6 **Conditions on #SME 005: Flash Smelting Furnace Dry Feed Bin (Stack 5).**

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

Emissions of PM_{10} shall be no greater than 1.2 lbs/hour (filterable) and 0.016 grains/dscfm (68 degrees F, 29.92" Hg). [Origin: DAQE-AN103460061-22]. [R307-401-8]

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

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every five years based on the date of the most recent stack test. The source may also be tested at any time if directed by the Director.

(b) Notification. At least 30 days before the test, the source shall notify the Director 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 Director.

(c) Methods.

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

(2) $PM_{10}/PM_{2.5}$ (filterable):
For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201 or 201a or other EPA-approved testing method acceptable to the Director.

For stacks in which liquid drops are present, methods to eliminate the liquid drops shall 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, 5i or other EPA-approved testing method acceptable to the Director. If using Method 5 or any variation of Method 5, a scanning electron microscopy analysis or other equivalent method shall be used to determine the fraction of PM_{10} and/or $PM_{2.5}$, as approved by the Director.

$PM_{10}/PM_{2.5}$ (condensable):
The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M Method 202, or other EPA-approved testing method acceptable to the Director. All particulate captured using Method 202 shall be considered $PM_{2.5}$ and/or PM_{10}.

For filterable emission limits, condensable emissions shall not be used for compliance demonstrations. For filterable + condensable emission limits, condensable emissions shall be used for compliance demonstrations.

(3) 40 CFR 60, Appendix A, Method 2, Method 19, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine 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 Director to give the results in the specified units of the emission limitation.

(e) Conditions During Testing: Stack testing shall be performed during representative operations. The production rate during all compliance tests shall be no less than 90% of the maximum average hourly production rate achieved in a 24-hour period during the previous three (3) years.

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 results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

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

Visible emissions shall be no greater than 7 percent opacity. [Origin: DAQE-AN103460061-22]. [R307-401-8]

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

A visual observation 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. If any visible emissions other than steam are observed, an opacity determination of that emission unit shall be performed by a certified visible emissions observer in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, within 24 hours of the initial observation. 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.

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

Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, for each determination shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

II.B.7 **Conditions on #SME 011e: Rotary Dryer.**

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

Particulate emissions (PM) shall be no greater than 0.022 grains/dscf (68 degrees F, 29.92" Hg) (filterable). [Origin: DAQE-AN103460061-22]. [40 CFR 60 Subpart P, R307-401-8]

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

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every five years based on the date of the most recent stack test. The source may also be tested at any time if directed by the Director.
(b) Notification. At least 30 days before the test, the source shall notify the Director 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 Director.
(c) Methods.
    (1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other EPA-approved testing method, as acceptable to the

Director, and Occupational Safety and Health Administration (OSHA)-approved and/or Mine Safety and Health Administration (MSHA)-approved access shall be provided to the test location.

(2) Sample Method - 40 CFR 60. Appendix A, Method 5, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the particulate matter concentration and the volumetric flow rate of the effluent gas. The minimum sample time and sample volume shall be 60 minutes and 0.85 dscm (30.0 dscf).

(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 Director to give the results in the specified units of the emission limitation.

(e) Conditions During Testing: Stack testing shall be performed during representative operations. The production rate during all compliance tests shall be no less than 90% of the maximum average hourly production rate achieved in a 24-hour period during the previous three (3) years.

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

The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

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

Visible emissions shall be no greater than 15 percent opacity. [Origin: DAQE-AN103460061-22]. [40 CFR 60 Subpart P, R307-401-8]

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

The permittee shall calibrate, maintain and operate a continuous monitoring system for measuring the opacity of emissions in accordance with R307-170, UAC and 40 CFR 60, Appendix B, Specification 1 - Opacity, and shall record the output of the system. The output shall be reviewed at least monthly for compliance with the opacity limit. Compliance is to be based on the percent opacity averaged over six consecutive minutes.

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

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

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

The permittee shall comply with the reporting provisions in R307-170-9 and any additional reporting provisions contained in Section I of this permit.

The quarterly reports required in R307-170-9 are considered prompt notification of permit deviations 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.8 **Conditions on #SME 011b1: Flash Smelting Furnace (FSF)**

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

Visible emissions shall be no greater than 20 percent opacity from the emergency generator. [Origin: DAQE-AN103460061-22, R307-305-3(3)]. [R307-305-3(3), R307-401-8]

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

During any period that an emergency generator is operated for longer than 12 hours consecutively, a visual observation of that generator's exhaust shall be made 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 visual emissions observer. If any visible emissions other than steam are observed, then an opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, by a certified visible emissions observer. If a generator continues to operate on consecutive days following the initial observation, an opacity determination shall be performed on a daily basis.

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

Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, for each determination 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 emergency generator shall comply with the emission standards for new nonroad compression ignition (CI) engines in 40 CFR 60.4202(a) and (a)(2), for all pollutants, for the same model year and maximum engine power for 2007 model year and later emergency stationary CI internal combustion engines (ICE). [Origin: 40 CFR 60 Subpart IIII]. [40 CFR 60.4205(b), 40 CFR 63 Subpart ZZZZ]

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

The permittee shall comply by purchasing an engine certified to the emission standards in 40 CFR 60.4205(b) for the same model year and maximum engine power. The engine shall be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 CFR 60.4211(g). [40 CFR 60.4211(c)]

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

The permittee shall keep records of engine certifications indicating compliance with the standards. The permittee shall keep records demonstrating compliance with the manufacturer's specifications for engine installation and configuration. Results of monitoring 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:**

The permittee shall operate and maintain the emergency generator according to the manufacturer's emission-related written instructions, 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 part 1068, as applicable. [Origin: 40 CFR 60 Subpart IIII]. [40 CFR 60.4206, 40 CFR 60.4211(a), 40 CFR 63 Subpart ZZZZ]

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

Records required for this permit condition will serve as monitoring.

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

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.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:**

Any diesel fuel combusted in the emergency generator shall meet the requirements of 40 CFR 60.4207(b) for nonroad diesel fuel. [Origin: 40 CFR 60 Subpart IIII]. [40 CFR 60.4207(b), 40 CFR 63 Subpart ZZZZ]

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

For all diesel fuel combusted, the permittee shall:
(a) Determine the fuel sulfur content expressed as weight percent in accordance with the methods of the American Society for Testing Materials (ASTM); or
(b) Inspect the fuel sulfur content expressed as weight percent determined by the vendor using methods of the ASTM; and
(c) Inspect documentation provided by the vendor that directly or indirectly demonstrates compliance with this provision.

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

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

II.B.8.e **Condition:**

The emergency generator shall be operated according to the requirements in paragraphs (1) through (3). In order for the engine to be considered an emergency stationary ICE, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (1) through (3), is prohibited. If the engine is not operated according to the requirements in paragraphs (1) through (3), the engine will not be considered an emergency engine and shall meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary ICE in emergency situations.

(2) The permittee may operate the emergency stationary ICE for any combination of the purposes specified in 40 CFR 60.4211(f)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (3) counts as part of the 100 hours per calendar year allowed by this paragraph.

  (i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations, as specified in 40 CFR 60.4211(f)(3).

[Origin: 40 CFR 60 Subpart IIII]. [40 CFR 60.4211(f), 40 CFR 63 Subpart ZZZZ]

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

Records required for this permit condition will serve as monitoring. Additionally, if the emergency stationary CI internal combustion engine does not meet the standards applicable to non-emergency engines, the permittee shall install a non-resettable hour meter prior to startup of the engine. [40 CFR 60.4209(a)]

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

Documentation shall be kept that demonstrates compliance with this provision. Records shall be kept in accordance with 40 CFR 60.4211(f), as applicable.

Starting with the model years in Table 5 of 40 CFR 60 Subpart IIII, if an emergency affected emission unit does not meet the standards applicable to non-emergency engines in the applicable model year, the permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The permittee shall record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214(b)]

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

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

The permittee shall submit an annual report in accordance with 40 CFR 60.4214(d), as applicable. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.9 **Conditions on #SME SLAG: Slag Concentrator.**

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

Visible emissions shall be no greater than 10 percent opacity from the slag concentrator bin, slag crushing & grinding transfer points, and the crushers within the crushing and screening operation. [Origin: DAQE-AN103460061-22, 40 CFR 60 Subpart OOO, R307-312-4]. [R307-401-8]

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

A visual observation 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. If any visible emissions other than steam are observed, an opacity determination of that emission unit shall be performed by a certified visible emissions observer in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, within 24 hours of the initial observation. 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.

Additionally, for affected emission units subject to 40 CFR 60 Subpart OOO:

(a) The permittee shall perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The permittee shall initiate corrective action within 24 hours and complete corrective action as expediently as practical if the permittee finds that water is not flowing properly during an inspection of the water spray nozzles.

(b) If an affected emission unit relies on water carryover from upstream water sprays to control fugitive emissions, the permittee shall conduct periodic inspections of the upstream water spray(s) that are responsible for controlling fugitive emissions from the affected emission unit. These inspections shall be conducted as specified above, and the permittee shall designate which upstream water spray(s) will be periodically inspected at the time of the initial performance test required under 40 CFR 60.11 and 40 CFR 60.675.

(40 CFR 60.674(b)).

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

Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, for each determination shall be maintained in accordance with Provision I.S.1 of this permit.

Additionally, for affected emission units subject to 40 CFR 60 Subpart OOO:

(a) The permittee shall record each periodic inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in a logbook (in written or electronic format). The permittee shall keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Director upon request. (40 CFR 60.676(b)(1))

(b) If an affected emission unit that routinely uses wet suppression water sprays ceases operation of the water sprays or is using a control mechanism to reduce fugitive emissions other than water sprays during the monthly inspection (for example, water from recent rainfall), the logbook entry required above shall specify the control mechanism being used instead of the water sprays. (40 CFR 60.674(b)(2)).

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

Reports shall be submitted in accordance with Section I of this permit and, for affected emission units subject to 40 CFR 60 Subpart OOO, as specified in 40 CFR 60.676(f) for applicable performance tests.

II.B.9.b **Condition:**

Emissions from the slag concentrator bin shall be controlled with water sprays. Treatment shall be of sufficient frequency and quantity to maintain the surface material in a damp/moist condition. The degree of control is a minimum of that required to meet the opacity limitation in Condition II.B.9.a of this permit. Sprays shall not be required during periods of freezing temperatures. [Origin: DAQE-AN103460061-22]. [R307-401-8]

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

Visual inspections of the water spray system(s) shall be made weekly to ensure proper operating condition.

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

A record of required inspections shall be maintained in accordance with Provision S.1 in Section I of this permit.

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

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

II.B.9.c **Condition:**

The crushing and screening operation shall not process more than 5,000 tons of material per calendar day and 750,000 tons of material per rolling 12-month period. [Origin: DAQE-AN103460061-22]. [R307-401-8]

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

Records required for this permit condition will serve as monitoring.

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

Records of daily material processing shall be kept for all periods when the smelter is in operation. Daily total material processing shall be determined by daily reports. The permittee shall use the daily totals to calculate a monthly total. The permittee shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Records shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

II.B.9.d **Condition:**

Water sprays or chemical dust suppression sprays shall be installed at the following points if they are not enclosed or do not have baghouses to control fugitive emissions:
i. All crushers
ii. All stationary conveyor transfer points
iii. The crusher and screening units shall have water sprays at the input to the crusher and at the discharge points from the crusher.
The sprays shall operate whenever dry conditions warrant or as determined necessary by the Director. [Origin: DAQE-AN103460061-22]. [R307-401-8, R307-309]

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

Visual inspections of the water spray system(s) shall be made weekly to ensure proper operating condition.

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

A log of the visual inspections containing all applicable information required by Provision I.S.1 of this permit shall be kept for all periods of operation. Records shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

II.B.9.e **Condition:**

Visible emissions shall be no greater than 7 percent opacity from all affected emission units constructed, modified, or reconstructed on or after April 22, 2008, including, but not limited to, screens, transfer points, and all other affected emission units associated with the crushing and screening operation. This condition does not apply to the crushers within the crushing and screening operation. [Origin: 40 CFR 60 Subpart OOO, R307-312-4]. [40 CFR 60.672(b), 40 CFR 60 Subpart OOO Table 3]

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

For fugitive emissions from affected emission units without water sprays, the permittee shall conduct a repeat performance test using 40 CFR 60, Appendix A, Method 9, according to 40 CFR 60.11 and 40 CFR 60.675, within five years of the previous performance test. (40 CFR 60 Subpart OOO Table 3)

For affected emission units that use wet suppression, the permittee shall perform monthly periodic inspections to check that water is flowing to the discharge spray nozzles in the wet suppression system. The permittee shall initiate corrective action within 24 hours and complete corrective action as expediently as practical if the permittee finds that water is not flowing properly during an inspection of the water spray nozzles. (40 CFR 60.674(b))

If an affected emission unit relies on water carryover from upstream water sprays to control fugitive emissions, then that unit is exempt from the 5-year repeat testing requirement provided it meets the following criteria:
a) The permittee conducts periodic inspections of the upstream water spray(s) that are responsible for controlling fugitive emissions from the affected emission unit as specified above, and

b) The permittee has designated which upstream water spray(s) will be periodically inspected at the time of the initial performance test required under 40 CFR 60.11 and 40 CFR 60.675.
(40 CFR 60.674(b)(1)).

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

The permittee shall record each periodic inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in a logbook (in written or electronic format). The permittee shall keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Director upon request. (40 CFR 60.674(b), 40 CFR 60.676(b)(1))

If an affected emission unit that routinely uses wet suppression water sprays ceases operation of the water sprays or is using a control mechanism to reduce fugitive emissions other than water sprays during the monthly inspection (for example, water from recent rainfall), the logbook entry required above shall specify the control mechanism being used instead of the water sprays. (40 CFR 60.674(b)(2))

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

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

For performance tests involving only Method 9 (40 CFR part 60 Appendix A-4) testing, the permittee may provide a 7-day advance notification.(40 CFR 60.675(g)) Reports shall be submitted in accordance with 40 CFR 60.676(f) and as specified in Section I of this permit.

II.B.10 **Conditions on #SME 006: Smelter Limestone Flux Bin (Stack 6).**

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

Emissions of PM_{10} shall be no greater than 0.3 lbs/hour (filterable) and 0.016 grains/dscfm (68 degrees F, 29.92" Hg). [Origin: DAQE-AN103460061-22]. [R307-401-8]

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

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every five years based on the date of the most recent stack test. The source may also be tested at any time if directed by the Director. If the unit is not operational when a stack test is due, it shall be tested within six months of resumed operation.

(b) Notification. At least 30 days before the test, the source shall notify the Director 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 Director.

(c) Methods.

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

(2) $PM_{10}/PM_{2.5}$ (filterable):
For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201 or 201a or other EPA-approved testing method acceptable to the Director.

For stacks in which liquid drops are present, methods to eliminate the liquid drops shall 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, 5i or other EPA-approved testing method acceptable to the Director. If using Method 5 or any variation of Method 5, a scanning electron microscopy analysis or other equivalent method shall be used to determine the fraction of PM_{10} and/or $PM_{2.5}$, as approved by the Director.

$PM_{10}/PM_{2.5}$ (condensable):
Not applicable.

(3) 40 CFR 60, Appendix A, Method 2, Method 19, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine 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 Director to give the results in the specified units of the emission limitation.

(e) Conditions During Testing: Stack testing shall be performed during representative operations. The production rate during all compliance tests shall be no less than 90% of the maximum average hourly production rate achieved in a 24-hour period during the previous three (3) years.

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

The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

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

Visible emissions shall be no greater than 10 percent opacity. [Origin: DAQE-AN103460061-22]. [R307-401-8]

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

In lieu of monitoring via visible emissions observations, the permittee shall inspect the baghouse during typical operating conditions to verify proper operation and maintenance according to the manufacturer's recommendations. The permittee shall perform at least one inspection each month for each baghouse that has operated during the month. At a minimum, the inspection shall include the following.

a) Verify exhaust is properly ducted to the baghouse
b) Monitor cleaning cycle
c) Monitor discharge system to ensure dust is removed as needed
d) Check baghouse for normal or abnormal visual and audible conditions
e) Check drive components on fan
f) Spot check bag-seating condition
g) Check all hoses and clamps
h) Spot check for bag leaks and holes
i) Check duct for dust buildup

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

In addition to recording the results of the monthly inspections, the permittee shall document all maintenance performed on the baghouse, including bag replacement. Records 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.11 **Conditions on #SME 013: Dry Matte Bin (Stack 13).**

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

Emissions of PM_{10} shall be no greater than 0.3 lbs/hour (filterable) and 0.016 grains/dscfm (68 degrees F, 29.92" Hg). [Origin: DAQE-AN103460061-22]. [R307-401-8]

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

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every five years based on the date of the most recent stack test. The source may also be tested at any time if directed by the Director.

(b) Notification. At least 30 days before the test, the source shall notify the Director 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 Director.

(c) Methods.

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

(2) $PM_{10}/PM_{2.5}$ (filterable):
For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201 or 201a or other EPA-approved testing method acceptable to the Director.

For stacks in which liquid drops are present, methods to eliminate the liquid drops shall 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, 5i or other EPA-approved testing method acceptable to the Director. If using Method 5 or any variation of Method 5, a scanning electron microscopy analysis or other equivalent method shall be used to determine the fraction of PM_{10} and/or $PM_{2.5}$, as approved by the Director.

$PM_{10}/PM_{2.5}$ (condensable):
The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M Method 202, or other EPA-approved testing method acceptable to the Director. All particulate captured using Method 202 shall be considered $PM_{2.5}$ and/or PM_{10}.

For filterable emission limits, condensable emissions shall not be used for compliance demonstrations. For filterable + condensable emission limits, condensable emissions shall be used for compliance demonstrations.

(3) 40 CFR 60, Appendix A, Method 2, Method 19, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine 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 Director to give the results in the specified units of the emission limitation.

(e) Conditions During Testing: Stack testing shall be performed during representative operations. The production rate during all compliance tests shall be no less than 90% of the maximum average hourly production rate achieved in a 24-hour period during the previous three (3) years.

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

The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.11.b **Condition:**

Visible emissions shall be no greater than 10 percent opacity from the baghouse. [Origin: DAQE-AN103460061-22]. [R307-401-8]

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

A visual observation 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. If any visible emissions other than steam are observed, an opacity determination of that emission unit shall be performed by a certified visible emissions observer in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, within 24 hours of the initial observation. 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.

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

Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, for each determination shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

II.B.12 **Conditions on #SME FSF/FCF: Flash Smelting & Converting Combined.**

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

All gases produced during smelting and/or converting which enter the primary gas handling system shall pass through an online sulfuric acid plant, except that during the startup and/or shutdown process of any equipment, the gas emissions shall be ducted as necessary, either to the acid plant or to the secondary gas system for control. [Origin: DAQE-AN103460061-22]. [R307-401-8]

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

Records required for this permit condition will serve as monitoring.

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

A log shall be kept of any time the gases produced during smelting and/or converting are not passed through an online sulfuric acid plant. An additional log shall be kept and include the dates, times and durations of all times any gases from smelting and/or converting bypass both the acid plant and the secondary gas system. Records 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.B.13 **Conditions on #SME 010: Slag Granulation Exhaust Scrubber (Stack 10)**

II.B.13.a **Condition:**

Emissions of PM_{10} shall be no greater than 1.9 lbs/hour (24 hour average - calendar day) (filterable). [Origin: DAQE-AN103460061-22]. [R307-401-8]

II.B.13.a.1 **Monitoring:**

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every three years. The source may also be tested at any time if directed by the Director.

(b) Notification. At least 30 days before the test, the source shall notify the Director 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 Director.

(c) Methods.

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

(2) $PM_{10}/PM_{2.5}$ (filterable):
For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201 or 201a or other EPA-approved testing method acceptable to the Director.

For stacks in which liquid drops are present, methods to eliminate the liquid drops shall 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, 5i or other EPA-approved testing method acceptable to the Director. If using Method 5 or any variation

of Method 5, a scanning electron microscopy analysis or other equivalent method shall be used to determine the fraction of PM_{10} and/or $PM_{2.5}$, as approved by the Director.

$PM_{10}/PM_{2.5}$ (condensable):
The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M Method 202, or other EPA-approved testing method acceptable to the Director. All particulate captured using Method 202 shall be considered $PM_{2.5}$ and/or PM_{10}.

For filterable emission limits, condensable emissions shall not be used for compliance demonstrations. For filterable + condensable emission limits, condensable emissions shall be used for compliance demonstrations.

(3) 40 CFR 60, Appendix A, Method 2, Method 19, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine 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 Director to give the results in the specified units of the emission limitation.

(e) Conditions During Testing: Stack testing shall be performed during representative operations. The production rate during all compliance tests shall be no less than 90 percent of the maximum average hourly production rate achieved in any 24-hour period during the previous three (3) years.

II.B.13.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.13.a.3 **Reporting:**

The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.13.b **Condition:**

Emissions of SO_2 shall be no greater than 2.0 lbs/hour (24 hour average - calendar day). [Origin: DAQE-AN103460061-22]. [R307-401-8]

II.B.13.b.1 **Monitoring:**

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every three years. The source may also be tested at any time if directed by the Director.

(b) Notification. At least 30 days before the test, the source shall notify the Director 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 Director.

(c) Methods.

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

(2) 40 CFR 60, Appendix A, Method 6, 6A, 6B, or 6C, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the pollutant emission rate.
(3) 40 CFR 60, Appendix A, Method 2, Method 19, or other EPA-approved testing method, as acceptable to the Director, 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 Director to give the results in the specified units of the emission limitation.

(e) Conditions During Testing: Stack testing shall be performed during representative operations. The production rate during all compliance tests shall be no less than 90 percent of the maximum average hourly production rate achieved in a 24-hour period during the previous three (3) years.

II.B.13.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.13.b.3 **Reporting:**

The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.13.c **Condition:**

Hours of operation shall be no greater than 3,504 hours per rolling 12-month period. [Origin: DAQE-AN103460061-22]. [R307-401-8]

II.B.13.c.1 **Monitoring:**

Compliance with the limitation shall be demonstrated through a rolling 12-month total. The permittee shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months.

II.B.13.c.2 **Recordkeeping:**

An operator's log shall be maintained which shall include the results of the monitoring required. All records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.13.c.3 **Reporting:**

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

II.B.13.d **Condition:**

Visible emissions shall be no greater than 15 percent opacity. [Origin: DAQE-AN103460061-22]. [R307-401-8]

II.B.13.d.1 **Monitoring:**

A visual observation 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. If any visible emissions other than steam are observed, an opacity determination of that emission unit shall be performed by a certified visible emissions observer in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, within 24 hours of the initial observation.

II.B.13.d.2 **Recordkeeping:**

Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, for each determination shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.13.d.3 **Reporting:**

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

II.B.14 **Conditions on #SME 029: Secondary Gas System Lime Silo (Stack 29).**

II.B.14.a **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Origin: DAQE-AN103460061-22]. [R307-401-8]

II.B.14.a.1 **Monitoring:**

In lieu of monitoring via visible emissions observations, the permittee shall inspect the baghouse during typical operating conditions to verify proper operation and maintenance according to the manufacturer's recommendations. The permittee shall perform at least one inspection each quarter for each baghouse that has operated during the quarter. At a minimum, the inspection shall include the following.

a) Verify exhaust is properly ducted to the baghouse
b) Monitor discharge system to ensure dust is removed as needed
c) Check baghouse for normal or abnormal visual and audible conditions
d) Spot check bag-seating condition
e) Check all hoses and clamps
f) Spot check from top of tube sheet for bag leaks and holes
g) Check discharge area for dust buildup

II.B.14.a.2 **Recordkeeping:**

In addition to recording the results of the quarterly inspections, the permittee shall document all maintenance performed on the baghouse, including bag replacement. Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.14.a.3 **Reporting:**

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

II.B.15 **Conditions on #SME 028: Anode Area Lime Silo (Stack 28).**

II.B.15.a **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Origin: DAQE-AN103460061-22]. [R307-401-8]

II.B.15.a.1 **Monitoring:**

In lieu of monitoring via visible emissions observations, the permittee shall inspect the baghouse during typical operating conditions to verify proper operation and maintenance according to the manufacturer's recommendations. The permittee shall perform at least one inspection each quarter for each baghouse that has operated during the quarter. At a minimum, the inspection shall include the following.

a) Verify exhaust is properly ducted to the baghouse
b) Monitor discharge system to ensure dust is removed as needed
c) Check baghouse for normal or abnormal visual and audible conditions
d) Spot check bag-seating condition
e) Check all hoses and clamps
f) Spot check from top of tube sheet for bag leaks and holes
g) Check discharge area for dust buildup

II.B.15.a.2 **Recordkeeping:**

In addition to recording the results of the quarterly inspections, the permittee shall document all maintenance performed on the baghouse, including bag replacement. Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.15.a.3 **Reporting:**

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

II.B.16 **Conditions on #SME 015: Mold Coating (Barite) Bin (Stack 15).**

II.B.16.a **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Origin: DAQE-AN103460061-22]. [R307-401-8]

II.B.16.a.1 **Monitoring:**

In lieu of monitoring via visible emissions observations, the permittee shall inspect the baghouse during typical operating conditions to verify proper operation and maintenance according to the manufacturer's recommendations. The permittee shall perform at least one inspection each month for each baghouse that has operated during the month. At a minimum, the inspection shall include the following.

a) Verify exhaust is properly ducted to the baghouse
b) Monitor cleaning cycle
c) Monitor discharge system to ensure dust is removed as needed
d) Check baghouse for normal or abnormal visual and audible conditions
e) Check drive components on fan
f) Spot check bag-seating condition
g) Check all hoses and clamps

h) Spot check for bag leaks and holes
i) Check duct for dust buildup

II.B.16.a.2 **Recordkeeping:**

In addition to recording the results of the monthly inspections, the permittee shall document all maintenance performed on the baghouse, including bag replacement. Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.16.a.3 **Reporting:**

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

II.B.17 **Conditions on #SME 008: Acid Plant Preheater (Stack 8).**

II.B.17.a **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Origin: DAQE-AN103460061-22]. [R307-401-8]

II.B.17.a.1 **Monitoring:**

In lieu of monitoring via visible emission observations, the type of fuel used shall be monitored to demonstrate that only natural gas or propane is being combusted.

II.B.17.a.2 **Recordkeeping:**

The permittee shall maintain records of the types of fuel combusted. Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.17.a.3 **Reporting:**

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

II.B.17.b **Condition:**

Consumption of natural gas shall be no greater than 74,476 MMBtu per rolling 12-month period. [Origin: DAQE-AN103460061-22]. [R307-401-8]

II.B.17.b.1 **Monitoring:**

Compliance shall be demonstrated with a rolling 12-month total. The permittee shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Natural gas consumption shall be determined by individual gas meter readings reconciled against monthly billing statements. Propane may be used as an alternate fuel supply during natural gas curtailment.

II.B.17.b.2 **Recordkeeping:**

Gas meter readings and billing statement reconciliations and rolling 12-month totals shall be recorded on a monthly basis. Records of consumption shall be kept for all periods when the plant

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

II.B.17.b.3 **Reporting:**

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

II.B.18 **Conditions on #SME 011b: Acid Plant.**

II.B.18.a **Condition:**

Emissions of SO_2 shall be no greater than 250 ppmdv based on a 6 hour block average, 170 ppmdv based on a 24 hour average - calendar day, and 100 ppmdv based on an annual average. [Origin: DAQE-AN103460061-22]. [40 CFR 60 Subpart P, R307-401-8]

II.B.18.a.1 **Monitoring:**

The permittee shall calibrate, maintain and operate a continuous monitoring system for measuring the emissions of sulfur dioxide (SO_2) concentration in accordance with UAC R307-170 and 40 CFR 60, Appendix B, Specification 2 - SO_2.

To demonstrate compliance with an annual average emission limitation, the permittee shall calculate a new annual average by the 20th day of each month using data from the previous 12 months. All annual average emission limits shall be based on a rolling 12-month average using the daily averages from the previous 12 months.

II.B.18.a.2 **Recordkeeping:**

Results of SO_2 monitoring shall be recorded and maintained as required in R307-170 and as described in Provision I.S.1 of this permit.

II.B.18.a.3 **Reporting:**

The permittee shall comply with the reporting provisions in R307-170-9 and any additional reporting provisions contained in Section I of this permit.

The quarterly reports required in R307-170-9 are considered prompt notification of permit deviations 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.18.b **Condition:**

Emissions of Sulfuric Acid mist shall be no greater than 0.67 mg/scf (68 degrees F, 29.92" Hg). [Origin: DAQE-AN103460061-22]. [R307-401-8]

II.B.18.b.1 **Monitoring:**

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every three years. Every three years means the test must be performed every third year and in the same calendar quarter in which the most recent test was performed. The source may also be tested at any time if directed by the Director.

(b) Notification. At least 30 days before the test, the source shall notify the Director 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 Director.
(c) Methods.
(1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other EPA-approved testing method, as acceptable to the Director, and Occupational Safety and Health Administration (OSHA)-approved and/or Mine Safety and Health Administration (MSHA)-approved access shall be provided to the test location.
(2) 40 CFR 60, Appendix A, Method 8, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the pollutant emission rate.
(3) 40 CFR 60, Appendix A, Method 2, Method 19, or other EPA-approved testing method, as acceptable to the Director, 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 Director to give the results in the specified units of the emission limitation.
(e) Conditions During Testing. Stack testing shall be performed during representative operations. The production rate during all compliance tests shall be no less than 90 percent of the maximum average hourly production rate achieved in a 24-hour period during the previous three (3) years.

II.B.18.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.18.b.3 **Reporting:**

The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.18.c **Condition:**

Visible emissions from the acid plant tail gas shall be no greater than 15 percent opacity. [Origin: DAQE-AN103460061-22]. [40 CFR 60 Subpart P, R307-401-8]

II.B.18.c.1 **Monitoring:**

The permittee shall calibrate, maintain and operate a continuous monitoring system for measuring the opacity of emissions in accordance with R307-170, UAC and 40 CFR 60, Appendix B, Specification 1 - Opacity, and shall record the output of the system. The output shall be reviewed at least monthly for compliance with the opacity limit. Compliance is to be based on the percent opacity averaged over six consecutive minutes.

II.B.18.c.2 **Recordkeeping:**

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

II.B.18.c.3 **Reporting:**

The permittee shall comply with the reporting provisions in R307-170-9 and any additional reporting provisions contained in Section I of this permit.

The quarterly reports required in R307-170-9 are considered prompt notification of permit deviations 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.19 **Conditions on #SME GLCS: Acid Plant Process Gas Leak Collection System.**

II.B.19.a **Condition:**

Visible emissions from acid plant process gas leaks shall be no greater than 20 percent opacity. [Origin: DAQE-AN103460061-22]. [R307-401-8]

II.B.19.a.1 **Monitoring:**

a) To minimize emissions from leaks of sulfur dioxide, sulfur trioxide, and other process emissions, 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. If any visible emissions other than steam are observed, an opacity determination of that emission unit shall be performed by a certified visible emissions observer in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, within 24 hours of the initial observation.
b) If visible emissions greater than 15 percent opacity are observed, best operational practices to minimize the emissions by repair, correction, or control shall be initiated within 24 operating hours of the observation to ensure leakage of gases to the ambient air are being controlled to 20% opacity or less. Best operational practices may include, but are not limited to, placement or adjustment of negative pressure ductwork and collection hoses, welding or containment of process gas leaks.

II.B.19.a.2 **Recordkeeping:**

A log of visual opacity surveys performed, opacity determinations, and data required by 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.19.a.3 **Reporting:**

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

II.B.20 **Conditions on #SME 019: Hydrometallurgical Plant Limestone Bin (Stack 19).**

II.B.20.a **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Origin: DAQE-AN103460061-22]. [R307-401-8]

II.B.20.a.1 **Monitoring:**

In lieu of monitoring via visible emissions observations, the permittee shall inspect the baghouse during typical operating conditions to verify proper operation and maintenance according to the manufacturer's recommendations. The permittee shall perform at least one inspection each month for each baghouse that has operated during the month. At a minimum, the inspection shall include the following.

a) Verify exhaust is properly ducted to the baghouse
b) Monitor cleaning cycle
c) Monitor discharge system to ensure dust is removed as needed
d) Check baghouse for normal or abnormal visual and audible conditions
e) Check drive components on fan
f) Spot check bag-seating condition
g) Check all hoses and clamps
h) Spot check for bag leaks and holes
i) Check duct for dust buildup

II.B.20.a.2 **Recordkeeping:**

In addition to recording the results of the monthly inspections, the permittee shall document all maintenance performed on the baghouse, including bag replacement. Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.20.a.3 **Reporting:**

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

II.B.21 **Conditions on #SME 020: Hydrometallurgical Plant Lime Bin (Stack 20).**

II.B.21.a **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Origin: DAQE-AN103460061-22]. [R307-401-8]

II.B.21.a.1 **Monitoring:**

In lieu of monitoring via visible emissions observations, the permittee shall inspect the baghouse during typical operating conditions to verify proper operation and maintenance according to the manufacturer's recommendations. The permittee shall perform at least one inspection each month for each baghouse that has operated during the month. At a minimum, the inspection shall include the following.

a) Verify exhaust is properly ducted to the baghouse
b) Monitor cleaning cycle
c) Monitor discharge system to ensure dust is removed as needed
d) Check baghouse for normal or abnormal visual and audible conditions
e) Check drive components on fan
f) Spot check bag-seating condition
g) Check all hoses and clamps
h) Spot check for bag leaks and holes
i) Check duct for dust buildup

II.B.21.a.2 **Recordkeeping:**

In addition to recording the results of the monthly inspections, the permittee shall document all maintenance performed on the baghouse, including bag replacement. Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.21.a.3 **Reporting:**

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

II.B.22 **Conditions on #SME 030: Powerhouse Rentech Boiler**

II.B.22.a **Condition:**

Emissions of NO_x shall be no greater than 3.29 lbs/hour (30-day rolling average). [Origin: DAQE-AN103460061-22]. [40 CFR 60.44b(l), R307-401-8]

II.B.22.a.1 **Monitoring:**

Compliance shall be demonstrated in accordance with 40 CFR 60.46b(e) and either 40 CFR 60.48b(g)(1) or 40 CFR 60.48b(g)(2). Either a CEM shall be used or an alternate plan to monitor boiler operating conditions and predict NO_x emission rates shall be used.
The CEM shall be maintained and operated in accordance with R307-170. For monitoring the boiler NO_x limit, either a CEM or the most recent alternate monitoring plan approved by the Director shall be used.

II.B.22.a.2 **Recordkeeping:**

The permittee shall document all boiler tests and their results. A copy of the most recently approved alternate monitoring plan shall be kept in a readily accessible location on site. All records and results of monitoring shall be maintained in accordance with 40 CFR 60.49b, R307-170, and Provision I.S.1 of this permit.

II.B.22.a.3 **Reporting:**

Notifications and reports shall be submitted as required in 40 CFR 60.49b, R307-170, and Provision I.S.2 of this permit. Results of additional 30-day CEM tests (30-day test via certified NO_x CEM per 40 CFR 60.46b(e)) shall be submitted within 60 days of the completion of the test.

Quarterly reports submitted in accordance with R307-170-9 or the most recently approved alternate monitoring plan are considered prompt notification of permit deviations 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.22.b **Condition:**

Emissions of NO_x shall be no greater than 4.94 lbs/hour (calendar-day average). [Origin: DAQE-AN103460061-22]. [R307-401-8]

II.B.22.b.1 **Monitoring:**

Stack testing to show compliance with the emission limitation shall be performed as specified below:

(a) Frequency. Emissions shall be tested every three years. The source may also be tested at any time if directed by the Director.

(b) Notification. At least 30 days before the test, the source shall notify the Director 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 Director.
(c) Methods.
(1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other EPA-approved testing method, as acceptable to the Director, and Occupational Safety and Health Administration (OSHA)-approved and/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, 7E, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the pollutant emission rate.
(3) 40 CFR 60, Appendix A, Method 2, Method 19, or other EPA-approved testing method, as acceptable to the Director, 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 Director to give the results in the specified units of the emission limitation.
(e) Conditions During Testing. Stack testing shall be performed during representative operations. The production rate during all compliance tests shall be no less than 90% of the maximum average hourly production rate achieved in a 24-hour period during the previous three (3) years. For the initial test, the permittee shall propose in the test protocol, stack test conditions to assure that stack testing is representative of actual operations.

II.B.22.b.2 **Recordkeeping:**

Results of monitoring and any information used to determine compliance shall be recorded for all periods when the source is in operation. Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.22.b.3 **Reporting:**

The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.22.c **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Origin: DAQE-AN103460061-22]. [R307-401-8]

II.B.22.c.1 **Monitoring:**

A visual observation 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. If any visible emissions other than steam are observed, an opacity determination of that emission unit shall be performed by a certified visible emissions observer in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, within 24 hours of the initial observation. 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.

II.B.22.c.2 **Recordkeeping:**

Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, for each determination shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.22.c.3 **Reporting:**

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

II.B.23 **Conditions on #SME 026: Powerhouse Holman Boiler (Stack 26).**

II.B.23.a **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Origin: DAQE-AN103460061-22]. [R307-401-8]

II.B.23.a.1 **Monitoring:**

A visual observation 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. If any visible emissions other than steam are observed, an opacity determination of that emission unit shall be performed by a certified visible emissions observer in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, within 24 hours of the initial observation. 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.

II.B.23.a.2 **Recordkeeping:**

Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, for each determination shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.23.a.3 **Reporting:**

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

II.B.23.b **Condition:**

Emissions of NO_x shall be no greater than 9.34 lbs/hour (30-day rolling average). [Origin: DAQE-AN103460061-22]. [40 CFR 60.44b, R307-401-8]

II.B.23.b.1 **Monitoring:**

Compliance shall be demonstrated in accordance with 40 CFR 60.46b(e) and either 40 CFR 60.48b(g)(1) or 40 CFR 60.48b(g)(2). Either a CEM shall be used or an alternate plan to monitor boiler operating conditions and predict NO_x emission rates shall be used. The CEM shall be

maintained and operated in accordance with R307-170. For monitoring the boiler NO_x limit, either a CEM or the most recent alternate monitoring plan approved by the Director shall be used.

II.B.23.b.2 **Recordkeeping:**

The permittee shall document all boiler tests and their results. A copy of the most recently approved alternate monitoring plan shall be kept in a readily accessible location on site. All records and results of monitoring shall be maintained in accordance with 40 CFR 60.49b, R307-170, and Provision I.S.1 of this permit.

II.B.23.b.3 **Reporting:**

Notifications and reports shall be submitted as required in 40 CFR 60.49b, R307-170, and Provision I.S.2 of this permit. Results of additional 30-day CEM tests (30-day test via certified NO_x CEM per 40 CFR 60.46b(e)) shall be submitted within 60 days of the completion of the test.

Quarterly reports submitted in accordance with R307-170-9 or the most recently approved alternate monitoring plan are considered prompt notification of permit deviations 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.23.c **Condition: State-only Requirement**

Emissions of NO_x shall be no greater than 14.0 lbs/hour (calendar-day average). [Origin: DAQE-AN103460061-22, SIP Section IX.H.2.i, SIP Section IX.H.12.j]. [R307-401-8, SIP Section IX.H.12.j, SIP Section IX.H.2.i]

II.B.23.c.1 **Monitoring:**

a) Stack testing to show compliance with the emission limitation shall be performed as specified below:
   (1) Frequency. Emissions shall be tested every three years. The source may also be tested at any time if directed by the Director.
   (2) Notification. At least 30 days before the test, the source shall notify the Director 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 Director.
   (3) Methods.
      (a) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other EPA-approved testing method, as acceptable to the Director, and Occupational Safety and Health Administration (OSHA)-approved and/or Mine Safety and Health Administration (MSHA)-approved access shall be provided to the test location.
      (b) 40 CFR 60, Appendix A, Method 7E, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the pollutant emission rate.
      (c) 40 CFR 60, Appendix A, Method 2, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the volumetric flow rate.
   (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 Director to give the results in the specified units of the emission limitation.
   (5) Conditions During Testing. Stack testing shall be performed during representative operations. The production rate during all compliance tests shall be no less than 90% of

the maximum average hourly production rate achieved in a 24-hour period during the previous three (3) years.

b) The permittee shall use an EPA-approved test method every three years and in between years use CEMS or alternate method according to applicable NSPS standards. During startup/shutdown operations, NO_x emissions are monitored by CEMS or alternate methods in accordance with applicable NSPS standards. (SIP Section IX.H.12.j state-only requirement).

II.B.23.c.2 **Recordkeeping:**

Results of monitoring and any information used to determine compliance shall be recorded for all periods when the source is in operation. Records shall be maintained in accordance with Provision I.S.1 of this permit. Any or all of these records shall be made available to the Director upon request.

II.B.23.c.3 **Reporting:**

The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.24 **Conditions on #SME 011: Main Stack (Stack 11).**

II.B.24.a **Condition:**

Emissions of PM_{10} shall be no greater than:

i. 89.5 lbs/hour (24 hour average - calendar day) (filterable).
[Origin: DAQE-AN103460061-22, SIP Section IX.H.2.i]. [40 CFR 63 Subpart EEEEEE, R307-401-8, SIP Section IX.H.2.i]

ii. 439 lbs/hour (filterable + condensable).
[Origin: DAQE-AN103460061-22, SIP Section IX.H.2.i]. [R307-401-8, SIP Section IX.H.2.i]

II.B.24.a.1 **Monitoring:**

A) The permittee shall calibrate, maintain and operate a system to continuously measure emissions of particulate matter from the main stack in accordance with 40 CFR 63.8(b), (c), (f), (g). For purposes of determining compliance with the emission limit, all particulate matter collected shall be reported as PM_{10}. To determine the mass emissions rate, the PM_{10} concentration as determined by the smelter main stack continuous PM sampling system is multiplied by the volumetric flow rate for the smelter main stack and any necessary conversion factors. Compliance with the main stack emission limit for PM_{10} shall be demonstrated using the smelter main stack continuous particulate sampling system to provide an average mass PM_{10} emission rate for each 24-hour period.

B) Stack testing shall be performed as specified below:
   (1) Frequency. Emissions shall be tested once per calendar year. The source may also be tested at any time if directed by the Director.
   (2) Notification. At least 30 days before the test, the source shall notify the Director 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 Director.
   (3) Methods.
      (a) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other EPA-approved testing method, as acceptable to the Director, and Occupational Safety and Health Administration (OSHA)-

approved and/or Mine Safety and Health Administration (MSHA)-approved access shall be provided to the test location.

(b) $PM_{10}/PM_{2.5}$ (filterable):
For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201 or 201a or other EPA-approved testing method acceptable to the Director.

For stacks in which liquid drops are present, methods to eliminate the liquid drops shall 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, 5i or other EPA-approved testing method acceptable to the Director. If using Method 5 or any variation of Method 5, a scanning electron microscopy analysis or other equivalent method shall be used to determine the fraction of PM_{10} and/or $PM_{2.5}$, as approved by the Director.

$PM_{10}/PM_{2.5}$ (condensable):
The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M Method 202, or other EPA-approved testing method acceptable to the Director. All particulate captured using Method 202 shall be considered $PM_{2.5}$ and/or PM_{10}.

For filterable emission limits, condensable emissions shall not be used for compliance demonstrations. For filterable + condensable emission limits, condensable emissions shall be used for compliance demonstrations.

(c) 40 CFR 60, Appendix A, Method 2, Method 19, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine volumetric flow rate.

(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 Director to give the results in the specified units of the emission limitation.

(5) Conditions During Testing. Stack testing shall be performed during representative operations. The production rate during all compliance tests shall be no less than 90% of the maximum average hourly production rate achieved in a 24-hour period during the previous three (3) years.

II.B.24.a.2 **Recordkeeping:**

A) The results of PM_{10} monitoring and calculated average mass PM_{10} emission rate for each 24-hour period shall be recorded and maintained. Collected data shall be available for inspection when the required laboratory analysis is completed. Additionally, the permittee shall maintain records of the following:
   i) parameters for calculating an average mass PM_{10} emission rate for each 24-hour period,
   ii) parameters for demonstrating data validation procedures are conducted,
   iii) performance evaluations of the continuous particulate sampling system, and
   iv) maintenance activities and adjustments conducted on the continuous particulate sampling system.

   Records shall be maintained in accordance with Provision I.S.1 of this permit and shall be available to the director at any time.

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

II.B.24.a.3 **Reporting:**

A) A summary of the 24-hour averages shall be submitted to the Director by the 20th day of each month for the previous month.
B) The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.24.b **Condition:**

Emissions of SO_2 shall be no greater than:
i. 552 lbs/hour based on a 3 hour rolling average [State-only Requirement] [Origin: DAQE-AN103460061-22, SIP Section IX.H.2.i, SIP Section IX.H.12.j]. [R307-401-8, SIP Section IX.H.12.j, SIP Section IX.H.2.i]
ii. 422 lbs/hour based on a 24 hour average - calendar day [State-only Requirement] [Origin: DAQE-AN103460061-22, SIP Section IX.H.2.i, SIP Section IX.H.12.j]. [R307-401-8, SIP Section IX.H.12.j, SIP Section IX.H.2.i]
iii. 211 lbs/hour based on an annual average [Origin: DAQE-AN103460061-22]. [R307-401-8]

II.B.24.b.1 **Monitoring:**

The permittee shall calibrate, maintain and operate a continuous monitoring system for measuring the emissions of sulfur dioxide (SO_2) discharged to the atmosphere and stack gas volumetric flow rates in accordance with UAC R307-170 including the requirements for annual Relative Accuracy Test Audits and quarterly Relative Accuracy Audits or Cylinder Gas Audits. The required Relative Accuracy Test Audits, Relative Accuracy Audits, and Cylinder Gas Audits shall be conducted following procedures contained in Appendix B, Specification 2, Part 60, Title 40, CFR and Appendix F, Part 60, Title 40, CFR. Acceptable methods for the annual Relative Accuracy Test Audits include 40 CFR 60, Appendix A, reference methods 6 or 6c. The permittee shall perform Appendix E, Part 52, Title 40, CFR Performance Specification procedures on the stack gas flow rate measurement system, if directed by the Director, in the event that the results of the quarterly and annual tests required above demonstrate that the SO_2 monitoring system is not performing properly. Failure to measure at least 95 percent of the hours during which emissions occurred in any quarter or failure to measure any 18 consecutive hours of emissions data shall constitute a violation. Any hour for which the measurements comply with R307-170 UAC shall be considered as measured. Any hours for which the emissions data are greater than 20 percent in error will be considered to have not been measured. During periods of malfunction or maintenance of the stack gas temperature and velocity measurement instrumentation, the permittee may estimate stack gas flow rate. These estimates will be considered as measurements. No more than 10 percent of the flow rates in any one month shall be estimated.

During startup/shutdown operations, SO_2 emissions shall be monitored by CEMS or alternate methods in accordance with applicable NSPS standards. (SIP Section IX.H.12.j state-only requirement)

To demonstrate compliance with an annual average emission limitation, the permittee shall calculate a new annual average by the 20th day of each month using data from the previous 12 months. All annual average emission limits shall be based on a rolling 12-month average using the daily averages from the previous 12 months.

II.B.24.b.2 **Recordkeeping:**

Results of SO_2 measurements shall be recorded and maintained as required in R307-170 and as described in Provision I.S.1 of this permit. The permittee shall express the measurements as pounds of SO_2 emitted per hour calculated at the end of each day for the preceding 24 hours and calculated at the end of each hour for the preceding 3-hour period. Additionally, the following data shall also be recorded: the total number of hourly periods during the month in which measurements were not taken; for any periods where loss of measurement is greater than three continuous hours, the reason for loss of measurement in each period; the dates and number of exceedances on which the 3- and 24-hour emissions averages exceeded the applicable emission level; calculations used to derive the estimated flow rates and a list of the periods where stack gas flow rate was estimated in each month, and all conversion values used to derive the 3-, 24-hour, and annual average emissions for SO_2, including temperature and differential pressure of stack gases.

II.B.24.b.3 **Reporting:**

All audit and accuracy test results shall be submitted to the Director within 60 days after the audit or accuracy test is completed. Data, reports, or results required to be submitted to the Director shall be deemed to be verified and accepted as valid and not subject to challenge and shall be used by the Director in determining compliance with the main smelter stack SO_2 emission limits, unless, within 30 days of the time of submittal the permittee or the Director provides evidence that the data, results, or reports or any part thereof, are greater than 20 percent in error. Any additional reporting required by R307-170 and Provision I.S.1 of this permit shall also be met. The quarterly reports required in R307-170-9 are considered prompt notification of permit deviations 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.24.c **Condition:**

Visible emissions shall be no greater than 20 percent opacity. [Origin: DAQE-AN103460061-22]. [R307-401-8]

II.B.24.c.1 **Monitoring:**

The permittee shall calibrate, maintain and operate a continuous monitoring system for measuring the opacity of emissions in accordance with R307-170, UAC and 40 CFR 60, Appendix B, Specification 1 - Opacity, and shall record the output of the system. The output shall be reviewed at least monthly for compliance with the opacity limit. Compliance is to be based on the percent opacity averaged over six consecutive minutes.

II.B.24.c.2 **Recordkeeping:**

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

II.B.24.c.3 **Reporting:**

The permittee shall comply with the reporting provisions in R307-170-9 and any additional reporting provisions contained in Section I of this permit.

The quarterly reports required in R307-170-9 are considered prompt notification of permit deviations 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.24.d **Condition:**

Emissions of Lead shall be no greater than 1.3 lbs/hour (annual average). [Origin: DAQE-AN103460061-22]. [R307-401-8]

II.B.24.d.1 **Monitoring:**

The permittee shall determine lead emissions from the main stack using the main stack particulate data and laboratory analysis of the material collected by the continuous stack particulate sampler. If the permittee cannot monitor the lead emissions using the continuous particulate sampler, the test method shall be submitted for approval or may be assigned by the Director. The permittee shall monitor lead emissions in accordance with the most recent monitoring plan approved by the Director.

To demonstrate compliance with an annual average emission limitation, the permittee shall calculate a new annual average by the 20th day of each month using data from the previous 12 months. All annual average emission limits shall be based on a rolling 12-month average using the daily averages from the previous 12 months.

II.B.24.d.2 **Recordkeeping:**

The permittee shall keep appropriate records of the particulate sampling at the main stack and laboratory analysis of the lead in the particulate, as outlined in the monitoring plan. Results of monitoring and all records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.24.d.3 **Reporting:**

The permittee shall report as specified in the monitoring plan and as specified in Section I of this permit.

II.B.24.e **Condition:**

Emissions of NO_x shall be no greater than:
i. 35.0 lbs/hour (annual average).
[Origin: DAQE-AN103460061-22]. [R307-401-8]
ii. 146.5 lbs/hour (daily average).
[Origin: DAQE-AN103460061-22, SIP Section IX.H.2.i, SIP Section IX.H.12.j]. [R307-401-8]

II.B.24.e.1 **Monitoring:**

The permittee shall calibrate, maintain and operate a continuous monitoring system for measuring the emissions of NO_x discharged to the atmosphere and stack gas volumetric flow rates in accordance with UAC R307-170 including the requirements for annual Relative Accuracy Test Audits and quarterly Relative Accuracy Audits or Cylinder Gas Audits. The monitoring system shall comply with all applicable sections of R307-170, UAC and 40 CFR 60, Appendix B, Specification 2 - Oxides of Nitrogen. The required Relative Accuracy Test Audits, Relative Accuracy Audits, and Cylinder Gas Audits shall be conducted following procedures contained in Appendix B, Specification 2, Part 60, Title 40, CFR and Appendix F, Part 60, Title 40, CFR. Acceptable methods for the annual Relative Accuracy Test Audits include 40 CFR 60, Appendix A, reference method 7 or 7E. The permittee shall perform Appendix E, Part 52, Title 40, CFR Performance Specification procedures on the stack gas flow rate measurement system, if directed by the Director, in the event that the results of the quarterly and annual tests required above demonstrate that the NO_x monitoring system is not performing properly. During periods of

malfunction or maintenance of the stack gas temperature and velocity measurement instrumentation, the permittee may estimate stack gas flow rate. These estimates will be considered as measurements. No more than 10 percent of the flow rates in any one month shall be estimated.

During startup/shutdown operations, NO_x emissions shall be monitored by CEMS or alternate methods in accordance with applicable NSPS standards. (SIP Section IX.H.12.j state-only requirement)

To demonstrate compliance with an annual average emission limitation, the permittee shall calculate a new annual average by the 20th day of each month using data from the previous 12 months. All annual average emission limits shall be based on a rolling 12-month average using the daily averages from the previous 12 months.

II.B.24.e.2 **Recordkeeping:**

Results of NO_x measurements shall be recorded and maintained as required in R307-170 and as described in Provision I.S.1 of this permit. The permittee shall record the output of the systems, for measuring the NO_x emissions on the main stack. Measurement results shall be expressed as pounds of NO_x emitted per hour calculated at the end of each day for the preceding 24 hours. Additionally, the following data shall also be recorded: the total number of hourly periods during the month in which measurements were not taken; for any periods where loss of measurement is greater than three continuous hours, the reason for loss of measurement in each period; the dates and number of exceedances on which the annual emissions average based on hourly emissions exceeded the applicable emissions level for the month being reported, the daily NO_x averages, calculations used to derive the estimated flow rates and a list of the periods where stack gas flow rate was estimated in each month, and all conversion values used to derive the 24 hour average and annual average for NO_x including temperature and differential pressure of stack gases.

II.B.24.e.3 **Reporting:**

All audit and accuracy test results shall be submitted to the Director within 60 days after the audit or accuracy test is completed. Data, reports, or results required to be submitted to the Director shall be deemed to be verified and accepted as valid and not subject to challenge and shall be used by the Director in determining compliance with the main smelter stack NO_x emission limits, unless, within 30 days of the time of submittal the permittee or the Director provides evidence that the data, results, or reports or any part thereof, are greater than 20 percent in error. Any additional reporting required by R307-170 and Provision I.S.1 of this permit shall also be met.

The quarterly reports required in R307-170-9 are considered prompt notification of permit deviations 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.24.f **Condition: State-only Requirement**

Emissions of $PM_{2.5}$ shall be no greater than:
i. 85 lbs/hour (filterable)
ii. 434 lbs/hr (filterable + condensable)
[Origin: DAQE-AN103460061-22, SIP Section IX.H.12.j]. [R307-401-8, SIP Section IX.H.12.j]

II.B.24.f.1 **Monitoring:**

To demonstrate compliance with each limit, stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested once per calendar year. The source may also be tested at any time if directed by the Director.
(b) Notification. At least 30 days before the test, the source shall notify the Director 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 Director.
(c) Methods.
(1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other EPA-approved testing method, as acceptable to the Director, and Occupational Safety and Health Administration (OSHA)-approved and/or Mine Safety and Health Administration (MSHA)-approved access shall be provided to the test location.
(2) $PM_{10}/PM_{2.5}$ (filterable):
For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201 or 201a or other EPA-approved testing method acceptable to the Director.

For stacks in which liquid drops are present, methods to eliminate the liquid drops shall 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, 5i or other EPA-approved testing method acceptable to the Director. If using Method 5 or any variation of Method 5, a scanning electron microscopy analysis or other equivalent method shall be used to determine the fraction of PM_{10} and/or $PM_{2.5}$, as approved by the Director.

$PM_{10}/PM_{2.5}$ (condensable):
The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M Method 202, or other EPA-approved testing method acceptable to the Director. All particulate captured using Method 202 shall be considered $PM_{2.5}$ and/or PM_{10}.

For filterable emission limits, condensable emissions shall not be used for compliance demonstrations. For filterable + condensable emission limits, condensable emissions shall be used for compliance demonstrations.
(3) 40 CFR 60, Appendix A, Method 2, Method 19, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine 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 Director to give the results in the specified units of the emission limitation.
(e) Conditions During Testing: Stack testing shall be performed during representative operations. The production rate during all compliance tests shall be no less than 90% of the maximum average hourly production rate achieved in a 24-hour period during the previous three (3) years.

II.B.24.f.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.24.f.3 **Reporting:**

The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.25 **Conditions on #SME 027: Recycle Crushing and Storage Building (Stack 27).**

II.B.25.a **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Origin: DAQE-AN103460061-22]. [R307-401-8]

II.B.25.a.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. If any visible emissions other than steam are observed, an opacity determination of that emission unit shall be performed by a certified visible emissions observer in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, within 24 hours of the initial observation.

II.B.25.a.2 **Recordkeeping:**

Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, for each determination shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.25.a.3 **Reporting:**

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

II.B.26 **Conditions on #SME PH: Powerhouse**

II.B.26.a **Condition:**

The permittee shall maintain records of the amount of each fuel combusted during each calendar month for the superheater. [Origin: 40 CFR 60 Subpart Dc]. [40 CFR 60.48c(g)]

II.B.26.a.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.26.a.2 **Recordkeeping:**

Gas meter readings shall be recorded on a monthly basis for the previous month and shall be maintained as described in Provision I.S of this permit.

II.B.26.a.3 **Reporting:**

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

II.B.26.b **Condition:**

Emissions of NO_x shall not exceed 23.3 tons per rolling 12-month period from the Holman boiler and Rentech boiler combined. [Origin: DAQE-AN103460061-22]. [R307-401-8]

II.B.26.b.1 **Monitoring:**

Compliance with the limitation shall be demonstrated through a rolling 12-month total. The permittee shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Monthly totals of NO_x emissions from each boiler shall be based on the following.

a) For the Holman boiler, the permittee shall use the 30-day average NO_x emission rate (lb/hr) determined in Condition II.B.23.b.1 for each calendar month and the hours of operation for the Holman boiler during each calendar month.
b) For the Rentech boiler, the permittee shall use the 30-day average NO_x emission rate (lb/hr) determined in Condition II.B.22.a.1 for each calendar month and the hours of operation for the Rentech boiler during each calendar month.

II.B.26.b.2 **Recordkeeping:**

An operations log shall be maintained that includes the results of the required monitoring. Records used for compliance demonstration, including emission rates, hours of operation, calculations, and the rolling 12-month totals, shall be recorded in the operations log each month. Records shall be kept for all periods when the plant is in operation and shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.26.b.3 **Reporting:**

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

II.B.27 **Conditions on #SME NG: Pyrometallurgical Process Group**

II.B.27.a **Condition:**

Consumption of natural gas shall be no greater than 1,947,847 MMBtu per rolling 12-month period. [Origin: DAQE-AN103460061-22]. [R307-401-8]

II.B.27.a.1 **Monitoring:**

Compliance shall be demonstrated with a rolling 12-month total. The permittee shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Natural gas consumption shall be determined by individual gas meter readings reconciled against monthly billing statements. Propane may be used as an alternate fuel supply during natural gas curtailment.

II.B.27.a.2 **Recordkeeping:**

Gas meter readings and billing statement reconciliations and rolling 12-month totals shall be recorded on a monthly basis. Records of consumption shall be kept for all periods when the plant is in operation. Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.27.a.3 **Reporting:**

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

II.B.28 **Conditions on #SME 022: Smelter Laboratory Sample Preparation (Stack 22).**

II.B.28.a **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Origin: DAQE-AN103460061-22]. [R307-401-8]

II.B.28.a.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. If any visible emissions other than steam are observed, an opacity determination of that emission unit shall be performed by a certified visible emissions observer in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, within 24 hours of the initial observation.

II.B.28.a.2 **Recordkeeping:**

Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, for each determination shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.28.a.3 **Reporting:**

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

II.B.29 **Conditions on #SME 017a, c: Vacuum Cleaning Systems (Stacks 17a, 17c).**

II.B.29.a **Condition:**

Combined emissions of PM_{10} shall be no greater than 0.7 lbs/hour (filterable) and 0.016 grains/dscfm (68 degrees F, 29.92" Hg). [Origin: DAQE-AN103460061-22]. [R307-401-8]

II.B.29.a.1 **Monitoring:**

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every five years based on the date of the most recent stack test. The source may also be tested at any time if directed by the Director. If the unit is not operational when a stack test is due, it shall be tested within six months of resumed operation.

(b) Notification. At least 30 days before the test, the source shall notify the Director 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 Director.

(c) Methods.

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

(2) $PM_{10}/PM_{2.5}$ (filterable):

For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201 or 201a or other EPA-approved testing method acceptable to the Director.

For stacks in which liquid drops are present, methods to eliminate the liquid drops shall 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, 5i or other EPA-approved testing method acceptable to the Director. If using Method 5 or any variation of Method 5, a scanning electron microscopy analysis or other equivalent method shall be used to determine the fraction of PM_{10} and/or $PM_{2.5}$, as approved by the Director.

$PM_{10}/PM_{2.5}$ (condensable):
The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M Method 202, or other EPA-approved testing method acceptable to the Director. All particulate captured using Method 202 shall be considered $PM_{2.5}$ and/or PM_{10}.

For filterable emission limits, condensable emissions shall not be used for compliance demonstrations. For filterable + condensable emission limits, condensable emissions shall be used for compliance demonstrations.

(3) 40 CFR 60, Appendix A, Method 2, Method 19, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine 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 Director to give the results in the specified units of the emission limitation.

(e) Conditions During Testing: Stack testing shall be performed during representative operations. The production rate during all compliance tests shall be no less than 90% of the maximum average hourly production rate achieved in a 24-hour period during the previous three (3) years.

II.B.29.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.29.a.3 **Reporting:**

The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.29.b **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Origin: DAQE-AN103460061-22]. [R307-401-8]

II.B.29.b.1 **Monitoring:**

In lieu of monitoring via visible emissions observations, the permittee shall inspect the baghouse during typical operating conditions to verify proper operation and maintenance according to the manufacturer's recommendations. The permittee shall perform at least one inspection each month

for each baghouse that has operated during the month. At a minimum, the inspection shall include the following.

a) Verify exhaust is properly ducted to the baghouse
b) Monitor cleaning cycle
c) Monitor discharge system to ensure dust is removed as needed
d) Check baghouse for normal or abnormal visual and audible conditions
e) Check drive components on fan
f) Spot check bag-seating condition
g) Check all hoses and clamps
h) Spot check for bag leaks and holes
i) Check duct for dust buildup

II.B.29.b.2 **Recordkeeping:**

In addition to recording the results of the monthly inspections, the permittee shall document all maintenance performed on the baghouse, including bag replacement. Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.29.b.3 **Reporting:**

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

II.B.30 **Conditions on #SME SA-1: Smelter Unleaded Gasoline Storage Tank.**

II.B.30.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(2)]. [R307-327-4(2)]

II.B.30.a.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.30.a.2 **Recordkeeping:**

The parameters listed above shall be recorded on a monthly basis and maintained as specified in Provision I.S.1 of this permit. The permittee shall maintain fuel specification records from the fuel supplier to demonstrate the maximum true vapor pressure.

II.B.30.a.3 **Reporting:**

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

II.B.30.b **Condition:**

The permittee shall not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:

(1) Minimize gasoline spills;
(2) Clean up spills as expeditiously as practicable;
(3) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;

(4) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.
(5) Portable gasoline containers that meet the requirements of 40 CFR part 59, subpart F, are considered acceptable for compliance with paragraph (3) of this section.

At all times, the permittee shall operate and maintain any affected emission unit, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in Table 3 of 40 CFR 63 Subpart CCCCCC.

[Origin: 40 CFR 63 Subpart CCCCCC]. [40 CFR 63.11111(b), 40 CFR 63.11115, 40 CFR 63.11116, 40 CFR 63.11130]

II.B.30.b.1 **Monitoring:**

Records required for this permit condition will serve as monitoring. Additionally, the permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in Table 3 of 40 CFR 63 Subpart CCCCCC. [40 CFR 63.11130]

II.B.30.b.2 **Recordkeeping:**

The permittee shall keep records demonstrating monthly throughput is less than the 10,000-gallon threshold level. Records shall be available within 24 hours of a request by the Director to document gasoline throughput in the affected emission unit. [40 CFR 63.11111(e), 40 CFR 63.11116(b)]

The permittee shall keep records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. Records shall be kept of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.11115(b), 40 CFR 63.11125(d)]

The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in Table 3 of 40 CFR 63 Subpart CCCCCC. [40 CFR 63.11130]

Documentation shall be kept that demonstrates compliance with this provision. Records shall be maintained in accordance with Provision I.S.1. of this permit.

II.B.30.b.3 **Reporting:**

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

II.B.31 **Conditions on #SMEi210: Smelter Cold Solvent Degreasers.**

II.B.31.a **Condition:**

The permittee shall ensure that the following conditions are met:

(1) Each solvent degreaser is equipped with a cover 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.
(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 adsorption.
(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: R307-335-4]. [R307-335-4]

II.B.31.a.1 **Monitoring:**

Visual inspections shall be made monthly to demonstrate compliance with this condition.

II.B.31.a.2 **Recordkeeping:**

Results of monthly inspections, the solvent VOC content applied, and the physical characteristics that demonstrate compliance with R307-335 shall be recorded and maintained as described in Provision I.S.1 of this permit.

II.B.31.a.3 **Reporting:**

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

II.B.32 **Conditions on #SME gen: Smelter Powerhouse Emergency Generators.**

II.B.32.a **Condition:**

Visible emissions shall be no greater than 20 percent opacity. [Origin: R307-305-3(3)]. [R307-305-3(3)]

II.B.32.a.1 **Monitoring:**

During any period that an emergency generator is operated for longer than 12 hours consecutively, a visual observation of that generator's exhaust shall be made 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 visual emissions observer. If any visible emissions other than steam are observed, then an opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, by a certified visible emissions observer. If a generator continues to operate on consecutive days following the initial observation, an opacity determination shall be performed on a daily basis.

II.B.32.a.2 **Recordkeeping:**

Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, for each determination shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.32.a.3 **Reporting:**

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

II.B.32.b **Condition:**

The permittee shall comply with the following at all times for each emergency affected emission unit:

1. The permittee shall operate the emergency stationary RICE according to the requirements in paragraphs a. through c. In order for the engine to be considered an emergency stationary RICE, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs a. through c., is prohibited. If the engine is not operated according to the requirements in paragraphs a. through c., the engine will not be considered an emergency engine under this subpart and shall meet all requirements for non-emergency engines.
    a. There is no time limit on the use of emergency stationary RICE in emergency situations.
    b. The permittee may operate the emergency stationary RICE for any combination of the purposes specified in paragraph (i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph c. counts as part of the 100 hours per calendar year allowed by this paragraph.
        (i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
    c. Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations, as specified in 40 CFR 63.6640(f)(4).
2. The permittee shall meet the following requirements at all times, except during periods of startup:
    a. Change oil and filter every 500 hours of operation or annually, whichever comes first;
    b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;
    c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

    During periods of startup the permittee shall minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.
3. The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in Table 8 of 40 CFR 63 Subpart ZZZZ.

[Origin: 40 CFR 63 Subpart ZZZZ]. [40 CFR 63.6595(a)(1), 40 CFR 63.6603(a), 40 CFR 63.6605(a), 40 CFR 63.6625(h), 40 CFR 63.6640(f), 40 CFR 63.6665, 40 CFR 63 Subpart ZZZZ Table 2d, 40 CFR 63 Subpart ZZZZ Table 8]

II.B.32.b.1 **Monitoring:**

The permittee shall install a non-resettable hour meter if one is not already installed. [40 CFR 63.6625(f)]

If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the required schedule or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice shall be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. [40 CFR 63 Subpart ZZZZ Table 2d Footnote 2]

The permittee shall demonstrate continuous compliance by operating and maintaining the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written operation and maintenance instructions or develop and follow their own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 63.6625(e), 40 CFR 63.6640(a), 40 CFR 63 Subpart ZZZZ Table 6]

The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in accordance with 40 CFR 63.6625(i).

The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in Table 8 of 40 CFR 63 Subpart ZZZZ. [40 CFR 63.6665].

II.B.32.b.2 **Recordkeeping:**

The permittee shall keep the records described in 40 CFR 63.6655(a)(1)-(5) as applicable. [40 CFR 63.6655(a)]

For each affected emission unit that does not meet the standards applicable to non-emergency engines, the permittee shall keep records of the hours of operation of the engine that are recorded through the non-resettable hour meter. The permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. [40 CFR 63.6655(f)]

If additional hours are to be used for maintenance checks and readiness testing, the permittee shall maintain records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year. [40 CFR 63.6640(f)]

The permittee shall keep records that demonstrate continuous compliance with each applicable operating limitation including, but not limited to, the manufacturer's emission-related operation and maintenance instructions or the permittee-developed maintenance plan. [40 CFR 63.6655(d), 40 CFR 63 Subpart ZZZZ Table 6]

Records of the maintenance conducted shall be kept in order to demonstrate that the permittee operated and maintained the affected emission unit and after-treatment control device (if any) according to their own maintenance plan. [40 CFR 63.6655(e)]

The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in Table 8 of 40 CFR 63 Subpart ZZZZ. [40 CFR 63.6665]

Records shall be maintained in accordance with 40 CFR 63.6660 and Provision I.S.1 of this permit.

II.B.32.b.3 **Reporting:**

The permittee shall report any failure to perform the management practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable. [40 CFR 63 Subpart ZZZZ Table 2d Footnote 2]

The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in Table 8 of 40 CFR 63 Subpart ZZZZ. [40 CFR 63.6665] The permittee shall also report each instance in which it did not meet the applicable requirements in Table 8. [40 CFR 63.6640(e)]

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

II.B.32.c **Condition:**

At all times the permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation 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, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [Origin: 40 CFR 63 Subpart ZZZZ]. [40 CFR 63.6595(a)(1), 40 CFR 63.6605(b)]

II.B.32.c.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.32.c.2 **Recordkeeping:**

The permittee shall keep the records described in 40 CFR 63.6655(a)(1)-(5) as applicable. [40 CFR 63.6655(a)] The permittee shall document activities performed to assure proper operation and maintenance. Records shall be maintained in accordance with 40 CFR 63.6660 and Provision I.S.1 of this permit.

II.B.32.c.3 **Reporting:**

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

II.B.33 **Conditions on #Refinery: Refinery Operations.**

II.B.33.a **Condition:**

Unless otherwise specified in this permit, 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 practices 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. [Origin: DAQE-AN103460058-20]. [R307-401-8]

II.B.33.a.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.33.a.2 **Recordkeeping:**

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.33.a.3 **Reporting:**

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

II.B.33.b **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]. [40 CFR 82.150(b)]

II.B.33.b.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.33.b.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.33.b.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.33.c **Condition:**

Visible emissions shall be no greater than 10 percent opacity unless otherwise specified in this permit. [Origin: DAQE-AN103460058-20, R307-305-3]. [R307-305-3, R307-401-8]

II.B.33.c.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. If any visible emissions other than steam are observed, an opacity determination of that emission unit shall be performed by a certified visible emissions observer in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, within 24 hours of the initial observation. 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.33.c.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 shall be made in the log. All data required by 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, shall also be maintained in accordance with Provision I.S.1 of this permit.

II.B.33.c.3 **Reporting:**

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

II.B.33.d **Condition:**

The permittee shall only combust diesel fuel (e.g. fuel oil #1, #2, or diesel fuel oil additives) that meets the definition of ultra-low sulfur diesel (ULSD), which has a sulfur content of 15 ppm or less. [Origin: DAQE-AN103460058-20]. [R307-203-1, R307-401-8]

II.B.33.d.1 **Monitoring:**

Compliance with this limitation shall be demonstrated either by testing each fuel delivery for the sulfur content or by inspection of the fuel sulfur-content certifications provided by the diesel fuel supplier in purchase records. Sulfur content in either instance shall be determined in accordance with ASTM-4294, or equivalent. Records required for this permit condition will also serve as monitoring.

II.B.33.d.2 **Recordkeeping:**

The permittee shall maintain records that demonstrate compliance with the limitation. Records of diesel fuel purchase invoices that indicate the diesel fuel meets the ULSD requirements, fuel supplier certifications of sulfur content, or records of sulfur content testing shall be maintained in accordance with Provision I.S.1. of this permit.

II.B.33.d.3 **Reporting:**

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

II.B.33.e **Condition:**

All roads, permanent parking lots, and service yards directly servicing the permittee's approved constructed installations listed as emission units II.A.53 through II.A.73 shall be paved. The permittee shall comply with the fugitive dust requirements and work practices contained in R307-309-7 and R307-309-9, as applicable. [Origin: DAQE-AN103460058-20, R307-309]. [R307-309-7, R307-309-9, R307-401-8]

II.B.33.e.1 **Monitoring:**

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.33.e.2 **Recordkeeping:**

Records that demonstrate compliance with this condition and records required by the most recently approved fugitive dust control plan shall be maintained in accordance with the plan and section I.S.1 of this permit.

II.B.33.e.3 **Reporting:**

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

II.B.33.f **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]. [40 CFR 82.30(b)]

II.B.33.f.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.33.f.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.33.f.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.33.g **Condition:**

Pressure drops and liquid flow rates for each scrubber listed below shall be maintained within the given ranges. (All pressure drop readings in inches Water Gauge)
REF 006 - Hydrometallurgical Precious Metals Recovery Scrubber:
Pressure Drop = 5 - 15 Liquid Flow Rate = greater than 100 gpm
REF 007 - Hydrometallurgical Silver Production Scrubber:
Pressure Drop = 0.75 - 4 Liquid Flow Rate = greater than 60 gpm.
[Origin: DAQE-AN103460058-20]. [R307-401-8]

II.B.33.g.1 **Monitoring:**

The permittee shall install, calibrate, maintain, and operate monitoring devices for the continuous measurement of the pressure drop of the gas stream and the scrubbing liquid flow rate through each scrubber. The instruments that measure scrubbing liquid flow rate and gas stream pressure drop shall be installed such that an inspector/operator can safely read the output at any time.

The permittee shall make at least one pressure drop and one liquid flow observation per calendar day for each scrubber listed above that operated during that day. If the pressure drop or liquid flow rate deviates from the listed ranges the permittee shall immediately investigate the cause and initiate corrective action to return the scrubber to proper operating parameters. If the pressure drop or the liquid flow rate remains out of range for greater than 48 operating hours from the initial out of range reading it shall be considered a deviation from this permit term.

The gas stream pressure drop reading shall be accurate to one inch W.G. and the scrubbing liquid flow rate shall be accurate to five (5) gallons per minute. The observation shall be made during typical operating conditions. The instrument(s) shall be calibrated according to the manufacturer's instruction at least semi-annually (every six months), except for those instruments that are sealed by the manufacturer and cannot be calibrated. Additionally, the pressure drop and liquid flow rate for each scrubber shall be observed and recorded at the time of any compliance stack testing.

For each affected emission unit, if pressure drop and liquid flow rate observations are within range for eight consecutive weeks, the observation frequency shall be reduced to a weekly basis. If pressure drop or liquid flow rate observations are not within range during any weekly observation, the frequency shall revert back to once per calendar day for the emission unit that was out of range.

II.B.33.g.2 **Recordkeeping:**

Results of monitoring shall be maintained in an operator's log or by computer recording. Continuous recording for the monitoring device is not required. Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.33.g.3 **Reporting:**

Deviations from this condition shall be considered to be promptly reported if reported on a calendar quarter basis and in accordance with Provision I.S.2 of this permit. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.33.h **Condition:**

The permittee shall maintain an Emergency Episode Plan outlining the procedures that will be taken in the event of an emergency episode as outlined in R307-105-2. The plan shall identify what control/production measures shall be implemented when an emergency episode is declared. Specific control/production measures shall be outlined for all three levels (Alert, Warning, Emergency). The plan shall be submitted and approved by the Director within 60 days of the issue date of this permit, unless a previously submitted and approved plan is available. [Origin: SIP Section VII.F]. [R307-105-2, R307-110-8]

II.B.33.h.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.33.h.2 **Recordkeeping:**

A copy of the approved Emergency Episode Plan shall be made available to the Director upon request.

II.B.33.h.3 **Reporting:**

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

II.B.33.i **Condition:**

Fugitive emissions shall be no greater than 15 percent opacity unless otherwise specified in this permit. [Origin: DAQE-AN103460058-20]. [R307-309-4, R307-401-8]

II.B.33.i.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. 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 observer within 24 hours of the initial survey. The opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, for point sources, and in accordance with 58 FR 61640 Method 203C, or other EPA-approved testing method, as acceptable to the Director, for intermittent sources. Fugitive dust is not a fugitive emission within the meaning of this condition.

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.

II.B.33.i.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, 58 FR 61640, Method 203C, or other EPA-approved testing method, as acceptable to the Director, shall also be maintained in accordance with Provision I.S.1 of this permit.

II.B.33.i.3 **Reporting:**

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

II.B.33.j **Condition:**

The permittee shall implement a fugitive dust control plan that has been approved by the Director. Activities regulated by R307-309 shall not commence before the fugitive dust control plan is approved by the director. The plan shall include the minimum fugitive dust control plan requirements in R307-309-6(4), as applicable, and the information required in R307-309-6(5). Natural sources of dust and fugitive emissions are not fugitive dust within the meaning of this condition. [Origin: R307-309-6]. [R307-309-6]

II.B.33.j.1 **Monitoring:**

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.33.j.2 **Recordkeeping:**

Records that demonstrate compliance with this condition and records required by the most recently approved fugitive dust control plan shall be maintained in accordance with the plan and section I.S.1 of this permit.

II.B.33.j.3 **Reporting:**

If site modifications that result in changes to fugitive dust emissions are made, an updated fugitive dust control plan shall be submitted as required by R307-309-6(3). There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.33.k **Condition:**

Unless otherwise specified in this permit, visible emissions caused by fugitive dust shall not exceed 10 percent opacity at the property boundary and 20 percent on site. [Origin: DAQE-AN103460058-20, R307-309]. [R307-309-5, R307-401-8]

II.B.33.k.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.

Control of fugitive dust from disturbed or stripped areas is required at all times (24 hours per day every day) for the duration of the operation. Methods of control of fugitive emissions from these areas shall include, but not be limited to, water treatments or chemical treatments.

II.B.33.k.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. Records shall be maintained as described in Provision I.S.1 of this permit.

II.B.33.k.3 **Reporting:**

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

II.B.33.l **Condition:**

Natural gas consumption shall not exceed 966,228 MMBtu per rolling 12-month period for the CHP unit and south tankhouse boiler combined. [Origin: DAQE-AN103460058-20]. [R307-401-8]

II.B.33.l.1 **Monitoring:**

Consumption shall be determined using natural gas fuel purchasing records or flow meter. To demonstrate compliance, the permittee shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months.

II.B.33.l.2 **Recordkeeping:**

Records of consumption shall be kept on a monthly basis for all periods the plant is in operation. Records used to demonstrate compliance with this condition shall be maintained as described in Provision I.S.1 of this permit.

II.B.33.l.3 **Reporting:**

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

II.B.33.m **Condition:**

(1) For all solvent cleaning operations, the permittee shall not use solvent products with a VOC content greater than the amounts specified in Table 1 of R307-304-5.
(2) As an alternative to the limits in Table 1 and for all general miscellaneous cleaning operations, the permittee may use a cleaning material with a VOC composite vapor pressure no greater than 8 mm Hg at 20 degrees Celsius.
(3) The permittee shall store used applicators and shop towels in closed fireproof containers.

These requirements do not apply to the exemptions listed in R307-304-3.
[Origin: R307-304]. [R307-304]

II.B.33.m.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.33.m.2 **Recordkeeping:**

The permittee shall maintain records demonstrating compliance with this condition. Records shall include the VOC content or composite vapor pressure of the solvent product applied. Records shall be maintained in accordance with Provision I.S.1 of this permit and shall be available to the director upon request.

II.B.33.m.3 **Reporting:**

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

II.B.33.n **Condition:**

Except as provided in R307-361-4, the permittee shall not supply, solicit for application, or apply within the counties in R307-361-2 any architectural coating with a VOC content in excess of the corresponding limit specified in Table 1 of R307-361-5. The permittee shall comply with the additional standards and work practices contained in R307-361-5, as applicable. [Origin: R307-361]. [R307-361]

II.B.33.n.1 **Monitoring:**

Compliance shall be demonstrated as specified in R307-361-8.

II.B.33.n.2 **Recordkeeping:**

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

II.B.33.n.3 **Reporting:**

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

II.B.33.o **Condition:**

1. The permittee shall not sell supply or offer for sale any adhesive, sealant, adhesive primer or sealant primer with a VOC content in excess of the limits in Table 1 of R307-342-5 and that was manufactured on or after September 1, 2014.
2. The permittee shall not apply any adhesive, sealant, adhesive primer or sealant primer with a VOC content in excess of the limits specified in Table 1 of R307-342-5 unless an add-on control device as specified in R307-342-8 is used or unless the adhesive, sealant, adhesive primer or sealant primer was manufactured before September 1, 2014.
3. The VOC content limits in Table 1 of R307-342-5 for adhesives applied to particular substrates shall apply as specified in R307-342-5(4).
4. The permittee shall comply with the additional standards and work practices contained in R307-342-6 and R307-342-7, as applicable.
5. These requirements do not apply if exempted in accordance with R307-342-3.

[Origin: R307-342]. [R307-342]

II.B.33.o.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.33.o.2 **Recordkeeping:**

(a) For operations that are not exempt under R307-342-3, the permittee shall maintain records demonstrating compliance as specified in R307-342-7(2).
(b) If an exemption is claimed pursuant to R307-342-3 the permittee shall record and maintain operational records sufficient to demonstrate compliance. (R307-342-3(7))

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

II.B.33.o.3 **Reporting:**

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

II.B.34 **Conditions on #REF 001: Electrolyte Purification Liberator.**

II.B.34.a **Condition:**

Emissions of Sulfuric Acid (H_2SO_4) shall be no greater than 0.004 grains/dscf and 0.46 lbs/hour. [Origin: DAQE-AN103460058-20]. [R307-401-8]

II.B.34.a.1 **Monitoring:**

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every three years. Every three years means the test shall be performed every third year and in the same calendar quarter in which the most recent test was performed. The source may also be tested at any time if directed by the Director.
(b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and provide a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, procedures to be used, and shall be approved by the Director prior to performing the test(s). The source shall attend a pretest conference if determined necessary by the Director.
(c) Methods.
(1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other EPA-approved testing method, as acceptable to the Director, and Occupational Safety and Health Administration (OSHA)-approved and/or Mine Safety and Health Administration (MSHA)-approved access shall be provided to the test location.
(2) 40 CFR 60, Appendix A, Method 8, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the pollutant emission rate.
(3) 40 CFR 60, Appendix A, Method 2, or other EPA-approved testing method, as acceptable to the Director, 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 Director to give the results in the specified units of the emission limitation.
(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90 percent of the maximum production achieved in the previous three (3) years.

II.B.34.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.34.a.3 **Reporting:**

The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.34.b **Condition:**

Visible emissions shall be no greater than 15 percent opacity from the demisters. [Origin: DAQE-AN103460058-20]. [R307-401-8]

II.B.34.b.1 **Monitoring:**

A visual observation 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. If any visible emissions other than steam are observed, an opacity determination of that emission unit shall be performed by a certified visible emissions observer in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, within 24 hours of the initial observation. 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.

II.B.34.b.2 **Recordkeeping:**

Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, for each determination shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.34.b.3 **Reporting:**

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

II.B.35 **Conditions on #REF 002/003: Refinery Boilers (Tankhouse)**

II.B.35.a **Condition:**

The permittee shall maintain records of the amount of each fuel combusted during each calendar month for each affected emission unit. [Origin: 40 CFR 60 Subpart Dc]. [40 CFR 60.48c(g)]

II.B.35.a.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.35.a.2 **Recordkeeping:**

Records of gas meter readings and, on days when oil is burned, the oil tank sensor levels shall be kept on a monthly basis and shall be maintained as described in Provision I.S.1 of this permit.

II.B.35.a.3 **Reporting:**

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

II.B.35.b **Condition:**

The permittee shall use natural gas as the primary fuel and #2 fuel oil, or better, as a backup fuel. Usage of fuel oil for periodic testing, maintenance, or operator training shall not exceed 48 hours per calendar year. There is no time limit on the use of fuel oil in the boiler during periods of natural gas curtailment, natural gas supply interruption, or startups. [Origin: DAQE-AN103460058-20]. [R307-401-8]

II.B.35.b.1 **Monitoring:**

The backup fuel shall be monitored by use of level sensors in the tanks, which shall be observed following each use of backup fuel.

II.B.35.b.2 **Recordkeeping:**

Records documenting fuel oil usage shall be kept in a log. Additionally, the permittee shall maintain records that document the reason for backup fuel usage (i.e. natural gas curtailment, testing, maintenance), date, and duration. Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.35.b.3 **Reporting:**

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

II.B.35.c **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Origin: DAQE-AN103460058-20, 40 CFR 60 Subpart Dc]. [40 CFR 60.43c(c), R307-401-8]

II.B.35.c.1 **Monitoring:**

A visual observation 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. If any visible emissions other than steam are observed, an opacity determination of that emission unit shall be performed by a certified visible emissions observer in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, within 24 hours of the initial observation.

The permittee shall operate the affected emission unit in accordance with the most recently approved written site-specific monitoring plan. The monitoring plan shall include procedures and criteria for establishing and monitoring specific parameters for the affected emission unit indicative of compliance with the opacity standard. (40 CFR 60.47c(f)(3)).

II.B.35.c.2 **Recordkeeping:**

Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, for each determination shall be maintained.

A copy of the most recently approved written site-specific monitoring plan shall be maintained.

Records shall be maintained in accordance with 40 CFR 60.48c(c) and Provision I.S.1 of this permit.

II.B.35.c.3 **Reporting:**

The permittee shall submit a written site-specific monitoring plan for approval. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.35.d **Condition: State-only Requirement**

Emissions of NO_x from the south tankhouse boiler shall not exceed 1.5 lbs/hour and 9 ppmvd at 3% O_2. [Origin: DAQE-AN103460058-20, SIP Section IX.H.12.j]. [R307-401-8, SIP Section IX.H.12.j]

II.B.35.d.1 **Monitoring:**

Stack testing shall be performed as specified below:

(a) Frequency.
Emissions shall be tested at least once every three years from the most recent stack test. Every three years means the test shall be performed every third year and in the same

calendar quarter in which the most recent stack test was performed. The source may also be tested at any time if directed by the Director.

(b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and provide a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, procedures to be used, and shall be approved by the Director prior to performing the test(s). The source shall attend a pretest conference if determined necessary by the Director.

(c) Methods.

(1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other EPA-approved testing method, as acceptable to the Director, and Occupational Safety and Health Administration (OSHA)-approved and/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, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the pollutant emission rate.

(3) 40 CFR 60, Appendix A, Method 2, Method 19, or other EPA-approved testing method, as acceptable to the Director, 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 Director to give the results in the specified units of the emission limitation.

(e) Conditions During Testing. Stack testing shall be performed during representative operations, defined as 90 percent of the maximum firing rate for the burners. Boiler tests shall be conducted using the fuel(s) or fuel mixture representative of normal operations. The permittee shall submit for approval in the pretest protocol the fuel(s) to be used during the test.

II.B.35.d.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.35.d.3 **Reporting:**

The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.35.e **Condition:**

Emissions of CO shall be no greater than 3.00 lbs/hour from the south tankhouse boiler. [Origin: DAQE-AN103460058-20]. [R307-401-8]

II.B.35.e.1 **Monitoring:**

Stack testing shall be performed as specified below:

(a) Frequency.
Emissions shall be tested at least once every three years from the most recent stack test. Every three years means the test shall be performed every third year and in the same calendar quarter in which the most recent stack test was performed.

(b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and provide a copy of the test protocol. The source test protocol

shall outline the proposed test methodologies, stack to be tested, procedures to be used, and shall be approved by the Director prior to performing the test(s). The source shall attend a pretest conference if determined necessary by the Director.

(c) Sample Point. The emission sample point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other EPA-approved testing method, as acceptable to the Director. In addition, Occupational Safety and Health Administration (OSHA) approved access shall be provided to the test location.

(d) Methods.
  (1) 40 CFR 60, Appendix A, Method 10, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine CO emissions;
  (2) 40 CFR 60, Appendix A, Method 2, Method 19, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine stack gas velocity and volumetric flow rate.

(e) 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 Director to give the results in the specified units of the emission limitation.

(f) Conditions During Testing. Stack testing shall be performed during representative operations, defined as 90 percent of the maximum firing rate for the burner(s). Boiler tests shall be conducted using the fuel(s) or fuel mixture representative of normal operations. The permittee shall submit for approval in the pretest protocol the fuel(s) to be used during the test.

II.B.35.e.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.35.e.3 **Reporting:**

The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.35.f **Condition:**

At all times, including periods of startup, shutdown, and malfunction, sulfur content of fuel oil burned shall be no greater than 0.0015 percent by weight. [Origin: DAQE-AN103460058-20]. [40 CFR 60.42c(d), 40 CFR 60.42c(i), R307-401-8]

II.B.35.f.1 **Monitoring:**

Compliance with this limitation shall be demonstrated using certifications from the fuel supplier, as described under 40 CFR 60.48c(f). (40 CFR 60.42c(h)).

II.B.35.f.2 **Recordkeeping:**

Fuel supplier certifications shall be maintained that show the sulfur content of the delivered fuel. Certification shall include the following information for distillate oil:

(a) The name of the oil supplier;

(b) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR 60.41c; and

(c) The sulfur content or maximum sulfur content of the oil.

(40 CFR 60.48c(f)(1))
Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.35.f.3 **Reporting:**

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

II.B.35.g **Condition: State-only Requirement**

The permittee shall operate and maintain the permitted plant equipment, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction. [Origin: DAQE-AN103460058-20, SIP Section IX.H.2.i, SIP Section IX.H.12.j]. [SIP Section IX.H.12.j, SIP Section IX.H.2.i, R307-401-8]

II.B.35.g.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.35.g.2 **Recordkeeping:**

Permittee shall document activities performed to assure proper operation and maintenance. Records shall be kept on site which indicate the date and time of startups and shutdowns. (SIP Section IX.H.12.j) Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.35.g.3 **Reporting:**

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

II.B.36 **Conditions on #REF 004: Cathode Wash.**

II.B.36.a **Condition:**

Emissions of Sulfuric Acid (H_2SO_4) shall be no greater than 0.0008 grains/dscf and 0.12 lbs/hour. [Origin: DAQE-AN103460058-20]. [R307-401-8]

II.B.36.a.1 **Monitoring:**

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every three years. Every three years means the test shall be performed every third year and in the same calendar quarter in which the most recent test was performed. The source may also be tested at any time if directed by the Director.

(b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and provide a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, procedures to be used, and shall be approved by the Director prior to performing the test(s). The source shall attend a pretest conference if determined necessary by the Director.

(c) Methods.

(1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other EPA-approved testing method, as acceptable to the Director, and Occupational Safety and Health Administration (OSHA)-approved and/or

Mine Safety and Health Administration (MSHA)-approved access shall be provided to the test location.

(2) 40 CFR 60, Appendix A, Method 8, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the pollutant emission rate.

(3) 40 CFR 60, Appendix A, Method 2, Method 19, or other EPA-approved testing method, as acceptable to the Director, 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 Director to give the results in the specified units of the emission limitation.

(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90 percent of the maximum production achieved in the previous three (3) years.

II.B.36.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.36.a.3 **Reporting:**

The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.36.b **Condition:**

Visible emissions shall be no greater than 15 percent opacity. [Origin: DAQE-AN103460058-20]. [R307-401-8]

II.B.36.b.1 **Monitoring:**

A visual observation 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. If any visible emissions other than steam are observed, an opacity determination of that emission unit shall be performed by a certified visible emissions observer in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, within 24 hours of the initial observation. 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.

II.B.36.b.2 **Recordkeeping:**

Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, for each determination shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.36.b.3 **Reporting:**

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

II.B.37 **Conditions on #REF 005: Anode Scrap Wash.**

II.B.37.a **Condition:**

Emissions of Sulfuric Acid (H_2SO_4) shall be no greater than 0.0008 grains/dscf and 0.02 lbs/hour. [Origin: DAQE-AN103460058-20]. [R307-401-8]

II.B.37.a.1 **Monitoring:**

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every three years. Every three years means the test shall be performed every third year and in the same calendar quarter in which the most recent test was performed. The source may also be tested at any time if directed by the Director.

(b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and provide a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, procedures to be used, and shall be approved by the Director prior to performing the test(s). The source shall attend a pretest conference if determined necessary by the Director.

(c) Methods.

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

(2) 40 CFR 60, Appendix A, Method 8, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the pollutant emission rate.

(3) 40 CFR 60, Appendix A, Method 2, or other EPA-approved testing method, as acceptable to the Director, 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 Director to give the results in the specified units of the emission limitation.

(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90 percent of the maximum production achieved in the previous three (3) years.

II.B.37.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.37.a.3 **Reporting:**

The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.37.b **Condition:**

Visible emissions shall be no greater than 15 percent opacity. [Origin: DAQE-AN103460058-20]. [R307-401-8]

II.B.37.b.1 **Monitoring:**

A visual observation 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. If any visible emissions other than steam are observed, an opacity determination of that emission unit shall be performed by a certified visible emissions observer in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, within 24 hours of the initial observation. 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.

II.B.37.b.2 **Recordkeeping:**

Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, for each determination shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.37.b.3 **Reporting:**

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

II.B.38 **Conditions on #REF 006: Hydrometallurgical Precious Metals Recovery.**

II.B.38.a **Condition:**

Emissions of SO_2 shall be no greater than 1.7 lbs/hour. [Origin: DAQE-AN103460058-20]. [R307-401-8]

II.B.38.a.1 **Monitoring:**

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every three years. Every three years means the test shall be performed every third year and in the same calendar quarter in which the most recent test was performed. The source may also be tested at any time if directed by the Director.

(b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and provide a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, procedures to be used, and shall be approved by the Director prior to performing the test(s). The source shall attend a pretest conference if determined necessary by the Director.

(c) Methods.

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

(2) 40 CFR 60, Appendix A, Method 6, 6A, 6B, or 6C, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the pollutant emission rate.

(3) 40 CFR 60, Appendix A, Method 2, Method 19, or other EPA-approved testing method, as acceptable to the Director, 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 Director to give the results in the specified units of the emission limitation.
(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90 percent of the maximum production achieved in the previous three (3) years.

II.B.38.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.38.a.3 **Reporting:**

The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.38.b **Condition:**

Emissions of Lead shall be no greater than 0.02 lbs/hour. [Origin: DAQE-AN103460058-20]. [R307-401-8]

II.B.38.b.1 **Monitoring:**

Stack testing shall be performed as specified below:
(a) Frequency. Emissions shall be tested every three years. Every three years means the test shall be performed every third year and in the same calendar quarter in which the most recent test was performed. The source may also be tested at any time if directed by the Director.
(b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and provide a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, procedures to be used, and shall be approved by the Director prior to performing the test(s). The source shall attend a pretest conference if determined necessary by the Director.
(c) Methods.
    (1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other EPA-approved testing method, as acceptable to the Director, and Occupational Safety and Health Administration (OSHA)-approved and/or Mine Safety and Health Administration (MSHA)-approved access shall be provided to the test location.
    (2) 40 CFR 60, Appendix A, Method 12, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the pollutant emission rate.
    (3) 40 CFR 60, Appendix A, Method 2, or other EPA-approved testing method, as acceptable to the Director, 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 Director to give the results in the specified units of the emission limitation.
(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90 percent of the maximum production achieved in the previous three (3) years.

II.B.38.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.38.b.3 **Reporting:**

The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.38.c **Condition:**

Emissions of Sulfuric Acid (H_2SO_4) shall be no greater than 0.005 grains/dscf and 0.36 lbs/hour. [Origin: DAQE-AN103460058-20]. [R307-401-8]

II.B.38.c.1 **Monitoring:**

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every three years. Every three years means the test shall be performed every third year and in the same calendar quarter in which the most recent test was performed. The source may also be tested at any time if directed by the Director.

(b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and provide a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, procedures to be used, and shall be approved by the Director prior to performing the test(s). The source shall attend a pretest conference if determined necessary by the Director.

(c) Methods.
  (1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other EPA-approved testing method, as acceptable to the Director, and Occupational Safety and Health Administration (OSHA)-approved and/or Mine Safety and Health Administration (MSHA)-approved access shall be provided to the test location.
  (2) 40 CFR 60, Appendix A, Method 8, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the pollutant emission rate.
  (3) 40 CFR 60, Appendix A, Method 2, or other EPA-approved testing method, as acceptable to the Director, 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 Director to give the results in the specified units of the emission limitation.

(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90 percent of the maximum production achieved in the previous three (3) years.

II.B.38.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.38.c.3 **Reporting:**

The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.38.d **Condition:**

Visible emissions shall be no greater than 15 percent opacity. [Origin: DAQE-AN103460058-20]. [R307-401-8]

II.B.38.d.1 **Monitoring:**

A visual observation 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. If any visible emissions other than steam are observed, an opacity determination of that emission unit shall be performed by a certified visible emissions observer in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, within 24 hours of the initial observation. 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.

II.B.38.d.2 **Recordkeeping:**

Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, for each determination shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.38.d.3 **Reporting:**

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

II.B.38.e **Condition:**

Emissions of Hydrogen chloride (HCl) shall be no greater than 0.003 grains/dscf and 0.22 lbs/hour. [Origin: DAQE-AN103460058-20]. [R307-401-8]

II.B.38.e.1 **Monitoring:**

a) Stack testing shall be performed as specified below:
   (1) Frequency. Emissions shall be tested every three years. Every three years means the test shall be performed every third year and in the same calendar quarter in which the most recent test was performed. The source may also be tested at any time if directed by the Director.
   (2) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and provide a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, procedures to be used, and shall be approved by the Director prior to performing the test(s). The source shall attend a pretest conference if determined necessary by the Director.
   (3) Methods.

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

(ii) 40 CFR 60, Appendix A, Method 26 or 26A, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the pollutant emission rate.

(iii) 40 CFR 60, Appendix A, Method 2, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the volumetric flow rate.

(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 Director to give the results in the specified units of the emission limitation.

(5) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90 percent of the maximum production achieved in the previous three (3) years.

b) Scrubber liquid pH shall be used as a primary indicator and scrubber liquid flow rate shall be used as a secondary indicator to provide reasonable assurance of compliance with the HCL emission limitation as specified below.

1) Primary Indicator - Scrubber Liquid pH

(I) Measurement Approach: The permittee shall continuously measure the scrubber liquid pH using a pH probe.

(II) Indicator Range: An excursion is defined as scrubber liquid pH below 6.0 for a 24-hour block average under typical operating conditions. Excursions trigger an inspection, corrective action, and a reporting requirement.

(III) Performance Criteria:

a. Data Representativeness: The scrubber liquid pH shall be measured using a pH probe located in the scrubber liquid.

b. QA/QC Practices and Criteria: The pH sensor shall be calibrated by comparison to laboratory buffer solutions. The pH meter shall be checked for accuracy and calibrated according to the manufacturer's recommendations at least every three months. All operating equipment and process downtime shall be monitored.

c. Monitoring Frequency: Scrubber liquid pH shall be measured continuously.

d. Data Collection Procedure: Scrubber liquid pH readings shall be recorded electronically. During periods when electronic readings are not available or functional, manual readings shall be used until electronic readings are restored. If manual readings are used, the permittee shall collect and record at least four or more scrubber liquid pH values equally spaced over each hour. Hourly average pH values shall be used to compute the 24-hour block average for comparison to the indicator range.

e. Averaging Period: 24-hour block.

2) Secondary Indicator - Scrubber Liquid Flow Rate

(I) Measurement Approach: The permittee shall continuously measure the scrubber liquid flow rate using a flow meter.

(II) Indicator Range: An excursion is defined as a scrubber liquid flow rate below 135 gallons per minute (gpm) for a 24-hour block average under typical operating conditions. Excursions trigger an inspection, corrective action, and a reporting requirement.

(III) Performance Criteria:

a. Data Representativeness: The scrubber liquid flow rate shall be measured using a flow meter located on the scrubber liquid recirculation line. The scrubber liquid flow rate shall be accurate to five (5) gpm.

b. QA/QC Practices and Criteria: The flow meter shall be calibrated according to the manufacturer's recommendations at least every six months. All operating equipment and process downtime shall be monitored.
c. Monitoring Frequency: Scrubber liquid flow rate shall be measured continuously.
d. Data Collection Procedure: Scrubber liquid flow rates shall be recorded electronically. During periods when electronic readings are not available or functional, manual readings shall be used until electronic readings are restored. If manual readings are used, the permittee shall collect and record at least four or more scrubber liquid flow values equally spaced over each hour. Hourly average flow rates shall be used to compute the 24-hour block average for comparison to the indicator range.
e. Averaging Period: 24-hour block.

II.B.38.e.2 **Recordkeeping:**

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

In addition to the recordkeeping requirement described in Provision I.S.1 of this permit, 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. (40 CFR 64.9(b))

II.B.38.e.3 **Reporting:**

In addition to the reporting requirements in Provision I.S.2 of this permit,
(a) Monitoring reports shall include, at a minimum, the following information, as applicable:
  (i) 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))
  (ii) 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 Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status.

II.B.39 **Conditions on #REF 011: Soda Ash Silo.**

II.B.39.a **Condition:**

Visible emissions shall be no greater than 10 percent opacity during silo loading operations. [Origin: DAQE-AN103460058-20]. [R307-401-8]

II.B.39.a.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. If any visible emissions

other than steam are observed, an opacity determination of that emission unit shall be performed by a certified visible emissions observer in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, within 24 hours of the initial observation.

II.B.39.a.2 **Recordkeeping:**

Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, for each determination shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.39.a.3 **Reporting:**

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

II.B.40 **Conditions on #REF 007: Hydrometallurgical Silver Production.**

II.B.40.a **Condition:**

Visible emissions shall be no greater than 15 percent opacity. [Origin: DAQE-AN103460058-20]. [R307-401-8]

II.B.40.a.1 **Monitoring:**

A visual observation 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. If any visible emissions other than steam are observed, an opacity determination of that emission unit shall be performed by a certified visible emissions observer in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, within 24 hours of the initial observation. 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.

II.B.40.a.2 **Recordkeeping:**

Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, for each determination shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.40.a.3 **Reporting:**

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

II.B.40.b **Condition:**

Emissions of Sulfuric Acid (H_2SO_4) shall be no greater than 0.009 grains/dscf and 0.22 lbs/hour. [Origin: DAQE-AN103460058-20]. [R307-401-8]

II.B.40.b.1 **Monitoring:**

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every three years. Every three years means the test shall be performed every third year and in the same calendar quarter in which the most recent test was performed. The source may also be tested at any time if directed by the Director.

(b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and provide a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, procedures to be used, and shall be approved by the Director prior to performing the test(s). The source shall attend a pretest conference if determined necessary by the Director.

(c) Methods.

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

(2) 40 CFR 60, Appendix A, Method 8, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the pollutant emission rate.

(3) 40 CFR 60, Appendix A, Method 2, or other EPA-approved testing method, as acceptable to the Director, 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 Director to give the results in the specified units of the emission limitation.

(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90 percent of the maximum production achieved in the previous three (3) years.

II.B.40.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.40.b.3 **Reporting:**

The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.40.c **Condition:**

Emissions of Ammonia (NH_3) shall be no greater than 0.14 lbs/hour. [Origin: DAQE-AN103460058-20]. [R307-401-8]

II.B.40.c.1 **Monitoring:**

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every three years. Every three years means the test shall be performed every third year and in the same calendar quarter in which the most recent test was performed. The source may also be tested at any time if directed by the Director.

(b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and provide a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, procedures to be used, and shall be approved by the Director prior to performing the test(s). The source shall attend a pretest conference if determined necessary by the Director.

(c) Methods.

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

(2) An EPA-approved testing method, as acceptable to the Director, shall be used to determine the pollutant emission rate. The test method shall be submitted for approval prior to testing or may be assigned by the Director.

(3) 40 CFR 60, Appendix A, Method 2, or other EPA-approved testing method, as acceptable to the Director, 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 Director to give the results in the specified units of the emission limitation.

(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90 percent of the maximum production achieved in the previous three (3) years.

II.B.40.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.40.c.3 **Reporting:**

The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.41 **Conditions on #REF 008: Precious Metals Filter Presses.**

II.B.41.a **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Origin: DAQE-AN103460058-20]. [R307-401-8]

II.B.41.a.1 **Monitoring:**

A visual observation of each affected emission unit shall be performed once each week that the unit operates 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. If any visible emissions other than steam are observed, an opacity determination of that emission unit shall be performed by a certified visible emissions observer in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, within 24 hours of the initial observation. 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.

II.B.41.a.2 **Recordkeeping:**

Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, for each determination shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.41.a.3 **Reporting:**

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

II.B.42 **Conditions on #REF 009: Selenium Crushing and Packaging.**

II.B.42.a **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Origin: DAQE-AN103460058-20]. [R307-401-8]

II.B.42.a.1 **Monitoring:**

A visual observation of each affected emission unit shall be performed once each week that the unit operates 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. If any visible emissions other than steam are observed, an opacity determination of that emission unit shall be performed by a certified visible emissions observer in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, within 24 hours of the initial observation. 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.

II.B.42.a.2 **Recordkeeping:**

Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, for each determination shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.42.a.3 **Reporting:**

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

II.B.42.b **Condition:**

The baghouse pressure drop shall not be less than 1.0 inch of water gauge or greater than 6.0 inches of water gauge. [Origin: DAQE-AN103460058-20]. [R307-401-8]

II.B.42.b.1 **Monitoring:**

The permittee shall make at least one pressure drop observation per month. The observation shall be made during typical operating conditions. The pressure drop shall be monitored with instruments located such that an inspector/operator can safely read the output at any time. The instrument(s) shall be calibrated in accordance with the manufacturer's instructions at least once

each year. If the pressure drop remains out of range for greater than 48 operating hours from the initial out of range reading, it shall be considered a deviation from this permit term.

II.B.42.b.2 **Recordkeeping:**

The permittee shall record the results of the pressure drop observation once each month. These records along with the annual calibration records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.42.b.3 **Reporting:**

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

II.B.43 **Conditions on #REF 010: Gold/Silver Recovery.**

II.B.43.a **Condition:**

Emissions of PM_{10} shall be no greater than 0.010 grains/dscf and 0.43 lbs/hour (filterable). [Origin: DAQE-AN103460058-20]. [R307-401-8]

II.B.43.a.1 **Monitoring:**

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every three years. Every three years means the test shall be performed every third year and in the same calendar quarter in which the most recent test was performed. The source may also be tested at any time if directed by the Director.

(b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and provide a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, procedures to be used, and shall be approved by the Director prior to performing the test(s). The source shall attend a pretest conference if determined necessary by the Director.

(c) Methods.

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

(2) $PM_{10}/PM_{2.5}$ (filterable):
For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201 or 201a or other EPA-approved testing method acceptable to the Director.

For stacks in which liquid drops are present, methods to eliminate the liquid drops shall 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, 5i or other EPA-approved testing method acceptable to the Director. Using Method 5, all filterable particulate emissions shall be considered $PM_{2.5}$ and/or PM_{10} unless otherwise approved by the Director. The portion of the filterable particulate emissions considered $PM_{2.5}$ and/or 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 Director.

$PM_{10}/PM_{2.5}$ (condensable):

The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M Method 202, or other EPA-approved testing method acceptable to the Director. All particulate captured using Method 202 shall be considered $PM_{2.5}$ and/or PM_{10}.

For filterable emission limits, condensable particulate emissions shall not be used for compliance demonstrations. For filterable + condensable emission limits, condensable particulate emissions shall be used for compliance demonstrations.

(3) 40 CFR 60, Appendix A, Method 2, Method 19, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine 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 Director to give the results in the specified units of the emission limitation.

(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90 percent of the maximum production achieved in the previous three (3) years.

II.B.43.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.43.a.3 **Reporting:**

The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.43.b **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Origin: DAQE-AN103460058-20]. [R307-401-8]

II.B.43.b.1 **Monitoring:**

A visual observation 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. If any visible emissions other than steam are observed, an opacity determination of that emission unit shall be performed by a certified visible emissions observer in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, within 24 hours of the initial observation. 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.

II.B.43.b.2 **Recordkeeping:**

Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, for each determination shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.43.b.3 **Reporting:**

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

II.B.44 **Conditions on Emergency Generators - Precious Metals.**

II.B.44.a **Condition:**

Visible emissions from diesel-fired emergency engines shall be no greater than 20 percent opacity. [Origin: DAQE-AN103460058-20, R307-305-3(3)]. [R307-305-3(3), R307-401-8]

II.B.44.a.1 **Monitoring:**

During any period that an emergency generator is operated for longer than 12 hours consecutively, a visual observation of that generator's exhaust shall be made 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 visual emissions observer. If any visible emissions other than steam are observed, then an opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, by a certified visible emissions observer. If a generator continues to operate on consecutive days following the initial observation, an opacity determination shall be performed on a daily basis.

II.B.44.a.2 **Recordkeeping:**

Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, for each determination shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.44.a.3 **Reporting:**

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

II.B.44.b **Condition:**

For the diesel-fired engine (#REFi 210):

The permittee shall comply with the following at all times for each emergency affected emission unit:

1. The permittee shall operate the emergency stationary RICE according to the requirements in paragraphs a. through c. In order for the engine to be considered an emergency stationary RICE, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs a. through c., is prohibited. If the engine is not operated according to the requirements in paragraphs a. through c., the engine will not be considered an emergency engine under this subpart and shall meet all requirements for non-emergency engines.
    a. There is no time limit on the use of emergency stationary RICE in emergency situations.
    b. The permittee may operate the emergency stationary RICE for any combination of the purposes specified in paragraph (i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph c. counts as part of the 100 hours per calendar year allowed by this paragraph.
        (i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing

authority and transmission operator, or the insurance company associated with the engine. The permittee may petition for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.

c. Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations, as specified in 40 CFR 63.6640(f)(4).

2. The permittee shall meet the following requirements at all times, except during periods of startup:
   a. Change oil and filter every 500 hours of operation or annually, whichever comes first;
   b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;
   c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

   During periods of startup the permittee shall minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.
3. The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in Table 8 of 40 CFR 63 Subpart ZZZZ.

[Origin: 40 CFR 63 Subpart ZZZZ]. [40 CFR 63.6595(a)(1), 40 CFR 63.6603(a), 40 CFR 63.6605(a), 40 CFR 63.6625(h), 40 CFR 63.6640(f), 40 CFR 63.6665, 40 CFR 63 Subpart ZZZZ Table 2d, 40 CFR 63 Subpart ZZZZ Table 8]

II.B.44.b.1 **Monitoring:**

The permittee shall install a non-resettable hour meter if one is not already installed. [40 CFR 63.6625(f)]

If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the required schedule or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice shall be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. [40 CFR 63 Subpart ZZZZ Table 2d Footnote 2]

The permittee shall demonstrate continuous compliance by operating and maintaining the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written operation and maintenance instructions or develop and follow their own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 63.6625(e), 40 CFR 63.6640(a), 40 CFR 63 Subpart ZZZZ Table 6]

The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in accordance with 40 CFR 63.6625(i).

The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in Table 8 of 40 CFR 63 Subpart ZZZZ. [40 CFR 63.6665].

II.B.44.b.2 **Recordkeeping:**

The permittee shall keep the records described in 40 CFR 63.6655(a)(1)-(5) as applicable. [40 CFR 63.6655(a)]

For each affected emission unit that does not meet the standards applicable to non-emergency engines, the permittee shall keep records of the hours of operation of the engine that are recorded through the non-resettable hour meter. The permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. [40 CFR 63.6655(f)]

If additional hours are to be used for maintenance checks and readiness testing, the permittee shall maintain records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year. [40 CFR 63.6640(f)]

The permittee shall keep records that demonstrate continuous compliance with each applicable operating limitation including, but not limited to, the manufacturer's emission-related operation and maintenance instructions or the permittee-developed maintenance plan. [40 CFR 63.6655(d), 40 CFR 63 Subpart ZZZZ Table 6]

Records of the maintenance conducted shall be kept in order to demonstrate that the permittee operated and maintained the affected emission unit and after-treatment control device (if any) according to their own maintenance plan. [40 CFR 63.6655(e)]

The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in Table 8 of 40 CFR 63 Subpart ZZZZ. [40 CFR 63.6665]

Records shall be maintained in accordance with 40 CFR 63.6660 and Provision I.S.1 of this permit.

II.B.44.b.3 **Reporting:**

The permittee shall report any failure to perform the management practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable. [40 CFR 63 Subpart ZZZZ Table 2d Footnote 2]

The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in Table 8 of 40 CFR 63 Subpart ZZZZ. [40 CFR 63.6665] The permittee shall also report each instance in which it did not meet the applicable requirements in Table 8. [40 CFR 63.6640(e)]

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

II.B.44.c **Condition:**

For the diesel-fired engine (#REFi 210):

At all times the permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation 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, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [Origin: 40 CFR 63 Subpart ZZZZ]. [40 CFR 63.6595(a)(1), 40 CFR 63.6605(b)]

II.B.44.c.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.44.c.2 **Recordkeeping:**

The permittee shall keep the records described in 40 CFR 63.6655(a)(1)-(5) as applicable. [40 CFR 63.6655(a)] The permittee shall document activities performed to assure proper operation and maintenance. Records shall be maintained in accordance with 40 CFR 63.6660 and Provision I.S.1 of this permit.

II.B.44.c.3 **Reporting:**

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

II.B.44.d **Condition:**

The permittee shall only use natural gas as a fuel in the precious metals generator (#2). [Origin: DAQE-AN103460058-20]. [R307-401-8]

II.B.44.d.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.44.d.2 **Recordkeeping:**

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

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

II.B.44.d.3 **Reporting:**

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

II.B.44.e **Condition:**

Visible emissions from natural gas-fired emergency engines shall be no greater than 10 percent opacity. [Origin: DAQE-AN103460058-20]. [R307-401-8]

II.B.44.e.1 **Monitoring:**

In lieu of monitoring via visible emission observations, the type of fuel used shall be monitored to demonstrate that only natural gas is being combusted.

II.B.44.e.2 **Recordkeeping:**

The permittee shall maintain records of the types of fuel combusted for all periods of operation. Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.44.e.3 **Reporting:**

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

II.B.44.f **Condition:**

For the natural gas-fired generator (#2):

(i) For stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG), the permittee shall comply with the emission standards in Table 1 of 40 CFR 60 Subpart JJJJ. (40 CFR 60.4233(e))
(ii) For emergency stationary SI ICE with a maximum engine power of greater than 19 KW (25 HP), the permittee shall not install engines that do not meet the applicable requirements in 40 CFR 60.4233 after January 1, 2011. (40 CFR 60.4236(c)) This requirement does not apply to affected emission units that have been modified or reconstructed, and it does not apply to affected emission units that were removed from one existing location and reinstalled at a new location. (40 CFR 60.4236(e))
(iii) The permittee shall operate and maintain affected emission units that achieve the emission standards as required in this condition over the entire life of the engine (40 CFR 60.4234)
(iv) The air-to-fuel ratio (AFR) controller, if used, shall be maintained and operated appropriately by the permittee in order to ensure proper operation of affected emission units and control device to minimize emissions at all times. (40 CFR 60.4243(g))

[Origin: 40 CFR 60 Subpart JJJJ]. [40 CFR 63 Subpart ZZZZ, 40 CFR 60.4233(e), 40 CFR 60.4234, 40 CFR 60.4236, 40 CFR 60.4243]

II.B.44.f.1 **Monitoring:**

(a) For affected emission units subject to 40 CFR 60.4233(e), the permittee shall demonstrate compliance according to one of the methods specified in paragraphs (a)(1) and (2) of this section.
  (1) Purchasing an engine certified according to procedures specified in 40 CFR 60 Subpart JJJJ, for the same model year and demonstrating compliance according to one of the methods specified in paragraphs (1)a) and b) of this section.
    a) If the permittee operates and maintains the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, the permittee shall keep records of conducted maintenance to demonstrate compliance, but no performance testing is required. The permittee shall also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply. If the permittee adjusts engine settings according to and consistent with the manufacturer's instructions, the affected emission unit will not be considered out of compliance.
    b) If the permittee does not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine, and the permittee shall demonstrate compliance according to (i) of this section.
      (i) If the affected emission unit is greater than or equal to 100 HP and less than or equal to 500 HP, the permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee shall conduct an initial performance test within 1 year of engine startup to demonstrate compliance.

(2) Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in 40 CFR 60.4233(e) and according to the requirements specified in 40 CFR 60.4244, as applicable, and according to paragraph (2)a) of this section.
a) If the affected emission unit is greater than 25 HP and less than or equal to 500 HP, the permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee shall conduct an initial performance test to demonstrate compliance.

(Origin: 40 CFR 60.4243(b))

(b) For affected emission units less than or equal to 500 HP and the permittee purchases a non-certified engine or does not operate and maintain the certified affected emission unit and control device according to the manufacturer's written emission-related instructions, the permittee is required to perform initial performance testing as indicated in this section, but is not required to conduct subsequent performance testing unless the stationary engine undergoes rebuild, major repair or maintenance as specified in 40 CFR 60.4243(f). (Origin: 40 CFR 60.4243(f))

(c) The permittee shall conduct performance tests in accordance with the procedures in 40 CFR 60.4244(a) through (f). (Origin: 40 CFR 60.4244)

Records required for this permit condition will also serve as monitoring.

II.B.44.f.2 **Recordkeeping:**

(a) For the affected emission unit, the permittee shall keep records of the information in paragraphs (a)(1) through (4) of this section.
(1) All notifications submitted to comply with this condition and all documentation supporting any notification.
(2) Maintenance conducted on each affected emission unit.
(3) If the affected emission unit is a certified engine, documentation from the manufacturer that the affected emission unit is certified to meet the emission standards and information as required in 40 CFR parts 1048, 1054, and 1060, as applicable.
(4) If the affected emission unit is not a certified engine or is a certified engine operating in a non-certified manner and subject to section (a)(1)b) of monitoring, documentation that the engine meets the emission standards.

(Origin: 40 CFR 60.4245(a))

(b) The permittee shall keep records of the install date of each affected emission unit and the applicable requirements under 40 CFR 60 Subpart JJJJ for the respective model year engine.

Records and results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.44.f.3 **Reporting:**

For affected emission units that are subject to performance testing, the permittee shall submit a copy of each performance test as conducted in 40 CFR 60.4244 within 60 days after the test has been completed. (Origin: 40 CFR 60.4245(d))

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

II.B.44.g **Condition:**

For the natural gas-fired generator (#2):

The permittee shall operate the emergency affected emission unit according to the requirements in paragraphs (1) through (3). In order for the engine to be considered an emergency stationary ICE under 40 CFR 60 Subpart JJJJ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in (1) through (3), is prohibited. If the engine is not operated in accordance with paragraphs (1) through (3), it will not be considered an emergency engine and shall meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary ICE in emergency situations.

(2) Emergency stationary ICE may be operated for the purposes specified in 40 CFR 60.4243(d)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (3) counts as part of the 100 hours per calendar year allowed by this paragraph.

  (a) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(3) Emergency stationary ICE may operate up to 50 hours per calendar year in non-emergency situations, as specified in 40 CFR 60.4243(d)(3).

[Origin: 40 CFR 60 Subpart JJJJ]. [40 CFR 60.4243(d), 40 CFR 63 Subpart ZZZZ]

II.B.44.g.1 **Monitoring:**

If the emergency stationary SI ICE that is greater than or equal to 130 HP and less than 500 HP that was built on or after January 1, 2011, does not meet the standards applicable to non-emergency engines, the permittee shall install a non-resettable hour meter. (40 CFR 60.4237(b)) Records required for this permit condition will also serve as monitoring.

II.B.44.g.2 **Recordkeeping:**

Records shall be kept in accordance with 40 CFR 60.4243(d), as applicable.

For each affected emission unit greater than or equal to 130 HP and less than 500 HP manufactured on or after July 1, 2011 that does not meet the standards applicable to non-emergency engines, the permittee shall keep records of the hours of operation of the affected emission unit that is recorded through the non-resettable hour meter. The permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. (Origin: 40 CFR 60.4245(b))

Documentation shall be kept that demonstrates compliance with this provision. Records shall be maintained as described in Provision I.S.1 of this permit.

II.B.44.g.3 **Reporting:**

The permittee shall submit an annual report in accordance with 40 CFR 60.4245(e), as applicable. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.45 **Conditions on #REF SA-1: Refinery Unleaded Gasoline Storage Tank.**

II.B.45.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(2)]. [R307-327-4(2)]

II.B.45.a.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.45.a.2 **Recordkeeping:**

The parameters listed above shall be recorded on a monthly basis and maintained as specified in Provision I.S.1 of this permit. The permittee shall maintain fuel specification records from the fuel supplier to demonstrate the maximum true vapor pressure.

II.B.45.a.3 **Reporting:**

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

II.B.45.b **Condition:**

The permittee shall not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:

(1) Minimize gasoline spills;
(2) Clean up spills as expeditiously as practicable;
(3) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;
(4) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.
(5) Portable gasoline containers that meet the requirements of 40 CFR part 59, subpart F, are considered acceptable for compliance with paragraph (3) of this section.

At all times, the permittee shall operate and maintain any affected emission unit, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in Table 3 of 40 CFR 63 Subpart CCCCCC.
[Origin: 40 CFR 63 Subpart CCCCCC]. [40 CFR 63.11111(b), 40 CFR 63.11115, 40 CFR 63.11116, 40 CFR 63.11130]

II.B.45.b.1 **Monitoring:**

Records required for this permit condition will serve as monitoring. Additionally, the permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in Table 3 of 40 CFR 63 Subpart CCCCCC. [40 CFR 63.11130]

II.B.45.b.2 **Recordkeeping:**

The permittee shall keep records demonstrating monthly throughput is less than the 10,000-gallon threshold level. Records shall be available within 24 hours of a request by the Director to document gasoline throughput in the affected emission unit. [40 CFR 63.11111(e), 40 CFR 63.11116(b)]

The permittee shall keep records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. Records shall be kept of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.11115(b), 40 CFR 63.11125(d)]

The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in Table 3 of 40 CFR 63 Subpart CCCCCC. [40 CFR 63.11130]

Documentation shall be kept that demonstrates compliance with this provision. Records shall be maintained in accordance with Provision I.S.1. of this permit.

II.B.45.b.3 **Reporting:**

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

II.B.46 **Conditions on #REFi 201: Refinery Cold Solvent Degreasers.**

II.B.46.a **Condition:**

The permittee shall ensure that the following conditions are met:

(1) Each solvent degreaser is equipped with a cover 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.

(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 adsorption.

(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: R307-335-4]. [R307-335-4]

II.B.46.a.1 **Monitoring:**

Visual inspections shall be made monthly to demonstrate compliance with this condition.

II.B.46.a.2 **Recordkeeping:**

Results of monthly inspections, the solvent VOC content applied, and the physical characteristics that demonstrate compliance with R307-335 shall be recorded and maintained as described in Provision I.S.1 of this permit.

II.B.46.a.3 **Reporting:**

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

II.B.47 **Conditions on #REF COM GEN: Emergency Generator - Communications.**

II.B.47.a **Condition:**

The permittee shall use only liquefied petroleum gas (LPG) for fuel in the affected emission unit.
[Origin: DAQE-AN103460058-20]. [R307-401-8]

II.B.47.a.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.47.a.2 **Recordkeeping:**

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

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

II.B.47.a.3 **Reporting:**

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

II.B.47.b **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Origin: DAQE-AN103460058-20].
[R307-401-8]

II.B.47.b.1 **Monitoring:**

In lieu of monitoring via visible emission observations, the type of fuel used shall be monitored to demonstrate that only LPG is being combusted.

II.B.47.b.2 **Recordkeeping:**

The permittee shall maintain records of the types of fuel combusted for all periods of operation. Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.47.b.3 **Reporting:**

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

II.B.48 **Conditions on #REF CHP: Refinery Combined Heat and Power Unit.**

II.B.48.a **Condition:**

Emissions of NO_x from the CHP unit shall be no greater than:

i. 5.96 lbs/hour during TEG firing mode [State-only Requirement]
[Origin: DAQE-AN103460058-20, SIP Section IX.H.2.i, SIP Section IX.H.12.j]. [R307-401-8, SIP Section IX.H.12.j, SIP Section IX.H.2.i]

ii. 7.49 lbs/hour during fresh air firing mode
[Origin: DAQE-AN103460058-20]. [R307-401-8]

II.B.48.a.1 **Monitoring:**

To demonstrate compliance with each limit, stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every 12 months based on the date of the most recent stack test. Every 12 months means the test shall be performed every 12 months and no more than 14 calendar months following the previous performance test. The source may also be tested at any time if directed by the Director.

(b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and provide a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, procedures to be used, and shall be approved by the Director prior to performing the test(s). The source shall attend a pretest conference if determined necessary by the Director.

(c) Methods.

(1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other EPA-approved testing method, as acceptable to the Director. An Occupational Safety and Health Administration (OSHA)-approved and/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, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the pollutant emission rate.

(3) 40 CFR 60, Appendix A, Method 2, Method 19, or other EPA-approved testing method, as acceptable to the Director, 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 Director to give the results in the specified units of the emission limitation.

(e) Conditions During Testing. The production rate during all compliance testing shall be no less than 90 percent of the maximum production achieved in the previous three (3) years.

II.B.48.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.48.a.3 **Reporting:**

The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.48.b **Condition:**

Emissions of CO from the CHP unit shall be no greater than:
i. 6.43 lbs/hour during TEG firing mode
ii. 2.5 lbs/hour during fresh air firing mode.
[Origin: DAQE-AN103460058-20]. [R307-401-8]

II.B.48.b.1 **Monitoring:**

To demonstrate compliance with each limit, stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every 12 months based on the date of the most recent stack test. Every 12 months means the test shall be performed every 12 months and no more than 14 calendar months following the previous performance test. The source may also be tested at any time if directed by the Director.
If a test result is less than 60.0 percent of the limit for three consecutive years, subsequent testing may be performed every three years. If at any time a test result is greater than 60.0 percent of the limit, testing shall be performed every year. After three consecutive years with test results less than 60.0 percent the Director may be repetitioned for less frequent testing.

(b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and provide a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, procedures to be used, and shall be approved by the Director prior to performing the test(s). The source shall attend a pretest conference if determined necessary by the Director.

(c) Methods.
  (1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other EPA-approved testing method as acceptable to the Director. An Occupational Safety and Health Administration (OSHA)-approved and/or Mine Safety and Health Administration (MSHA)-approved access shall be provided to the test location.
  (2) 40 CFR 60, Appendix A, Method 10, or other EPA-approved testing method as acceptable to the Director, shall be used to determine the pollutant emission rate.
  (3) 40 CFR 60, Appendix A, Method 2, Method 19, or other EPA-approved testing method as acceptable to the Director, 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 Director to give the results in the specified units of the emission limitation.

(e) Conditions During Testing. The production rate during all compliance testing shall be no less than 90 percent of the maximum production achieved in the previous three (3) years.

II.B.48.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.48.b.3 **Reporting:**

The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.48.c **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Origin: DAQE-AN103460058-20]. [R307-401-8]

II.B.48.c.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. If any visible emissions other than steam are observed, an opacity determination of that emission unit shall be performed by a certified visible emissions observer in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, within 24 hours of the initial observation.

II.B.48.c.2 **Recordkeeping:**

Records of visual observations performed and data required by 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, for each determination shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.48.c.3 **Reporting:**

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

II.B.48.d **Condition:**

For new natural gas fired stationary combustion turbines with heat input at peak load (HHV) greater than 50 MMBtu/h and less than or equal to 850 MMBtu/h, emissions of NO_x shall be no greater than 25 ppm at 15 percent O_2 or 150 nanograms per Joule (ng/J) of useful output (1.2 pounds per megawatt-hour (lb/MWh)). [Origin: 40 CFR 60 Subpart KKKK]. [40 CFR 60.4320(a)]

II.B.48.d.1 **Monitoring:**

NO_x performance tests shall be conducted on an annual basis (no more than 14 calendar months following the previous performance test). [40 CFR 60.4400(a)]

To demonstrate continuous compliance, the permittee shall conduct annual performance tests in accordance with 40 CFR 60.4400(a)(1)-(a)(3)(ii)(B), 60.4400(b), 60.4400(b)(2), 60.4400(b)(4), 60.4400(b)(6).

At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing. The source shall attend a pretest conference if determined necessary by the Director. [40 CFR 60.8(d), R307-165].

II.B.48.d.2 **Recordkeeping:**

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

II.B.48.d.3 **Reporting:**

The permittee shall submit a written report of the results of each performance test before the close of business on the 60th day following the completion of the performance test. [40 CFR 60.4375(b)] There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.48.e **Condition:**

For heat recovery units operating independent of the combustion turbine, emissions of NO_x shall be no greater than 54 ppm at 15 percent O_2 or 110 ng/J of useful output (0.86 lb/MWh). [Origin: 40 CFR 60 Subpart KKKK]. [40 CFR 60.4320(a)]

II.B.48.e.1 **Monitoring:**

NO_x performance tests shall be conducted on an annual basis (no more than 14 calendar months following the previous performance test). [40 CFR 60.4400(a)]

To demonstrate continuous compliance, the permittee shall conduct annual performance tests in accordance with 40 CFR 60.4400(a)(1)-(a)(3)(ii)(B), 60.4400(b), 60.4400(b)(2), 60.4400(b)(4), 60.4400(b)(6).

At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing. The source shall attend a pretest conference if determined necessary by the Director. [40 CFR 60.8(d), R307-165].

II.B.48.e.2 **Recordkeeping:**

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

II.B.48.e.3 **Reporting:**

The permittee shall submit a written report of the results of each performance test before the close of business on the 60th day following the completion of the performance test. [40 CFR 60.4375(b)] There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.48.f **Condition:**

The permittee shall comply with either (1) or (2) below.

(1) The permittee shall not discharge into the atmosphere from the subject stationary combustion turbine any gases which contain SO_2 in excess of 110 nanograms per Joule (ng/J) (0.90 pounds per megawatt-hour (lb/MWh)) gross output;

(2) The permittee shall not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input.
[Origin: 40 CFR 60 Subpart KKKK]. [40 CFR 60.4330(a)]

II.B.48.f.1 **Monitoring:**

a) The permittee shall monitor the total sulfur content of the fuel being fired in the turbine, except as provided in b) below. The sulfur content of the fuel shall be determined using total sulfur methods described in 40 CFR 60.4415. Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than half the applicable limit, ASTM D4084, D4810, D5504, or D6228, or Gas Processors Association Standard 2377 (all of which are incorporated by reference, see 40 CFR 60.17), which measure the major sulfur compounds, may be used. [40 CFR 60.4360]

   If the permittee elects not to demonstrate sulfur content using options in b) below, and the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel shall be determined and recorded once per unit operating day or according to custom schedules as specified in 40 CFR 60.4370(c). [40 CFR 60.4370(b), (c)]
b) The permittee may elect not to monitor the total sulfur content of the fuel combusted in the turbine, if the fuel is demonstrated not to exceed potential sulfur emissions of 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input. The permittee shall use one of the following sources of information to make the required demonstration: [40 CFR 60.4365]
   1) The fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the total sulfur content for natural gas is 20 grains of sulfur or less per 100 standard cubic feet, and has potential sulfur emissions of less than 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input; or [40 CFR 60.4365(a)]
   2) Representative fuel sampling data which show that the sulfur content of the fuel does not exceed 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input. At a minimum, the amount of fuel sampling data specified in 40 CFR 75 appendix D section 2.3.1.4 or 2.3.2.4 is required. [40 CFR 60.4365(b)]

II.B.48.f.2 **Recordkeeping:**

Results of monitoring and records used to demonstrate compliance shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.48.f.3 **Reporting:**

If the permittee elects to periodically determine the fuel sulfur content, reports of excess emissions and monitor downtime, as defined in 40 CFR 60.4385, shall be submitted in accordance with 40 CFR 60.7(c). Excess emissions shall be reported for all periods of unit operation, including start-up, shutdown, and malfunction. [40 CFR 60.4375(a)] All reports required under 40 CFR 60.7(c) shall be postmarked by the 30th day following the end of each 6-month period. [40 CFR 60.4395] There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.48.g **Condition:**

The permittee shall operate and maintain the stationary combustion turbine, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction. [Origin: 40 CFR 60 Subpart KKKK, SIP Section IX.H.2.i, SIP Section IX.H.12.j]. [40 CFR 60.4333(a)]

II.B.48.g.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.48.g.2 **Recordkeeping:**

Permittee shall document activities performed to assure proper operation and maintenance. Records shall be kept on site which indicate the date and time of startups and shutdowns. (SIP Section IX.H.12.j state-only requirement) Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.48.g.3 **Reporting:**

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

II.B.48.h **Condition:**

The permittee shall only use natural gas as a fuel in the CHP unit. [Origin: DAQE-AN103460058-20]. [R307-401-8]

II.B.48.h.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.48.h.2 **Recordkeeping:**

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

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

II.B.48.h.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.

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, Part 60, Subpart LL (NSPS, Metallic Mineral Processing Plants)

This regulation is not applicable to the Permitted Source for the following reason(s): the smelter facility does not produce metallic mineral concentrates from ore and the smelter facility is not located adjacent to the concentrator facility. [Last updated November 15, 2021]

III.B. 40 CFR Part 61, Subpart O (National Emission Standard for Inorganic Arsenic Emissions From Primary Copper Smelters)

This regulation is not applicable to the #Smelter: for the following reason(s): the smelter does not charge molten matte to a copper converter. Subpart O: converter = vessel where copper matte is charged and oxidized to copper; copper matte = molten copper and iron sulfides produced by smelting. FCF not converter by definition. [Last updated November 15, 2021]

SECTION IV: ACID RAIN PROVISIONS

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-AN103460061-22 dated June 23, 2022
Incorporates	DAQE-AN103460058-20 dated November 12, 2020
Incorporates	SIP Section IX.H.2.i. dated January 2, 2019
Incorporates	[State-only Requirements] SIP Section IX.H.12.j. dated January 2, 2019

1. Comment on an item originating in 40 CFR 60 and 63 regarding Permitted Source

   40 CFR 60 Subpart Db sulfur limit: Per 40 CFR 60.42b(k)(2), units firing only gaseous fuel with a potential SO_2 emission rate of 0.32 lb/MMBtu heat input or less are exempt from the SO_2 emissions limit. The Holman and Rentech boilers meet this criteria and are exempt from the SO_2 limit.

   40 CFR 60 Subpart IIII applicability: The #SME gen: Smelter Powerhouse Emergency Generators and #REFi 210: Emergency Generator - Precious Metals are compression ignition (CI) engines that meet the Subpart IIII definition of Emergency stationary internal combustion engine. According to 40 CFR 60.4200(a)(2), Subpart IIII applies to stationary CI ICE ordered after 7/11/2005 and manufactured after 4/1/2006 for non-fire pump engines. The referenced generators do not meet the date criteria for Subpart IIII applicability.

   The diesel-fired emergency generator used in the Flash Smelting Furnace unit (#SME 011b1) is a CI engine that meets the Subpart IIII definition of Emergency stationary internal combustion engine. This engine has applicable requirements from 40 CFR 60 Subpart IIII because it was ordered after 7/11/2005, manufactured after 4/1/2006, and is not a fire pump engine.

   40 CFR 60 Subpart JJJJ applicability: The #SME COM GEN: Emergency Generator - Communications and the #REF COM GEN: Emergency Generator - Communications are spark ignition (SI) engines that meet the Subpart JJJJ definition of Emergency stationary internal combustion engine. According to 40 CFR 60.4230(a)(4), emergency engines greater than 25 HP must be ordered after 6/12/2006 and manufactured on or after 1/1/2009 to be subject to the subpart. The referenced generators do not meet the date criteria for Subpart JJJJ applicability. The 150 kW precious metals natural gas-fired emergency generator (#2) meets the Subpart JJJJ definition of emergency stationary internal combustion engine, was manufactured in 2020, and is subject to the requirements in 40 CFR 60 Subpart JJJJ.

   40 CFR 63 Subpart ZZZZ applicability: The #SME gen: Smelter Powerhouse Emergency Generators and #REFi 210: Emergency Generator - Precious Metals are existing CI reciprocating internal combustion engines (RICE) with applicable requirements from 40 CFR 63 Subpart ZZZZ. The #SME COM GEN: Emergency Generator - Communications and the #REF COM GEN: Emergency Generator - Communications are new spark ignition (SI) engines according to 40 CFR 63.6590(a)(2)(iii) because they were installed after June 12, 2006. Per 40 CFR 63.6590(c), new stationary RICE at area sources must meet the requirements of Subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart JJJJ, for spark ignition engines. No further requirements from Subpart ZZZZ apply to the communication generators. However, as noted in 40 CFR 60.4230(a)(4) and in the Subpart JJJJ applicability paragraph above, the two communication generators do not meet

the date criteria for Subpart JJJJ applicability because they were manufactured prior to 1/1/2009. Although they are affected units under 40 CFR 63 Subpart ZZZZ, there are no applicable requirements from either 40 CFR 63 Subpart ZZZZ or 40 CFR 60 Subpart JJJJ included in the permit for the communication generators. The 150 kW precious metals natural gas-fired emergency generator (#2), manufactured in 2020, is also a new SI engine according to 40 CFR 63.6590(a)(2)(iii) and must meet the requirements of Subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart JJJJ, per 40 CFR 63.6590(c).

The diesel-fired emergency generator used in the Flash Smelting Furnace unit (#SME 011b1) is a new compression ignition (CI) engine according to 40 CFR 63.6590(a)(2)(iii) because it was installed after June 12, 2006. Per 40 CFR 63.6590(c), new stationary RICE at area sources must meet the requirements of Subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart IIII, for compression ignition engines. No further requirements from Subpart ZZZZ apply.

40 CFR 63 Subpart JJJJJJ applicability: Per 40 CFR 63.11195, gas-fired boilers are not subject to the subpart. 40 CFR 63.11237 defines gas-fired boilers as *any boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or for periodic testing, maintenance, or operator training on liquid fuel. Periodic testing, maintenance, or operator training on liquid fuel shall not exceed a combined total of 48 hours during any calendar year.* Fuel oil usage for the refinery boilers was limited to 48 hours per year in DAQE-AN103460057-20 to clarify the refinery boilers meet the definition and are not subject to Subpart JJJJJJ. If the 48-hour limit on fuel oil usage is exceeded, the requirements in 40 CFR 63 Subpart JJJJJJ shall apply.
[9/15/2010] [Last updated July 12, 2022]

2. Comment on an item originating in 40 CFR 60 Subpart Kb regarding #REF VOL: Refinery Volatile Organic Liquid Storage Tanks

   Subpart Kb exemption: In the 10/15/03 amendment to the final rule, EPA states it "...is exempting from subpart Kb those storage vessels presently subject to recordkeeping requirements only." Therefore, the previous conditions requiring recordkeeping that originated in Subpart Kb have been removed from the Title V Permit. [4/03/2006] [Last updated July 12, 2022]

3. Comment on an item originating in this permit regarding #REFi 201: Refinery Cold Solvent Degreasers

   Condition II.B.46.a.1: The visual inspections required by this condition do not refer to visual opacity readings. [1/22/2007] [Last updated July 12, 2022]

4. Comment on an item originating in Section II.A of this permit regarding #REFi204, 205, 206, 207, 208: Miscellaneous Natural Gas-fired Equipment

   This equipment is included for informational purposes only. [1/22/2007] [Last updated July 12, 2022]

5. Comment on an item originating in DAQE-AN103460058-20 regarding #Refinery:

   Refinery baghouse pressure drop readings: The referenced AO only contains a requirement for baghouse pressure drop readings on the Selenium Crushing and Packaging Baghouse. However, the pressure drop ranges for the other three baghouses in the refinery were submitted as part of the refinery equipment list, Appendix A. The baghouse ranges submitted are 2-6 inches Water Gauge for each baghouse as follows:
   - Precious Metals Filter Press Baghouse (REF 008)
   - Gold/Silver Recovery Baghouse (REF 010)
   - Soda Ash Silo Baghouse (REF 011)

The above information has been included here for reference purposes only and is not included as a requirement of the permit. [1/22/2007] [Last updated July 12, 2022]

6. Comment on an item originating in DAQE-AN103460058-20 regarding #Refinery:
   Petition for reduced test frequency in AO condition II.B.1.b: The referenced AO condition states the following. 'If the test results are less than 60.0% of the limit specified in Condition II.B.1.a for three (3) consecutive tests, then KUC may petition the Director to perform the test at a less frequent rate. If at any time a test is performed that is greater than 60% of the limit specified in Condition II.B.1.a, then testing will resume to their original testing frequencies (every 12 months for the CHP unit and every three (3) years for all other sources) for three (3) consecutive tests. After three (3) consecutive tests with the test results less than 60.0%, KUC may repetition the Director for less frequent testing. A reduced test frequency is not allowed for the Tankhouse Boiler #2 since this source is included in Part H of the Utah SIP. For the CHP Unit (TEG Firing Mode), KUC may petition the Director to perform the test every calendar year as allowed by Part H of the Utah SIP.' For the NO_x limits on the Refinery Boilers (Tankhouse), the SIP requires a frequency of every three years unless the boilers have operated less than or equal to 300 hours during the 3-year period. [7/21/2010] [Last updated July 12, 2022]

7. Comment on an item originating in 40 CFR 63 Subpart EEEEEE regarding #SME 011: Main Stack (Stack 11)
   40 CFR 63.11147(a)(1) states, "You must not discharge to the atmosphere through any combination of stacks or other vents captured process exhaust gases from the copper concentrate dryers, smelting vessels, converting vessels, matte drying and grinding plants, secondary gas systems, and anode refining department that contain particulate matter less than 10 microns in aerodynamic diameter (PM_{10}) in excess of 89.5 pounds per hour (lb/hr) on a 24-hour average basis."

   The PM_{10} limit has been incorporated into the operating permit under Condition II.B.24.a for the Main Stack. The captured exhaust gases from the affected emission units subject to the NESHAP PM_{10} limit, "copper concentrate dryers, smelting vessels, converting vessels, matte drying and grinding plants, secondary gas systems, and anode refining department", are described in this permit as being vented to the Main Stack in II.A.9, 10, 12, 15, 17, 21, and 26. The permittee certified compliance with 63.11147(a)(1), as required by 63.11150(b)(1), in a letter dated and received by DAQ 1/30/07. [2/27/2007] [Last updated July 12, 2022]

8. Comment on an item originating in 40 CFR 60 Subpart P regarding #SME 011b1: Flash Smelting Furnace (FSF)
   NSPS Subpart P application: The flash smelting furnace (FSF) and the flash converting furnace (FCF) each discharge to the acid plant through a series of control devices. NSPS 40 CFR 60 (Subpart P) [Standards of Performance for Primary Copper Smelters] is applicable to both the FSF and FCF. Due to both furnaces discharging directly to the acid plant, Subpart P shall be applied to the discharge of the acid plant in lieu of each individual furnace. [4/03/2006] [Last updated July 12, 2022]

9. Comment on an item originating in DAQE-AN103460061-22 Condition II.B.7.e.H regarding #SME 011b: Acid Plant
   AO condition is a design requirement that has been met: The referenced condition states that the permittee shall have contained conveyance of acid plant effluent solutions. This condition is a design requirement that has been verified to have been installed and therefore not a requirement carried forth into this permit. [1/22/2007] [Last updated July 12, 2022]

10. Comment on an item originating in 40 CFR 60 Subpart Db regarding #SME 026: Powerhouse Holman Boiler (Stack 26)

Alternate Monitoring Plan: The monitoring, recordkeeping, and reporting conditions were updated in the 2020 renewal permit to reference the most recent alternate monitoring plan approved by the Director instead of listing the specific date and details of the plan. This gives the permittee flexibility to update the plan and submit it for approval, in accordance with 40 CFR 60.48b(g)(2), without changing the permit itself. The following historical information for the Holman boiler is included here for reference.

A 30 day test was performed between May 16, 1998 and June 14, 1998. Test results indicated the Holman Boiler easily met permit limits for NO_x emissions (0.0373 lb/MMBtu (30 day average) and 3.77 lb/hr (30 day average)). In fact, no single hour exceeded either 0.05 lb/MMBtu or 9.34 lb/hr NO_x emissions.

The relationship between the monitored parameter (heat input MMBtu/hr) and NO_x emissions (lb/hr) is well developed in the plan. In fact, an additional 75 days monitoring was performed following the initial 30 day test to verify the validity of the developed predictive equation. During the additional test period, measured NO_x emissions averaged 2.8 lb/hr and predicted NO_x emissions averaged 3.0 lb/hr. NO_x emissions (lb/MMBtu) are easily calculated from the mass emission rate. It must be noted here that the predictive equation developed for this plan is only valid for operating conditions present during the test period. For this reason, the position of the flue gas recirculation damper and the flue gas oxygen concentrations are also monitored. The position of the flue gas recirculation damper was adjusted twice during the early part of the test and had significant impact on the line of regression used to predict emissions (line of regression shifted with each adjustment). In fact, the test start date was modified to begin following the second adjustment of the flue gas recirculation damper. Moving the position of the damper triggers a requirement to perform an additional 30 day test via a certified NO_x CEM in accordance with 40 CFR 60.46b(e). Similarly, flue gas oxygen concentrations never exceeded 3.3 percent (except for brief periods associated with boiler startup and shutdown) during the test period. Analysis of test data, however, did indicate that flue gas oxygen concentrations near 3.3 percent at high heat inputs (greater than 160 MMBtu/hr) correlated with elevated NO_x emissions approaching 0.05 lb/MMBtu. For this reason, a flue gas oxygen concentration of 3.3 percent (30 day average) was selected as a trigger to perform an additional 30 day test via a certified NO_x CEM in accordance with 40 CFR 60.46b(e).

The boiler does not use staged combustion, so it is not possible to monitor that parameter.

Boiler steam output is also monitored since a very close correlation between heat input (MMBtu/hr) and steam output (lbs/hr) was observed during the test period. The steam output parameter can be used to predict heat input if natural gas input and measured heat input are unavailable. [11/16/1999] [Last updated July 12, 2022]

11. Comment on an item originating in Section II.A of this permit regarding #SME SH, WH: Space Heaters and Water Heaters

This equipment is included for informational purposes only. [1/22/2007] [Last updated July 12, 2022]

12. Comment on an item originating in this permit regarding #SMEi210: Smelter Cold Solvent Degreasers

Condition II.B.31.a.1: The visual inspections required by this condition do not refer to visual opacity readings. [1/22/2007] [Last updated July 12, 2022]

13. Comment on an item originating in 40 CFR 63 Subpart EEEEEE regarding #Smelter:

40 CFR 63.11147(a)(2) states, "You must operate a capture system that collects the gases and fumes released during the transfer of molten materials from smelting vessels and converting vessels and conveys the collected gas stream to a control device."

The capture and control of emissions from the transfer of molten materials from the smelting and converting furnaces are described in this permit under the emission unit descriptions in II.A.17-20. The permittee certified compliance with 63.11147(a)(2), as required by 63.11150(b)(3), in a letter dated and received by DAQ 1/30/07. [2/27/2007] [Last updated July 12, 2022]

14. Comment on an item originating in 40 CFR 63 Subpart EEEEEE regarding #Smelter:
    40 CFR 63.11147(a)(3) states, "You must operate one or more capture systems that collect the gases and fumes released from each vessel used to refine blister copper, remelt anode copper, or remelt anode scrap and convey each collected gas stream to a control device. One control device may be used for multiple collected gas streams."

    The capture and control of emissions from units used to refine blister copper, remelt anode copper, or remelt anode scrap are described in this permit under the emission unit descriptions in II.A.21 and 26. The permittee certified compliance with 63.11147(a)(3), as required by 63.11150(b)(4), in a letter dated and received by DAQ 1/30/07. [2/27/2007] [Last updated July 12, 2022]

15. Comment on an item originating in DAQE-AN103460061-22 Condition II.B.7.f regarding #Smelter:
    AO condition is a design requirement that has been met: The referenced condition states that the permittee shall install secondary hoods and ventilation systems for fugitive emissions capture on the following: concentrate dryer feed chute, slag and matte granulators, smelting and converting furnaces, and slag pot filling stations. This condition is a design and installation requirement that has been verified to have been met and therefore not a requirement carried forth into this permit. [1/22/2007] [Last updated July 12, 2022]

16. Comment on an item originating in DAQE-AN103460061-22 Condition II.B.7.e.A, B, C, and F regarding #Smelter:
    AO conditions subsumed by operation and maintenance requirements: The referenced conditions are general requirements for maintenance of the gas handling systems. The general operations and maintenance requirement of this permit adequately addresses and subsumes the requirements of the above noted AO conditions. [1/22/2007] [Last updated July 12, 2022]

17. Comment on an item originating in this permit regarding #Smelter:
    Condition II.B.1.f: This condition is specific to smelter operations only. [4/05/2006] [Last updated July 12, 2022]

18. Comment on an item originating in this permit regarding #Smelter:
    Condition II.B.1.l: Undisturbed, as used in this condition to describe storage piles, is defined as materials that have not been physically agitated for over three months and have formed a crust or covering that prevents fugitive dust. [4/06/2006] [Last updated July 12, 2022]

19. Comment on an item originating in DAQE-AN103460061-22 Condition II.B.7.a regarding #Smelter:
    Opacity monitoring: Monitoring changes were made in the renewal permit dated 7/9/2007 for seven intermittent small sources and one natural gas combustion source:

Rather than visible emission observations, the permittee shall demonstrate compliance with the opacity limits on the following units either by inspection/maintenance of the control equipment or by fuel records documenting natural gas/propane use.

Monitoring to ensure the pollution control equipment is properly operated and maintained is justified in lieu of periodic visible emission observations at the first seven listed units, since those units have infrequent, or erratic source operation, and since specific inspection / maintenance requirements on monthly or quarterly intervals, at the baghouses for these particular units, are considered at least as effective as periodic opacity observations, for ensuring good emission control and compliance with opacity limits on an ongoing basis. Monitoring of fuel records is justified in lieu of periodic visible emission observations for the acid plant preheater, which is a natural gas combustion source. The opacity limits at these units remain enforceable under the permit.

#SME 006: Smelter Limestone Flux Bin (Stack 6) - Pressure drop monitoring also req'd when operating by condition II.B.1.j
#SME 029: Secondary Gas System Lime Silo (Stack 29) - Bin vent baghouse
#SME 028: Anode Area Lime Silo (Stack 28) - Bin vent baghouse
#SME 015: Mold Coating (Barite) Bin (Stack 15) - Pressure drop monitoring also req'd when operating by condition II.B.1.j
#SME 019: Hydrometallurgical Plant Limestone Bin (Stack 19) - Pressure drop monitoring also req'd when operating by condition II.B.1.j
#SME 020: Hydrometallurgical Plant Lime Bin (Stack 20) - Pressure drop monitoring also req'd when operating by condition II.B.1.j
#SME 017a, c: Vacuum Cleaning Systems (Stacks 17a,17c) - Pressure drop monitoring also req'd when operating by condition II.B.1.j
#SME 008: Acid Plant Preheater (Stack 8) - Natural gas/propane combustion req'd by II.B.1.f

(Reference for baghouse monitoring "Fabric Filter Operation and Maintenance" at http://yosemite.epa.gov/oaqps/EOGtrain.nsf/DisplayView/SI_412A_6?OpenDocument) [7/9/2007] [Last updated July 12, 2022]

20. Comment on an item originating in DAQE-AN103460061-22 Condition II.B.7.e.D. & E regarding #Smelter:

    Weekly Observations and monthly inspections adequately addressed by other permit conditions: The referenced AO conditions indicate that "weekly observations of process units" and "monthly inspection of gas handling systems" respectively, shall be performed. Unit specific requirements (i.e. weekly opacity monitoring) and general operation and maintenance practices, as applicable conditions of this permit, address these two conditions adequately and therefore no specific references are necessary. [4/04/2006] [Last updated July 12, 2022]

21. Comment on an item originating in 40 CFR 60 Subpart LL regarding #SME SLAG: Slag Concentrator

    Crushing and Screening operation: 40 CFR 60 Subpart LL is not applicable to the crushing and screening operation in the referenced emission unit because the material being processed is slag from the furnaces rather than ore. Documentation from the permittee confirms the smelter does not process ore and so does not meet the definition of metallic mineral processing plant in Subpart LL. [05/01/2014] [Last updated July 12, 2022]

22. Comment on an item originating in 40 CFR 60 Subpart KKKK regarding #REF CHP: Refinery Combined Heat and Power Unit

NO_x test frequency: 40 CFR 60.4340(a) allows reduced frequency of subsequent performance tests for NO_x under certain conditions. Since the SIP requires testing for NO_x every year on this emission unit, the reduced frequency language originating in 40 CFR 60.4340(a) has been removed from this permit. [08/04/2014] [Last updated July 12, 2022]

23. Comment on an item originating in 40 CFR 60 Subpart OOO regarding #SME SLAG: Slag Concentrator

Crushing and screening operation: Documentation was received 5/18/2017 from the permittee to begin processing nonmetallic minerals, in addition to slag material, in the crushing and screening operation. This triggered applicability of 40 CFR 60 Subpart OOO on affected emission units within the crushing and screening operation. Crushers within the crushing and screening operation would be subject to the 12 percent opacity requirement originating in Subpart OOO, except the approval order, DAQE-AN103460061-22, contains a 10 percent opacity requirement. Therefore the crushers are subject to the more stringent requirement in operating permit condition II.B.9.a. When processing nonmetallic minerals, the 7 percent opacity requirement in condition II.B.9.e applies to the screens, transfer points, and affected emission units within the crushing and screening operation that are subject to Subpart OOO.

The permittee confirmed all applicable initial notifications and testing required by Subpart OOO have been completed. So those requirements have not been included in this permit revision.

The permittee may use a weekly inspection required in condition II.B.9.d to satisfy the periodic inspection requirement for affected emission units in conditions II.B.9.a and II.B.9.e if the inspection is conducted as specified in 40 CFR 60 Subpart OOO. [06/29/2017] [Last updated July 12, 2022]

24. Comment on an item originating in DAQE-AN103460052-13 regarding Permitted Source Molybdenum Autoclave Process (MAP) Plant: MAP requirements from the referenced approval order and the SIP have not been incorporated into the operating permit because the operating status of the MAP plant is still uncertain. The permittee will submit a Title V application for modification within one year of commencing operation of the MAP. The MAP requirements from the referenced approval order and the SIP will be incorporated in that permit revision. [08/30/2019] [Last updated July 12, 2022]

25. Comment on an item originating in DAQE-AN103460061-22 regarding #SME 011: Main Stack (Stack 11)

Monitoring plan for Lead: The referenced approval order notes a monitoring plan for lead was submitted to the Director on October 10, 2000 and amended in 2007. [04/14/2020] [Last updated July 12, 2022]

26. Comment on an item originating in DAQE-AN103460061-22 regarding #Smelter:

Test frequency in AO condition II.B.1.a.2.C: The referenced condition states the following: 'The owner/operator may petition the Director to reduce the stack testing frequency of an emission point in a given year after the following: if, after two (2) stack tests for an emission point in Condition II.B.1.a.2 conducted in accordance with Condition II.B.1.a.3, the owner/operator can show, either because of reliability of pollution control equipment, constant emissions, or other appropriate reasons, the stack testing frequency in Condition II.B.1.a.2 is more frequent than necessary to determine the quantity of emissions.' This is not applicable to the limits on the main stack and Holman boiler that are contained in the SIP because it would be less stringent than the SIP-required testing frequencies. [04/14/2020] [Last updated July 12, 2022]

27. Comment on an item originating in DAQE-AN103460061-22 Condition II.B.1.a.3 regarding #Smelter:

Method 202 testing for condensables: Monitoring changes were made in the renewal permit dated 9/18/2020 to clarify which units are ambient air sources that have no potential for condensable emissions and where Method 202 testing would not apply. These units are listed below.

#SME 001: Filter Plant Wet Feed Conveyor (Stack 1)
#SME 002: Wet Feed Storage Building (Stack 2)
#SME 003: Wet Feed Conveyor Transfer Point (Stack 3)
#SME 004: Wet Feed Bins (Stack 4)
#SME 006: Smelter Limestone Flux Bin (Stack 6)
[2/2/2022] [Last updated July 12, 2022]

28. Comment on an item originating in DAQE-AN103460058-20 and SIP Section IX.H regarding #REF 002/003: Refinery Boilers (Tankhouse):

The north tankhouse boiler has been decommissioned and although it is still on site, it is no longer physically capable of operating without extensive repairs. The south tankhouse boiler has been upgraded and tested as required. The limits from the approval order and SIP that previously applied to the north boiler or to the north and south boilers combined have been removed in the operating permit accordingly. For clarity, the north boiler, noted as decommissioned in II.A.55 of this permit, will remain in the emission unit description until it has been removed from the underlying approval order. [2/12/2022] [Last updated July 12, 2022]

29 Comment on an item originating in DAQE-AN103460058-20 and SIP Section IX.H regarding #REF CHP: Refinery Combined Heat and Power Unit:

A new NO_x emission limit of 7.49 lbs/hr was added for the fresh air firing mode of operation of the CHP Unit in the referenced approval order. This mode of operation was not evaluated as part of the BACT analysis for the $PM_{2.5}$ Serious SIP and is therefore, not in conflict with the NO_x emission limit established in Part H of 5.96 lbs/hr. The referenced approval order did not change the emission limit for the TEG mode of operation, which is the mode of operation associated with the Part H emission limit. This evaluation was documented during the review process for the underlying approval order. [2/12/2022] [Last updated July 12, 2022]