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

10917

Title V Operating Permit

PERMIT NUMBER: 5700001004
DATE OF PERMIT: June 10, 2021
Date of Last Revision: June 10, 2021

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

Name of Permittee:

Compass Minerals Ogden Inc.
9900 W 109th St.
Overland Park, KS 66210

Permitted Location:

Production Plant
765 North 10500 West
Ogden, UT 84404

UTM coordinates: 396,869 m Easting, 4,570,651 m Northing
SIC code: 2819 (Industrial Inorganic Chemicals, NEC)

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:	June 24 of every calendar year that this permit is in force.
Renewal application due:	December 10, 2025
Permit expiration date:	June 10, 2026
Definition of "prompt":	written notification within 14 days.

ABSTRACT

Compass Minerals Ogden Inc. operates a mineral recovery facility on the eastern shore of the south arm of the Great Salt Lake near Ogden, Utah in Weber County. This facility produces sodium chloride (NaCl), sulfate of potash (SOP) (K_2SO_4), and magnesium chloride ($MgCl_2$). The process uses crystallized salts, including halite (sodium chloride) and a mixed salt containing potassium sulfate and magnesium sulfate from solar evaporation ponds. The raw halite is washed, wet-screened, dried, cooled, dry-screened, packaged, and shipped. The mixed salt is washed, slurried, thickened, crystallized, and converted to schoenite which is then filtered, dried, screened, half granulated/compacted, and shipped as sulfate of potash. The collective pump station operations located on the west side of the Great Salt Lake are not included in this permit since it has been designated as a separate source. Compass is a major source for emissions of PM_{10}, $PM_{2.5}$, CO, and HAPs, and 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 IIII-Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, and 40 CFR 60 Subpart JJJJ-Standards of Performance for Stationary Spark Ignition Internal Combustion Engines, 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 DDDDD-National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, and 40 CFR 64-Compliance Assurance Monitoring.

OPERATING PERMIT HISTORY

Permit/Activity	Date Issued	Recorded Changes
Title V renewal application (Project #OPP0109170020)	06/10/2021	Changes: Updates to CAM units and plans, minor updates due to federal rule changes.
Title V minor modification (Project #OPP0109170019)	08/27/2020	Changes: To revise CAM excursion levels on AH-500, AH-502, BH-001, BH-002, BH-1400 and to add alternative to monitoring condition for mechanically aided wet scrubbers.
Title V administrative amendment - enhanced AO (Project #OPP0109170018)	04/02/2020	Changes: To incorporate revisions approved in DAQE-AN109170039-20, dated 1/13/2020, to correct the list of permitted emission units, update state rule and SIP conditions, and update federal rule conditions.
Title V renewal application (Project #OPP0109170016)	07/11/2016	Changes: The renewal permit incorporates DAQE-AN109170035-16, dated January 15, 2016, that permits three emergency generators, a new SOP Compaction plant (D-1545, AH-1547, AH-1555, SC-460, B-1520), and removes dryer D-005 and baghouse BH-006. DAQE-AN109170035-16 supersedes DAQE-AN109170033-15 that replaced the SOP dryer (D-003) and scrubber (AH-013) with a new dryer (D-1400) and baghouse (BH-1400). Other changes to the renewal permit include updates to CAM, updates to state rule conditions, and updates to federal rule conditions due to major HAP status.
Title V Operational Flexibility Change (Project #OPP0109170012)	04/19/2013	Changes: Update operating permit to include the Reduction in Air Contaminants approval order, DAQE-AN109170032-13, dated March 7, 2013 that replaces the HE-028 scrubber with a baghouse (BH-014).
Title V administrative amendment - enhanced AO (Project #OPP0109170011)	02/06/2013	Changes: To incorporate revisions approved in DAQE-AN109170031-12, dated 11/29/12, to permit a 450 kW diesel-fired emergency fire pump engine and update monitoring language.
Title V administrative amendment - enhanced AO (Project #OPP0109170010)	11/20/2012	Changes: Revision incorporates DAQE-AN109170030A-12, dated 8/21/12, that administratively amended DAQE-AN109170030-12, dated 7/30/12, to make minor corrections. This permit revision incorporates the approved changes, including addition of two natural gas-fired boilers, replacement of scrubber AH-505 with a baghouse (BH-505) on the Salt Special Products Circuit, removal of the requirements previously associated with AH-505, removal of 40 CFR 63 Subpart BBBBBBB requirements, addition of 40 CFR 60 Subpart Db and GHG requirements, correction to fuel sulfur content, correction to GHG monitoring, and updates to citations.

Title V administrative amendment - enhanced AO (Project #OPP0109170009)	12/06/2010	Changes: To incorporate revisions approved in DAQE-AN0109170028-10, dated 9/15/10, including addition of a baghouse (BH-502) to the Salt Bulk Load-out area, incorporation of 40 CFR 63 BBBBBBB requirements on AH-505: Salt Special Products Circuit, and citation updates. This revision also contains applicable requirements from 40 CFR 63 Subpart ZZZZ.
Title V significant modification (Project #OPP0109170007)	04/30/2010	Changes: The changes approved in DAQE-AN0109170027-09, dated 12/3/2009, have been incorporated including replacement of wet scrubber (AH-081) on the SOP Compaction Circuit Dryers with a baghouse (BH-008) for the tray dryer (D-002) and a high efficiency wet scrubber (AH-075) for the rotary kiln dryer (D-004); addition of a new fluid bed heater (D-005) with baghouse (BH-006); addition of PM_{10} limits on the new equipment; removal of requirements associated with AH-081; revision of fuel sulfur content limit; clarification of approved fuel in the emergency generator; increase in salt production; removal of SOP compaction plant pneumatic conveying (BH-003); and revision to opacity limit for all scrubbers. Monitoring has been updated on CAM units as a result of performance testing.
Title V renewal application (Project #OPP0109170006)	07/09/2009	Changes: CAM applies to ten units and has been included in the renewal permit under conditions II.B.3.a, II.B.4.a, II.B.5.a, II.B.6.b, II.B.8.b, II.B.9.a, II.B.10.a, II.B.11.a, II.B.12.a, II.B.14.b. Conditions II.B.17 and II.B.18 have been removed because installation notification has been received for the Magnesium Chloride Plant Wet Scrubber and the Magnesium Chloride Plant Cooling Tower. A permit shield was granted for 40 CFR 60 Subpart UUU in Section III of the renewal permit.
Title V administrative amendment by source (Project #OPP0109170004)	08/03/2006	Changes: To incorporate changes approved in DAQE-AN0917021-06, dated 3/23/2006, including addition of a wet scrubber to control particulate from the end of the brine cooling belt, packaging and handling, and addition of a cooling tower to provide the water for cooling the belt. A few updates were also made to reflect current rule numbering, reviewer comments, and permit language.
Title V administrative amendment by DAQ (Project #OPP0109170003)	06/05/2003	Changes: To change equipment from wet scrubber AH-054 in SOP Compaction Building Circuit to baghouse BH-005, as approved in AN0917020-03 (4/2/03). New PM_{10} limits and associated stack testing were added. Opacity limit on point changed from 40% to 10%. Installation notice requirement for BH-501 was removed, as the requirement has been met.

Title V administrative amendment by DAQ (Project #OPP0109170002)	02/18/2003	Changes: Modification to increase hourly maximum of dry salt produced in the salt plant dryer from 100 TPH to 120 TPH. Salt plant dryer (D-500) wet cyclone and wet scrubber stack (AH-513) PM_{10} emissions limit was also changed.
Title V initial application (Project #OPP0109170001)	06/24/2002	

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

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

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

SECTION I: GENERAL PROVISIONS

I.A **Federal Enforcement.**

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

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

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

I.C **Duty to Comply.**

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

I.C.2 It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (R307-415-6a(6)(b))

I.C.3 The permittee shall furnish to the 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)(g) and Section 19-2-110 prior to or at the time of issuance of this permit. (R307-415-6f(3)(b)

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

I.M.2.d The ability of the 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 **SALT: Salt Production Plant**
Unit includes the salt plant.

II.A.3 **SALT: AH-500 Salt Cooler Circuit**
A mechanically aided wet scrubber (AH-500) at the salt plant controls emissions from the following units: fluidized bed cooler, bins, hoppers, conveyors, coolers, crushers, grinders, feeders, baggers, mixers, presses, and rail loading. Emissions from the fluidized bed cooler are also controlled by a baghouse (BH-501).

II.A.4 **SALT: AH-502 Salt Plant Circuit**
A mechanically aided wet scrubber (AH-502) at the salt plant controls emissions from the following units: bins, hoppers, conveyors, elevators, and screens.

II.A.5 **SALT: AH-513 Salt Dryer (D-501)**
Salt plant natural gas fired dryer (D-501) with exhaust directed into a wet cyclone and cyclonic mechanically aided, with variable frequency drive (VFD), wet scrubber (AH-513).

II.A.6 **SALT: BH-501 Salt Cooler**
A baghouse (BH-501) at the salt plant controls emissions from the fluidized bed cooler. Emissions from the fluidized bed cooler are also controlled by a wet scrubber (AH-500).

II.A.7 **SALT: BH-502 Salt Bulk Load-out**
A baghouse (BH-502) at the salt plant controls emissions from the following units at the salt bulk load-out area: bins, hoppers, elevators, and truck loading operations.

II.A.8 **SALT: BH-503 Salt Special Products Circuit**
A baghouse (BH-503) at the salt plant controls emissions from material handling in the salt special products system.

II.A.9 **SALT: BH-505 Salt Packing**
A baghouse (BH-505) at the salt plant controls emissions from material handling in the salt packing area. BH-505 is equipped with a HEPA filter. BH-505 shall vent indoors at all times the unit is operating.

II.A.10 **SALT: Fully Enclosed Conveyors**
Salt plant conveyor ID's: OC503, OC596, OC931, OC932, OC933, OC934, OC935, OH900.

II.A.11 **SOP: SOP Production Plant**
Unit includes the sulfate of potash (SOP) plant including dome silos 12, 13, and 14.

II.A.12 **SOP: AH-1555 SOP Plant**
A mechanically aided, with VFD, wet scrubber (AH-1555) at the SOP plant controls emissions from the following units: bins, hoppers, conveyors, and elevators.

II.A.13 **SOP: BH-001 SOP Bulk Load-Out Circuit**
A baghouse (BH-001) at the SOP plant controls emissions from the following units: bins, hoppers, screens, and truck and rail loading operations.

II.A.14 **SOP: BH-002 SOP Plant**
A baghouse (BH-002) at the SOP plant controls emissions from the following units: bins, hoppers, conveyors, elevators, and screens.

II.A.15 **SOP: BH-008 SOP Plant-Compaction Dryer (D-1545)**
A baghouse (BH-008) with cyclone controls emissions from the following units: conveyor, and SOP plant-compaction natural gas fired dryer (D-1545).

II.A.16 **SOP: BH-1400 SOP Dryer (D-1400)**
A baghouse (BH-1400) with cyclones at the SOP plant controls emissions from the following units: bins, hoppers, conveyors, elevators, screens, and SOP plant natural gas fired dryer (D-1400).

II.A.17 **SOP: BH-1505, BH-1510 Bin Vent Filters**
Two baghouses (BH-1505, BH-1510) at the SOP plant each control emissions from bins and hoppers.

II.A.18 **SOP: BH-1516 SOP Plant**
A baghouse (BH-1516) at the SOP plant controls emissions from the following units: bins, hoppers, conveyors, elevators, and screens.

II.A.19 **SOP: BH-1565 Bin Vent Filter**
A baghouse (BH-1565) at the SOP plant controls emissions from bins, hoppers, and conveyors.

II.A.20 **SOP: Dust Torits**
Fifteen dust torit cartridge filters at the SOP plant control emissions from eleven SOP plant storage silos and four conveyor systems.

II.A.21 **SOP: SOP Submerged Combustion Process**
SOP plant submerged combustion system consisting of a water process tank and four (4) natural gas fired burners. This unit includes two SOP Plant Submerged Combustion Water Heaters: SC-450 rated at 30 MMBtu/hr, SC-460 rated at 60 MMBtu/hr.

II.A.22 **SOP: Fully Enclosed Conveyors**
SOP plant conveyor ID's: OC014, OC015, OC041, OC1370B, OC1370C, OC1401, OC1402, OC1404, OC1405, OC1406, OC1501, OC268, OC279, OC281, OC298, OC294, OCR007, OCR015, OCR019, OF012, OF013.

II.A.23 **SOP: Partially Enclosed Conveyors**
SOP plant conveyor ID's: OC280, OC284, OC708, OC709.

II.A.24 **MgCl: MgCl Production Plant**
Unit includes the magnesium chloride (MgCl) plant.

II.A.25 **MgCl: AH-692 Magnesium Chloride Plant**
A venturi wet scrubber (AH-692) at the mag chloride plant controls emissions from the following units: bins, hoppers, conveyors, crushers, grinders, elevators, feeders, baggers, and screens.

II.A.26 **MgCl: Magnesium Chloride Evaporators**
Two sets of two magnesium chloride evaporators, four evaporators total, used for heating brine solution at the mag chloride plant. Each set has one primary and one secondary evaporator.

II.A.27 **Cooling Towers**
Cooling water for the SOP plant and the mag chloride plant is provided by three cooling towers: CT-003

and CT-004 at the SOP plant have a recirculation rate of 1500 gpm each, CT-639 at the mag chloride plant has a recirculation rate of 212 gpm.

II.A.28 **Boilers: Natural Gas-fired Boilers**
Two natural gas-fired watertube boilers rated at 108.11 MMBtu/hr each. Each boiler is equipped with an Ultra Low-NO_x burner, internal flue gas recirculation, and a continuous oxygen trim system that maintains an optimum air to fuel ratio.

II.A.29 **ENGINES-D: Diesel-fired Emergency Generators**
Four diesel fired emergency generators: unit GN-007 rated at 235 hp, unit GN-100 rated at 610 hp fire pump engine, unit GN-1200 rated at 402 hp, and unit GN-1300 rated at 161 hp. The permittee shall use the emergency generator engines for electricity-producing operations only during the periods when electric power from the public utilities is interrupted.

II.A.30 **ENGINES-P: Propane-fired Emergency Generators**
Three propane-fired emergency generator engines: unit GN-500 rated at less than 100 hp, GN-200 rated at 41 hp, and GN-300 rated at 41 hp. The permittee shall only use propane as fuel in the propane-fired engines on site. The permittee shall use the emergency generator engines for electricity-producing operations only during the periods when electric power from the public utilities is interrupted.

II.A.31 **BLAST: Abrasive Blast Machine**
Abrasive blasting machine with a capacity of 50 lb/hr used as part of maintenance on metal parts.

II.A.32 **ROADS: Roads and Unpaved Operational Areas**
Various roads and disturbed, unpaved areas.

II.A.33 **TANKS: Petroleum Storage Tanks**
Three above ground fuel storage tanks: one 6,000-gallon gasoline storage tank (Tank 3), and two 10,000-gallon (each) diesel storage tanks (Tank 4, Tank 5).

II.A.34 **MISC: Miscellaneous Emissions**
Source-wide emission sources: various conveyors and bucket elevators, various bins and hoppers, various screens, grinders, and crushers, main office boiler, pallet plant operations, degreasing stations, architectural coating operations.

II.B Requirements and Limitations

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

II.B.1 Conditions on Permitted Source (Source-wide).

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

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.a.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.a.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.a.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.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 use only pipeline quality natural gas as a fuel source for all boilers and burners. [Origin: DAQE-AN109170039-20]. [R307-401-8]

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

Records required for this permit condition will serve as monitoring.

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

An operating log will be maintained to document any period when plant equipment is operated using any fuel other than natural gas. Records shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

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

Unless otherwise specified, at all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any affected emission units, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [Origin: DAQE-AN109170039-20]. [40 CFR 60.11(d), R307-401-8, R307-401-8(2)]

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

Records required for this permit condition will serve as monitoring.

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

Unless otherwise specified in this permit, visible emissions from any stationary or fugitive emission source shall not exceed 10 percent opacity. This includes, but is not limited to, all wet scrubbers and all baghouses. [Origin: DAQE-AN109170039-20]. [R307-305-3, R307-401-8]

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

a) Except as noted in b) through d) below, a visual opacity survey of each affected emission unit shall be performed on a monthly basis while the unit is operating. For baghouses subject to 40 CFR Part 64, the permittee shall designate one of the weekly opacity surveys to demonstrate compliance with the monthly survey requirement in this condition. The visual opacity survey shall be performed by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. If visible emissions other than condensed water vapor 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 40 CFR 51 Appendix M, Method 203A, or other EPA-approved testing method, as acceptable to the Director, for fugitive sources.
b) For intermittent sources, opacity observations shall be performed on a monthly basis while the unit is operating in accordance with 40 CFR 60, Appendix A, Method 9, however, the requirement for observations to be made at 15-second intervals over a six-minute period shall not apply. The number of observations and the time period shall be determined by the length of the intermittent source operation.
c) For emission units located within a building, the requirements of paragraph a) apply to each affected emission unit located within a building or for the building itself. If visible emissions from a building are monitored, the requirements of paragraph a) apply to each

side, roof, and vent of the building. The affected emission unit(s) shall be operating when monitoring is performed on the unit located within a building or on the building itself.

d) The permittee is not required to perform monthly surveys on natural gas combustion sources, cooling towers, magnesium chloride evaporators, and petroleum storage tanks.

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

The permittee shall keep a log of the visual opacity survey(s) containing the following information: date and time visual emissions observed, emission point location and description, time and date of opacity test, and percent opacity. If an opacity determination is performed, a notation of the determination will be made in the log. All data required by 40 CFR 60, Appendix A, Method 9 and/or 40 CFR 51 Appendix M, Method 203A, 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.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 submit a fugitive dust control plan to the Director in accordance with R307-309-6. Activities regulated by R307-309 shall not commence before the fugitive dust control plan is approved by the director. If site modifications result in emission changes, the permittee shall submit an updated fugitive dust control plan. At a minimum, the fugitive dust control plan shall include the requirements in R307-309-6(4) as applicable. The fugitive dust control plan shall include contact information, site address, total area of disturbance, expected start and completion dates, identification of dust suppressant and plan certification by signature of a responsible person. [Origin: R307-309]. [R307-309-5(2), R307-309-6]

II.B.1.f.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. At least once every three years, the fugitive dust control plan shall be reviewed and evaluated. If site modifications that result in emission changes have been made, an updated fugitive dust control plan shall be submitted as required by R307-309-6(3).

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

Records that demonstrate compliance with this condition shall be available to the director upon request. [R307-309-12]

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.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:**

If the permittee owns, operates or maintains a new or existing material storage, handling or hauling operation, the permittee shall prevent, to the maximum extent possible, material from being deposited onto any paved road other than a designated deposit site. If materials are deposited that may create fugitive dust on a public or private paved road, the permittee shall clean the road promptly. [Origin: R307-309]. [R307-309-7]

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

Adherence to the most recently approved fugitive dust control plan shall be monitored to demonstrate compliance with this condition. Records required for this permit condition will also serve as monitoring.

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:**

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

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

Each baghouse shall operate within the static pressure range recommended by the manufacturer for normal operations. The static pressure range shall be clearly labeled on each baghouse such that an inspector/operator can safely read the range at any time. For baghouses that monitor pressure drop to demonstrate compliance with 40 CFR Part 64, the requirements in this condition shall not apply. [Origin: DAQE-AN109170039-20]. [R307-401-8]

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

Manometer or magnehelic pressure gauges shall be installed to measure the differential pressure across each of the baghouses. The pressure gauges shall be located such that an inspector/operator can safely read the indicator at any time. The pressure gauges of each baghouse shall be calibrated in accordance with the manufacturer's instructions or recommendations at least once every 12 months. Records required for this permit condition will also serve as monitoring.

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

Pressure drop readings from each baghouse shall be recorded at least once during each day of operation. Records documenting these inspections shall be kept in a log and shall include the following:

A. Unit identification;
B. Manufacturer recommended pressure drop for the unit;
C. Daily pressure drop readings; and
D. Date of bag replacements.

Documentation of calibrations shall be maintained for all periods the plant is in operation. Records shall be maintained in accordance with Provision 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.2 **Conditions on SALT: Salt Production Plant**

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

The following production limits shall not be exceeded:
i. 1,685,000 tons of salt harvested from ponds per rolling 12-month period
ii. 700,000 tons of road salt produced per rolling 12-month period
iii. 960,000 tons of dried salt produced per rolling 12-month period
[Origin: DAQE-AN109170039-20]. [R307-401-8]

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

The permittee shall demonstrate compliance with the rolling 12-month total for each production limit. 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.2.a.2 **Recordkeeping:**

Records of production shall be kept on a daily basis for all periods when the plant is in operation. Production records shall be determined by examination of sales, billing records or operation logs. Records and results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

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

Visible emissions from the following outdoor operations and equipment shall not exceed 10% opacity:
i. All loading operations
ii. All conveyor drop points
iii. All conveyor transfer points
iv. All bin vents
v. All storage piles
vi. All partially enclosed conveyance systems
vii. All material handling operations which includes the following: bins, hoppers, screens, crushers, grinders, and presses
[Origin: DAQE-AN109170039-20]. [R307-401-8]

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

A visual opacity survey of each affected emission unit shall be performed on a monthly basis while the unit is operating. The visual opacity survey shall be performed by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. If visible emissions other than condensed water vapor 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 40 CFR 51 Appendix M, Method 203A, or other EPA-approved testing method, as acceptable to the Director, for fugitive sources.

For intermittent sources, opacity observations shall be performed on a monthly basis while the unit is operating in accordance with 40 CFR 60, Appendix A, Method 9, however, the requirement for observations to be made at 15 second intervals over a six-minute period shall not apply. The number of observations and the time period shall be determined by the length of the intermittent source operation.

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

The permittee shall keep a log of the visual opacity survey(s) containing the following information: date and time visual emissions observed, emission point location and description, time and date of opacity test, and percent opacity. If an opacity determination is performed, a notation of the determination will be made in the log. Records and all data required by 40 CFR 60, Appendix A, Method 9 and/or 40 CFR 51 Appendix M, Method 203A, 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.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 SALT: AH-500 Salt Cooler Circuit**

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

Emissions to the atmosphere shall not exceed the following rates and concentrations (standardized at 68 degrees F, 29.92 in Hg).

PM_{10}: 1.61 lb/hr
$PM_{2.5}$: 1.61 lb/hr [State-only Requirement]
$PM_{2.5}$ Concentration: 0.01 grains/dscf [State-only Requirement]

Process emissions shall be routed through operating controls prior to being emitted to the atmosphere. [Origin: DAQE-AN109170039-20, SIP Section IX.H.12.e]. [R307-401-8]

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

A. Stack testing shall be performed as specified below:
   i) Frequency. Emissions shall be tested at least once every 12 months (365 days). Compliance tests shall be no less than 9 months (270 days) apart. The Director may require testing at any time. If an existing source is modified, a compliance test is required on the modified emission point that has an emission rate limit.
   ii) Notification. At least 30 days prior to conducting any required emission testing, 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 be approved by the Director prior to performing the test(s). The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Director.
   iii) Methods.
      (a) Sample Location - the emission point shall be designed to 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) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.

(b) For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Method 201a, or other EPA-approved testing method, as acceptable to the Director. The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M, Method 202, or other EPA-approved testing method as acceptable to the Director.

For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, 5i, or other EPA approved testing methods, as acceptable to the Director. When demonstrating compliance with the PM_{10} and $PM_{2.5}$ limits above, all filterable particulate emissions captured using Method 5 shall be considered $PM_{2.5}$, resulting in PM_{10} emissions equal to that of $PM_{2.5}$. Alternatively, appropriate particle sizing analytical methods, such as: x-ray diffraction, scanning electron microscopy, or electron microprobe analysis may be used to determine particle sizing, as acceptable to the Director. The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M Method 202, or other EPA-approved testing method as acceptable to the Director.

(c) Compliance with the limits shall be based on the average of three test runs and shall include both filterable and condensable emissions.

(d) 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.

iv) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods specified herein 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.

v) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the permitted production rate. If the maximum permitted production rate has not been achieved at the time of the test, the following procedure shall be followed:

(a) Testing shall be at no less than 90% of the production rate achieved in the previous 12 months (365 days).

(b) If the test is passed, the new maximum allowable production rate shall be 110% of the tested achieved rate, but not more than the maximum allowable production rate. This new allowable maximum production rate shall remain in effect until successfully tested at a higher rate.

(c) Testing at no less than 90% of the higher rate shall be conducted. A new maximum production rate (110% of the new rate) will then be allowed if the test is successful. This process may be repeated until the maximum permitted production rate is achieved.

B. At all times the affected emission unit is operating, the following indicators shall be monitored as specified below and as approved by the Director.

i) Measurement Approach

(a) Indicator No. 1: Scrubber liquid flow rate shall be measured using a flow meter.

(b) Indicator No. 2: Fan speed shall be monitored. Either output from the variable frequency drive (VFD) or electronic overload relay in the fan shall be monitored and used to calculate fan speed, or a tachometer shall be used to monitor fan speed.

ii) Indicator Range: Excursions are defined as follows. Each excursion triggers an inspection, corrective action, and a reporting requirement.

(a) Indicator No. 1: An excursion is defined as an average scrubber liquid flow rate over a one-hour period that is less than 131 gallons per minute (gpm).

(b) Indicator No. 2: An excursion is defined as a fan speed less than 520 RPM during a 24-hour period.

iii) Performance Criteria

(a) Data Representativeness:

(1) Indicator No. 1: The scrubber liquid flow rate shall be measured using a flow meter located on the scrubber liquid line. The scrubber liquid flow rate shall be accurate to five (5) gpm or as approved by the Director. Flow rate meters shall be located such that an inspector/operator can safely read the indicators at any time.

(2) Indicator No. 2: VFDs or electronic overload relays, if used, shall be installed in accordance with the manufacturer's recommendations and shall be located such that an inspector/operator can safely read the output at any time. A tachometer, if used, shall be operated according to the manufacturer's recommendations.

(b) QA/QC Practices and Criteria:

(1) Indicator No. 1: The flow meter shall be calibrated according to the manufacturer's recommendations or at least annually. The scrubber shall operate within the liquid flow rate range recommended by the manufacturer for normal operations. This range shall be clearly labeled on each scrubber such that an inspector/operator can safely read the parameters at any time. The data acquisition system shall be operated and maintained according to the manufacturer's recommendations.

(2) Indicator No. 2: The scrubber shall operate within the fan speed range recommended by the manufacturer for normal operations. This range shall be clearly labeled on each scrubber such that an inspector/operator can safely read the parameters at any time. Tachometers, if used on the scrubber, shall be calibrated according to the manufacturer's recommendations or at least annually.

(c) Monitoring Frequency:

(1) Indicator No. 1: The scrubber liquid flow rate shall be measured continuously.

(2) Indicator No. 2: Fan speed shall be monitored daily. Once each day, either output from the variable frequency drive (VFD) or electronic overload relay in the fan shall be monitored and used to calculate fan speed, or a tachometer shall be used to monitor fan speed.

(d) Data Collection Procedure:

(1) Indicator No. 1: An average scrubber liquid flow rate shall be calculated during each hour of operation. The hourly average shall be recorded for comparison to the excursion level.

(2) Indicator No. 2: Fan speed shall be calculated or measured each day the unit operates. The daily fan speed shall be recorded for comparison to the excursion level.

(e) Averaging Period:

(1) Indicator No. 1: One hour

(2) Indicator No. 2: N/A

(40 CFR 64.6(c))

C. During the stack test required in A. above, the permittee shall acquire new test data to evaluate or update the indicator range and excursion level for the indicators. Any resultant changes to the monitoring shall be addressed in accordance with 40 CFR 64.7(e).

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.

The permittee shall maintain a file of activities for installation of the scrubber liquid flow meter and data acquisition system. The permittee shall maintain records of test data from the most recent stack test and any calculations used to establish, evaluate, or revise the indicator ranges and excursion levels.

The permittee shall keep copies of Director approval of the monitoring including, but not limited to, the most recently approved indicator ranges and excursion levels. The permittee shall maintain records of all verifications, calibration checks, adjustments and maintenance.

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).

Records and results of monitoring shall be maintained in accordance with 40 CFR 64.9(b) and Provision I.S.1 of this permit.

II.B.3.a.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. Reports shall include test data and any calculations used to evaluate or revise the indicator ranges and excursion levels as specified in II.B.3.a.1.C.

II.B.4 **Conditions on SALT: AH-502 Salt Plant Circuit**

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

Emissions to the atmosphere shall not exceed the following rates and concentrations (standardized at 68 degrees F, 29.92 in Hg).

PM_{10}: 1.12 lb/hr
$PM_{2.5}$: 0.74 lb/hr [State-only Requirement]
$PM_{2.5}$ Concentration: 0.04 grains/dscf [State-only Requirement]

Process emissions shall be routed through operating controls prior to being emitted to the atmosphere. [Origin: DAQE-AN109170039-20, SIP Section IX.H.12.e]. [R307-401-8]

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

A. Stack testing shall be performed as specified below:
   i) Frequency. Emissions shall be tested at least once every 12 months (365 days). Compliance tests shall be no less than 9 months (270 days) apart. The Director may require testing at any time. If an existing source is modified, a compliance test is required on the modified emission point that has an emission rate limit.
   ii) Notification. At least 30 days prior to conducting any required emission testing, 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 be approved by the Director

prior to performing the test(s). The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Director.

iii) Methods.

(a) Sample Location - the emission point shall be designed to 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) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.

(b) For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Method 201a, or other EPA-approved testing method, as acceptable to the Director. The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M, Method 202, or other EPA-approved testing method as acceptable to the Director.

For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, 5i, or other EPA approved testing methods, as acceptable to the Director. When demonstrating compliance with the PM_{10} and $PM_{2.5}$ limits above, all filterable particulate emissions captured using Method 5 shall be considered $PM_{2.5}$, resulting in PM_{10} emissions equal to that of $PM_{2.5}$. Alternatively, appropriate particle sizing analytical methods, such as: x-ray diffraction, scanning electron microscopy, or electron microprobe analysis may be used to determine particle sizing, as acceptable to the Director. The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M Method 202, or other EPA-approved testing method as acceptable to the Director.

(c) Compliance with the limits shall be based on the average of three test runs and shall include both filterable and condensable emissions.

(d) 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.

iv) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods specified herein 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.

v) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the permitted production rate. If the maximum permitted production rate has not been achieved at the time of the test, the following procedure shall be followed:

(a) Testing shall be at no less than 90% of the production rate achieved in the previous 12 months (365 days).

(b) If the test is passed, the new maximum allowable production rate shall be 110% of the tested achieved rate, but not more than the maximum allowable production rate. This new allowable maximum production rate shall remain in effect until successfully tested at a higher rate.

(c) Testing at no less than 90% of the higher rate shall be conducted. A new maximum production rate (110% of the new rate) will then be allowed if the test is successful. This process may be repeated until the maximum permitted production rate is achieved.

B. At all times the affected emission unit is operating, the following indicators shall be monitored as specified below and as approved by the Director.

i) Measurement Approach

(a) Indicator No. 1: Scrubber liquid flow rate shall be measured using a flow meter.

(b) Indicator No. 2: Fan speed shall be monitored. Either output from the variable frequency drive (VFD) or electronic overload relay in the fan shall be monitored and used to calculate fan speed, or a tachometer shall be used to monitor fan speed.

ii) Indicator Range: Excursions are defined as follows. Each excursion triggers an inspection, corrective action, and a reporting requirement.
(a) Indicator No. 1: An excursion is defined as an average scrubber liquid flow rate over a one-hour period that is less than 47 gallons per minute (gpm).
(b) Indicator No. 2: An excursion is defined as a fan speed less than 935 RPM during a 24-hour period.

iii) Performance Criteria
(a) Data Representativeness:
(1) Indicator No. 1: The scrubber liquid flow rate shall be measured using a flow meter located on the scrubber liquid line. The scrubber liquid flow rate shall be accurate to five (5) gpm or as approved by the Director. Flow rate meters shall be located such that an inspector/operator can safely read the indicators at any time.
(2) Indicator No. 2: VFDs or electronic overload relays, if used, shall be installed in accordance with the manufacturer's recommendations and shall be located such that an inspector/operator can safely read the output at any time. A tachometer, if used, shall be operated according to the manufacturer's recommendations.
(b) QA/QC Practices and Criteria:
(1) Indicator No. 1: The flow meter shall be calibrated according to the manufacturer's recommendations or at least annually. The scrubber shall operate within the liquid flow rate range recommended by the manufacturer for normal operations. This range shall be clearly labeled on each scrubber such that an inspector/operator can safely read the parameters at any time. The data acquisition system shall be operated and maintained according to the manufacturer's recommendations.
(2) Indicator No. 2: The scrubber shall operate within the fan speed range recommended by the manufacturer for normal operations. This range shall be clearly labeled on each scrubber such that an inspector/operator can safely read the parameters at any time. Tachometers, if used on the scrubber, shall be calibrated according to the manufacturer's recommendations or at least annually.
(c) Monitoring Frequency:
(1) Indicator No. 1: The scrubber liquid flow rate shall be measured continuously.
(2) Indicator No. 2: Fan speed shall be monitored daily. Once each day, either output from the variable frequency drive (VFD) or electronic overload relay in the fan shall be monitored and used to calculate fan speed, or a tachometer shall be used to monitor fan speed.
(d) Data Collection Procedure:
(1) Indicator No. 1: An average scrubber liquid flow rate shall be calculated during each hour of operation. The hourly average shall be recorded for comparison to the excursion level.
(2) Indicator No. 2: Fan speed shall be calculated or measured each day the unit operates. The daily fan speed shall be recorded for comparison to the excursion level.
(e) Averaging Period:
(1) Indicator No. 1: One hour
(2) Indicator No. 2: N/A

(40 CFR 64.6(c))

C. During the stack test required in A. above, the permittee shall acquire new test data to evaluate or update the indicator range and excursion level for the indicators. Any resultant changes to the monitoring shall be addressed in accordance with 40 CFR 64.7(e).

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.

The permittee shall maintain a file of activities for installation of the scrubber liquid flow meter and data acquisition system. The permittee shall maintain records of test data from the most recent stack test and any calculations used to establish, evaluate, or revise the indicator ranges and excursion levels.

The permittee shall keep copies of Director approval of the monitoring including, but not limited to, the most recently approved indicator ranges and excursion levels. The permittee shall maintain records of all verifications, calibration checks, adjustments and maintenance.

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).

Records and results of monitoring shall be maintained in accordance with 40 CFR 64.9(b) and Provision I.S.1 of this permit.

II.B.4.a.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. Reports shall include test data and any calculations used to evaluate or revise the indicator ranges and excursion levels as specified in II.B.4.a.1.C.

II.B.5 **Conditions on SALT: AH-513 Salt Dryer (D-501)**

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

NO_x emissions to the atmosphere from the dryer (D-501) shall not exceed 20 ppm at 3% O_2. [Origin: DAQE-AN109170039-20]. [R307-401-8]

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

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested at least once every three years. The Director may require testing at any time. If an existing source is modified, a compliance test is required on the modified emission point that has an emission rate limit.

(b) Notification. At least 30 days prior to conducting any required emission testing, 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 be approved by the Director prior to performing the test(s). The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Director.

(c) Methods.
  (i) Sample Location - the emission point shall be designed to 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) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.
  (ii) NO_x emissions shall be determined using 40 CFR 60, Appendix A, Method 7E, or other EPA-approved testing method, as acceptable to the Director.
  (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.
  (iv) Compliance with the limit shall be based on an average of 3 test runs.

(d) Calculations. To determine mass emission rates (lb/hr) the pollutant concentration as determined by the appropriate methods specified herein 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% of the permitted production rate. If the maximum permitted production rate has not been achieved at the time of the test, the following procedure shall be followed:
  (i) Testing shall be at no less than 90% of the production rate achieved in the previous three years.
  (ii) If the test is passed, the new maximum allowable production rate shall be 110% of the tested achieved rate, but not more than the maximum allowable production rate. This new allowable maximum production rate shall remain in effect until successfully tested at a higher rate.
  (iii) Testing at no less than 90% of the higher rate shall be conducted. A new maximum production rate (110% of the new rate) will then be allowed if the test is successful. This process may be repeated until the maximum permitted production rate is achieved.

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 I.S.1 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:**

Emissions to the atmosphere from the scrubber (AH-513) shall not exceed the following rates and concentrations (standardized at 68 degrees F, 29.92 in Hg).

PM_{10}: 1.49 lb/hr
$PM_{2.5}$: 1.49 lb/hr [State-only Requirement]
$PM_{2.5}$ Concentration: 0.0114 grains/dscf [State-only Requirement]

Process emissions shall be routed through operating controls prior to being emitted to the atmosphere. [Origin: DAQE-AN109170039-20, SIP Section IX.H.12.e]. [R307-401-8]

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

A. Stack testing shall be performed as specified below:
   i) Frequency. Emissions shall be tested at least once every 12 months (365 days). Compliance tests shall be no less than 9 months (270 days) apart. The Director may require testing at any time. If an existing source is modified, a compliance test is required on the modified emission point that has an emission rate limit.
   ii) Notification. At least 30 days prior to conducting any required emission testing, 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 be approved by the Director prior to performing the test(s). The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Director.
   iii) Methods.
      (a) Sample Location - the emission point shall be designed to 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) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.
      (b) For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Method 201a, or other EPA-approved testing method, as acceptable to the Director. The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M, Method 202, or other EPA-approved testing method as acceptable to the Director.

      For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, 5i, or other EPA approved testing methods, as acceptable to the Director. When demonstrating compliance with the PM_{10} and $PM_{2.5}$ limits above, all filterable particulate emissions captured using Method 5 shall be considered $PM_{2.5}$, resulting in PM_{10} emissions equal to that of $PM_{2.5}$. Alternatively, appropriate particle sizing analytical methods, such as: x-ray diffraction, scanning electron microscopy, or electron microprobe analysis may be used to determine particle sizing, as acceptable to the Director. The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M Method 202, or other EPA-approved testing method as acceptable to the Director.
      (c) Compliance with the limits shall be based on the average of three test runs and shall include both filterable and condensable emissions.
      (d) 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.
   iv) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods specified herein 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.
   v) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the permitted production rate. If the maximum permitted production rate has not been achieved at the time of the test, the following procedure shall be followed:
      (a) Testing shall be at no less than 90% of the production rate achieved in the previous 12 months (365 days).

(b) If the test is passed, the new maximum allowable production rate shall be 110% of the tested achieved rate, but not more than the maximum allowable production rate. This new allowable maximum production rate shall remain in effect until successfully tested at a higher rate.

(c) Testing at no less than 90% of the higher rate shall be conducted. A new maximum production rate (110% of the new rate) will then be allowed if the test is successful. This process may be repeated until the maximum permitted production rate is achieved.

B. At all times the affected emission unit is operating, the following indicators shall be monitored as specified below and as approved by the Director.

i) Measurement Approach

(a) Indicator No. 1: Scrubber liquid flow rate shall be measured using a flow meter.

(b) Indicator No. 2: Fan speed shall be monitored. Either output from the variable frequency drive (VFD) or electronic overload relay in the fan shall be monitored and used to calculate fan speed, or a tachometer shall be used to monitor fan speed.

ii) Indicator Range: Excursions are defined as follows. Each excursion triggers an inspection, corrective action, and a reporting requirement.

(a) Indicator No. 1: An excursion is defined as an average scrubber liquid flow rate over a one-hour period that is less than 89 gallons per minute (gpm).

(b) Indicator No. 2: An excursion is defined as a fan speed less than 593 RPM during a 24-hour period.

iii) Performance Criteria

(a) Data Representativeness:

(1) Indicator No. 1: The scrubber liquid flow rate shall be measured using a flow meter located on the scrubber liquid line. The scrubber liquid flow rate shall be accurate to five (5) gpm or as approved by the Director. Flow rate meters shall be located such that an inspector/operator can safely read the indicators at any time.

(2) Indicator No. 2: VFDs or electronic overload relays, if used, shall be installed in accordance with the manufacturer's recommendations and shall be located such that an inspector/operator can safely read the output at any time. A tachometer, if used, shall be operated according to the manufacturer's recommendations.

(b) QA/QC Practices and Criteria:

(1) Indicator No. 1: The flow meter shall be calibrated according to the manufacturer's recommendations or at least annually. The scrubber shall operate within the liquid flow rate range recommended by the manufacturer for normal operations. This range shall be clearly labeled on each scrubber such that an inspector/operator can safely read the parameters at any time. The data acquisition system shall be operated and maintained according to the manufacturer's recommendations.

(2) Indicator No. 2: The scrubber shall operate within the fan speed range recommended by the manufacturer for normal operations. This range shall be clearly labeled on each scrubber such that an inspector/operator can safely read the parameters at any time. Tachometers, if used on the scrubber, shall be calibrated according to the manufacturer's recommendations or at least annually.

(c) Monitoring Frequency:

(1) Indicator No. 1: The scrubber liquid flow rate shall be measured continuously.

(2) Indicator No. 2: Fan speed shall be monitored daily. Once each day, either output from the variable frequency drive (VFD) or electronic overload relay

in the fan shall be monitored and used to calculate fan speed, or a tachometer shall be used to monitor fan speed.

(d) Data Collection Procedure:
   (1) Indicator No. 1: An average scrubber liquid flow rate shall be calculated during each hour of operation. The hourly average shall be recorded for comparison to the excursion level.
   (2) Indicator No. 2: Fan speed shall be calculated or measured each day the unit operates. The daily fan speed shall be recorded for comparison to the excursion level.

(e) Averaging Period:
   (1) Indicator No. 1: One hour
   (2) Indicator No. 2: N/A

(40 CFR 64.6(c))

C. During the stack test required in A. above, the permittee shall acquire new test data to evaluate or update the indicator range and excursion level for the indicators. Any resultant changes to the monitoring shall be addressed in accordance with 40 CFR 64.7(e).

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

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

The permittee shall maintain a file of activities for installation of the scrubber liquid flow meter and data acquisition system. The permittee shall maintain records of test data from the most recent stack test and any calculations used to establish, evaluate, or revise the indicator ranges and excursion levels.

The permittee shall keep copies of Director approval of the monitoring including, but not limited to, the most recently approved indicator ranges and excursion levels. The permittee shall maintain records of all verifications, calibration checks, adjustments and maintenance.

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).

Records and results of monitoring shall be maintained in accordance with 40 CFR 64.9(b) and Provision I.S.1 of this permit.

II.B.5.b.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. Reports shall include test data and any calculations used to evaluate or revise the indicator ranges and excursion levels as specified in II.B.5.b.1.C.

II.B.6 **Conditions on SALT: BH-501 Salt Cooler**

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

Emissions to the atmosphere shall not exceed the following rates and concentrations (standardized at 68 degrees F, 29.92 in Hg).
PM_{10}: 1.30 lb/hr
$PM_{2.5}$: 1.15 lb/hr [State-only Requirement]
$PM_{2.5}$ Concentration: 0.01 grains/dscf [State-only Requirement]
Process emissions shall be routed through operating controls prior to being emitted to the atmosphere. [Origin: DAQE-AN109170039-20, SIP Section IX.H.12.e]. [R307-401-8]

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

A. Stack testing shall be performed as specified below:
   i) Frequency. Emissions shall be tested at least once every 12 months (365 days). Compliance tests shall be no less than 9 months (270 days) apart. The Director may require testing at any time. If an existing source is modified, a compliance test is required on the modified emission point that has an emission rate limit.
   ii) Notification. At least 30 days prior to conducting any required emission testing, 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 be approved by the Director prior to performing the test(s). The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Director.
   iii) Methods.
      (a) Sample Location - the emission point shall be designed to 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) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.
      (b) For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Method 201a, or other EPA-approved testing method, as acceptable to the Director. The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M, Method 202, or other EPA-approved testing method as acceptable to the Director.

      For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, 5i, or other EPA approved testing methods, as acceptable to the Director. When demonstrating compliance with the PM_{10} and $PM_{2.5}$ limits above, all filterable particulate emissions captured using Method 5 shall be considered $PM_{2.5}$, resulting in PM_{10} emissions equal to that of $PM_{2.5}$. Alternatively, appropriate particle sizing analytical methods, such as: x-ray diffraction, scanning electron microscopy, or electron microprobe analysis may be used to determine particle sizing, as acceptable to the Director. The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M Method 202, or other EPA-approved testing method as acceptable to the Director.
      (c) Compliance with the limits shall be based on the average of three test runs and shall include both filterable and condensable emissions.
      (d) 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.

iv) Calculations. To determine mass emission rates (lb/hr) the pollutant concentration as determined by the appropriate methods specified herein 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.

v) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the permitted production rate. If the maximum permitted production rate has not been achieved at the time of the test, the following procedure shall be followed:

(a) Testing shall be at no less than 90% of the production rate achieved in the previous 12 months (365 days).

(b) If the test is passed, the new maximum allowable production rate shall be 110% of the tested achieved rate, but not more than the maximum allowable production rate. This new allowable maximum production rate shall remain in effect until successfully tested at a higher rate.

(c) Testing at no less than 90% of the higher rate shall be conducted. A new maximum production rate (110% of the new rate) will then be allowed if the test is successful. This process may be repeated until the maximum permitted production rate is achieved.

B. At all times the affected emission unit is operating, the following indicators shall be monitored as specified below and as approved by the Director.

i) Measurement Approach

(a) Indicator No. 1: Pressure drop across the baghouse shall be measured using a differential pressure gauge.

(b) Indicator No. 2: Visible emissions from the baghouse exhaust shall be monitored by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9.

(c) Indicator No. 3: An internal inspection of the baghouse including a dye test shall be performed to identify damaged bags and required maintenance.

ii) Indicator Range: Excursions are defined as follows. Each excursion triggers an inspection, corrective action, and a reporting requirement.

(a) Indicator No. 1: An excursion is defined as an average differential pressure outside the range of 1 to 6 inches of water column during a 24-hour period.

(b) Indicator No. 2: An excursion is defined as the presence of visible emissions.

(c) Indicator No. 3: An excursion is defined as a failure to perform the semi-annual baghouse internal inspection as specified below.

iii) Performance Criteria

(a) Data Representativeness:

(1) Indicator No. 1: The differential pressure gauge shall measure pressure drop with pressure taps located at the baghouse inlet and outlet. The minimum accuracy of the gauge shall be +/- 0.5 inches of water column. The pressure gauges shall be located such that an inspector/operator can safely read the indicator at any time.

(2) Indicator No. 2: Visible emissions shall be monitored at the stack exhaust while the baghouse is operating.

(3) Indicator No. 3: The permittee shall conduct an internal baghouse inspection including a dye test to identify damaged bags and required maintenance.

(b) QA/QC Practices and Criteria:

(1) Indicator No. 1: The pressure gauge shall be calibrated according to the manufacturer's recommendations or at least annually. Pressure taps shall be checked for plugging monthly. Each baghouse shall operate within the static pressure range recommended by the manufacturer for normal operations. The static pressure range shall be clearly labeled on each baghouse such that an inspector/operator can safely read the range at any time. The data acquisition

system shall be operated and maintained according to the manufacturer's recommendations.

(2) Indicator No. 2: Visible emissions from the baghouse exhaust shall be monitored by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9.

(3) Indicator No. 3: The internal baghouse inspection and dye test shall be performed by personnel trained on proper baghouse operation and preventive maintenance.

(c) Monitoring Frequency:

(1) Indicator No. 1: Pressure drop shall be monitored continuously.

(2) Indicator No. 2: Once each week, a visual opacity survey shall be performed on the baghouse exhaust, while the unit is operating, by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9.

(3) Indicator No. 3: The permittee shall conduct an internal baghouse inspection including a dye test semi-annually to identify damaged bags and required maintenance.

(d) Data Collection Procedure:

(1) Indicator No. 1: The average pressure drop shall be displayed each minute at the baghouse location. Using the minute averages, the data acquisition system shall calculate an average pressure drop each day the unit operates. The daily average shall be recorded for comparison to the excursion level.

(2) Indicator No. 2: Results of the visual opacity survey shall be recorded each week for comparison to the excursion level.

(3) Indicator No. 3: Results of baghouse inspections including the dye test and documentation of any required maintenance shall be recorded semi-annually.

(e) Averaging Period:

(1) Indicator No. 1: 24-hour period

(2) Indicator No. 2: N/A

(3) Indicator No. 3: N/A

(40 CFR 64.6(c))

C. During the stack test required in A. above, the permittee shall acquire new test data to evaluate or update the indicator range and excursion level for the indicators. Any resultant changes to the monitoring shall be addressed in accordance with 40 CFR 64.7(e).

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.

The permittee shall maintain a file of activities for installation of the differential pressure gauge and data acquisition system. The permittee shall maintain records of test data from the most recent stack test and any calculations used to establish, evaluate, or revise the indicator ranges and excursion levels.

The permittee shall keep copies of Director approval of the monitoring including, but not limited to, the most recently approved indicator ranges and excursion levels. The permittee shall maintain records of all verifications, calibration checks, adjustments and maintenance.

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).

Records and results of monitoring shall be maintained in accordance with 40 CFR 64.9(b) and Provision I.S.1 of this permit.

II.B.6.a.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. Reports shall include test data and any calculations used to evaluate or revise the indicator ranges and excursion levels as specified in II.B.6.a.1.C.

II.B.7 **Conditions on SALT: BH-502 Salt Bulk Load-out**

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

Emissions to the atmosphere shall not exceed the following rates and concentrations (standardized at 68 degrees F, 29.92 in Hg).

PM_{10}: 0.20 lb/hr
$PM_{2.5}$: 0.06 lb/hr [State-only Requirement]
$PM_{2.5}$ Concentration: 0.0053 grains/dscf [State-only Requirement]

Process emissions shall be routed through operating controls prior to being emitted to the atmosphere. [Origin: DAQE-AN109170039-20, SIP Section IX.H.12.e]. [R307-401-8]

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

A. Stack testing shall be performed as specified below:
  i) Frequency. Emissions shall be tested at least once every 12 months (365 days). Compliance tests shall be no less than 9 months (270 days) apart. The Director may require testing at any time. If an existing source is modified, a compliance test is required on the modified emission point that has an emission rate limit.
  ii) Notification. At least 30 days prior to conducting any required emission testing, 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 be approved by the Director prior to performing the test(s). The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Director.
  iii) Methods.
    (a) Sample Location - the emission point shall be designed to 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) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.
    (b) For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Method 201a, or other EPA-approved testing method, as acceptable to the Director. The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M, Method 202, or other EPA-approved testing method as acceptable to the Director.

For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, 5i, or other EPA approved testing methods, as acceptable to the Director. When demonstrating compliance with the PM_{10} and $PM_{2.5}$ limits above, all filterable particulate emissions captured using Method 5 shall be considered $PM_{2.5}$, resulting in PM_{10} emissions equal to that of $PM_{2.5}$. Alternatively, appropriate particle sizing analytical methods, such as: x-ray diffraction, scanning electron microscopy, or electron microprobe analysis may be used to determine particle sizing, as acceptable to the Director. The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M Method 202, or other EPA-approved testing method as acceptable to the Director.

(c) Compliance with the limits shall be based on the average of three test runs and shall include both filterable and condensable emissions.

(d) 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.

iv) Calculations. To determine mass emission rates (lb/hr) the pollutant concentration as determined by the appropriate methods specified herein 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.

v) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the permitted production rate. If the maximum permitted production rate has not been achieved at the time of the test, the following procedure shall be followed:

(a) Testing shall be at no less than 90% of the production rate achieved in the previous 12 months (365 days).

(b) If the test is passed, the new maximum allowable production rate shall be 110% of the tested achieved rate, but not more than the maximum allowable production rate. This new allowable maximum production rate shall remain in effect until successfully tested at a higher rate.

(c) Testing at no less than 90% of the higher rate shall be conducted. A new maximum production rate (110% of the new rate) will then be allowed if the test is successful. This process may be repeated until the maximum permitted production rate is achieved.

B. At all times the affected emission unit is operating, the following indicators shall be monitored as specified below and as approved by the Director.

i) Measurement Approach

(a) Indicator No. 1: Pressure drop across the baghouse shall be measured using a differential pressure gauge.

(b) Indicator No. 2: Visible emissions from the baghouse exhaust shall be monitored by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9.

(c) Indicator No. 3: An internal inspection of the baghouse including a dye test shall be performed to identify damaged bags and required maintenance.

ii) Indicator Range: Excursions are defined as follows. Each excursion triggers an inspection, corrective action, and a reporting requirement.

(a) Indicator No. 1: An excursion is defined as an average differential pressure outside the range of 1 to 6 inches of water column during a 24-hour period.

(b) Indicator No. 2: An excursion is defined as the presence of visible emissions.

(c) Indicator No. 3: An excursion is defined as a failure to perform the semi-annual baghouse internal inspection as specified below.

iii) Performance Criteria

(a) Data Representativeness:

(1) Indicator No. 1: The differential pressure gauge shall measure pressure drop with pressure taps located at the baghouse inlet and outlet. The minimum accuracy of the gauge shall be +/- 0.5 inches of water column. The pressure gauges shall be located such that an inspector/operator can safely read the indicator at any time.
(2) Indicator No. 2: Visible emissions shall be monitored at the stack exhaust while the baghouse is operating.
(3) Indicator No. 3: The permittee shall conduct an internal baghouse inspection including a dye test to identify damaged bags and required maintenance.

(b) QA/QC Practices and Criteria:
(1) Indicator No. 1: The pressure gauge shall be calibrated according to the manufacturer's recommendations or at least annually. Pressure taps shall be checked for plugging monthly. Each baghouse shall operate within the static pressure range recommended by the manufacturer for normal operations. The static pressure range shall be clearly labeled on each baghouse such that an inspector/operator can safely read the range at any time. The data acquisition system shall be operated and maintained according to the manufacturer's recommendations.
(2) Indicator No. 2: Visible emissions from the baghouse exhaust shall be monitored by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9.
(3) Indicator No. 3: The internal baghouse inspection and dye test shall be performed by personnel trained on proper baghouse operation and preventive maintenance.

(c) Monitoring Frequency:
(1) Indicator No. 1: Pressure drop shall be monitored continuously.
(2) Indicator No. 2: Once each week, a visual opacity survey shall be performed on the baghouse exhaust, while the unit is operating, by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9.
(3) Indicator No. 3: The permittee shall conduct an internal baghouse inspection including a dye test semi-annually to identify damaged bags and required maintenance.

(d) Data Collection Procedure:
(1) Indicator No. 1: The average pressure drop shall be displayed each minute at the baghouse location. Using the minute averages, the data acquisition system shall calculate an average pressure drop each day the unit operates. The daily average shall be recorded for comparison to the excursion level.
(2) Indicator No. 2: Results of the visual opacity survey shall be recorded each week for comparison to the excursion level.
(3) Indicator No. 3: Results of baghouse inspections including the dye test and documentation of any required maintenance shall be recorded semi-annually.

(e) Averaging Period:
(1) Indicator No. 1: 24-hour period
(2) Indicator No. 2: N/A
(3) Indicator No. 3: N/A

(40 CFR 64.6(c))

C. During the stack test required in A. above, the permittee shall acquire new test data to evaluate or update the indicator range and excursion level for the indicators. Any resultant changes to the monitoring shall be addressed in accordance with 40 CFR 64.7(e).

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.

The permittee shall maintain a file of activities for installation of the differential pressure gauge and data acquisition system. The permittee shall maintain records of test data from the most recent stack test and any calculations used to establish, evaluate, or revise the indicator ranges and excursion levels.

The permittee shall keep copies of Director approval of the monitoring including, but not limited to, the most recently approved indicator ranges and excursion levels. The permittee shall maintain records of all verifications, calibration checks, adjustments and maintenance.

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).

Records and results of monitoring shall be maintained in accordance with 40 CFR 64.9(b) and Provision I.S.1 of this permit.

II.B.7.a.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. Reports shall include test data and any calculations used to evaluate or revise the indicator ranges and excursion levels as specified in II.B.7.a.1.C.

II.B.8 **Conditions on SALT: BH-503 Salt Special Products Circuit**

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

Emissions to the atmosphere shall not exceed the following rates and concentrations (standardized at 68 degrees F, 29.92 in Hg).

PM_{10}: 1.54 lb/hr
$PM_{2.5}$: 0.23 lb/hr [State-only Requirement]
$PM_{2.5}$ Concentration: 0.01 grains/dscf [State-only Requirement]

Process emissions shall be routed through operating controls prior to being emitted to the atmosphere. [Origin: DAQE-AN109170039-20, SIP Section IX.H.12.e]. [R307-401-8]

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

Stack testing shall be performed as specified below:

i) Frequency. Emissions shall be tested at least once every 12 months (365 days). Compliance tests shall be no less than 9 months (270 days) apart. The Director may require testing at any time. If an existing source is modified, a compliance test is required on the modified emission point that has an emission rate limit.

ii) Notification. At least 30 days prior to conducting any required emission testing, 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 be approved by the Director prior to performing the test(s). The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Director.

iii) Methods.
   (a) Sample Location - the emission point shall be designed to 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) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.
   (b) For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Method 201a, or other EPA-approved testing method, as acceptable to the Director. The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M, Method 202, or other EPA-approved testing method as acceptable to the Director.

      For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, 5i, or other EPA approved testing methods, as acceptable to the Director. When demonstrating compliance with the PM_{10} and $PM_{2.5}$ limits above, all filterable particulate emissions captured using Method 5 shall be considered $PM_{2.5}$, resulting in PM_{10} emissions equal to that of $PM_{2.5}$. Alternatively, appropriate particle sizing analytical methods, such as: x-ray diffraction, scanning electron microscopy, or electron microprobe analysis may be used to determine particle sizing, as acceptable to the Director. The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M Method 202, or other EPA-approved testing method as acceptable to the Director.
   (c) Compliance with the limits shall be based on the average of three test runs and shall include both filterable and condensable emissions.
   (d) 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.

iv) Calculations. To determine mass emission rates (lb/hr) the pollutant concentration as determined by the appropriate methods specified herein 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.

v) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the permitted production rate. If the maximum permitted production rate has not been achieved at the time of the test, the following procedure shall be followed:
   (a) Testing shall be at no less than 90% of the production rate achieved in the previous 12 months (365 days).
   (b) If the test is passed, the new maximum allowable production rate shall be 110% of the tested achieved rate, but not more than the maximum allowable production rate. This new allowable maximum production rate shall remain in effect until successfully tested at a higher rate.
   (c) Testing at no less than 90% of the higher rate shall be conducted. A new maximum production rate (110% of the new rate) will then be allowed if the test is successful. This process may be repeated until the maximum permitted production rate is achieved.

II.B.8.a.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.

II.B.8.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.9 **Conditions on SALT: Fully Enclosed Conveyors**

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

Visible emissions from all outdoor fully-enclosed conveyance systems shall not exceed 5% opacity. At all times, the permittee shall operate and maintain each affected emission unit as a fully-enclosed conveyance system. Each fully-enclosed conveyance system shall be fully-enclosed on all sides, top, and bottom. All fully-enclosed conveyance systems shall be clearly labeled on each conveyor such that an inspector/operator can safely identify equipment at any time. [Origin: DAQE-AN109170039-20]. [R307-401-8]

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

The permittee shall conduct a Method 22 performance test, or other EPA-approved testing method, as acceptable to the Director, according to the following requirements for each affected emission unit.

(a) Conduct a weekly 10-minute visible emissions test of each affected emission unit in accordance with Method 22 of 40 CFR 60 Appendix A, or other EPA-approved testing method, as acceptable to the Director. The performance test shall be conducted while the unit is in operation.
(b) If any visible emissions are observed from an emission unit, the permittee shall inspect the affected emission unit to determine the cause of visible emissions and initiate corrective action within one hour of the initial survey.
(c) If no visible emissions are observed during four consecutive weekly tests, the permittee may decrease the frequency of the visible emissions test required in paragraph (a) from weekly to monthly. If visible emissions are observed during any monthly test, the permittee shall resume the weekly visible emissions test required in paragraph (a) and maintain that schedule until no visible emissions are observed in four (4) consecutive weekly tests.

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

The permittee shall keep a log of the visible emissions tests that contains the following information: time and date of test, emission point location and description, time of visible emissions, if observed, results of inspections, time and date corrective actions initiated, and corrective actions taken. Records and all data required by 40 CFR 60, Appendix A, Method 22, 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.9.a.3 **Reporting:**

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

II.B.10 **Conditions on SOP: SOP Production Plant**

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

The following production and operation limits shall not be exceeded:
i. 5,300,000 tons of potash harvested from ponds per rolling 12-month period
ii. 1,680,000 tons of SOP produced per rolling 12-month period
iii. 432,000 tons of KCl used per rolling 12-month period
[Origin: DAQE-AN109170039-20]. [R307-401-8]

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

The permittee shall demonstrate compliance with the rolling 12-month total for each production limit. 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.10.a.2 **Recordkeeping:**

Records of production shall be kept daily for all periods when the plant is in operation. Production records shall be determined by operation logs. Records and results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

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

Visible emissions from all outdoor storage silos shall not exceed 10% opacity. Egress points to the dome silos shall remain closed at all times, except when mobile equipment is actively entering or exiting the silo during loading or unloading operations. [Origin: DAQE-AN109170039-20]. [R307-401-8]

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

A visual opacity survey of each affected emission unit shall be performed on a monthly basis while loading or unloading operations are occurring at the silo. The visual opacity survey shall be performed by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. If visible emissions 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, while loading or unloading operations are occurring at the silo.

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

The permittee shall keep a log of the visual opacity survey(s) containing the following information: date and time visual emissions observed, emission point location and description, time and date of opacity test, and percent opacity. If an opacity determination is performed, a notation of the determination will be made in the log. Documentation of maintenance performed on the silos to ensure they operate as fully-enclosed structures when egress points are closed shall also be kept in the log. Records and all 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.10.b.3 **Reporting:**

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

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

Visible emissions from the following outdoor operations and equipment shall not exceed 10% opacity:
i. All loadout operations
ii. All conveyor drop points
iii. All conveyor transfer points
iv. All storage piles
v. All partially enclosed conveyance systems
vi. All material handling operations which includes the following: bins, hoppers, screens, crushers, grinders, and presses
vii. All bin vents
viii. All dust torits
[Origin: DAQE-AN109170039-20]. [R307-401-8]

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

A visual opacity survey of each affected emission unit shall be performed on a monthly basis while the unit is operating. The visual opacity survey shall be performed by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. If visible emissions other than condensed water vapor 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 40 CFR 51 Appendix M, Method 203A, or other EPA-approved testing method, as acceptable to the Director, for fugitive sources.

For intermittent sources, opacity observations shall be performed on a monthly basis while the unit is operating in accordance with 40 CFR 60, Appendix A, Method 9, however, the requirement for observations to be made at 15 second intervals over a six-minute period shall not apply. The number of observations and the time period shall be determined by the length of the intermittent source operation.

All partially enclosed conveyance systems shall be clearly labeled on each conveyor such that an inspector/operator can safely identify equipment at any time.

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

The permittee shall keep a log of the visual opacity survey(s) containing the following information: date and time visual emissions observed, emission point location and description, time and date of opacity test, and percent opacity. If an opacity determination is performed, a notation of the determination will be made in the log. Records and all data required by 40 CFR 60, Appendix A, Method 9 and/or 40 CFR 51 Appendix M, Method 203A, 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.10.c.3 **Reporting:**

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

II.B.11 **Conditions on SOP: AH-1555 SOP Plant**

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

Emissions to the atmosphere shall not exceed the following rates and concentrations (standardized at 68 degrees F, 29.92 in Hg).
PM_{10}: 2.61 lb/hr
$PM_{2.5}$: 0.39 lb/hr [State-only Requirement]
$PM_{2.5}$ Concentration: 0.01 grains/dscf [State-only Requirement]
Process emissions shall be routed through operating controls prior to being emitted to the atmosphere. [Origin: DAQE-AN109170039-20, SIP Section IX.H.12.e]. [R307-401-8]

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

A. Stack testing shall be performed as specified below:
   i) Frequency. Emissions shall be tested at least once every 12 months (365 days). Compliance tests shall be no less than 9 months (270 days) apart. The Director may require testing at any time. If an existing source is modified, a compliance test is required on the modified emission point that has an emission rate limit.
   ii) Notification. At least 30 days prior to conducting any required emission testing, 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 be approved by the Director prior to performing the test(s). The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Director.
   iii) Methods.
      (a) Sample Location - the emission point shall be designed to 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) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.
      (b) For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Method 201a, or other EPA-approved testing method, as acceptable to the Director. The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M, Method 202, or other EPA-approved testing method as acceptable to the Director.

      For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, 5i, or other EPA approved testing methods, as acceptable to the Director. When demonstrating compliance with the PM_{10} and $PM_{2.5}$ limits above, all filterable particulate emissions captured using Method 5 shall be considered $PM_{2.5}$, resulting in PM_{10} emissions equal to that of $PM_{2.5}$. Alternatively, appropriate particle sizing analytical methods, such as: x-ray diffraction, scanning electron microscopy, or electron microprobe analysis may be used to determine particle sizing, as acceptable to the Director. The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M Method 202, or other EPA-approved testing method as acceptable to the Director.
      (c) Compliance with the limits shall be based on the average of three test runs and shall include both filterable and condensable emissions.
      (d) 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.

iv) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods specified herein 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.

v) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the permitted production rate. If the maximum permitted production rate has not been achieved at the time of the test, the following procedure shall be followed:

(a) Testing shall be at no less than 90% of the production rate achieved in the previous 12 months (365 days).

(b) If the test is passed, the new maximum allowable production rate shall be 110% of the tested achieved rate, but not more than the maximum allowable production rate. This new allowable maximum production rate shall remain in effect until successfully tested at a higher rate.

(c) Testing at no less than 90% of the higher rate shall be conducted. A new maximum production rate (110% of the new rate) will then be allowed if the test is successful. This process may be repeated until the maximum permitted production rate is achieved.

B. At all times the affected emission unit is operating, the following indicators shall be monitored as specified below and as approved by the Director.

i) Measurement Approach

(a) Indicator No. 1: Scrubber liquid flow rate shall be measured using a flow meter.

(b) Indicator No. 2: Fan speed shall be monitored. Either output from the variable frequency drive (VFD) or electronic overload relay in the fan shall be monitored and used to calculate fan speed, or a tachometer shall be used to monitor fan speed.

ii) Indicator Range: Excursions are defined as follows. Each excursion triggers an inspection, corrective action, and a reporting requirement.

(a) Indicator No. 1: An excursion is defined as an average scrubber liquid flow rate over a one-hour period that is less than 31 gallons per minute (gpm).

(b) Indicator No. 2: An excursion is defined as a fan speed less than 1,484 RPM during a 24-hour period.

iii) Performance Criteria

(a) Data Representativeness:

(1) Indicator No. 1: The scrubber liquid flow rate shall be measured using a flow meter located on the scrubber liquid line. The scrubber liquid flow rate shall be accurate to five (5) gpm or as approved by the Director. Flow rate meters shall be located such that an inspector/operator can safely read the indicators at any time.

(2) Indicator No. 2: VFDs or electronic overload relays, if used, shall be installed in accordance with the manufacturer's recommendations and shall be located such that an inspector/operator can safely read the output at any time. A tachometer, if used, shall be operated according to the manufacturer's recommendations.

(b) QA/QC Practices and Criteria:

(1) Indicator No. 1: The flow meter shall be calibrated according to the manufacturer's recommendations or at least annually. The scrubber shall operate within the liquid flow rate range recommended by the manufacturer for normal operations. This range shall be clearly labeled on each scrubber such that an inspector/operator can safely read the parameters at any time. The data acquisition system shall be operated and maintained according to the manufacturer's recommendations.

(2) Indicator No. 2: The scrubber shall operate within the fan speed range recommended by the manufacturer for normal operations. This range shall be clearly labeled on each scrubber such that an inspector/operator can safely

read the parameters at any time. Tachometers, if used on the scrubber, shall be calibrated according to the manufacturer's recommendations or at least annually.

(c) Monitoring Frequency:
  (1) Indicator No. 1: The scrubber liquid flow rate shall be measured continuously.
  (2) Indicator No. 2: Fan speed shall be monitored daily. Once each day, either output from the variable frequency drive (VFD) or electronic overload relay in the fan shall be monitored and used to calculate fan speed, or a tachometer shall be used to monitor fan speed.

(d) Data Collection Procedure:
  (1) Indicator No. 1: An average scrubber liquid flow rate shall be calculated during each hour of operation. The hourly average shall be recorded for comparison to the excursion level.
  (2) Indicator No. 2: Fan speed shall be calculated or measured each day the unit operates. The daily fan speed shall be recorded for comparison to the excursion level.

(e) Averaging Period:
  (1) Indicator No. 1: One hour
  (2) Indicator No. 2: N/A

(40 CFR 64.6(c))

C. During the stack test required in A. above, the permittee shall acquire new test data to evaluate or update the indicator range and excursion level for the indicators. Any resultant changes to the monitoring shall be addressed in accordance with 40 CFR 64.7(e).

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.

The permittee shall maintain a file of activities for installation of the scrubber liquid flow meter and data acquisition system. The permittee shall maintain records of test data from the most recent stack test and any calculations used to establish, evaluate, or revise the indicator ranges and excursion levels.

The permittee shall keep copies of Director approval of the monitoring including, but not limited to, the most recently approved indicator ranges and excursion levels. The permittee shall maintain records of all verifications, calibration checks, adjustments and maintenance.

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).

Records and results of monitoring shall be maintained in accordance with 40 CFR 64.9(b) and Provision I.S.1 of this permit.

II.B.11.a.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. Reports shall include test data and any calculations used to evaluate or revise the indicator ranges and excursion levels as specified in II.B.11.a.1.C.

II.B.12 **Conditions on SOP: BH-001 SOP Bulk Load-Out Circuit**

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

Emissions to the atmosphere shall not exceed the following rates and concentrations (standardized at 68 degrees F, 29.92 in Hg).

PM_{10}: 0.37 lb/hr

$PM_{2.5}$: 0.37 lb/hr [State-only Requirement]

$PM_{2.5}$ Concentration: 0.01 grains/dscf [State-only Requirement]

Process emissions shall be routed through operating controls prior to being emitted to the atmosphere. [Origin: DAQE-AN109170039-20, SIP Section IX.H.12.e]. [R307-401-8]

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

A. Stack testing shall be performed as specified below:

i) Frequency. Emissions shall be tested at least once every 12 months (365 days). Compliance tests shall be no less than 9 months (270 days) apart. The Director may require testing at any time. If an existing source is modified, a compliance test is required on the modified emission point that has an emission rate limit.

ii) Notification. At least 30 days prior to conducting any required emission testing, 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 be approved by the Director prior to performing the test(s). The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Director.

iii) Methods.

(a) Sample Location - the emission point shall be designed to 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) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.

(b) For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Method 201a, or other EPA-approved testing method, as acceptable to the Director. The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M, Method 202, or other EPA-approved testing method as acceptable to the Director.

For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, 5i, or other EPA approved testing methods, as acceptable to the Director. When demonstrating compliance with the PM_{10} and $PM_{2.5}$ limits above, all filterable particulate emissions captured using Method 5 shall be considered $PM_{2.5}$, resulting in PM_{10} emissions equal to that of $PM_{2.5}$. Alternatively, appropriate particle sizing analytical methods, such as: x-ray diffraction, scanning electron microscopy, or electron microprobe analysis may be used to determine particle sizing, as

acceptable to the Director. The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M Method 202, or other EPA-approved testing method as acceptable to the Director.

(c) Compliance with the limits shall be based on the average of three test runs and shall include both filterable and condensable emissions.

(d) 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.

iv) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods specified herein 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.

v) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the permitted production rate. If the maximum permitted production rate has not been achieved at the time of the test, the following procedure shall be followed:

(a) Testing shall be at no less than 90% of the production rate achieved in the previous 12 months (365 days).

(b) If the test is passed, the new maximum allowable production rate shall be 110% of the tested achieved rate, but not more than the maximum allowable production rate. This new allowable maximum production rate shall remain in effect until successfully tested at a higher rate.

(c) Testing at no less than 90% of the higher rate shall be conducted. A new maximum production rate (110% of the new rate) will then be allowed if the test is successful. This process may be repeated until the maximum permitted production rate is achieved.

B. At all times the affected emission unit is operating, the following indicators shall be monitored as specified below and as approved by the Director.

i) Measurement Approach

(a) Indicator No. 1: Pressure drop across the baghouse shall be measured using a differential pressure gauge.

(b) Indicator No. 2: Visible emissions from the baghouse exhaust shall be monitored by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9.

(c) Indicator No. 3: An internal inspection of the baghouse including a dye test shall be performed to identify damaged bags and required maintenance.

ii) Indicator Range: Excursions are defined as follows. Each excursion triggers an inspection, corrective action, and a reporting requirement.

(a) Indicator No. 1: An excursion is defined as an average differential pressure outside the range of 1 to 6 inches of water column during a 24-hour period.

(b) Indicator No. 2: An excursion is defined as the presence of visible emissions.

(c) Indicator No. 3: An excursion is defined as a failure to perform the semi-annual baghouse internal inspection as specified below.

iii) Performance Criteria

(a) Data Representativeness:

(1) Indicator No. 1: The differential pressure gauge shall measure pressure drop with pressure taps located at the baghouse inlet and outlet. The minimum accuracy of the gauge shall be +/- 0.5 inches of water column. The pressure gauges shall be located such that an inspector/operator can safely read the indicator at any time.

(2) Indicator No. 2: Visible emissions shall be monitored at the stack exhaust while the baghouse is operating.

(3) Indicator No. 3: The permittee shall conduct an internal baghouse inspection including a dye test to identify damaged bags and required maintenance.

(b) QA/QC Practices and Criteria:

(1) Indicator No. 1: The pressure gauge shall be calibrated according to the manufacturer's recommendations or at least annually. Pressure taps shall be checked for plugging monthly. Each baghouse shall operate within the static pressure range recommended by the manufacturer for normal operations. The static pressure range shall be clearly labeled on each baghouse such that an inspector/operator can safely read the range at any time. The data acquisition system shall be operated and maintained according to the manufacturer's recommendations.
(2) Indicator No. 2: Visible emissions from the baghouse exhaust shall be monitored by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9.
(3) Indicator No. 3: The internal baghouse inspection and dye test shall be performed by personnel trained on proper baghouse operation and preventive maintenance.

(c) Monitoring Frequency:
(1) Indicator No. 1: Pressure drop shall be monitored continuously.
(2) Indicator No. 2: Once each week, a visual opacity survey shall be performed on the baghouse exhaust, while the unit is operating, by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9.
(3) Indicator No. 3: The permittee shall conduct an internal baghouse inspection including a dye test semi-annually to identify damaged bags and required maintenance.

(d) Data Collection Procedure:
(1) Indicator No. 1: The average pressure drop shall be displayed each minute at the baghouse location. Using the minute averages, the data acquisition system shall calculate an average pressure drop each day the unit operates. The daily average shall be recorded for comparison to the excursion level.
(2) Indicator No. 2: Results of the visual opacity survey shall be recorded each week for comparison to the excursion level.
(3) Indicator No. 3: Results of baghouse inspections including the dye test and documentation of any required maintenance shall be recorded semi-annually.

(e) Averaging Period:
(1) Indicator No. 1: 24-hour period
(2) Indicator No. 2: N/A
(3) Indicator No. 3: N/A

(40 CFR 64.6(c))

C. During the stack test required in A. above, the permittee shall acquire new test data to evaluate or update the indicator range and excursion level for the indicators. Any resultant changes to the monitoring shall be addressed in accordance with 40 CFR 64.7(e).

II.B.12.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.

The permittee shall maintain a file of activities for installation of the differential pressure gauge and data acquisition system. The permittee shall maintain records of test data from the most recent stack test and any calculations used to establish, evaluate, or revise the indicator ranges and excursion levels.

The permittee shall keep copies of Director approval of the monitoring including, but not limited to, the most recently approved indicator ranges and excursion levels. The permittee shall maintain records of all verifications, calibration checks, adjustments and maintenance.

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).

Records and results of monitoring shall be maintained in accordance with 40 CFR 64.9(b) and Provision I.S.1 of this permit.

II.B.12.a.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. Reports shall include test data and any calculations used to evaluate or revise the indicator ranges and excursion levels as specified in II.B.12.a.1.C.

II.B.13 **Conditions on SOP: BH-002 SOP Plant**

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

Emissions to the atmosphere shall not exceed the following rates and concentrations (standardized at 68 degrees F, 29.92 in Hg).

PM_{10}: 0.65 lb/hr
$PM_{2.5}$: 0.47 lb/hr [State-only Requirement]
$PM_{2.5}$ Concentration: 0.01 grains/dscf [State-only Requirement]

Process emissions shall be routed through operating controls prior to being emitted to the atmosphere. [Origin: DAQE-AN109170039-20, SIP Section IX.H.12.e]. [R307-401-8]

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

A. Stack testing shall be performed as specified below:
  i) Frequency. Emissions shall be tested at least once every 12 months (365 days). Compliance tests shall be no less than 9 months (270 days) apart. The Director may require testing at any time. If an existing source is modified, a compliance test is required on the modified emission point that has an emission rate limit.
  ii) Notification. At least 30 days prior to conducting any required emission testing, 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 be approved by the Director prior to performing the test(s). The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Director.
  iii) Methods.
    (a) Sample Location - the emission point shall be designed to 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) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.

(b) For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Method 201a, or other EPA-approved testing method, as acceptable to the Director. The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M, Method 202, or other EPA-approved testing method as acceptable to the Director.

For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, 5i, or other EPA approved testing methods, as acceptable to the Director. When demonstrating compliance with the PM_{10} and $PM_{2.5}$ limits above, all filterable particulate emissions captured using Method 5 shall be considered $PM_{2.5}$, resulting in PM_{10} emissions equal to that of $PM_{2.5}$. Alternatively, appropriate particle sizing analytical methods, such as: x-ray diffraction, scanning electron microscopy, or electron microprobe analysis may be used to determine particle sizing, as acceptable to the Director. The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M Method 202, or other EPA-approved testing method as acceptable to the Director.

(c) Compliance with the limits shall be based on the average of three test runs and shall include both filterable and condensable emissions.

(d) 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.

iv) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods specified herein 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.

v) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the permitted production rate. If the maximum permitted production rate has not been achieved at the time of the test, the following procedure shall be followed:

(a) Testing shall be at no less than 90% of the production rate achieved in the previous 12 months (365 days).

(b) If the test is passed, the new maximum allowable production rate shall be 110% of the tested achieved rate, but not more than the maximum allowable production rate. This new allowable maximum production rate shall remain in effect until successfully tested at a higher rate.

(c) Testing at no less than 90% of the higher rate shall be conducted. A new maximum production rate (110% of the new rate) will then be allowed if the test is successful. This process may be repeated until the maximum permitted production rate is achieved.

B. At all times the affected emission unit is operating, the following indicators shall be monitored as specified below and as approved by the Director.

i) Measurement Approach

(a) Indicator No. 1: Pressure drop across the baghouse shall be measured using a differential pressure gauge.

(b) Indicator No. 2: Visible emissions from the baghouse exhaust shall be monitored by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9.

(c) Indicator No. 3: An internal inspection of the baghouse including a dye test shall be performed to identify damaged bags and required maintenance.

ii) Indicator Range: Excursions are defined as follows. Each excursion triggers an inspection, corrective action, and a reporting requirement.

(a) Indicator No. 1: An excursion is defined as an average differential pressure outside the range of 1 to 5 inches of water column during a 24-hour period.

(b) Indicator No. 2: An excursion is defined as the presence of visible emissions.
(c) Indicator No. 3: An excursion is defined as a failure to perform the semi-annual baghouse internal inspection as specified below.

iii) Performance Criteria
(a) Data Representativeness:
(1) Indicator No. 1: The differential pressure gauge shall measure pressure drop with pressure taps located at the baghouse inlet and outlet. The minimum accuracy of the gauge shall be +/- 0.5 inches of water column. The pressure gauges shall be located such that an inspector/operator can safely read the indicator at any time.
(2) Indicator No. 2: Visible emissions shall be monitored at the stack exhaust while the baghouse is operating.
(3) Indicator No. 3: The permittee shall conduct an internal baghouse inspection including a dye test to identify damaged bags and required maintenance.
(b) QA/QC Practices and Criteria:
(1) Indicator No. 1: The pressure gauge shall be calibrated according to the manufacturer's recommendations or at least annually. Pressure taps shall be checked for plugging monthly. Each baghouse shall operate within the static pressure range recommended by the manufacturer for normal operations. The static pressure range shall be clearly labeled on each baghouse such that an inspector/operator can safely read the range at any time. The data acquisition system shall be operated and maintained according to the manufacturer's recommendations.
(2) Indicator No. 2: Visible emissions from the baghouse exhaust shall be monitored by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9.
(3) Indicator No. 3: The internal baghouse inspection and dye test shall be performed by personnel trained on proper baghouse operation and preventive maintenance.
(c) Monitoring Frequency:
(1) Indicator No. 1: Pressure drop shall be monitored continuously.
(2) Indicator No. 2: Once each week, a visual opacity survey shall be performed on the baghouse exhaust, while the unit is operating, by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9.
(3) Indicator No. 3: The permittee shall conduct an internal baghouse inspection including a dye test semi-annually to identify damaged bags and required maintenance.
(d) Data Collection Procedure:
(1) Indicator No. 1: The average pressure drop shall be displayed each minute at the baghouse location. Using the minute averages, the data acquisition system shall calculate an average pressure drop each day the unit operates. The daily average shall be recorded for comparison to the excursion level.
(2) Indicator No. 2: Results of the visual opacity survey shall be recorded each week for comparison to the excursion level.
(3) Indicator No. 3: Results of baghouse inspections including the dye test and documentation of any required maintenance shall be recorded semi-annually.
(e) Averaging Period:
(1) Indicator No. 1: 24-hour period
(2) Indicator No. 2: N/A
(3) Indicator No. 3: N/A

(40 CFR 64.6(c))

C. During the stack test required in A. above, the permittee shall acquire new test data to evaluate or update the indicator range and excursion level for the indicators. Any resultant changes to the monitoring shall be addressed in accordance with 40 CFR 64.7(e).

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.

The permittee shall maintain a file of activities for installation of the differential pressure gauge and data acquisition system. The permittee shall maintain records of test data from the most recent stack test and any calculations used to establish, evaluate, or revise the indicator ranges and excursion levels.

The permittee shall keep copies of Director approval of the monitoring including, but not limited to, the most recently approved indicator ranges and excursion levels. The permittee shall maintain records of all verifications, calibration checks, adjustments and maintenance.

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).

Records and results of monitoring shall be maintained in accordance with 40 CFR 64.9(b) and Provision I.S.1 of this permit.

II.B.13.a.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. Reports shall include test data and any calculations used to evaluate or revise the indicator ranges and excursion levels as specified in II.B.13.a.1.C.

II.B.14 **Conditions on SOP: BH-008 SOP Plant-Compaction Dryer (D-1545)**

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

Emissions to the atmosphere from the baghouse shall not exceed the following rates and concentrations (standardized at 68 degrees F, 29.92 in Hg).

PM_{10}: 4.25 lb/hr
$PM_{2.5}$: 4.25 lb/hr [State-only Requirement]
$PM_{2.5}$ Concentration: 0.01 grains/dscf [State-only Requirement]

Process emissions shall be routed through operating controls prior to being emitted to the atmosphere. [Origin: DAQE-AN109170039-20, SIP Section IX.H.12.e]. [R307-401-8]

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

A. Stack testing shall be performed as specified below:

i) Frequency. Emissions shall be tested at least once every 12 months (365 days). Compliance tests shall be no less than 9 months (270 days) apart. The Director may require testing at any time. If an existing source is modified, a compliance test is required on the modified emission point that has an emission rate limit.

ii) Notification. At least 30 days prior to conducting any required emission testing, 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 be approved by the Director prior to performing the test(s). The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Director.

iii) Methods.

(a) Sample Location - the emission point shall be designed to 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) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.

(b) For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Method 201a, or other EPA-approved testing method, as acceptable to the Director. The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M, Method 202, or other EPA-approved testing method as acceptable to the Director.

For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, 5i, or other EPA approved testing methods, as acceptable to the Director. When demonstrating compliance with the PM_{10} and $PM_{2.5}$ limits above, all filterable particulate emissions captured using Method 5 shall be considered $PM_{2.5}$, resulting in PM_{10} emissions equal to that of $PM_{2.5}$. Alternatively, appropriate particle sizing analytical methods, such as: x-ray diffraction, scanning electron microscopy, or electron microprobe analysis may be used to determine particle sizing, as acceptable to the Director. The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M Method 202, or other EPA-approved testing method as acceptable to the Director.

(c) Compliance with the limits shall be based on the average of three test runs and shall include both filterable and condensable emissions.

(d) 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.

iv) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods specified herein 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.

v) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the permitted production rate. If the maximum permitted production rate has not been achieved at the time of the test, the following procedure shall be followed:

(a) Testing shall be at no less than 90% of the production rate achieved in the previous 12 months (365 days).

(b) If the test is passed, the new maximum allowable production rate shall be 110% of the tested achieved rate, but not more than the maximum allowable production rate. This new allowable maximum production rate shall remain in effect until successfully tested at a higher rate.

(c) Testing at no less than 90% of the higher rate shall be conducted. A new maximum production rate (110% of the new rate) will then be allowed if the test is

successful. This process may be repeated until the maximum permitted production rate is achieved.

B. At all times the affected emission unit is operating, the following indicators shall be monitored as specified below and as approved by the Director.

i) Measurement Approach

(a) Indicator No. 1: Pressure drop across the baghouse shall be measured using a differential pressure gauge.

(b) Indicator No. 2: Visible emissions from the baghouse exhaust shall be monitored by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9.

(c) Indicator No. 3: An internal inspection of the baghouse including a dye test shall be performed to identify damaged bags and required maintenance.

ii) Indicator Range: Excursions are defined as follows. Each excursion triggers an inspection, corrective action, and a reporting requirement.

(a) Indicator No. 1: An excursion is defined as an average differential pressure outside the range of 1 to 7 inches of water column during a 24-hour period.

(b) Indicator No. 2: An excursion is defined as the presence of visible emissions.

(c) Indicator No. 3: An excursion is defined as a failure to perform the semi-annual baghouse internal inspection as specified below.

iii) Performance Criteria

(a) Data Representativeness:

(1) Indicator No. 1: The differential pressure gauge shall measure pressure drop with pressure taps located at the baghouse inlet and outlet. The minimum accuracy of the gauge shall be +/- 0.5 inches of water column. The pressure gauges shall be located such that an inspector/operator can safely read the indicator at any time.

(2) Indicator No. 2: Visible emissions shall be monitored at the stack exhaust while the baghouse is operating.

(3) Indicator No. 3: The permittee shall conduct an internal baghouse inspection including a dye test to identify damaged bags and required maintenance.

(b) QA/QC Practices and Criteria:

(1) Indicator No. 1: The pressure gauge shall be calibrated according to the manufacturer's recommendations or at least annually. Pressure taps shall be checked for plugging monthly. Each baghouse shall operate within the static pressure range recommended by the manufacturer for normal operations. The static pressure range shall be clearly labeled on each baghouse such that an inspector/operator can safely read the range at any time. The data acquisition system shall be operated and maintained according to the manufacturer's recommendations.

(2) Indicator No. 2: Visible emissions from the baghouse exhaust shall be monitored by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9.

(3) Indicator No. 3: The internal baghouse inspection and dye test shall be performed by personnel trained on proper baghouse operation and preventive maintenance.

(c) Monitoring Frequency:

(1) Indicator No. 1: Pressure drop shall be monitored continuously.

(2) Indicator No. 2: Once each week, a visual opacity survey shall be performed on the baghouse exhaust, while the unit is operating, by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9.

(3) Indicator No. 3: The permittee shall conduct an internal baghouse inspection including a dye test semi-annually to identify damaged bags and required maintenance.

(d) Data Collection Procedure:

(1) Indicator No. 1: The average pressure drop shall be displayed each minute at the baghouse location. Using the minute averages, the data acquisition system shall calculate an average pressure drop each day the unit operates. The daily average shall be recorded for comparison to the excursion level.
(2) Indicator No. 2: Results of the visual opacity survey shall be recorded each week for comparison to the excursion level.
(3) Indicator No. 3: Results of baghouse inspections including the dye test and documentation of any required maintenance shall be recorded semi-annually.

(e) Averaging Period:
(1) Indicator No. 1: 24-hour period
(2) Indicator No. 2: N/A
(3) Indicator No. 3: N/A

(40 CFR 64.6(c))

C. During the stack test required in A. above, the permittee shall acquire new test data to evaluate or update the indicator range and excursion level for the indicators. Any resultant changes to the monitoring shall be addressed in accordance with 40 CFR 64.7(e).

II.B.14.a.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.

The permittee shall maintain a file of activities for installation of the differential pressure gauge and data acquisition system. The permittee shall maintain records of test data from the most recent stack test and any calculations used to establish, evaluate, or revise the indicator ranges and excursion levels.

The permittee shall keep copies of Director approval of the monitoring including, but not limited to, the most recently approved indicator ranges and excursion levels. The permittee shall maintain records of all verifications, calibration checks, adjustments and maintenance.

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).

Records and results of monitoring shall be maintained in accordance with 40 CFR 64.9(b) and Provision I.S.1 of this permit.

II.B.14.a.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. Reports shall include test data and any calculations used to evaluate or revise the indicator ranges and excursion levels as specified in II.B.14.a.1.C.

II.B.14.b **Condition:**

NO_x emissions to the atmosphere from the dryer (D-1545) shall not exceed 20 ppm at 3% O_2. [Origin: DAQE-AN109170039-20]. [R307-401-8]

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

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested at least once every three years. The Director may require testing at any time. If an existing source is modified, a compliance test is required on the modified emission point that has an emission rate limit.

(b) Notification. At least 30 days prior to conducting any required emission testing, 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 be approved by the Director prior to performing the test(s). The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Director.

(c) Methods.
  (i) Sample Location - the emission point shall be designed to 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) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.
  (ii) NO_x emissions shall be determined using 40 CFR 60, Appendix A, Method 7E, or other EPA-approved testing method, as acceptable to the Director.
  (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.
  (iv) Compliance with the limit shall be based on an average of 3 test runs.

(d) Calculations. To determine mass emission rates (lb/hr) the pollutant concentration as determined by the appropriate methods specified herein 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% of the permitted production rate. If the maximum permitted production rate has not been achieved at the time of the test, the following procedure shall be followed:
  (i) Testing shall be at no less than 90% of the production rate achieved in the previous three years.
  (ii) If the test is passed, the new maximum allowable production rate shall be 110% of the tested achieved rate, but not more than the maximum allowable production rate. This new allowable maximum production rate shall remain in effect until successfully tested at a higher rate.
  (iii) Testing at no less than 90% of the higher rate shall be conducted. A new maximum production rate (110% of the new rate) will then be allowed if the test is successful. This process may be repeated until the maximum permitted production rate is achieved.

II.B.14.b.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.

II.B.14.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.15 **Conditions on SOP: BH-1400 SOP Dryer (D-1400)**

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

NO_x emissions to the atmosphere from the dryer (D-1400) shall not exceed 20 ppm at 3% O_2. [Origin: DAQE-AN109170039-20]. [R307-401-8]

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

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested at least once every three years. The Director may require testing at any time. If an existing source is modified, a compliance test is required on the modified emission point that has an emission rate limit.

(b) Notification. At least 30 days prior to conducting any required emission testing, 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 be approved by the Director prior to performing the test(s). The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Director.

(c) Methods.
  (i) Sample Location - the emission point shall be designed to 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) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.
  (ii) NO_x emissions shall be determined using 40 CFR 60, Appendix A, Method 7E, or other EPA-approved testing method, as acceptable to the Director.
  (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.
  (iv) Compliance with the limit shall be based on an average of 3 test runs.

(d) Calculations. To determine mass emission rates (lb/hr) the pollutant concentration as determined by the appropriate methods specified herein 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% of the permitted production rate. If the maximum permitted production rate has not been achieved at the time of the test, the following procedure shall be followed:
  (i) Testing shall be at no less than 90% of the production rate achieved in the previous three years.
  (ii) If the test is passed, the new maximum allowable production rate shall be 110% of the tested achieved rate, but not more than the maximum allowable production rate. This new allowable maximum production rate shall remain in effect until successfully tested at a higher rate.
  (iii) Testing at no less than 90% of the higher rate shall be conducted. A new maximum production rate (110% of the new rate) will then be allowed if the test is successful. This process may be repeated until the maximum permitted production rate is achieved.

II.B.15.a.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.

II.B.15.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.15.b **Condition:**

Emissions to the atmosphere from the baghouse shall not exceed the following rates and concentrations (standardized at 68 degrees F, 29.92 in Hg).

PM_{10}: 2.78 lb/hr
$PM_{2.5}$: 2.78 lb/hr [State-only Requirement]
$PM_{2.5}$ Concentration: 0.02 grains/dscf [State-only Requirement]

Process emissions shall be routed through operating controls prior to being emitted to the atmosphere. [Origin: DAQE-AN109170039-20, SIP Section IX.H.12.e]. [R307-401-8]

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

A. Stack testing shall be performed as specified below:
   i) Frequency. Emissions shall be tested at least once every 12 months (365 days). Compliance tests shall be no less than 9 months (270 days) apart. The Director may require testing at any time. If an existing source is modified, a compliance test is required on the modified emission point that has an emission rate limit.
   ii) Notification. At least 30 days prior to conducting any required emission testing, 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 be approved by the Director prior to performing the test(s). The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Director.
   iii) Methods.
      (a) Sample Location - the emission point shall be designed to 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) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.
      (b) For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Method 201a, or other EPA-approved testing method, as acceptable to the Director. The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M, Method 202, or other EPA-approved testing method as acceptable to the Director.

      For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, 5i, or other EPA approved testing methods, as acceptable to the Director. When demonstrating compliance with the PM_{10} and $PM_{2.5}$ limits above, all filterable particulate emissions captured using Method 5 shall be considered $PM_{2.5}$, resulting in PM_{10} emissions equal to that of $PM_{2.5}$. Alternatively, appropriate particle sizing

analytical methods, such as: x-ray diffraction, scanning electron microscopy, or electron microprobe analysis may be used to determine particle sizing, as acceptable to the Director. The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M Method 202, or other EPA-approved testing method as acceptable to the Director.

(c) Compliance with the limits shall be based on the average of three test runs and shall include both filterable and condensable emissions.

(d) 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.

iv) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods specified herein 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.

v) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the permitted production rate. If the maximum permitted production rate has not been achieved at the time of the test, the following procedure shall be followed:

(a) Testing shall be at no less than 90% of the production rate achieved in the previous 12 months (365 days).

(b) If the test is passed, the new maximum allowable production rate shall be 110% of the tested achieved rate, but not more than the maximum allowable production rate. This new allowable maximum production rate shall remain in effect until successfully tested at a higher rate.

(c) Testing at no less than 90% of the higher rate shall be conducted. A new maximum production rate (110% of the new rate) will then be allowed if the test is successful. This process may be repeated until the maximum permitted production rate is achieved.

B. At all times the affected emission unit is operating, the following indicators shall be monitored as specified below and as approved by the Director.

i) Measurement Approach

(a) Indicator No. 1: Pressure drop across the baghouse shall be measured using a differential pressure gauge.

(b) Indicator No. 2: Visible emissions from the baghouse exhaust shall be monitored by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9.

(c) Indicator No. 3: An internal inspection of the baghouse including a dye test shall be performed to identify damaged bags and required maintenance.

ii) Indicator Range: Excursions are defined as follows. Each excursion triggers an inspection, corrective action, and a reporting requirement.

(a) Indicator No. 1: An excursion is defined as an average differential pressure outside the range of 1 to 6 inches of water column during a 24-hour period.

(b) Indicator No. 2: An excursion is defined as the presence of visible emissions.

(c) Indicator No. 3: An excursion is defined as a failure to perform the semi-annual baghouse internal inspection as specified below.

iii) Performance Criteria

(a) Data Representativeness:

(1) Indicator No. 1: The differential pressure gauge shall measure pressure drop with pressure taps located at the baghouse inlet and outlet. The minimum accuracy of the gauge shall be +/- 0.5 inches of water column. The pressure gauges shall be located such that an inspector/operator can safely read the indicator at any time.

(2) Indicator No. 2: Visible emissions shall be monitored at the stack exhaust while the baghouse is operating.

(3) Indicator No. 3: The permittee shall conduct an internal baghouse inspection including a dye test to identify damaged bags and required maintenance.

(b) QA/QC Practices and Criteria:
(1) Indicator No. 1: The pressure gauge shall be calibrated according to the manufacturer's recommendations or at least annually. Pressure taps shall be checked for plugging monthly. Each baghouse shall operate within the static pressure range recommended by the manufacturer for normal operations. The static pressure range shall be clearly labeled on each baghouse such that an inspector/operator can safely read the range at any time. The data acquisition system shall be operated and maintained according to the manufacturer's recommendations.
(2) Indicator No. 2: Visible emissions from the baghouse exhaust shall be monitored by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9.
(3) Indicator No. 3: The internal baghouse inspection and dye test shall be performed by personnel trained on proper baghouse operation and preventive maintenance.

(c) Monitoring Frequency:
(1) Indicator No. 1: Pressure drop shall be monitored continuously.
(2) Indicator No. 2: Once each week, a visual opacity survey shall be performed on the baghouse exhaust, while the unit is operating, by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9.
(3) Indicator No. 3: The permittee shall conduct an internal baghouse inspection including a dye test semi-annually to identify damaged bags and required maintenance.

(d) Data Collection Procedure:
(1) Indicator No. 1: The average pressure drop shall be displayed each minute at the baghouse location. Using the minute averages, the data acquisition system shall calculate an average pressure drop each day the unit operates. The daily average shall be recorded for comparison to the excursion level.
(2) Indicator No. 2: Results of the visual opacity survey shall be recorded each week for comparison to the excursion level.
(3) Indicator No. 3: Results of baghouse inspections including the dye test and documentation of any required maintenance shall be recorded semi-annually.

(e) Averaging Period:
(1) Indicator No. 1: 24-hour period
(2) Indicator No. 2: N/A
(3) Indicator No. 3: N/A

(40 CFR 64.6(c))

C. During the stack test required in A. above, the permittee shall acquire new test data to evaluate or update the indicator range and excursion level for the indicators. Any resultant changes to the monitoring shall be addressed in accordance with 40 CFR 64.7(e).

II.B.15.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.

The permittee shall maintain a file of activities for installation of the differential pressure gauge and data acquisition system. The permittee shall maintain records of test data from the most recent stack test and any calculations used to establish, evaluate, or revise the indicator ranges and excursion levels.

The permittee shall keep copies of Director approval of the monitoring including, but not limited

to, the most recently approved indicator range and excursion levels. The permittee shall maintain records of all verifications, calibration checks, adjustments and maintenance.

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).

Records and results of monitoring shall be maintained in accordance with 40 CFR 64.9(b) and Provision I.S.1 of this permit.

II.B.15.b.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. Reports shall include test data and any calculations used to evaluate or revise the indicator ranges and excursion levels as specified in II.B.15.b.1.C.

II.B.16 **Conditions on SOP: BH-1516 SOP Plant**

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

Emissions to the atmosphere shall not exceed the following rates and concentrations (standardized at 68 degrees F, 29.92 in Hg).

PM_{10}: 1.46 lb/hr

$PM_{2.5}$: 0.22 lb/hr [State-only Requirement]

$PM_{2.5}$ Concentration: 0.01 grains/dscf [State-only Requirement]

Process emissions shall be routed through operating controls prior to being emitted to the atmosphere. [Origin: DAQE-AN109170039-20, SIP Section IX.H.12.e]. [R307-401-8]

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

A. Stack testing shall be performed as specified below:
   i) Frequency. Emissions shall be tested at least once every 12 months (365 days). Compliance tests shall be no less than 9 months (270 days) apart. The Director may require testing at any time. If an existing source is modified, a compliance test is required on the modified emission point that has an emission rate limit.
   ii) Notification. At least 30 days prior to conducting any required emission testing, 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 be approved by the Director prior to performing the test(s). The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Director.
   iii) Methods.
      (a) Sample Location - the emission point shall be designed to 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) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.

(b) For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Method 201a, or other EPA-approved testing method, as acceptable to the Director. The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M, Method 202, or other EPA-approved testing method as acceptable to the Director.

For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, 5i, or other EPA approved testing methods, as acceptable to the Director. When demonstrating compliance with the PM_{10} and $PM_{2.5}$ limits above, all filterable particulate emissions captured using Method 5 shall be considered $PM_{2.5}$, resulting in PM_{10} emissions equal to that of $PM_{2.5}$. Alternatively, appropriate particle sizing analytical methods, such as: x-ray diffraction, scanning electron microscopy, or electron microprobe analysis may be used to determine particle sizing, as acceptable to the Director. The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M Method 202, or other EPA-approved testing method as acceptable to the Director.

(c) Compliance with the limits shall be based on the average of three test runs and shall include both filterable and condensable emissions.

(d) 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.

iv) Calculations. To determine mass emission rates (lb/hr) the pollutant concentration as determined by the appropriate methods specified herein 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.

v) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the permitted production rate. If the maximum permitted production rate has not been achieved at the time of the test, the following procedure shall be followed:

(a) Testing shall be at no less than 90% of the production rate achieved in the previous 12 months (365 days).

(b) If the test is passed, the new maximum allowable production rate shall be 110% of the tested achieved rate, but not more than the maximum allowable production rate. This new allowable maximum production rate shall remain in effect until successfully tested at a higher rate.

(c) Testing at no less than 90% of the higher rate shall be conducted. A new maximum production rate (110% of the new rate) will then be allowed if the test is successful. This process may be repeated until the maximum permitted production rate is achieved.

B. At all times the affected emission unit is operating, the following indicators shall be monitored as specified below and as approved by the Director.

i) Measurement Approach

(a) Indicator No. 1: Pressure drop across the baghouse shall be measured using a differential pressure gauge.

(b) Indicator No. 2: Visible emissions from the baghouse exhaust shall be monitored by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9.

(c) Indicator No. 3: An internal inspection of the baghouse including a dye test shall be performed to identify damaged bags and required maintenance.

ii) Indicator Range: Excursions are defined as follows. Each excursion triggers an inspection, corrective action, and a reporting requirement.
   (a) Indicator No. 1: An excursion is defined as an average differential pressure outside the range of 1 to 6 inches of water column during a 24-hour period.
   (b) Indicator No. 2: An excursion is defined as the presence of visible emissions.
   (c) Indicator No. 3: An excursion is defined as a failure to perform the semi-annual baghouse internal inspection as specified below.

iii) Performance Criteria
   (a) Data Representativeness:
      (1) Indicator No. 1: The differential pressure gauge shall measure pressure drop with pressure taps located at the baghouse inlet and outlet. The minimum accuracy of the gauge shall be +/- 0.5 inches of water column. The pressure gauges shall be located such that an inspector/operator can safely read the indicator at any time.
      (2) Indicator No. 2: Visible emissions shall be monitored at the stack exhaust while the baghouse is operating.
      (3) Indicator No. 3: The permittee shall conduct an internal baghouse inspection including a dye test to identify damaged bags and required maintenance.
   (b) QA/QC Practices and Criteria:
      (1) Indicator No. 1: The pressure gauge shall be calibrated according to the manufacturer's recommendations or at least annually. Pressure taps shall be checked for plugging monthly. Each baghouse shall operate within the static pressure range recommended by the manufacturer for normal operations. The static pressure range shall be clearly labeled on each baghouse such that an inspector/operator can safely read the range at any time. The data acquisition system shall be operated and maintained according to the manufacturer's recommendations.
      (2) Indicator No. 2: Visible emissions from the baghouse exhaust shall be monitored by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9.
      (3) Indicator No. 3: The internal baghouse inspection and dye test shall be performed by personnel trained on proper baghouse operation and preventive maintenance.
   (c) Monitoring Frequency:
      (1) Indicator No. 1: Pressure drop shall be monitored continuously.
      (2) Indicator No. 2: Once each week, a visual opacity survey shall be performed on the baghouse exhaust, while the unit is operating, by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9.
      (3) Indicator No. 3: The permittee shall conduct an internal baghouse inspection including a dye test semi-annually to identify damaged bags and required maintenance.
   (d) Data Collection Procedure:
      (1) Indicator No. 1: The average pressure drop shall be displayed each minute at the baghouse location. Using the minute averages, the data acquisition system shall calculate an average pressure drop each day the unit operates. The daily average shall be recorded for comparison to the excursion level.
      (2) Indicator No. 2: Results of the visual opacity survey shall be recorded each week for comparison to the excursion level.
      (3) Indicator No. 3: Results of baghouse inspections including the dye test and documentation of any required maintenance shall be recorded semi-annually.
   (e) Averaging Period:
      (1) Indicator No. 1: 24-hour period
      (2) Indicator No. 2: N/A
      (3) Indicator No. 3: N/A

(40 CFR 64.6(c))

C. During the stack test required in A. above, the permittee shall acquire new test data to evaluate or update the indicator range and excursion level for the indicators. Any resultant changes to the monitoring shall be addressed in accordance with 40 CFR 64.7(e).

II.B.16.a.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.

The permittee shall maintain a file of activities for installation of the differential pressure gauge and data acquisition system. The permittee shall maintain records of test data from the most recent stack test and any calculations used to establish, evaluate, or revise the indicator ranges and excursion levels.

The permittee shall keep copies of Director approval of the monitoring including, but not limited to, the most recently approved indicator ranges and excursion levels. The permittee shall maintain records of all verifications, calibration checks, adjustments and maintenance.

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).

Records and results of monitoring shall be maintained in accordance with 40 CFR 64.9(b) and Provision I.S.1 of this permit.

II.B.16.a.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. Reports shall include test data and any calculations used to evaluate or revise the indicator ranges and excursion levels as specified in II.B.16.a.1.C.

II.B.17 **Conditions on SOP: Fully Enclosed Conveyors**

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

Visible emissions from all outdoor fully-enclosed conveyance systems shall not exceed 5% opacity. At all times, the permittee shall operate and maintain each affected emission unit as a fully-enclosed conveyance system. Each fully-enclosed conveyance system shall be fully-enclosed on all sides, top, and bottom. All fully-enclosed conveyance systems shall be clearly labeled on each conveyor such that an inspector/operator can safely identify equipment at any time. [Origin: DAQE-AN109170039-20]. [R307-401-8]

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

The permittee shall conduct a Method 22 performance test, or other EPA-approved testing method, as acceptable to the Director, according to the following requirements for each affected emission unit.

(a) Conduct a weekly 10-minute visible emissions test of each affected emission unit in accordance with Method 22 of 40 CFR 60 Appendix A, or other EPA-approved testing method, as acceptable to the Director. The performance test shall be conducted while the unit is in operation.

(b) If any visible emissions are observed from an emission unit, the permittee shall inspect the affected emission unit to determine the cause of visible emissions and initiate corrective action within one hour of the initial survey.

(c) If no visible emissions are observed during four consecutive weekly tests, the permittee may decrease the frequency of the visible emissions test required in paragraph (a) from weekly to monthly. If visible emissions are observed during any monthly test, the permittee shall resume the weekly visible emissions test required in paragraph (a) and maintain that schedule until no visible emissions are observed in four (4) consecutive weekly tests.

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

The permittee shall keep a log of the visible emissions tests that contains the following information: time and date of test, emission point location and description, time of visible emissions, if observed, results of inspections, time and date corrective actions initiated, and corrective actions taken. Records and all data required by 40 CFR 60, Appendix A, Method 22, 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.17.a.3 **Reporting:**

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

II.B.18 **Conditions on MgCl: MgCl Production Plant**

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

The following production limits shall not be exceeded:
i. 1,000,000 tons of magnesium chloride liquid produced from ponds per rolling 12-month period
ii. 70,080 tons of magnesium chloride flake produced per rolling 12-month period
[Origin: DAQE-AN109170039-20]. [R307-401-8]

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

The permittee shall demonstrate compliance with the rolling 12-month total for each production limit. 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.18.a.2 **Recordkeeping:**

Records of production shall be kept daily for all periods when the plant is in operation. Production records shall be determined by examination of sales, billing records or operation logs. Records and results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

II.B.18.b **Condition:**

Visible emissions from the following outdoor operations and equipment shall not exceed 10% opacity:
i. All loading operations
ii. All conveyor drop points
iii. All conveyor transfer points
iv. All storage piles
v. All partially enclosed conveyance systems
vi. All material handling operations which includes the following: bins, hoppers, screens, crushers, grinders, and presses
[Origin: DAQE-AN109170039-20]. [R307-401-8]

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

A visual opacity survey of each affected emission unit shall be performed on a monthly basis while the unit is operating. The visual opacity survey shall be performed by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. If visible emissions other than condensed water vapor 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 40 CFR 51 Appendix M, Method 203A, or other EPA-approved testing method, as acceptable to the Director, for fugitive sources.

For intermittent sources, opacity observations shall be performed on a monthly basis while the unit is operating in accordance with 40 CFR 60, Appendix A, Method 9, however, the requirement for observations to be made at 15 second intervals over a six-minute period shall not apply. The number of observations and the time period shall be determined by the length of the intermittent source operation.

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

The permittee shall keep a log of the visual opacity survey(s) containing the following information: date and time visual emissions observed, emission point location and description, time and date of opacity test, and percent opacity. If an opacity determination is performed, a notation of the determination will be made in the log. Records and all data required by 40 CFR 60, Appendix A, Method 9 and/or 40 CFR 51 Appendix M, Method 203A, 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.18.b.3 **Reporting:**

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

II.B.19 **<u>Conditions on MgCl: AH-692 Magnesium Chloride Plant</u>**

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

Emissions to the atmosphere shall not exceed the following rates and concentrations (standardized at 68 degrees F, 29.92 in Hg).

PM_{10}: 0.15 lb/hr

$PM_{2.5}$: 0.12 lb/hr [State-only Requirement]

$PM_{2.5}$ Concentration: 0.01 grains/dscf [State-only Requirement]

Process emissions shall be routed through operating controls prior to being emitted to the atmosphere. [Origin: DAQE-AN109170039-20, SIP Section IX.H.12.e]. [R307-401-8]

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

A. Stack testing shall be performed as specified below:

i) Frequency. Emissions shall be tested at least once every 12 months (365 days). Compliance tests shall be no less than 9 months (270 days) apart. The Director may require testing at any time. If an existing source is modified, a compliance test is required on the modified emission point that has an emission rate limit.

ii) Notification. At least 30 days prior to conducting any required emission testing, 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 be approved by the Director prior to performing the test(s). The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Director.

iii) Methods.

(a) Sample Location - the emission point shall be designed to 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) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.

(b) For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Method 201a, or other EPA-approved testing method, as acceptable to the Director. The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M, Method 202, or other EPA-approved testing method as acceptable to the Director.

For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, 5i, or other EPA approved testing methods, as acceptable to the Director. When demonstrating compliance with the PM_{10} and $PM_{2.5}$ limits above, all filterable particulate emissions captured using Method 5 shall be considered $PM_{2.5}$, resulting in PM_{10} emissions equal to that of $PM_{2.5}$. Alternatively, appropriate particle sizing analytical methods, such as: x-ray diffraction, scanning electron microscopy, or electron microprobe analysis may be used to determine particle sizing, as acceptable to the Director. The back half condensable particulate emissions shall also be tested using 40 CFR 51, Appendix M Method 202, or other EPA-approved testing method as acceptable to the Director.

(c) Compliance with the limits shall be based on an average of three (3) test runs and shall include both filterable and condensable emissions.

(d) Volumetric Flow Rate: 40 CFR 60, Appendix A, Method 2, or other EPA-approved testing method, as acceptable to the Director.

iv) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods specified herein 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.

v) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the permitted production rate. If the maximum permitted production rate has not been achieved at the time of the test, the following procedure shall be followed:
   (a) Testing shall be at no less than 90% of the production rate achieved in the previous 12 months (365 days).
   (b) If the test is passed, the new maximum allowable production rate shall be 110% of the tested achieved rate, but not more than the maximum allowable production rate. This new allowable maximum production rate shall remain in effect until successfully tested at a higher rate.
   (c) Testing at no less than 90% of the higher rate shall be conducted. A new maximum production rate (110% of the new rate) will then be allowed if the test is successful. This process may be repeated until the maximum permitted production rate is achieved.

II.B.19.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.19.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.19.b **Condition:**

The venturi wet scrubber shall operate within the static pressure range and liquid flow rate recommended by the manufacturer for normal operations. These parameters shall be clearly labeled on the scrubber such that an inspector/operator can safely read the parameters at any time. [Origin: DAQE-AN109170039-20]. [R307-401-8]

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

a) Manometer or magnehelic pressure gauges shall be installed to measure the differential pressure across the wet scrubber.
b) Flow rate meters shall be installed to measure the liquid flow rate in the scrubber.
c) The pressure gauges and flow rate meters shall be located such that an inspector/operator can safely read the indicators at any time.
d) The gauges and meters shall be calibrated in accordance with the manufacturer's instructions or recommendations at least once every 12 months.

Records required for this permit condition will also serve as monitoring.

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

a) Pressure drop and liquid flow rate readings from the venturi wet scrubber shall be recorded at least once during each day of operation.
b) Records documenting these inspections shall be kept in a log and shall include the following:
   i. Unit identification;
   ii. Manufacturer recommended pressure drop and liquid flow rate for the unit;

iii. Daily pressure drop readings;
iv. Daily liquid flow rate readings.

c) Documentation of calibrations shall be maintained for all periods the plant is in operation.

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

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

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

II.B.20 **Conditions on Magnesium Chloride Evaporators**

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

Combined emissions to the atmosphere from each set of two evaporators shall not exceed the following rate.

VOC: 6.18 lb/hr [State-only Requirement]

[Origin: DAQE-AN109170039-20, SIP Section IX.H.12.e]. [R307-401-8]

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

A. Stack testing shall be performed as specified below:
   i) Frequency. Emissions shall be tested at least once every three years. Compliance testing shall be performed at least once every three (3) years for each train of the magnesium chloride evaporators. The Director may require testing at any time. If an existing source is modified, a compliance test is required on the modified emission point that has an emission rate limit.
   ii) Notification. At least 30 days prior to conducting any required emission testing, 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 be approved by the Director prior to performing the test(s). The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Director.
   iii) Methods.
      (a) Sample Location - The emission point shall be designed to 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) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.
      (b) VOC emissions shall be determined using 40 CFR 60, Appendix A, Method 25A using a flame ionization analyzer equipped with a methane separator. If such an analyzer is unavailable, VOC emissions shall be determined simultaneously using two analyzers, with one configured to read only methane. The difference between the total organic detector and the methane detector shall constitute the VOC measurement.
      (c) Compliance with the limit shall be based on the average of three test runs.
      (d) 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.
   iv) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods specified herein 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.

v) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the permitted production rate. If the maximum permitted production rate has not been achieved at the time of the test, the following procedure shall be followed:
   (a) Testing shall be at no less than 90% of the production rate achieved in the previous three years.
   (b) If the test is passed, the new maximum allowable production rate shall be 110% of the tested achieved rate, but not more than the maximum allowable production rate. This new allowable maximum production rate shall remain in effect until successfully tested at a higher rate.
   (c) Testing at no less than 90% of the higher rate shall be conducted. A new maximum production rate (110% of the new rate) will then be allowed if the test is successful. This process may be repeated until the maximum permitted production rate is achieved.

II.B.20.a.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.

II.B.20.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.20.b **Condition:**

Combined emissions to the atmosphere from each set of two evaporators shall not exceed the following rate.
HCl: 6.40 lb/hr
[Origin: DAQE-AN109170039-20]. [R307-401-8]

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

A. Stack testing shall be performed as specified below:
   i) Frequency. Emissions shall be tested at least once every three years. Compliance testing shall be performed at least once every three (3) years for each train of the magnesium chloride evaporators. The Director may require testing at any time. If an existing source is modified, a compliance test is required on the modified emission point that has an emission rate limit.
   ii) Notification. At least 30 days prior to conducting any required emission testing, 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 be approved by the Director prior to performing the test(s). The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Director.
   iii) Methods.
      (a) Sample Location - The emission point shall be designed to 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) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.

(b) HCl emissions shall be determined using 40 CFR 60, Appendix A, Method 26, or 26A or other EPA-approved testing method, acceptable to the Director.
(c) Compliance with the limit shall be based on the average of three test runs.
(d) 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.

iv) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods specified herein 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.

v) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the permitted production rate. If the maximum permitted production rate has not been achieved at the time of the test, the following procedure shall be followed:
(a) Testing shall be at no less than 90% of the production rate achieved in the previous three years.
(b) If the test is passed, the new maximum allowable production rate shall be 110% of the tested achieved rate, but not more than the maximum allowable production rate. This new allowable maximum production rate shall remain in effect until successfully tested at a higher rate.
(c) Testing at no less than 90% of the higher rate shall be conducted. A new maximum production rate (110% of the new rate) will then be allowed if the test is successful. This process may be repeated until the maximum permitted production rate is achieved.

II.B.20.b.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.

II.B.20.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.20.c **Condition:**

The permittee shall not exceed 8,760 hours of operation combined from the two sets of evaporators per rolling 12-month period. With the exception of periods of startup, shutdown and maintenance, the permittee shall only operate one set of two evaporators at any one time. Steam cleaning operations, where no chlorine is being added to the evaporators, are not considered part of this operational limit. [Origin: DAQE-AN109170039-20]. [R307-401-8]

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

The permittee shall demonstrate compliance with the rolling 12-month total by tracking the hours of operation for each set of evaporators. 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.20.c.2 **Recordkeeping:**

Records of the hours of operation shall be kept daily for all periods when the plant is in operation. Records shall include startup, steady-state, and shutdown operational times. Records and results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

II.B.21 **Conditions on Boilers: Natural Gas-fired Boilers**

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

NO_x emissions to the atmosphere from each of the two boilers on site shall not exceed the following rates and concentrations: 1.30 pounds per hour and 9.0 ppm. [State-only Requirement] [Origin: DAQE-AN109170039-20, SIP Section IX.H.12.e]. [R307-401-8]

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

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested on each boiler at least once every 12 months (365 days). Compliance tests shall be no less than 9 months (270 days) apart. The Director may require testing at any time. If an existing source is modified, a compliance test is required on the modified emission point that has an emission rate limit.

(b) Notification. At least 30 days prior to conducting any required emission testing, 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 be approved by the Director prior to performing the test(s). The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Director.

(c) Methods.
  (i) Sample Location - the emission point shall be designed to 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) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.
  (ii) NO_x emissions shall be determined using 40 CFR 60, Appendix A, Method 7E, or other EPA-approved testing method, as acceptable to the Director.
  (iii) Compliance with the limits shall be based on the average of three test runs.
  (iv) 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) the pollutant concentration as determined by the appropriate methods specified herein 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% of the permitted production rate. If the maximum permitted production rate has not been achieved at the time of the test, the following procedure shall be followed:
  (i) Testing shall be at no less than 90% of the production rate achieved in the previous 12 months (365 days).
  (ii) If the test is passed, the new maximum allowable production rate shall be 110% of the tested achieved rate, but not more than the maximum allowable production rate. This

new allowable maximum production rate shall remain in effect until successfully tested at a higher rate.

(iii) Testing at no less than 90% of the higher rate shall be conducted. A new maximum production rate (110% of the new rate) will then be allowed if the test is successful. This process may be repeated until the maximum permitted production rate is achieved.

II.B.21.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.21.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.21.b **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Origin: DAQE-AN109170039-20]. [R307-401-8]

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

In lieu of monitoring via visible emission observations, records required for this permit condition will serve as monitoring.

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

Records shall be kept for any period that a fuel other than pipeline quality natural gas is used in the affected emission unit. The records shall be recorded in a log that is kept in a readily accessible location onsite. All records shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

II.B.21.c **Condition:**

Only pipeline quality natural gas with a potential SO_2 emission rate of 0.32 lb/MMBtu (140 ng/J) heat input or less shall be used as fuel for the boilers. [Origin: 40 CFR 60 Subpart Db]. [40 CFR 60.42b(k)(2)]

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

Records required for this permit condition will serve as monitoring. [40 CFR 60.45b(j), 40 CFR 60.45b(k), 40 CFR 60.47b(f)]

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

The permittee shall either:
(a) Obtain and maintain on site fuel receipts (such as a current, valid purchase contract, tariff sheet, or transportation contract) from the fuel supplier that certify that the gaseous fuel meets the definition of natural gas as defined in 40 CFR 60.41b and the applicable sulfur limit; or
(b) Develop a site-specific fuel analysis plan for review and approval. Each fuel analysis plan shall include a minimum initial requirement of weekly testing and each analysis report shall contain, at a minimum, the information required in 40 CFR 60.49b(r).

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

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

The permittee shall submit either:
(a) Reports certifying that only natural gas as specified in 40 CFR 60.49b(r) was combusted in the boilers during the reporting period; or
(b) A site-specific fuel analysis plan as specified in 40 CFR 60.49b(r) for review and approval no later than 60 days before the compliance demonstration date.

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

II.B.21.d **Condition:**

At all times, including periods of startup, shutdown, or malfunction, emissions of NO_x (expressed as NO_2) shall be no greater than 0.20 lb/MMBtu (86 ng/J) heat input in any gases discharged into the atmosphere from each boiler. [Origin: 40 CFR 60 Subpart Db]. [40 CFR 60.44b(a), 40 CFR 60.44b(h)]

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

The permittee shall install, calibrate, maintain, and operate a CEMS for measuring NO_x and O_2 (or CO_2) emissions discharged to the atmosphere in accordance with 40 CFR 60.48b(e) and R307-170 and shall record the output of the system. The CEMS shall be operated and data recorded during all periods of operation except for CEMS breakdowns and repairs. Data shall be recorded during calibration checks, and zero and span adjustments. When NO_x emission data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data shall be obtained in accordance with 40 CFR 48b(f).

The 1-hour average NO_x emission rates measured by the continuous NO_x monitor shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates in accordance with 40 CFR 60.48b(d). The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring system in accordance with 40 CFR 60.48b(e).

Compliance with the emission limits shall be determined on a 30-day rolling average basis.

The permittee shall upon request determine compliance with the NO_X standards through the use of a 30-day performance test. During periods when performance tests are not requested, NO_X emissions data collected pursuant to 40 CFR 60.48b(g)(1) shall be used to calculate a 30-day rolling average emission rate on a daily basis and used to prepare excess emission reports, but will not be used to determine compliance with the NO_X emission standards. A new 30-day rolling average emission rate shall be calculated each steam generating unit operating day as the average of all of the hourly NO_X emission data for the preceding 30 steam generating unit operating days.

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

Records shall be maintained in accordance with Provision I.S.1 of this permit and R307-170. Additionally, the permittee shall record and maintain records as specified in 40 CFR 60.49b(d) and (g).

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

In addition to the reporting requirements of Section I of this permit, the permittee shall comply with the notification and reporting requirements specified in 40 CFR 60.49b(h), (i), (v), and (w).

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

II.B.21.e **Condition:**

The permittee shall conduct a tune-up of each affected emission unit as specified in 40 CFR 63.7540. [Origin: 40 CFR 63 Subpart DDDDD]. [40 CFR 63.7500(a), 40 CFR 63.7500(e), 40 CFR 63 Subpart DDDDD Table 3]

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

The permittee shall demonstrate continuous compliance as specified in 40 CFR 63.7540(a)(10).

The permittee shall conduct a tune-up of each affected emission unit every 5 years as specified in 40 CFR 63.7540(a)(10)(i)-(vi) to demonstrate continuous compliance. Each 5-year tune-up shall be conducted no more than 61 months after the previous tune-up. Burner inspection may be delayed until the next scheduled or unscheduled unit shutdown but the permittee shall inspect each burner at least once every 72 months. The permittee shall set the oxygen level no lower than the oxygen concentration measured during the most recent tune-up. If the unit is not operating on the required date for a tune-up, the tune-up shall be conducted within 30 calendar days of startup. [40 CFR 63.7515(d), 40 CFR 63.7540(a)(10), 40 CFR 63.7540(a)(12), 40 CFR 63.7540(a)(13)].

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

Records shall be kept as specified in 40 CFR 63.7555. All records shall be maintained in accordance with 40 CFR 63.7560 and Provision I.S.1 of this permit.

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

In addition to the reporting requirements of Section I of this permit, the permittee shall comply with the notification and reporting requirements specified in 40 CFR 63.7495(d), 40 CFR 63.7545(a), and 40 CFR 63.7550. [40 CFR 63 Subpart DDDDD Table 9].

II.B.21.f **Condition:**

At all times, the permittee shall operate and maintain each 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 to the Director that 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 DDDDD]. [40 CFR 63.7500(a)(3)]

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

Records required for this permit condition will serve as monitoring.

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

Permittee shall document activities performed to assure proper operation and maintenance. Records shall be kept as specified in 40 CFR 63.7555(d)(7) and maintained in accordance with 40 CFR 63.7560 and Provision I.S.1 of this permit.

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

In addition to the reporting requirements of Section I of this permit, the permittee shall comply with the reporting requirements specified in 40 CFR 63.7550.

II.B.22 **Conditions on ENGINES-D: Diesel-Fired Emergency Generators**

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

Visible emissions shall be no greater than 20 percent opacity. [Origin: DAQE-AN109170039-20]. [R307-305-3, R307-401-8]

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

A visual opacity survey of each affected emission unit shall be performed on a quarterly basis while the unit is operating 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, a 6-minute opacity determination of that emission unit shall be performed by a certified observer within 1 hour of the initial survey. The opacity determination shall be performed while the unit is operating in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director. If the generator(s) continue to operate on consecutive days following the initial observation, a 6-minute opacity determination shall be performed by a certified observer on a daily basis, while the unit is operating, in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director.

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

The permittee shall keep a log of the visual opacity survey(s) containing the following information: date and time visual emissions observed, emission point location and description, time and date of opacity test, and percent opacity. If an opacity determination is performed, a notation of the determination will be made in the log. Records and all 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.22.a.3 **Reporting:**

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

II.B.22.b **Condition:**

For the 235 hp emergency generator:
The permittee shall comply with the following at all times.

1. The permittee shall operate the emergency affected emission unit according to the requirements in paragraphs 1.a through 1.c. In order for the engine to be considered an emergency stationary RICE under 40 CFR 63 Subpart ZZZZ, any operation other than as described in 40 CFR 63.6640(f) is prohibited. If the engine is not operated according to the requirements in 40 CFR 63.6640(f), it will not be considered an emergency engine 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. Emergency stationary RICE may be operated for any combination of the purposes specified in 40 CFR 63.6640(f)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR 63.6640(f)(3) 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. A petition for approval of additional hours to be used for maintenance checks and readiness testing 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. The permittee may operate the affected emission unit up to 50 hours per calendar year in non-emergency situations as specified in 40 CFR 63.6640(f)(3).
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 63.6602, 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 2c, 40 CFR 63 Subpart ZZZZ Table 8]

II.B.22.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 work practice requirements on the required schedule or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work 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 2c Footnote 1]

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.22.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 the records required in 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.22.b.3 **Reporting:**

The permittee shall report any failure to perform the work 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 2c Footnote 1]

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.22.c **Condition:**

For the 235 hp emergency generator:
At all times the permittee shall operate and maintain the 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. 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 63.6605(b)]

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

Records required for this permit condition will serve as monitoring.

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

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

II.B.22.d **Condition:**

For the 610 hp emergency fire pump engine:
Affected emission units with a displacement of less than 30 liters per cylinder shall comply with the emission standards in Table 4 of 40 CFR 60 Subpart IIII, for all pollutants. If the permittee conducts performance tests in-use on emergency stationary CI ICE with a displacement of less than 30 liters per cylinder they shall meet the not-to-exceed (NTE) standards as indicated in 40 CFR 60.4212. [Origin: 40 CFR 60 Subpart IIII]. [40 CFR 60.4205(c), 40 CFR 60.4205(e), 40 CFR 63 Subpart ZZZZ]

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

For affected emission units that are manufactured during or after the applicable model years for fire pump engine power rating in Table 3 of 40 CFR 60 Subpart IIII, the permittee shall comply by purchasing an engine certified to the emission standards in 40 CFR 60.4205(c) for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted below. (Origin: 40 CFR 60.4211(c))

If the permittee does not install, configure, operate, and maintain affected emission units and control devices according to the manufacturer's emission-related written instructions, or changes emission-related settings in a way that is not permitted by the manufacturer, the permittee shall demonstrate compliance as follows:

(a) For affected emission units greater than 500 HP:
    i. Keep a maintenance plan and records of conducted maintenance; and

ii. To the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions; and
iii. Conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after changing emission-related settings in a way that is not permitted by the manufacturer. The permittee shall conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

(Origin: 40 CFR 60.4211(g)).

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

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

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

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

II.B.22.e **Condition:**

For the 402 hp and 161 hp emergency engines:
The permittee shall comply with paragraphs (1) through (2).
(1) After December 31, 2008, the permittee shall not install affected emission units (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines.
(2) The permittee shall not import affected emission units with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in paragraphs (1) of this condition after the date specified in paragraphs (1) of this condition.

[Origin: 40 CFR 60 Subpart IIII]. [40 CFR 60.4208, 40 CFR 63 Subpart ZZZZ]

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

Records required for this permit condition will serve as monitoring.

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

The permittee shall keep records of the install date of each affected emission unit and the applicable requirements under 40 CFR 60 Subpart IIII for the respective model year engine. Records shall be maintained as described in Provision I.S.1 of this permit.

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

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

II.B.22.f **Condition:**

For the 402 hp and 161 hp emergency engines:
2007 model year and later emergency affected emission units with a displacement of less than 30 liters per cylinder that are not fire pump engines shall comply with the emission standards for new nonroad CI ICE in 40 CFR 60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE. If the permittee conducts performance tests in-

use on emergency stationary CI ICE with a displacement of less than 30 liters per cylinder they shall meet the not-to-exceed (NTE) standards as indicated in 40 CFR 60.4212. [Origin: 40 CFR 60 Subpart IIII]. [40 CFR 60.4205(b), 40 CFR 60.4205(e), 40 CFR 63 Subpart ZZZZ]

II.B.22.f.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 must be installed and configured according to the manufacturer's emission-related specifications, except as permitted below. (Origin: 40 CFR 60.4211(c))

If the permittee does not install, configure, operate, and maintain affected emission units and control devices according to the manufacturer's emission-related written instructions, or changes emission-related settings in a way that is not permitted by the manufacturer, the permittee shall demonstrate compliance as follows:

(a) For affected emission units greater than or equal to 100 HP and less than or equal to 500 HP:
   i. Keep a maintenance plan and records of conducted maintenance; and
   ii. To the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions; and
   iii. Conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after changing emission-related settings in a way that is not permitted by the manufacturer.

(Origin: 40 CFR 60.4211(g)).

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

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

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

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

II.B.22.g **Condition:**

For the 610 hp emergency fire pump engine and the 402 hp and 161 hp emergency engines:
The permittee shall operate and maintain affected emission units that achieve the emission standards as required in 40 CFR 60.4205 over the entire life of the engine. The permittee shall do all of the following, except as permitted in II.B.22.g.1(b):

(1) Operate and maintain the stationary CI ICE and control device according to the manufacturer's emission-related written instructions;
(2) Change only those emission-related settings that are permitted by the manufacturer; and
(3) Meet the requirements of 40 CFR parts 89, 94 and/or 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.22.g.1 **Monitoring:**

(a) The permittee shall document activities performed to assure proper operation and maintenance.
(b) If the permittee does not install, configure, operate, and maintain affected emission units and control devices according to the manufacturer's emission-related written instructions, or

changes emission-related settings in a way that is not permitted by the manufacturer, the permittee shall demonstrate compliance as follows:

(1) For affected emission units greater than or equal to 100 HP and less than or equal to 500 HP:
   a. Keep a maintenance plan and records of conducted maintenance; and
   b. To the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions; and
   c. Conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after changing emission-related settings in a way that is not permitted by the manufacturer.

(2) For affected emission units greater than 500 HP:
   a. Keep a maintenance plan and records of conducted maintenance; and
   b. To the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions; and
   c. Conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after changing emission-related settings in a way that is not permitted by the manufacturer. The permittee shall conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

(Origin: 40 CFR 60.4211(g)).

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

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

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

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

II.B.22.h **Condition:**

For the 610 hp emergency fire pump engine and the 402 hp and 161 hp emergency engines:
The permittee of affected emission units with a displacement of less than 30 liters per cylinder shall use diesel fuel that meets the requirements of 40 CFR 1090.305 for nonroad diesel fuel. [Origin: 40 CFR 60 Subpart IIII]. [40 CFR 60.4207(b), 40 CFR 63 Subpart ZZZZ]

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

Records required for this permit condition will serve as monitoring.

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

For each fuel load received, the permittee shall maintain either fuel receipt records or other documentation showing fuel meets the specifications of ASTM D975 for the cetane index and sulfur content for Grades No. 1-D S15 or 2-D S15 diesel. The permittee shall maintain documentation demonstrating compliance with the condition. These records shall be maintained in accordance with Provision I.S.1. of this permit.

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

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

II.B.22.i **Condition:**

For the 610 hp emergency fire pump engine and the 402 hp and 161 hp emergency engines:
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 IIII, any operation other than as described in 40 CFR 60.4211(f), is prohibited. If the engine is not operated according to the requirements in 40 CFR 60.4211(f), 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 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 40 CFR 60.4211(f)(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. A petition for approval of additional hours to be used for maintenance checks and readiness testing 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) The permittee may operate the emergency stationary ICE up to 50 hours per calendar year in non-emergency situations as specified in 40 CFR 60.4211(f)(3).

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

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

If an emergency affected emission unit 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. [origin: 40 CFR 60.4209(a)] Records required for this permit condition will also serve as monitoring.

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

Records of each affected emission unit shall be kept on a monthly basis in an operation and maintenance log. Records shall distinguish between maintenance-related hours and emergency use-related hours. If 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 ICE beyond 100 hours per calendar year. (Origin: 40 CFR 60.4211(f))

Starting with the model years in Table 5 of 40 CFR 60 Subpart IIII, if an 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. (Origin: 40 CFR 60.4214(b))

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

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

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

II.B.22.j **Condition:**

The permittee shall only use diesel fuel (fuel oil #1, #2 or diesel fuel oil additives) in the diesel-fired engines on site. All diesel burned shall contain no more than 15 ppm sulfur. [Origin: DAQE-AN109170039-20]. [R307-401-8]

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

Records required for this permit condition will serve as monitoring.

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

To demonstrate compliance with the diesel fuel requirements, the permittee shall keep and maintain fuel purchase invoices for any diesel fuel purchased. The fuel purchase invoices shall indicate the diesel fuel meets the sulfur requirements or the permittee shall obtain certification of sulfur content from the fuel supplier. Records shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

II.B.23 **Conditions on ENGINES-P: Propane-fired Generators**

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

Visible emissions from propane-fired emergency generator engines shall not exceed 10% opacity. [Origin: DAQE-AN109170039-20]. [R307-401-8]

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

In lieu of monitoring via visible emission observations, records required for this permit condition will serve as monitoring.

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

Records shall be kept for any period that a fuel other than propane is used in the affected emission unit. The records shall be recorded in a log that is kept in a readily accessible location on site. All records 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:**

(a) For each affected emission unit where construction commenced (i.e., date the affected emission unit is ordered by the Permittee) after June 12, 2006, with a maximum engine power:
  (1) Less than or equal to 19 KW (25 HP) manufactured on or after July 1, 2008, the Permittee shall comply with the emission standards in 40 CFR 60.4231(a) (origin 40 CFR 60.4233(a));
  (2) Greater than 19 KW (25 HP) and less than 75 KW (100 HP) the permittee shall comply with the emission standards in Table 1 of 40 CFR 60 Subpart JJJJ. (origin 40 CFR 60.4233(d))

(b) Deadline for importing or installing affected emission units produced in previous model years:
  (1) After July 1, 2010, the Permittee shall not install affected emission units with a maximum engine power of less than 500 HP that do not meet the applicable requirements in section (a) of this condition. (origin 40 CFR 60.4236(a))
  (2) For affected emission units 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 section (a) of this condition after January 1, 2011. (origin 40 CFR 60.4236(c))
  (3) In addition to the requirements specified in 40 CFR 60.4231 and 40 CFR 60.4233, it is prohibited to import affected emission units less than or equal to 19 KW (25 HP), that do not meet the applicable requirements specified in paragraph (1) this section, after the date specified in paragraph (1) of this section. (origin 40 CFR 60.4236(d))

(c) 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 (origin 40 CFR 60.4234)

(d) 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. (origin 40 CFR 60.4243(g))

[Origin: 40 CFR 60 Subpart JJJJ]. [40 CFR 60.4233, 40 CFR 60.4234, 40 CFR 60.4236, 40 CFR 60.4243, 40 CFR 63 Subpart ZZZZ]

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

(a) For affected emission units manufactured after July 1, 2008 with a maximum engine power less than or equal to 19 KW (25 HP), the permittee shall demonstrate compliance by purchasing an engine certified to the emission standards in 40 CFR 60.4231(a) for the same engine class and maximum engine power. In addition, the permittee shall meet one of the requirements specified in (a)(1) and (2) of this section.
  (1) 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 for the Permittee. 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.
  (2) 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 (a)(2)(i) of this section.
    (i) If the affected emission unit is less than 100 HP, the Permittee shall keep a maintenance plan and records of conducted maintenance to demonstrate compliance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions, but no performance testing is required for the Permittee.

  (Origin: 40 CFR 60.4243(a))

(b) For affected emission units greater than 19 KW (25 HP) and less than 75 KW (100 HP) subject to the emission standards in 40 CFR 60.4233(d), the permittee shall demonstrate

compliance by 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 (a)(1) and (2) of this section.
(Origin: 40 CFR 60.4243(b)).

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

(a) For each 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 90, 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 40 CFR 60.4243(a)(2), 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.
(c) Records and results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

II.B.23.c **Condition:**

The permittee shall operate the affected emission units 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 as described in 40 CFR 60.4243(d) is prohibited. If the engine is not operated according to the requirements in 40 CFR 60.4243(d), 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 any combination of 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 40 CFR 60.4243(d)(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. A petition for approval of additional hours to be used for maintenance checks and readiness testing 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) The permittee may operate the emergency stationary ICE 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.23.c.1 **Monitoring:**

Records required for this permit condition will serve as monitoring. Additionally, for affected emission units less than 130 HP, built on or after July 1, 2008, that do not meet the standards applicable to non-emergency engines, the permittee shall install a non-resettable hour meter upon startup of the affected emission unit. (Origin: 40 CFR 60.4237(c)).

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

For each affected emission unit greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, 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 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. (Origin: 40 CFR 60.4245(b))

Records of each affected emission unit shall be kept on a monthly basis in an operation and maintenance log. Records shall distinguish between maintenance-related hours and emergency use-related hours. If 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 ICE beyond 100 hours per calendar year. (Origin: 40 CFR 60.4243(d))

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

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

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

II.B.24 **Conditions on BLAST: Abrasive Blast Machine.**

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

(1) Except as provided in (2) below, visible emissions from abrasive blasting operations shall not exceed 20% opacity except for an aggregate period of three minutes in any one hour.
(2) If the abrasive blasting operation complies with the performance standards in R307-306-6, visible emissions from the operation shall not exceed 40% opacity, except for an aggregate period of 3 minutes in any one hour.

[Origin: R307-306]. [R307-306-4]

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

(a) Visible emissions shall be measured at least monthly using EPA Method 9, or other EPA-approved testing method, as acceptable to the Director, if the affected emission unit was operated during the month. Visible emissions from intermittent sources shall use procedures similar to Method 9, but the requirement for observations to be made at 15 second intervals over a six-minute period shall not apply.
(b) Visible emissions from unconfined blasting shall be measured at the densest point of the emission after a major portion of the spent abrasive has fallen out, at a point not less than five feet nor more than twenty-five feet from the impact surface from any single abrasive blasting nozzle.

(c) An unconfined blasting operation that uses multiple nozzles shall be considered a single source unless it can be demonstrated by the permittee that each nozzle, measured separately, meets the emission and performance standards provided in R307-306-4.
(d) Visible emissions from confined blasting shall be measured at the densest point after the air contaminant leaves the enclosure.

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

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

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

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

II.B.25 **Conditions on ROADS: Roads and Unpaved Operational Areas.**

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

1) Visible emissions in disturbed, operational areas, and unpaved haul roads from haul trucks and other mobile equipment shall not exceed 20% opacity at any point.
2) Visible emissions caused by fugitive dust shall not exceed 10% at the property boundary. The 10% opacity shall not apply when the wind speed exceeds 25 miles per hour if the permittee has implemented, and continues to implement, the accepted fugitive dust control plan and administers at least one of the following contingency measures:
   (a) Pre-event watering;
   (b) Hourly watering;
   (c) Additional chemical stabilization;
   (d) Cease or reduce fugitive dust producing operations;
   (e) Other contingency measure approved by the director.

[Origin: DAQE-AN109170039-20, R307-309]. [R307-309-5, R307-309-6, R307-401-8]

II.B.25.a.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 the opacity limits are not exceeded and that appropriate measures are being implemented to control fugitive dust. Wind speed may be measured by a hand-held anemometer or equivalent device.

Vehicle speeds shall be limited to 30 miles per hour on haul roads and 15 miles per hour in off-road areas. The vehicle speed limits shall be clearly visible and posted, at a minimum, on site at the entrance to off-road areas and the beginning of the haul road.

The permittee shall spray all unpaved haul roads with water, brine, or a chemical suppressant to control fugitive dust and maintain the opacity limits listed in this condition.

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

Records of water or chemical treatment shall be kept for all periods when the plant is in operation. The permittee may stop applying suppressants when the temperature is below freezing. The records shall include the following:
A. Date
B. Location of treatment
C. Rainfall received, if any, and approximate amount

D. Records of temperature if the temperature is below freezing.

If wind speeds are measured to establish an exception from the 10% opacity limit, records of the administered contingency measures and the wind speed measurements shall be maintained.

Records that demonstrate compliance with this condition shall be available to the director upon request. [R307-309-12] 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.25.a.3 **Reporting:**

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

II.B.25.b **Condition:**

i) If the permittee is responsible for construction or maintenance of any existing road or has right-of-way easement or possesses the right to use the same whose activities result in fugitive dust from the road, the permittee shall minimize fugitive dust to the maximum extent possible. If materials are deposited that may create fugitive dust on a public or private paved road, the permittee shall clean the road promptly.
ii) Unpaved Roads. If the permittee is responsible for construction or maintenance of any new or existing unpaved road, the permittee shall prevent, to the maximum extent possible, the deposit of material from the unpaved road onto any intersecting paved road during construction or maintenance. If materials are deposited that may create fugitive dust on a public or private paved road, the permittee shall clean the road promptly.

[Origin: R307-309]. [R307-309-9]

II.B.25.b.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

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

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

II.B.26 **<u>Conditions on TANKS: Petroleum Storage Tanks</u>**

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

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

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

Records required for this permit condition will serve as monitoring.

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

The permittee shall maintain records of the average monthly storage temperature, the type of liquid, throughput quantities, and the maximum true vapor pressure in accordance with Provision I.S.1 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.27 **Conditions on MISC: Miscellaneous Emissions**

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

The permittee shall not operate a degreasing or solvent cleaning operation unless the following conditions are met.

(1) A cover shall be installed which shall remain closed except during actual loading, unloading or handling of parts in cleaner. The cover shall be designed so that it can be easily operated with one hand if:
   (a) The volatility of the solvent is greater than 2 kPa (15 mm Hg or 0.3 psi) measured at 38 degrees C (100 degrees F),
   (b) The solvent is agitated, or
   (c) The solvent is heated.

(2) An internal draining rack for cleaned parts shall be installed on which parts shall be drained until all dripping ceases. If the volatility of the solvent is greater than 4.3 kPa (32 mm Hg at 38 degrees C (100 degrees F)), the drainage facility must be internal, so that parts are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

(3) Waste or used solvent shall be stored in covered containers.

(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); or
   (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 that does not cause excessive splashing and may not be a fine, atomized or shower type spray.

[Origin: R307-335]. [R307-335-4]

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

A visual inspection shall be made at least once each quarter to demonstrate compliance with this condition. Records required for this permit condition will also serve as monitoring.

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

Documentation of the visual inspections and records demonstrating compliance with this condition 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.27.b **Condition:**

1. Except as provided in R307-361-4, the permittee shall not blend, or repackage, 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.
2. If a coating is recommended for use in more than one of the specialty coating categories listed in Table 1, the most restrictive (lowest) VOC content limit shall apply.
   a. This requirement applies to usage recommendations that appear anywhere on the coating container, anywhere on any label or sticker affixed to the container, or in any sales, advertising, or technical literature supplied by a manufacturer or anyone acting on their behalf.
   b. R307-361-5(2) does not apply to the coating categories listed in R307-361-5(2)(b).
3. Sell-through of coatings. A coating manufactured before January 1, 2015, may be applied at any time. R307-361-5(3) does not apply to any coating that does not display the date or date code required by R307-361-6(1)(a).
4. Painting practices. All architectural coating containers used when applying the contents therein to a surface directly from the container by pouring, siphoning, brushing, rolling, padding, ragging or other means, shall be closed when not in use. These architectural coating containers include, but are not limited to, drums, buckets, cans, pails, trays or other application containers. Containers of any VOC-containing materials used for thinning and cleanup shall also be closed when not in use.
5. Thinning. The permittee shall not apply or solicit the application of any architectural coating that is thinned to exceed the applicable VOC limit specified in Table 1.
6. Rust preventative coatings. The permittee shall not apply or solicit the application of any rust preventative coating manufactured before January 1, 2015 for industrial use, unless such a rust preventative coating complies with the industrial maintenance coating VOC limit specified in Table 1.
7. Coatings not listed in Table 1. For any coating that does not meet any of the definitions for the specialty coatings categories listed in Table 1, the VOC content limit shall be determined by classifying the coating as a flat, non-flat, or non-flat/high gloss coating, based on its gloss, as defined in R307-361-3 and the corresponding flat, non-flat, or non-flat/high gloss coating VOC limit in Table 1 shall apply.
8. The coatings described in R307-361-4(1) through (3) are exempt from the requirements of R307-361.

[Origin: R307-361]. [R307-361]

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

The permittee shall use the following test methods.

(a) Determination of VOC content.
   (i) For the purpose of determining compliance with the VOC content limits in Table 1, the VOC content of a coating shall be calculated by following the appropriate formula found in the definitions of VOC actual, VOC content, and VOC regulatory found in R307-361-3.
   (ii) The VOC content of a tint base shall be determined without colorant that is added after the tint base is manufactured.
   (iii) If the manufacturer does not recommend thinning, the VOC content shall be calculated for the product as supplied.

(iv) If the manufacturer recommends thinning, the VOC content shall be calculated including the maximum amount of thinning solvent recommended by the manufacturer.
(v) If the coating is a multi-component product, the VOC content shall be calculated as mixed or catalyzed.
(vi) The coating contains silanes, siloxanes, or other ingredients that generate ethanol or other VOC during the curing process, the VOC content shall include the VOCs emitted during curing.

(R307-361-8)

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

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

II.B.27.b.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 60 Subpart UUU (Standards of Performance for Calciners and Dryers in Mineral Industries)

This regulation is not applicable to the Permitted Source for the following reason(s): neither the salt plant nor the SOP plant meets the definition of mineral processing plant given in 40 CFR 60.731. Although the magnesium chloride plant could meet the definition of mineral processing plant, there is no calciner or dryer at the magnesium chloride plant. Calciners and dryers are the only affected facilities subject to Subpart UUU according to 40 CFR 60.730. [10/22/2008] [Last updated May 28, 2021]

III.B. 40 CFR 60 Subpart OOO (Standards of Performance for Nonmetallic mineral processing plants)

This regulation is not applicable to the Permitted Source for the following reason(s): the only material processed by the facility which is subject to 40 CFR Subpart OOO is sodium chloride, however, all affected facilities commenced construction, reconstruction or modification prior to August 31, 1983. [06/24/2002] [Last updated May 28, 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-AN109170039-20 dated January 13, 2020
Incorporates	[State-only Requirements] Utah SIP IX.H.12.e dated January 2, 2019

1. Comment on an item originating in 40 CFR 64 regarding Permitted Source Compliance Assurance Monitoring (CAM): CAM applies to the following units for PM_{10} and $PM_{2.5}$, as indicated, and has been included in the operating permit. None of the units have post-control PTE emissions above the major source threshold.

   AH-500: Salt Cooler Circuit (PM_{10})
   AH-502: Salt Plant Circuit (PM_{10})*
   AH-513: Salt Dryer (PM_{10} and $PM_{2.5}$)
   AH-1555 SOP Plant (PM_{10})
   BH-001: SOP Bulk Load-Out Circuit (PM_{10} and $PM_{2.5}$)
   BH-002: SOP Plant (PM_{10} and $PM_{2.5}$)
   BH-008 SOP Plant-Compaction Dryer (PM_{10} and $PM_{2.5}$)
   BH-501: Salt Cooler (PM_{10} and $PM_{2.5}$)
   BH-502 Salt Bulk Load-out (PM_{10})
   BH-1400: SOP Dryer (D-1400) (PM_{10} and $PM_{2.5}$)
   BH-1516 SOP Plant (PM_{10})

   *The permittee has confirmed AH-502 does not operate at pre-control emission levels that trigger CAM. The permittee has chosen to voluntarily operate it as a CAM-applicable unit because CAM has been required on this unit historically. CAM is included for AH-502 in the 2021 renewal permit.

   Historical information: In DAQE-AN109170039-20, the wet scrubber (AH-075) and baghouse (BH-014) were removed and baghouse (BH-008) replaced the scrubber (AH-1547) on the SOP Plant Dryer (D-1545). So, the CAM monitoring previously included in conditions II.B.11.a, II.B.12.a, and II.B.10.b in the operating permit issued 7/11/2016 has been removed. The wet scrubber (AH-081) was removed in DAQE-AN0109170027-09. So the CAM monitoring previously included in condition II.B.9.a of the operating permit issued 7/9/09 has been removed from the operating permit. The wet scrubber (AH-505) was removed in DAQE-AN109170030A-12 and replaced with an internally-vented baghouse (BH-505). So the CAM monitoring previously included in condition II.B.5.a of the operating permit issued 7/9/09 has been removed from the operating permit. The packed tower scrubber (HE-028) was removed in DAQE-AN109170032-13 and replaced with a baghouse (BH-014). So the CAM monitoring previously included in condition II.B.11.a of the operating permit issued 2/6/13 has been removed. The baghouse (BH-006) for the SOP compaction fluid bed heater (D-005) was removed in DAQE-AN109170035-16. So the CAM monitoring previously included in II.B.8.b of the operating permit issued 4/9/13 has been removed. [9/30/08] [Last updated May 28, 2021]

2. Comment on an item originating in 40 CFR 63 Subpart BBBBBBB regarding SALT: BH-505 Salt Packing

   Removal of requirements: Requirements from 40 CFR 63 Subpart BBBBBBB were included in the permit issued 12/6/2010 on unit AH-505: Salt Special Products Circuit. The component of concern was manganese in the manufacture of mineral feed blocks.

Although the manufactured feed block contained 0.8% by weight manganese, certain premixes in the raw material stream contained manganese in excess of 1.0%. The permittee submitted a letter dated 12/22/2010 from EPA to North American Salt company in Minnesota that determined the subpart was not applicable to their mineral feed block manufacturing operation because the premix compounds that exceeded 1.0% manganese were purchased from vendors, not manufactured onsite. The permittee submitted a letter dated 1/31/2011, received by DAQ 2/2/2011, stating that the raw material feed specifications and final product are identical to the Minnesota plant's. Based on this information, the requirements from 40 CFR 63 Subpart BBBBBBB have been removed from the operating permit. [7/30/12] [Last updated May 28, 2021]

3. Comment on an item originating in 40 CFR 63 Subpart ZZZZ, 40 CFR 60 Subpart IIII, 40 CFR 60 Subpart JJJJ regarding Permitted Source

40 CFR 63 Subpart ZZZZ:
Subpart ZZZZ defines 'existing' for stationary RICE less than or equal to 500 hp at major HAP sources if they '...commenced construction or reconstruction...before June 12, 2006.' The 235 hp emergency diesel generator was installed in 2000 and meets the definition of emergency stationary RICE given in Subpart ZZZZ. Applicable requirements from 40 CFR 63 Subpart ZZZZ for existing emergency compression ignition (CI) RICE at major HAP sources have been included in the permit for the 235 hp generator. The diesel-fired emergency engines do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii). Therefore, the fuel requirements from 40 CFR 63.6604 have not been included in the operating permit.

Note: The permitted source was classified as an area source of HAP emissions when Subpart ZZZZ requirements were originally included in the operating permit issued 12/6/2010. The permittee was required to be in compliance with those requirements by May 3, 2013 per 40 CFR 63.6595(a)(1). The permitted source is now classified as a major source of HAP emissions. The compliance date for Subpart ZZZZ requirements is 3 years after an area source becomes a major source of HAP per 40 CFR 63.6595(b)(2). However, there is no difference between the requirements that apply to the 235 hp generator either as an area source or as a major source of HAP emissions. So neither reference to 40 CFR 63.6595(a)(1) nor 40 CFR 63.6595(b)(2) was included in the 2016 renewal operating permit for the Subpart ZZZZ provisions.

Subpart ZZZZ defines 'new' for stationary RICE more than 500 hp at major HAP sources if they '...commenced construction...on or after December 19, 2002.' 40 CFR 63.6590(b)(1) states new emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii) do not have to meet the requirements of 40 CFR 63 Subpart A and ZZZZ except for the initial notification requirements of 40 CFR 63.6645(f). Although the 610 hp emergency engine is an affected source under Subpart ZZZZ , it is only subject to the initial notification requirements from 40 CFR 63.6645(f).

Subpart ZZZZ defines 'new' for stationary RICE less than or equal to 500 hp at major HAP sources if they '...commenced construction...on or after June 12, 2006.' 40 CFR 63.6590(c) states new emergency stationary RICE with a site rating less than or equal to 500 brake HP located at a major source of HAP emissions shall meet the requirements of Subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart IIII or 40 CFR 60 Subpart JJJJ. No further requirements from Subpart ZZZZ apply. The 402 hp diesel, 161 hp diesel, <100 hp propane and both 41 hp propane emergency engines are in this category.

40 CFR 60 Subpart IIII:
Per 40 CFR 60.4200(a)(2), CI engines ordered after July 11, 2005 and, manufactured after July 1, 2006 for fire pump engines or manufactured after April 1, 2006 for non-fire pump engines, are affected emission units. The 610 hp emergency fire pump engine, 402 hp non-fire pump emergency engine, and 161 hp non-fire pump emergency engine meet the applicability criteria.

40 CFR 60 Subpart JJJJ:
Per 40 CFR 60.4230(a)(4), SI ICE with a maximum engine power less than 500 HP ordered after June 12, 2006 and manufactured on or after July 1, 2008 are affected units. The <100 hp emergency engine meets the applicability criteria.

Per 40 CFR 60.4230(a)(4), SI emergency engines with a maximum engine power greater than 19 KW (25 HP) ordered after June 12, 2006 and manufactured after January 1, 2009 are affected emission units. The two 41 hp emergency engines meet the applicability criteria. [9/04/2008] [Last updated May 28, 2021]

4. Comment on an item originating in historical approval order regarding ROADS: Roads and Unpaved Operational Areas

   Although no longer strictly relevant, this comment remains for historical information. Requirement to demonstrate compliance with opacity using a modified Method 9: The approval order DAQE-AN0917021-06 specified compliance demonstration with the fugitive dust opacity limit either by modified Method 9 visible emission determinations or by implementing a fugitive dust control plan. The permittee has requested that they be allowed to submit and implement a fugitive dust control plan in lieu of regular modified Method 9 observations. Therefore, only the fugitive dust control plan monitoring has been included in this permit condition II.B.25. [6/08/2006] [Last updated May 28, 2021]

5. Comment on an item originating in 40 CFR 60.110b(a) regarding TANKS: Petroleum Storage Tanks

   Petroleum storage tanks not subject to NSPS Subpart Kb: The petroleum storage tanks are not subject to NSPS, Subpart Kb due to size (less than 19,813 gal). [12/10/2001] [Last updated May 28, 2021]

6. Comment on an item originating in DAQE-AN109170039-20 regarding SALT: BH-505 Salt Packing

   $PM_{2.5}$ limits originating in the SIP for BH-505 were not brought forward in the approval order or operating permit because the baghouse vents indoors. Condition II.B.2.e of the approval order requires indoor venting for BH-505 during all periods of operation. That requirement is included in the emission unit description for BH-505 in II.A.9 of the operating permit. [11/26/2019] [Last updated May 28, 2021]

7. Comment on an item originating in 40 CFR 60 Subpart Db regarding Boilers: Natural Gas-fired Boilers

   The permittee has requested that the NO_x limit originating in the NSPS and the NO_x limit originating in the approval order be separate conditions in the Title V permit to clarify the monitoring that applies to each. [7/30/2012] [Last updated May 28, 2021]

8. Comment on an item originating in 40 CFR 63 Subpart DDDDD regarding Boilers: Natural Gas-fired Boilers

   Per 40 CFR 63.7575, oxygen trim system means a system of monitors that is used to maintain excess air at the desired level in a combustion device. A typical system consists of a flue gas oxygen and/or CO monitor that automatically provides a feedback signal to

the combustion air controller. The permittee confirmed the boilers are equipped with continuous oxygen trim systems as defined in 40 CFR 63 Subpart DDDDD.

In a notification dated February 19, 2019 (received by DAQ 2/20/2019), the permittee confirmed the initial tune-ups were performed on the boilers May 2-3, 2017 and the one-time energy assessment was performed January 2-3, 2019. Condition language referring to the initial compliance demonstration and one-time energy assessment has been removed from the permit. [8/25/2015] [Last updated May 28, 2021]

9. Comment on an item originating in DAQE-AN109170039-20 regarding Permitted Source
The referenced approval order contains opacity limits that do not include a wind speed exception for the permittee's fugitive dust sources. Therefore, the requirement in condition II.B.1.g of the operating permit issued 7/11/2016 that allowed a source-wide wind speed exception per R307-309-5 has been removed. Instead, the wind speed exception has been added to the 10% opacity limit in condition II.B.25.a of the operating permit. The wind speed exception applies to the 10% opacity limit at the property boundary for roads and unpaved operational areas only. [8/29/2019] [Last updated May 28, 2021]

10. Comment on an item originating in 40 CFR 63 Subpart DDDDD regarding Permitted Source
Per 40 CFR 63.7575, process heater means an enclosed device using controlled flame, and the unit's primary purpose is to transfer heat indirectly to a process material (liquid, gas, or solid) or to a heat transfer material (e.g., glycol or a mixture of glycol and water) for use in a process unit, instead of generating steam. Process heaters are devices in which the combustion gases do not come into direct contact with process materials. The permittee has evaluated and confirmed that all dryers source-wide and the burners included in the SOP submerged combustion process are not process heaters as defined in 40 CFR 63 Subpart DDDDD because the combustion gases in those units come into direct contact with process materials.

Per 40 CFR 63.7575, hot water boilers (i.e., not generating steam) combusting gaseous, liquid, or biomass fuel with a heat input capacity of less than 1.6 million Btu per hour are included in the definition of hot water heater. The gas-fired main office boiler (0.55 MMBtu/hr) listed under the miscellaneous emissions unit meets the definition of hot water heater. Hot water heaters are not subject to 40 CFR 63 Subpart DDDDD. (40 CFR 63.7491(d)) [2/17/2016] [Last updated May 28, 2021]

11. Comment on an item originating in DAQE-AN109170039-20 regarding Permitted Source
Fugitive source clarification: As noted in the BACT review for the referenced approval order, sources of fugitive emissions "...include solar evaporation pond and material pile handling operations, SOP defoamer evaporative emissions, haul roads, and wind erosion of windrowed ponds, and storage piles." [11/27/2019] [Last updated May 28, 2021]

12. Comment on an item originating in DAQE-AN109170039-20 regarding Permitted Source
Monitoring for wet scrubbers: Condition II.B.7.b in the referenced approval order requires pressure drop monitoring on all scrubbers. The permittee submitted information obtained from the scrubber manufacturer that indicates fan speed, instead of pressure drop, is a more direct performance indicator for mechanically aided centrifugal fan wet scrubbers. As noted by the manufacturer, the mechanically aided centrifugal fan wet scrubbers do not depend on pressure drop to measure performance. Fan speed has been added to the condition and monitoring for mechanically aided scrubbers to address this in the operating permit. The mechanically aided centrifugal fan scrubbers are AH-500, AH-502, AH-513, and AH-1555. The pressure drop requirement from the approval order has been retained in the operating permit for AH-692. Scrubber AH-692 is a venturi wet scrubber and pressure drop is a direct indicator of performance for that type of scrubber.

Update in 2021 renewal permit: As part of the renewal process, CAM plans for all mechanically aided wet scrubbers were either added or updated to include scrubber liquid flow and fan speed monitoring. The requirements for mechanically aided wet scrubbers previously contained in source-wide condition II.B.1.i of the operating permit issued 8/27/2020 are now included under the conditions for each specific scrubber. The remaining requirements from condition II.B.1.i apply to the venturi scrubber (AH-692) on the mag chloride plant and have been moved under that specific scrubber in the renewal permit. [1/31/2020] [Last updated May 28, 2021]

13. Comment on an item originating in SIP Section IX.H.12.e regarding MgCl: Magnesium Chloride Evaporators

    Operating controls: The referenced section of the SIP states the following for the magnesium chloride evaporators. "Process emissions shall be routed through operating controls prior to being emitted to the atmosphere." The BACT review for DAQE-AN109170039-20 stated there are no available and/or technically feasible control strategies for the evaporators. Therefore, the evaporators are uncontrolled and the SIP requirement has not been brought forward into the operating permit. [2/3/2020] [Last updated May 28, 2021]

14. Comment on an item originating in DAQE-AN109170039-20 regarding Permitted Source

    Fugitive dust control plan (FDCP): The permittee was required to submit an updated FDCP within 30 days of the issuance of the referenced approval order. The updated plan was submitted on 2/13/2020. [3/2/2020] [Last updated May 28, 2021]