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

10313

Title V Operating Permit

PERMIT NUMBER: 2700005004 -**DRAFT**
DATE OF PERMIT: TBD
Date of Last Revision: TBD

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

Name of Permittee:

Graymont Western US Incorporated
585 West Southridge Way
Sandy, UT 84070

Permitted Location:

Cricket Mountain Plant
PO Box 669
32 Miles Southwest of Delta, Utah
Highway 257
Delta (Millard), UT 84624

UTM coordinates: 343,100 m Easting, 4,311,010 m Northing
SIC code: 3274 (Lime)

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:	August 31 of every calendar year that this permit is in force.
Renewal application due:	TBD
Permit expiration date:	TBD
Definition of "prompt":	written notification within 14 days.

ABSTRACT

Graymont Western US Inc. operates the Cricket Mountain Lime Plant in Millard County, Utah. This plant has been in operation since 1980. The Cricket Mountain Lime Plant consists of quarries and a lime processing plant, including mining activities, limestone processing, five rotary lime kilns, post-kiln lime handling, and truck & rail load out facilities. The rotary kilns are used to convert crushed limestone ore into quicklime. The products produced for resale are lime, limestone and kiln dust. The major sources of air emissions are from mining and material handling and the combustion of fuels for the kiln operation. The Cricket Mountain Lime Plant is a major source for emissions of PM, PM_{10}, $PM_{2.5}$, SO_2, NO_x, CO, VOC, and HAP and is subject to 40 CFR 60 Subpart A-General Provisions, 40 CFR 60 Subpart Y-Standards of Performance for Coal Preparation and Processing Plants, 40 CFR 60 Subpart HH-Standards of Performance for Lime Manufacturing Plants, 40 CFR 60 Subpart OOO-Standards of Performance for Nonmetallic Mineral Processing Plants, 40 CFR 60 Subpart IIII-Standards of Performance for Stationary Compression Ignition 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, and 40 CFR 63 Subpart AAAAA-National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants. If the permittee is operating as an area HAP source in accordance with the alternate operating scenario (AOS) in Section II.D of this permit, 40 CFR 63 Subpart CCCCCC-National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities applies and 40 CFR 63 Subpart AAAAA does not apply.

OPERATING PERMIT HISTORY

Permit/Activity	Date Issued	Recorded Changes
Title V renewal application (Project #OPP0103130018)	TBD	Changes: Incorporate changes approved in DAQE-AN103130044-21, dated 5/4/21, to update equipment list. Renewal also incorporates changes approved in DAQE-AN103130042-21, dated 4/7/21, to add a limestone fines product loadout system and an alternate operating scenario for operation as an area HAP source. The permit also includes language updates from federal and state rules.
Title V administrative amendment - enhanced AO (Project #OPP0103130017)	04/11/2018	Changes: Incorporates changes approved in DAQE-AN103130041-18, dated 1/30/18, that added a new baghouse (D-488), new dolomitic lime crusher (R-486), new briquetter (BRI-014), permitted an existing briquetter (BRI-474), and reduced the operating hours and corrected the rating on the existing sugar stone generator.
Title V renewal application (Project #OPP0103130016)	07/11/2016	Changes: Incorporate Reduction in Air Contaminants Approval Order DAQE-AN103130035-16, dated 1/26/2016, that added a lime kiln dust silo (T-381) with baghouse (D-381) and a loadout spout on T-381 with baghouse (D-382), replaced the Kiln 3 baghouse (D-375), removed two aux. pump engines (Kiln 2, Kiln 3), removed the rail loadout baghouse (D-7142), removed the secondary crusher (R-041) and secondary screen (S-041). The permit also includes language updates from state rules.
Title V Operational Flexibility Change (Project #OPP0103130013)	04/30/2014	Changes: Incorporate Reduction in Air Contaminants Approval Order DAQE-AN103130034-13, dated 12/19/13, that included replacement of the kiln 2 baghouse (D-275), kiln drive engine 5 (KDE 5), and the lime dust silo baghouse (D-83). The permit also includes language updates to 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ requirements and typographical corrections.
Title V reopening for cause by DAQ (Project #OPP0103130011)	12/31/2010	Changes: The permit issued 10/20/2010 is being reopened because public notice in the newspaper during the public comment period cannot be verified. There are no changes to the permit content. Publication in the newspaper during the public comment period will be confirmed during the reopening process.
Title V renewal application (Project #OPP0103130009)	10/20/2010	Changes: The renewal permit includes Approval Order DAQE-AN0103130029-09, dated 5/19/09, that removed the scrubber on Kiln 1, replacing it with a baghouse, and added a dolomitic screen to the lime rail loadout. Other changes to the renewal permit include addition of NSPS Subpart IIII requirements, NESHAP Subpart ZZZZ requirements, updates to NSPS Subpart Y and OOO

		conditions, consolidation of some emission units to avoid repetition of conditions, referencing of some NESHAP Subpart AAAAA requirements to avoid repetition of conditions, clarification to O&M applicability, addition of CAM requirements for unit D-7122, and updates to citations.
Title V administrative amendment - enhanced AO (Project #OPP0103130010)	09/18/2008	Changes: Incorporate Approval Order DAQE-AN0103130027-08, dated 8/27/08, that included the following: the PM limit for Kiln #3 was made more stringent, a fuel change was made to allow all five kiln drive engines to burn gasoline or diesel, and references were updated.
Title V administrative amendment - enhanced AO (Project #OPP0103130008)	12/10/2007	Changes: Incorporate new Approval Order DAQE-AN0103130022-07, dated 8/14/07, that included the following: add Kiln #5 and associated conveyors, screens, silos, loadouts; replace the wet scrubber on Kiln #1 with a baghouse; add petroleum coke to list of approved fuels for Kiln #1 and 5; add high sulfur coals to the list of approved fuels for Kilns #1 thru #5; add 5 kiln drive engines to the permit (one new engine for Kiln #5 and four existing engines that had inadvertently been left out of the permit); inclusion of 40 CFR 63 Subpart AAAAA requirements; increase production limits; and add monitoring requirements for when pet coke and high sulfur coal are used as fuel in the kilns.
Title V significant modification (Project #OPP0103130006)	12/14/2006	Changes: To correct the monitoring frequency on the 40 CFR Part 60 Subpart HH particulate matter limit for Kilns 2, 3, 4. The testing frequency was intended to be "at least once every three calendar years", but was inadvertently placed in the permit as "once every 8,000 hours of operation or once every 3 calendar years from issuance of this permit, whichever comes first". This modification corrects the oversight in conditions II.B.3.h, II.B.4.g, II.B.5.g. No other changes were made to the permit.
Title V significant modification (Project #OPP0103130005)	08/15/2006	Changes: To incorporate changes approved in DAQE-AN0313021-06, dated 3/16/06, including the following: 1. Installation of a portable crushing system to be used at the quarry. The system includes a feed hopper, primary and secondary crusher, a screen, associated conveyors, and three diesel engines. 2. Removal of baghouse D380. 3. Addition of a pressure washer. 4. Addition of compliance condition for 40 CFR 63 Subpart AAAAA.
Title V administrative amendment by DAQ (Project #OPP0103130003)	07/19/2004	Changes: Incorporate new Approval Order DAQE-AN0313019-04 into Title V operation permit, which includes a new material handling system.

Title V administrative amendment by source (Project #OPP0103130002)	02/24/2004	Changes: Incorporate new Approval Order DAQE - AN0313018-03 into Title V operating permit, which includes new sugar stone system, new baghouses and upgrade of existing baghouses, general lime plant dust control upgrades, kiln #2 fan motor replacement.
Title V initial application (Project #OPP0103130001)	10/02/2002	

Table of Contents

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

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

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

SECTION I: GENERAL PROVISIONS

I.A **Federal Enforcement.**

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

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

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

I.C **Duty to Comply.**

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

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

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

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

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

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

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

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

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

I.E **Application Shield.**

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

I.F **Severability.**

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

I.G **Permit Fee.**

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

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

I.H **No Property Rights.**

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

I.I **Revision Exception.**

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

I.J **Inspection and Entry.**

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

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

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

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

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

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

I.K **Certification.**

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

I.L **Compliance Certification.**

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

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

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

I.L.1.c The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the method or means

designated in Provision I.L.1.b. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 occurred; and

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

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

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

I.M **Permit Shield.**

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

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

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

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

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

I.M.2.b The liability of the owner or operator of the source for any violation of applicable requirements under Utah Code Ann. Section 19-2-107(2)(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 **K-1: Lime Kiln #1**
Rotary lime kiln and preheater exhaust stack, with emissions controlled by a baghouse (D-85).

II.A.3 **K-2: Lime Kiln #2**
Rotary lime kiln and preheater exhaust stack, with emissions controlled by a cyclone and baghouse (D-275).

II.A.4 **K-3: Lime Kiln #3**
Rotary lime kiln and preheater exhaust stack, with emissions controlled by a cyclone and baghouse (D-375).

II.A.5 **K-4: Lime Kiln #4**
Rotary lime kiln and preheater exhaust stack, with emissions controlled by a cyclone and baghouse (D-485).

II.A.6 **K-5: Lime Kiln #5**
Rotary lime kiln and preheater exhaust stack, with emissions controlled by a baghouse (D-585).

II.A.7 **K-1-5: Lime Kilns #1 through #5**
Combination of 5 rotary lime kilns listed above.

II.A.8 **ME: Miscellaneous Engines**
Unit includes five kiln drive engines (KDE) used to rotate the kilns during power outages and certain maintenance activities. KDE 1 (74 hp), KDE 2 (45 hp), KDE 4 (65 hp), and KDE 5 (173.5 hp) shall use diesel for fuel. KDE 3 (55 hp) shall use gasoline for fuel.

II.A.9 **A:NSPS-OOO: Observation Point A: NSPS Subpart OOO Baghouses**
Baghouse exhaust stacks: D-7122 (grinding mill, direct-fire heater, material separator), D-7133 (screen, 3 bucket elevators, 3 storage silos), D-7141 (truck & rail loadouts), D-310 (kiln #3 stone dressing screen), D-414 (kiln #4 stone dressing screen) & D-403 (C-408&C-409 to reclaim pile), D-514 (kiln #5 stone dressing screen), D-503 (kiln #5 stone transfer from C-510 and C-511 to C-512).

II.A.10 **A: NON-NSPS-OOO: Observation Point A: Non-Subpart OOO Baghouses**
Baghouse exhaust stacks: D-10 (kilns #1 & #2 stone reclaim screens), D-331 (kilns #1 & #2 loadout area and screen house), D-479 (dolomitic (435) system includes: 2 elevators, vibratory conveyor, belt conveyors, and mixing screw conveyor, S-471, T-471, T-473, T-474), D-330 (kiln #3 cooler pit), D-488 (R-486 (dolomitic lime crusher), BRI-474 and BRI 014 (briquetters), T-470 (silo)), D-83 (kilns #1 and #2 lime kiln dust (LKD) silo), D-341 (T-341 lime silo), D-333 (lime rail loadout, S-466 screen), D-466 (LKD silo), D-381 (T-381 LKD silo), D-382 (loadout spout for T-381 LKD silo).

II.A.11 **A: SCREENS: Observation Point A: Limestone Screens**
S-10 (Kilns #1 & #2 scalp screen), S-310 (Kiln #3 scalp screen) & S-411 (Kiln #4 scalp screen), Sugar Stone System screen (S-2).

II.A.12 **A: COAL SILO: Observation Point A: Coal Silo**
The coal storage system controlled by baghouses: D-91 (Kiln #1 coal silo), D-94 (Kiln #2 coal silo) & D-391 (Kiln #3 coal silo).

II.A.13 **A: DROP POINTS: Observation Point A: Drop Points**
Material drop points: stacker belts (C-309, C-9, C-409, C-311, C-11, C-412), silo loadout (U-465, K1, K2, K3 rail load out, K1, K2, K3 kiln dust silo load out & K1, K2, K3 core bin load out), drop to bunkers from D-10, D-310, C-465 & PH-0, and drop to: hopper (HP-1), conveyors (C10-C13), screen (S-2), rail loadout (203255SSS001) for Sugar Stone System.

II.A.14 **A: CRUSHER: Observation Point A: Dolomitic Lime Crusher**
Crusher: R-486 (dolomitic lime crusher).

II.A.15 **B: DROP POINTS: Observation Point B: Drop Points**
Material drop points to hoppers.

II.A.16 **C: NSPS-OOO: Observation Point C: NSPS Subpart OOO Baghouses**
Baghouse exhaust stack: D-415 (stone transfer to Kiln #4 preheater).

II.A.17 **C: NON-NSPS-OOO: Observation Point C: Non-Subpart OOO Baghouses**
Baghouse exhaust stacks: D-447 (Kiln #4 cooler and screen house), D-463 (kiln #4 product loadout and C-463), D-530, D-547, D-564 (three baghouses for Kiln #5 screen house), D-486 (Kiln #4 LKD silo), D-489 (kiln #4 LKD silo), D-586 (Kiln #5 LKD silo), D-589 (Kiln #5 LKD silo loadout).

II.A.18 **C: COAL SILO: Observation Point C: Coal Silo**
The coal storage system controlled by a baghouse: D-491 (Kiln #4 coal silo), D-591 (Kiln #5 coal silo).

II.A.19 **C: DROP POINTS: Observation Point C: Drop Points**
Drop to: LKD pugging T-486, LKD loadout (T-486), dolomitic lime recycle bin (N-470), PH-421 to bunker & N-432 (Kiln #4 core bin) loadout, belt conveyors of the 435 material handling system.

II.A.20 **D: SCREENS: Observation Point D: Limestone Screens**
Screens: S-1 (primary screen).

II.A.21 **D: DROP POINTS: Observation Point D: Drop Points**
Material drop points: stacker belts (C-3, C-304, C-4 & sugar stone stacker) & loadout operations (C-305, C-5 & C-045).

II.A.22 **A, C NSPS-OOO: A, C NSPS Subpart OOO Baghouses**
Includes baghouse exhaust stacks identified under A:NSPS-OOO and C:NSPS-OOO.

II.A.23 **A, C NON-NSPS-OOO: Non-Subpart OOO Baghouses**
Includes baghouse exhaust stacks identified under A:NON-NSPS-OOO and C:NON-NSPS-OOO.

II.A.24 **A, D SCREENS: Limestone Screens**
Includes limestone screens identified under A:SCREENS and D:SCREENS.

II.A.25 **A, C COAL SILO: Coal Silo**
Includes coal storage systems controlled by baghouses that are identified under A:COAL SILO and C: COAL SILO.

II.A.26 **A, B, C, D TRANSFER PTS: Conveyor Transfer Points**
Material transfer to and from conveyor belts, observable from Observation Points A, B, C, or D. Includes

conveyor transfer points observable from Observation Point C including the limestone grinding plant and sugar stone system.

II.A.27 **A, C COAL TRANSFER PTS: Coal Conveyor Transfer Points**
Includes coal processing and conveying equipment, observable from Observation Point A or C.

II.A.28 **A, B, C, D DROP POINTS: Drop Points**
Includes material drop points identified under A: DROP POINTS, B: DROP POINTS, C: DROP POINTS, and D: DROP POINTS.

II.A.29 **A: GENERATOR: Sugar Stone System**
A 130.1 hp generator (GEN-1) fired on diesel fuel only. Supplies power to the screen in Sugar Stone System, observable from observation point A.

II.A.30 **LS-GRIND: Direct Fire Heating System**
Heating system within the limestone grinding plant.

II.A.31 **D: NSPS-OOO: Observation Point D: NSPS Subpart OOO Baghouses**
Baghouse exhaust stack: D-1 (quarry crusher and screen).

II.A.32 **D: CRUSHERS: Observation Point D: Limestone Crushers**
Crushers: R-1 (primary crusher).

II.A.33 **LQ: Limestone Quarries**
All mining activities, including drilling & blasting, not otherwise specified. No unit-specific applicable requirements.

II.A.34 **MISC: Miscellaneous Emissions**
Emission sources with no unit-specific requirements such as painting, laboratory, acetylene combustion, parts cleaners and comfort heaters. No unit-specific applicable requirements.

II.A.35 **AB: Abrasive Blasting**
Equipment used for abrasive blasting.

II.A.36 **TANKS: Fuel Storage Tanks**
Four 10,150 and one 12,000 gallon diesel tanks, one 2,000 gallon gasoline tank, and one 500 gallon gasoline tank. Throughput is less than 10,000 gallons per month for the gasoline storage tanks.

II.A.37 **HR: Haul Roads**
HR-1 haul road from paved highway to plant and from plant to quarry, and HR-2 haul road inside the quarry.

II.A.38 **SS: Sugar Stone System**
This system stores, screens, and loads sugar stone (approximately 6"x3"). Includes a hopper (HP-1), screen (S-2), loadout system (203255SSS001), conveyors, and generator (GEN-1).

II.A.39 **PCS-0: Portable Crushing System**
Includes a feed hopper (HP-2), primary crusher and secondary crusher (Unit #PCS-1), screen and conveyor transfer points (Unit #PCS-2), conveyor drop points (Unit # PCS-3), and three diesel engines (Unit #PCS-4).

II.A.40 **PCS-1: Portable Crushing System Crushers**
Primary crusher (ICR101) and secondary crusher (ICR102) used to crush limestone at the quarry. Each crusher is rated at 690 tons per hour.

II.A.41 **PCS-2: Portable Crushing System Screen/Conveyor Transfer Points**
Screen and material transfer points to and from conveyor belts used in the portable crushing system observable from Observation Points A, B, C, or D.

II.A.42 **PCS-3: Portable Crushing System Conveyor Drop Points**
Material drop points to the fines and product stockpiles.

II.A.43 **PCS-4: Portable Crushing System Engines**
Three diesel engines, 740 hp combined, that power the crushers, screen, and conveyor belts in the portable crushing system.

II.A.44 **PW: Pressure Washers**
A portable pressure washer is used to wash equipment prior to performing maintenance. It consists of an 18 hp gasoline engine to pressurize the water and a burner to heat the water. The burner uses diesel fuel at a maximum rate of 0.42 MMBtu/hr. A second pressure washer is stationary with a 0.4 MMBtu/hr propane heater and an electric motor. No unit-specific applicable requirements.

II.A.45 **PSH: Processed Stone Handling Operations**
Includes the following emission units that transport material from the storage piles (fines, small stone, medium stone, large stone (sugar)) to the kiln preheaters. Bins N11, N26, and N314, bin transfer points: Bin N11 to Conveyor C13/C21, Conveyor C21 to Bin N26, Bin N314 to Conveyor C314; Preheater transfer points: Conveyor C13 to Kiln #1 Preheater, Bin N26 to Kiln #2 Preheater, Conveyor C314 to Kiln #3 Preheater, Conveyor C514 to Kiln #5 Preheater, and Conveyor C413 to Kiln #4 (controlled by baghouse D415).

II.A.46 **NSPS-CI-ICE: NSPS Stationary Compression Ignition (CI) Internal Combustion Engines (ICE)**
Stationary CI ICE that are ordered after July 11, 2005, manufactured after April 1, 2006, and are not fire pump engines. Stationary CI ICE that are modified, or reconstructed after July 11, 2005 are also included in this unit. These emission units are subject to 40 CFR 60 Subpart IIII and have a displacement of less than 10 liters per cylinder. KDE 1, KDE 2, KDE 5, and both limestone fines products (LFP) engines are included in this unit.

II.A.47 **NESHAP-CI-RICE: NESHAP Stationary Compression Ignition (CI) Reciprocating Internal Combustion Engines (RICE)**
Existing stationary CI RICE with a site rating of less than or equal to 500 brake HP that are constructed or reconstructed before June 12, 2006. These units are subject to 40 CFR 63 Subpart ZZZZ. KDE 4 and the sugar stone generator (GEN-1) are included in this unit.

II.A.48 **NESHAP-SI-RICE:NESHAP Stationary Spark Ignition (SI) Reciprocating Internal Combustion Engines (RICE):**
Existing stationary SI RICE with a site rating of less than or equal to 500 brake HP that are constructed or reconstructed before June 12, 2006. These units are subject to 40 CFR 63 Subpart ZZZZ. KDE 3 is included in this unit.

II.A.49 **Limestone Fines Product (LFP) Loadout System**
System produces a limestone fines product that is loaded into trucks for transportation and sale. Unit includes a hopper (LFP-1), screen (LFP-2), conveyors (LFP-3), tent storage area (LFP-4), product loadout hopper (LFP-5), product loadout conveyor (LFP-6), and two diesel engines.

II.A.50 **E: LFP Screen/Conveyor Transfer Points**
Includes LFP-2 screen, LFP-3 conveyors, and LFP-6 product loadout conveyor, all observable from observation point E.

II.A.51 **LFP Engines**
Includes two diesel engines rated at 130 hp and 52 hp.

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:**

Visible emissions shall not exceed 20 percent opacity unless otherwise specified in this permit (note that this condition does apply to fugitive emissions but does not apply to fugitive dust). [Origin: DAQE-AN103130044-21]. [R307-201-3, R307-205-4, R307-401-8]

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

Unless otherwise specified, a visual opacity survey of each affected emission unit shall be performed on a monthly basis while the unit is operating. Permittee is not required to perform monthly surveys on natural gas combustion sources and petroleum storage tanks. 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.

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

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

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

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

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

The permittee shall comply with the applicable requirements for 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.b.1 **Monitoring:**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

i. The permittee shall only combust diesel fuel that meets the definition of ultra-low sulfur diesel (ULSD), which has a sulfur content of 15 ppm or less.
ii. The permittee shall only use diesel fuel (e.g. fuel oil #1, #2, or diesel fuel oil additives) as fuel in the kiln drive engines 1, 2, 4, and 5; GEN-1 engine; portable engines; and LFP engines.

[Origin: DAQE-AN103130044-21]. [R307-401-8]

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

Records required for this permit condition shall serve as monitoring.

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

The permittee shall maintain records of diesel fuel purchase invoices or certifications of sulfur content obtained from the diesel fuel supplier. The diesel fuel purchase invoices shall indicate the diesel fuel meets the ULSD requirements. Records demonstrating compliance with this condition 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:**

Fugitive dust at all operational and mining operations shall be minimized as an integral part of site preparation, mining activities, and reclamation operations. Fugitive dust control measures to be used may include those listed in R307-205-7, or other techniques as determined necessary by the director. [Origin: DAQE-AN103130044-21, R307-205-7]. [R307-205-7, R307-401]

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

The permittee shall adhere to the most current fugitive dust control plan approved by the Director for control of all dust sources. Records required for this permit condition will also serve as monitoring.

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

Records of all methods used and details pertaining to those methods (e.g., amount and type of chemical used for stabilization) used to control and minimize fugitive dust shall be maintained in accordance with the fugitive dust control plan and 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:**

Unless otherwise specified in this permit, at all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any permitted plant equipment, including associated air pollution control equipment, in a manner consistent with good air pollution control 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-AN103130044-21]. [40 CFR 60.11(d), R307-401-8]

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

Records required for this permit condition will serve as monitoring.

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

Unless otherwise specified in this permit, visible emissions shall not exceed 10 percent opacity from screens and conveyor transfer points. [Origin: DAQE-AN103130044-21]. [R307-401-8]

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

A certified observer shall conduct a visible emissions observation, in accordance with 40 CFR 60, Appendix A, Method 9, of affected emission units monthly. Alternately, to satisfy this requirement, the permittee may survey a group of affected units visible from a pre-determined observation location (A, B, C or D) monthly. A certified observer shall determine the unit with the highest observed opacity. A visible emissions observation shall be conducted, in accordance with Method 9, on that unit. If this unit does not exceed its opacity limitation, no further observation is required for any other affected emission units, surveyed for this location, with an equal or higher opacity limit. If the unit exceeds its opacity limitation, a visual observation shall be conducted on the unit that appears to have the next highest opacity, and so on, until an emission unit of this group does not exceed the opacity limitation. Once an emission unit has been determined to comply with this condition, units with the same or higher opacity limit, that were surveyed from the same location and appear to have less visible emissions, shall be considered to be in compliance with their opacity limitation.

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

The permittee shall record the location of each visual opacity observation and keep a list of the emission units checked during the observation. The records required by this provision and all data required by 40 CFR 60, Appendix A, Method 9 shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

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

For all emission units subject to 40 CFR 63 Subpart AAAAA, the permittee shall prepare and implement a written operations, maintenance, and monitoring (OM&M) plan in accordance with 40 CFR 63.7100(d). Any subsequent changes to the plan shall be submitted to the Director for review and approval. Pending approval by the Director of an initial or amended plan, the permittee shall comply with the provisions of the submitted plan. Each plan shall contain the information required in 40 CFR 63.7100(d)(1)-(7). This condition does not apply if the permittee is operating in accordance with the alternate operating scenario (AOS) in Section II.D of this permit. [Origin: 40 CFR 63 Subpart AAAAA]. [40 CFR 63.6(e)(1)(iii), 40 CFR 63.7100(d), 40 CFR 63 Subpart AAAAA Table 3(5)]

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

Records required for this permit condition will serve as monitoring.

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

In addition to the records specified in 40 CFR 63.7132, the permittee shall document activities performed to assure proper operation and maintenance of each affected emission unit and the monitoring that demonstrates compliance with this condition and 40 CFR 63.7100(d). Records and results of monitoring shall be maintained in accordance with 40 CFR 63.7133 and Provision I.S.1 of this permit.

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

The permittee shall report each instance in which the operating limit is not met. The permittee shall submit a compliance report semiannually containing the information required in Table 8 to 40 CFR 63 Subpart AAAAA and in accordance with 40 CFR 63.7131.

If the permittee submits the compliance report along with, or as part of, the semiannual monitoring report required in Section I of this permit and the compliance report includes all required information concerning deviations from any emission limitation (including any operating limit), submission of the compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report shall not otherwise affect any obligation the permittee may have to report deviations from permit requirements to the permit authority. [40 CFR 63.7131(f)]

Reports shall be submitted in accordance with 40 CFR 63.7131 and as specified in Section I of this permit.

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

For all emission units subject to 40 CFR 63 Subpart AAAAA that are equipped with an add-on air pollution control device, the permittee shall

(i) Vent captured emissions through a closed system, except that dilution air may be added to emission streams for the purpose of controlling temperature at the inlet to a fabric filter; and

(ii) Operate each capture/collection system according to the procedures and requirements in the OM & M plan.

This condition does not apply if the permittee is operating in accordance with the AOS in Section II.D of this permit. [Origin: 40 CFR 63 Subpart AAAAA]. [40 CFR 63.7090(b), 40 CFR 63 Subpart AAAAA Table 3(6)]

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

The permittee shall inspect each capture/collection and closed vent system at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in the above condition. [40 CFR 63.7113(f)] Records required for this permit condition will also serve as monitoring.

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

In addition to the records specified in 40 CFR 63.7132, the results of each inspection and documentation demonstrating compliance with the OM&M requirements shall be recorded. Records and results of monitoring shall be maintained in accordance with 40 CFR 63.7133 and Provision I.S.1 of this permit.

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

The permittee shall report each instance in which the operating limit is not met. The permittee shall submit a compliance report semiannually containing the information required in Table 8 to 40 CFR 63 Subpart AAAAA and in accordance with 40 CFR 63.7131.

If the permittee submits the compliance report along with, or as part of, the semiannual monitoring report required in Section I of this permit and the compliance report includes all required information concerning deviations from any emission limitation (including any operating limit), submission of the compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a

compliance report shall not otherwise affect any obligation the permittee may have to report deviations from permit requirements to the permit authority. [40 CFR 63.7131(f)]

Reports shall be submitted in accordance with 40 CFR 63.7131 and as outlined in Section I of this permit.

II.B.1.j **Condition:**

At all times, for all emission units subject to 40 CFR 63 Subpart AAAAA, the permittee shall always operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by the applicable 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. This condition does not apply if the permittee is operating in accordance with the AOS in Section II.D of this permit. [Origin: 40 CFR 63 Subpart AAAAA]. [40 CFR 63.7100(c)]

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

Records required for this permit condition will serve as monitoring.

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

In addition to the records specified in 40 CFR 63.7132, the permittee shall document activities performed to assure proper operation and maintenance. Records shall be maintained in accordance with 40 CFR 63.7133 and Provision I.S.1 of this permit.

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

Reports shall be submitted in accordance with 40 CFR 63.7131 and as specified in Section I of this permit.

II.B.2 **Conditions on Lime Kiln #1 (Unit #K-1).**

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

Visible emissions shall not exceed 15 percent opacity from the baghouse exhaust stack. This condition does not apply if the permittee is operating in accordance with the AOS in Section II.D of this permit. [Origin: DAQE-AN103130044-21, 40 CFR 60 Subpart HH, 40 CFR 63 Subpart AAAAA Table 3]. [40 CFR 60.342(a)(2), 40 CFR 63.7090(b), R307-401-8]

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

Prior to the PM performance test specified in this permit, the permittee shall install, calibrate, maintain and operate a continuous monitoring system to monitor and record the opacity of a representative portion of the gases discharged into the atmosphere in accordance with the standard operating procedures incorporated into the OM&M plan, R307-170, UAC, 40 CFR 63, Subpart A, and 40 CFR 60, Appendix B, PS-1. The permittee shall install the COMS at the outlet of the control device. The span of the system shall be set at a minimum of 40 percent opacity. At no time shall the permittee allow excess gaseous emissions to be emitted to the atmosphere, except as provided by the provisions of R307-107 (Breakdowns), UAC.

Continuous compliance shall be demonstrated by collecting COMS data at least once every 15 seconds, determining block averages for each 6-minute period and demonstrating that for each 6-minute block period the average opacity does not exceed 15 percent.

The permittee shall monitor continuously (or collect data at all required intervals) at all times that the emission unit is operating, except for monitor malfunctions, associated repairs, required quality assurance or control activities (including, as applicable, calibration checks and required zero adjustments). Data recorded during the conditions described below shall not be used either in data averages or calculations of emission or operating limits; or in fulfilling a minimum data availability requirement.

(1) Monitoring system breakdowns, repairs, preventive maintenance, calibration checks, and zero (low-level) and high-level adjustments;
(2) Periods of non-operation of the process unit (or portion thereof), resulting in cessation of the emissions to which the monitoring applies.

The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system.

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

The permittee shall record the output of the system for measuring the opacity of emissions in addition to the records specified in R307-170-8 and 40 CFR 63.7132. Records and results of monitoring shall be maintained in accordance with R307-170, 40 CFR 63.7133, and Provision I.S.1 of this permit.

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

Reports shall be submitted quarterly, as outlined in R307-170, Continuous Emission Monitoring Program. These quarterly reports are considered prompt notifications of deviation, as required in Provision I.S.2.c of this permit, provided all information required by Provision I.S.2.c is included in the report. For the purpose of reporting required under 40 CFR 60.7(c), periods of excess emissions that shall be reported are defined as all 6 minute periods during which the average opacity of the visible emissions from the lime kiln is greater than 15 percent opacity. All exceedances shall be reported in the quarterly report with explanations and corrective actions, in accordance with R307-170.

The permittee shall submit a compliance report semiannually containing the information required in Table 8 to 40 CFR 63 Subpart AAAAA and in accordance with 40 CFR 63.7131. If the permittee submits the compliance report along with, or as part of, the quarterly report required above, and the compliance report includes all required information concerning deviations from any emission limitation (including any operating limit), submission of the compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report required in Section I of this permit. However, submission of a compliance report shall not otherwise affect any obligation the permittee has to report deviations from permit requirements to the permit authority. [40 CFR 63.7131(f)]

Reports shall be submitted in accordance with 40 CFR 63.7131 and as outlined in Section I of this permit.

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

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

i. PM: 0.020 grain/dscf and 0.12 lb/ton of stone feed (tsf)
ii. PM_{10} (Filterable + Condensable): 6.0 lb/hour and 0.016 grain/dscf

This condition does not apply if the permittee is operating in accordance with the AOS in Section II.D of this permit. [Origin: DAQE-AN103130044-21, 40 CFR 63 Subpart AAAAA Table 1]. [40 CFR 60 Subpart HH, 40 CFR 63.7090(a), R307-401-8]

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

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every three years. Tests may also be required at the direction of the Director.

(b) Notification. At least 60 days before the test, the source shall notify the Director of the date, time, and place of testing and submit a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. The source test protocol shall be approved by the Director prior to performing the test(s). A pretest conference shall be held, if directed by the Director.

(c) Methods.

(1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1 or 1A, and Occupational Safety and Health Administration (OSHA) and/or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location. Sampling sites shall be located at the outlet of the control device(s) and prior to any releases to the atmosphere.

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

(3) Conduct gas molecular weight analysis using 40 CFR 60, Appendix A, Method 3, 3A, 3B, or other EPA-approved testing method acceptable to the Director.

(4) Measure moisture content of the stack gas using 40 CFR 60, Appendix A, Method 4, or other EPA-approved testing method acceptable to the Director.

(5) Sample Method - 40 CFR 60, Appendix A, Method 5 shall be used to determine the particulate matter concentration. The minimum sample volume for each run shall be 0.85 dry standard cubic meter (dscm) (30 dry standard cubic foot (dscf)). The permittee shall conduct three separate test runs for each performance test. The minimum sample time for each run shall be at least 60 minutes.

The back half condensables shall also be tested using 40 CFR 51, Appendix M, Method 202, or other EPA-approved testing method, as acceptable to the Director, to demonstrate compliance with the PM_{10} (Filterable + Condensable) limit.

(6) Each performance test shall be conducted based on representative performance (i.e., performance based on normal operating conditions) of the affected source and under the specific conditions in Table 5 to 40 CFR 63 Subpart AAAAA. Representative conditions exclude periods of startup and shutdown. The permittee shall not conduct performance tests during periods of startup, shutdown, or malfunction. (40 CFR 63.7112(b), (c))

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

The emission rate of particulate matter (lb/tsf) from each kiln shall be computed for each run using the following equation.

$$E = C_k Q_k / PK$$

Where: E = Emission rate of PM, pounds per ton (lb/ton) of stone feed.
C_k = Concentration of PM in the kiln effluent, grain/dry standard cubic feet (gr/dscf).

Q_k = Volumetric flow rate of kiln effluent gas, dry standard cubic feet per hour (dscf/hr).
P = Stone feed rate, tons per hour (ton/hr).
K = Conversion factor, 7000 grains per pound (grains/lb).

(d) Production Rate During Testing. Tests shall be conducted at a production rate of no less than 90% of the maximum production achieved in the previous three (3) years.

The permittee shall determine the mass rate of stone feed to the kiln using any suitable device during the kiln PM emissions test. The measuring device shall be accurate to within +/- 5 percent of the mass rate of stone feed over its operating range and shall be calibrated and maintained according to manufacturer's instructions. [40 CFR 60.343(d), 40 CFR 63.7112 Table 5].

During startup, kilns shall be tested hourly to determine when lime product meets the definition of on-specification lime product. (40 CFR 63.7112(m)).

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

In addition to the records specified in 40 CFR 63.7132:
Results of all stack testing shall be recorded in accordance with the associated test method and Provision I.S.1 of this permit. The permittee shall record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, the permittee shall make available to the Director such records as may be necessary to determine the conditions of performance tests.

Records and results of monitoring shall be maintained in accordance with 40 CFR 63.7133 and Provision I.S.1 of this permit.

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

The permittee shall submit a Notification of Compliance Status, including the performance test results, before the close of business on the 60th calendar day following completion of the performance test.

Performance test results shall be documented in complete test reports that contain the information required in 40 CFR 63.7(g) and 40 CFR 63.7112(h). 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.

The permittee shall submit a compliance report semiannually containing the information required in Table 8 to 40 CFR 63 Subpart AAAAA and in accordance with 40 CFR 63.7131. If the permittee submits the compliance report along with, or as part of, the semiannual monitoring report required in Section I of this permit and the compliance report includes all required information concerning deviations from any emission limitation (including any operating limit), submission of the compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report shall not otherwise affect any obligation the permittee has to report deviations from permit requirements to the permit authority. [40 CFR 63.7131(f)]

Reports shall be submitted in accordance with 40 CFR 63.7131 and as outlined in Section I of this permit.

II.B.2.c **Condition:**

Emissions to the atmosphere from the baghouse exhaust stack shall not exceed the following rates and concentrations (standardized at 68 degrees F, 29.92 in Hg):
SO_2: 22.4 lb/hr
[Origin: DAQE-AN103130044-21]. [R307-401-8]

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

(I) Stack testing shall be performed as specified below:
  (a) Frequency. Emissions shall be tested every three years. Tests may also be required at the direction of the Director.
  (b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and submit a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. The source test protocol shall be approved by the Director prior to performing the test(s). A pretest conference shall be held, if directed by the Director.
  (c) Methods.
    (1) 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. Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.
    (2) 40 CFR 60, Appendix A, Method 6, 6A, 6B, 6C, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the pollutant emission rate.
    (3) 40 CFR 60, Appendix A, Method 2, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the volumetric flow rate.
  (d) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Director to give the results in the specified units of the emission limitation.
  (e) Production Rate During Testing. Tests shall be conducted at a production rate of no less than 90% of the maximum production achieved in the previous three (3) years.

(II) The permittee shall install, calibrate, maintain, and continuously operate a continuous emissions monitoring system (consisting of a SO_2 pollutant concentration monitor and a flow monitoring device) for the continuous measurement of SO_2 emissions on a kiln prior to that kiln burning pet coke or coal with a sulfur content in excess of 1.0 lb Sulfur/MMBtu.

After installation of an SO_2 CEMS,
a. compliance with the SO_2 limit shall be based on a 3-hour block average,
b. compliance with the SO_2 limit shall be demonstrated using the CEMS regardless of fuel burned in the kiln, and
c. stack testing, as specified in (I) above, shall not be required.

The monitoring system shall comply with all applicable sections of R307-170, UAC and 40 CFR 60, Appendix B, Performance Specification 2 - SO_2 and NO_x Continuous Emission Monitoring Systems. Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under 40 CFR 60.13(d), the permittee shall continuously operate all required continuous monitoring devices and shall meet minimum frequency of operation requirements as outlined in 40 CFR 60.13(e) and R307-170.

When the SO_2 CEMS has been installed calibrated, and is operating, the emission rate of

SO_2 in pounds per hour measured by the SO_2 CEMS for each 3-hour block averaging period shall be calculated by the following formula:

$E_h = K * C_{hp} * Q_{hs} * ((100 - \%H_2O)/100)$

Where: E_h = hourly SO_2 mass emission rate during unit operation, lb/hour
$K = 1.66 \times 10\text{-}7$ for SO_2, lb/scf/ppm
C_{hp} = hourly average SO_2 concentration during unit operation, ppm (dry)
Q_{hs} = hourly average volumetric flow rate during unit operation, scfh (wet)
$\%H_2O$ = constant moisture value specific to each kiln, percent by volume.

The Director shall consider the continuous monitoring requirements to be met when the following provisions are met:

a. The SO_2 CEMS shall operate in accordance with 40 CFR 60.13 and R307-170 UAC.
b. Prior to installation of a SO_2 CEMS on a kiln, the average of three one-hour stack test results is less than the corresponding SO_2 emission limit for that kiln.
c. After installation of the SO_2 CEMS on a kiln, the 3-hour block average is less than the corresponding SO_2 emission limit for that kiln.
d. Three-hour block averages shall begin at 12:01 a.m. and end every 3 hours, thereafter.

At no time shall the permittee allow excess gaseous emissions to be emitted to the atmosphere, except as provided by the provisions of R307-107 (Breakdowns), UAC.

II.B.2.c.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.

For the SO_2 CEMS, the permittee shall record the output of the system for measuring the SO_2 emissions in addition to the records specified in R307-170-8. Records shall be maintained in accordance with R307-170 and Provision I.S.1 of this permit.

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

In addition to the reporting requirements specified in Section I of this permit:

(a) 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.
(b) For the SO_2 CEMS, the permittee shall submit a quarterly report in accordance with the reporting provisions in R307-170-9. All exceedances shall be reported in the quarterly report with explanations and corrective actions, in accordance with R307-170. The quarterly reports are considered prompt notification of permit deviations required in Provision I.S.2.c of this permit if all information required by Provision I.S.2.c is included in the report.

II.B.2.d **Condition:**

Emissions to the atmosphere from the baghouse exhaust stack shall not exceed the following rates and concentrations (standardized at 68 degrees F, 29.92 in Hg):
NO_x: 90.0 lb/hr
[Origin: DAQE-AN103130044-21]. [R307-401-8]

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

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every three years. Tests may also be required at the direction of the Director.

(b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and submit a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. The source test protocol shall be approved by the Director prior to performing the test(s). A pretest conference shall be held, if directed by the Director.

(c) Methods.

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

(2) 40 CFR 60, Appendix A, Method 7, 7A, 7B, 7C, 7D, 7E, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the pollutant emission rate.

(3) 40 CFR 60, Appendix A, Method 2, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the volumetric flow rate.

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

(e) Production Rate During Testing. Tests shall be conducted at a production rate of no less than 90% of the maximum production achieved in the previous three (3) years.

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

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

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

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

II.B.2.e **Condition:**

Visible emissions shall not exceed 15 percent opacity from the baghouse exhaust stack. This condition only applies if the permittee is operating in accordance with the AOS in Section II.D of this permit. [Origin: DAQE-AN103130044-21, 40 CFR 60 Subpart HH]. [40 CFR 60.342(a)(2), R307-401-8]

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

The permittee shall install, calibrate, maintain, and continuously operate a continuous monitoring system to monitor and record the opacity of a representative portion of the gases discharged into the atmosphere from the kiln stack. The monitoring system shall operate continuously and shall comply with all applicable sections of R307-170, UAC and 40 CFR 60, Appendix B, Performance Specification 1 - Specifications and test procedures for continuous opacity monitoring systems in stationary sources. The permittee shall install the COMS at the outlet of

the control device. The span of the system shall be set at a minimum of 40 percent opacity.

Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under 40 CFR 60.13(d), the permittee shall continuously operate all required continuous monitoring devices and shall meet minimum frequency of operation requirements as outlined in 40 CFR 60.13(e) and R307-170. The Director shall consider the continuous monitoring requirements to be met when the opacity monitor operates in accordance with 40 CFR 60.13 and R307-170 UAC. At no time shall the permittee allow excess gaseous emissions to be emitted to the atmosphere, except as provided by the provisions of R307-107 (Breakdowns), UAC.

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

The permittee shall record the output of the system for measuring the opacity of emissions in addition to the records specified in R307-170-8. Records and results of monitoring shall be maintained in accordance with R307-170 and Provision I.S.1 of this permit.

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

Reports shall be submitted quarterly, as outlined in R307-170, Continuous Emission Monitoring Program. These quarterly reports are considered prompt notifications of deviation, as required in Provision I.S.2.c of this permit, provided all information required by Provision I.S.2.c is included in the report. For the purpose of reporting required under 40 CFR 60.7(c), periods of excess emissions that shall be reported are defined as all 6-minute periods during which the average opacity of the visible emissions from the lime kiln is greater than 15 percent opacity. All exceedances shall be reported in the quarterly report with explanations and corrective actions, in accordance with R307-170.

There are no additional reporting requirements except as outlined in Section I of this permit.

II.B.2.f **Condition:**

Emissions to the atmosphere from the baghouse exhaust stack shall not exceed the following rates and concentrations (standardized at 68 degrees F, 29.92 in Hg):
i. PM: 0.020 grain/dscf and 0.12 lb/ton of stone feed (tsf)
ii. PM_{10} (Filterable + Condensable): 6.0 lb/hour and 0.016 grain/dscf
This condition only applies if the permittee is operating in accordance with the AOS in Section II.D of this permit. [Origin: DAQE-AN103130044-21]. [40 CFR 60 Subpart HH, R307-401-8]

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

Stack testing shall be performed as specified below:
(a) Frequency. Emissions shall be tested every three years. Tests may also be required at the direction of the Director.
(b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and submit a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. The source test protocol shall be approved by the Director prior to performing the test. A pretest conference shall be held, if directed by the Director.
(c) Methods.
    (1) 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 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.

(2) Sample Methods

PM - 40 CFR 60, Appendix A, Method 5 shall be used to determine the particulate matter concentration (cs) and the volumetric flow rate (Qsd) of the effluent gas. The minimum sample volume for each run shall be 0.90 dry standard cubic meter (dscm) (31.8 dry standard cubic foot (dscf)). The permittee shall conduct three separate test runs for each performance test. The minimum sample time for each run shall be at least 60 minutes.

PM_{10} (Filterable + Condensable)

For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201, 201a, or other EPA-approved method as acceptable to the Director. The back half condensables shall also be tested using 40 CFR 51, Appendix M, Method 202, or other EPA-approved method acceptable to the Director. All particulate captured shall be considered PM_{10}.

For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, or 5e as appropriate, or other EPA-approved method as acceptable to the Director. The back half condensables shall also be tested using 40 CFR 51, Appendix M, Method 202, or other EPA-approved method as acceptable to the Director. The portion of the front half of the catch considered PM_{10} shall be based on information in Appendix B of the fifth edition of the EPA document, AP-42, or other data acceptable to the Director.

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

The emission rate (E) of particulate matter shall be computed for each run using the following equation.

$E = (c_s Q_{sd})/PK)$

where: E = emission rate of particulate matter, kg/Mg (1b/ton) of stone feed.
c_s = concentration of particulate matter, g/dscm (gr/dscf).
Q_{sd} = volumetric flow rate of effluent gas, dscm/hr (dscf/hr).
P = stone feed rate, Mg/hr (ton/hr).
K = conversion factor, 1000 g/kg (7000 gr/lb).

(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

The permittee shall install, calibrate, maintain, and operate a device for measuring the mass rate of stone feed to any affected rotary lime kiln. The measuring device used shall be accurate to within +/- 5 percent of the mass rate over its operating range. This monitoring device shall be used to determine the stone feed rate (P) for each run. (40 CFR 60.343(d), 40 CFR 60.344(b)(3)).

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

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

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

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

II.B.3 **Conditions on Lime Kiln #2 (Unit #K-2).**

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

Visible emissions shall not exceed 15 percent opacity from baghouse exhaust stacks. This condition does not apply if the permittee is operating in accordance with the AOS in Section II.D of this permit. [Origin: DAQE-AN103130044-21, 40 CFR 60 Subpart HH, 40 CFR 63 Subpart AAAAA Table 3]. [40 CFR 60.342(a)(2), 40 CFR 63.7090(b), R307-401-8]

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

Prior to the PM performance test specified in this permit, the permittee shall install, calibrate, maintain and operate a continuous monitoring system to monitor and record the opacity of a representative portion of the gases discharged into the atmosphere in accordance with the standard operating procedures incorporated into the OM&M plan, R307-170, UAC, 40 CFR 63, Subpart A, and 40 CFR 60, Appendix B, PS-1. The COMS shall be installed at the outlet of the control device. The span of the system shall be set at a minimum of 40 percent opacity. At no time shall the permittee allow excess gaseous emissions to be emitted to the atmosphere, except as provided by the provisions of R307-107 (Breakdowns), UAC.

Continuous compliance shall be demonstrated by collecting COMS data at least once every 15 seconds, determining block averages for each 6-minute period and demonstrating that for each 6-minute block period the average opacity does not exceed 15 percent.

The permittee shall monitor continuously (or collect data at all required intervals) at all times that the emission unit is operating, except for monitor malfunctions, associated repairs, required quality assurance or control activities (including, as applicable, calibration checks and required zero adjustments). Data recorded during the conditions described below shall not be used either in data averages or calculations of emission or operating limits; or in fulfilling a minimum data availability requirement.

(1) Monitoring system breakdowns, repairs, preventive maintenance, calibration checks, and zero (low-level) and high-level adjustments;
(2) Periods of non-operation of the process unit (or portion thereof), resulting in cessation of the emissions to which the monitoring applies.

The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system.

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

The permittee shall record the output of the system for measuring the opacity of emissions in addition to the records specified in R307-170-8 and 40 CFR 63.7132. Records and results of monitoring shall be maintained in accordance with R307-170, 40 CFR 63.7133, and Provision I.S.1 of this permit.

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

Reports shall be submitted quarterly, as outlined in R307-170, Continuous Emission Monitoring Program. These quarterly reports are considered prompt notifications of deviation, as required in Provision I.S.2.c of this permit, provided all information required by Provision I.S.2.c is included in the report. For the purpose of reporting required under 40 CFR 60.7(c), periods of excess emissions that shall be reported are defined as all 6 minute periods during which the average opacity of the visible emissions from the lime kiln is greater than 15 percent opacity. All exceedances shall be reported in the quarterly report with explanations and corrective actions, in accordance with R307-170.

The permittee shall submit a compliance report semiannually containing the information required in Table 8 to 40 CFR 63 Subpart AAAAA and in accordance with 40 CFR 63.7131. If the permittee submits the compliance report along with, or as part of, the quarterly report required above, and the compliance report includes all required information concerning deviations from any emission limitation (including any operating limit), submission of the compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report required in Section I of this permit. However, submission of a compliance report shall not otherwise affect any obligation the permittee has to report deviations from permit requirements to the permit authority. [40 CFR 63.7131(f)]

Reports shall be submitted in accordance with 40 CFR 63.7131 and as outlined in Section I of this permit.

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

Emissions to the atmosphere from the baghouse exhaust stack shall not exceed the following rates and concentrations (standardized at 68 degrees F, 29.92 in Hg):
i. PM: 8.23 lb/hour, 0.020 grain/dscf, and 0.12 lb/ton of stone feed (tsf)
ii. PM_{10} (Filterable + Condensable): 6.58 lb/hour and 0.016 grain/dscf
This condition does not apply if the permittee is operating in accordance with the AOS in Section II.D of this permit. [Origin: DAQE-AN103130044-21, 40 CFR 63 Subpart AAAAA Table 1]. [40 CFR 60 Subpart HH, 40 CFR 63.7090(a), R307-401-8]

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

Stack testing shall be performed as specified below:
(a) Frequency. Emissions shall be tested every three years. Tests may also be required at the direction of the Director.
(b) Notification. At least 60 days before the test, the source shall notify the Director of the date, time, and place of testing and submit a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. The source test protocol shall be approved by the Director prior to performing the test(s). A pretest conference shall be held, if directed by the Director.
(c) Methods.
    (1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1 or 1A, and Occupational Safety and Health Administration (OSHA) and/or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location. Sampling sites shall be located at the outlet of the control device(s) and prior to any releases to the atmosphere.
    (2) Volumetric Flow Rate - 40 CFR 60, Appendix A, Method 2 or other EPA-approved testing method acceptable to the Director.
    (3) Conduct gas molecular weight analysis using 40 CFR 60, Appendix A, Method 3, 3A, 3B, or other EPA-approved testing method acceptable to the Director.

(4) Measure moisture content of the stack gas using 40 CFR 60, Appendix A, Method 4, or other EPA-approved testing method acceptable to the Director.

(5) Sample Method - 40 CFR 60, Appendix A, Method 5 shall be used to determine the particulate matter concentration. The minimum sample volume for each run shall be 0.85 dry standard cubic meter (dscm) (30 dry standard cubic foot (dscf)). The permittee shall conduct three separate test runs for each performance test. The minimum sample time for each run shall be at least 60 minutes.

The back half condensables shall also be tested using 40 CFR 51, Appendix M, Method 202, or other EPA-approved testing method, as acceptable to the Director, to demonstrate compliance with the PM_{10} (Filterable + Condensable) limit.

(6) Each performance test shall be conducted based on representative performance (i.e., performance based on normal operating conditions) of the affected source and under the specific conditions in Table 5 to 40 CFR 63 Subpart AAAAA. Representative conditions exclude periods of startup and shutdown. The permittee shall not conduct performance tests during periods of startup, shutdown, or malfunction. (40 CFR 63.7112(b), (c))

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

The emission rate of particulate matter (lb/tsf) from each kiln shall be computed for each run using the following equation.

$$E = C_k Q_k / PK$$

Where: E = Emission rate of PM, pounds per ton (lb/ton) of stone feed.
C_k = Concentration of PM in the kiln effluent, grain/dry standard cubic feet (gr/dscf).
Q_k = Volumetric flow rate of kiln effluent gas, dry standard cubic feet per hour (dscf/hr).
P = Stone feed rate, tons per hour (ton/hr).
K = Conversion factor, 7000 grains per pound (grains/lb).

(d) Production Rate During Testing. Tests shall be conducted at a production rate of no less than 90% of the maximum production achieved in the previous three (3) years.

The permittee shall determine the mass rate of stone feed to the kiln using any suitable device during the kiln PM emissions test. The measuring device shall be accurate to within +/- 5 percent of the mass rate of stone feed over its operating range and shall be calibrated and maintained according to manufacturer's instructions. [40 CFR 60.343(d), 40 CFR 63.7112 Table 5]

During startup, kilns shall be tested hourly to determine when lime product meets the definition of on-specification lime product. (40 CFR 63.7112(m)).

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

In addition to the records specified in 40 CFR 63.7132:
Results of all stack testing shall be recorded in accordance with the associated test method and Provision I.S.1 of this permit. The permittee shall record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, the permittee shall make available to the Director such records as may be necessary to determine the

conditions of performance tests.

Records and results of monitoring shall be maintained in accordance with 40 CFR 63.7133 and Provision I.S.1 of this permit.

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

The permittee shall submit a Notification of Compliance Status, including the performance test results, before the close of business on the 60th calendar day following completion of the performance test.

Performance test results shall be documented in complete test reports that contain the information required in 40 CFR 63.7(g) and 40 CFR 63.7112(h). 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.

The permittee shall submit a compliance report semiannually containing the information required in Table 8 to 40 CFR 63 Subpart AAAAA and in accordance with 40 CFR 63.7131. If the permittee submits the compliance report along with, or as part of, the semiannual monitoring report required in Section I of this permit and the compliance report includes all required information concerning deviations from any emission limitation (including any operating limit), submission of the compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report shall not otherwise affect any obligation the permittee has to report deviations from permit requirements to the permit authority. [40 CFR 63.7131(f)]

Reports shall be submitted in accordance with 40 CFR 63.7131 and as outlined in Section I of this permit.

II.B.3.c **Condition:**

Emissions to the atmosphere from the baghouse exhaust stack shall not exceed the following rates and concentrations (standardized at 68 degrees F, 29.92 in Hg):
SO_2: 22.4 lb/hr
[Origin: DAQE-AN103130044-21]. [R307-401-8]

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

(I) Stack testing shall be performed as specified below:
  (a) Frequency. Emissions shall be tested every three years. Tests may be also required at the direction of the Director.
  (b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and submit a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. The source test protocol shall be approved by the Director prior to performing the test(s). A pretest conference shall be held, if directed by the Director.
  (c) Methods.
    (1) 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. Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.

(2) 40 CFR 60, Appendix A, Method 6, 6A, 6B, 6C, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the pollutant emission rate.
(3) 40 CFR 60, Appendix A, Method 2, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the volumetric flow rate.

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

(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

(II) The permittee shall install, calibrate, maintain, and continuously operate a continuous emissions monitoring system (consisting of a SO_2 pollutant concentration monitor and a flow monitoring device) for the continuous measurement of SO_2 emissions on a kiln prior to that kiln burning coal with a sulfur content in excess of 1.0 lb Sulfur/MMBtu.

After installation of an SO_2 CEMS,

a. compliance with the SO_2 limit shall be based on a 3-hour block average,
b. compliance with the SO_2 limit shall be demonstrated using the CEMS regardless of fuel burned in the kiln, and
c. stack testing, as specified in (I) above, shall not be required.

The monitoring system shall comply with all applicable sections of R307-170, UAC and 40 CFR 60, Appendix B, Performance Specification 2 - SO_2 and NO_x Continuous Emission Monitoring Systems. Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under 40 CFR 60.13(d), the permittee shall continuously operate all required continuous monitoring devices and shall meet minimum frequency of operation requirements as outlined in 40 CFR 60.13(e) and R307-170.

When the SO_2 CEMS has been installed calibrated, and is operating, the emission rate of SO_2 in pounds per hour measured by the SO_2 CEMS for each 3-hour block averaging period shall be calculated by the following formula:

$$E_h = K * C_{hp} * Q_{hs} * ((100 - \%H_2O)/100)$$

Where: E_h = hourly SO_2 mass emission rate during unit operation, lb/hour
$K = 1.66 \times 10\text{-}7$ for SO_2, lb/scf/ppm
C_{hp} = hourly average SO_2 concentration during unit operation, ppm (dry)
Q_{hs} = hourly average volumetric flow rate during unit operation, scfh (wet)
$\%H_2O$ = constant moisture value specific to each kiln, percent by volume.

The Director shall consider the continuous monitoring requirements to be met when the following provisions are met:

a. The SO_2 CEMS shall operate in accordance with 40 CFR 60.13 and R307-170 UAC.
b. Prior to installation of a SO_2 CEMS on a kiln, the average of three one-hour stack test results is less than the corresponding SO_2 emission limit for that kiln.
c. After installation of the SO_2 CEMS on a kiln, the 3-hour block average is less than the corresponding SO_2 emission limit for that kiln.
d. Three-hour block averages shall begin at 12:01 a.m. and end every 3 hours, thereafter.

At no time shall the permittee allow excess gaseous emissions to be emitted to the atmosphere, except as provided by the provisions of R307-107 (Breakdowns), UAC.

II.B.3.c.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.

For the SO_2 CEMS, the permittee shall record the output of the system for measuring the SO_2 emissions in addition to the records specified in R307-170-8. Records shall be maintained in accordance with R307-170 and Provision I.S.1 of this permit.

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

In addition to the reporting requirements specified in Section I of this permit:

(a) 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.

(b) For the SO_2 CEMS, the permittee shall submit a quarterly report in accordance with the reporting provisions in R307-170-9. All exceedances shall be reported in the quarterly report with explanations and corrective actions, in accordance with R307-170. The quarterly reports are considered prompt notification of permit deviations required in Provision I.S.2.c of this permit if all information required by Provision I.S.2.c is included in the report.

II.B.3.d **Condition:**

Emissions to the atmosphere from the baghouse exhaust stack shall not exceed the following rates and concentrations (standardized at 68 degrees F, 29.92 in Hg):
NO_x: 120.0 lb/hr
[Origin: DAQE-AN103130044-21]. [R307-401-8]

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

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every three years. Tests may be required at the direction of the Director.

(b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and submit a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. The source test protocol shall be approved by the Director prior to performing the test(s). A pretest conference shall be held, if directed by the Director.

(c) Methods.
  (1) 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. Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.
  (2) 40 CFR 60, Appendix A, Method 7, 7A, 7B, 7C, 7D, 7E, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the pollutant emission rate.
  (3) 40 CFR 60, Appendix A, Method 2, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the volumetric flow rate.

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

(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

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

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

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

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

II.B.3.e **Condition:**

Visible emissions shall not exceed 15 percent opacity from the baghouse exhaust stack. This condition only applies if the permittee is operating in accordance with the AOS in Section II.D of this permit. [Origin: DAQE-AN103130044-21, 40 CFR 60 Subpart HH]. [40 CFR 60.342(a)(2), R307-401-8]

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

The permittee shall install, calibrate, maintain, and continuously operate a continuous monitoring system to monitor and record the opacity of a representative portion of the gases discharged into the atmosphere from the kiln stack. The monitoring system shall operate continuously and shall comply with all applicable sections of R307-170, UAC and 40 CFR 60, Appendix B, Performance Specification 1 - Specifications and test procedures for continuous opacity monitoring systems in stationary sources. The permittee shall install the COMS at the outlet of the control device. The span of the system shall be set at a minimum of 40 percent opacity.

Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under 40 CFR 60.13(d), the permittee shall continuously operate all required continuous monitoring devices and shall meet minimum frequency of operation requirements as outlined in 40 CFR 60.13(e) and R307-170. The Director shall consider the continuous monitoring requirements to be met when the opacity monitor operates in accordance with 40 CFR 60.13 and R307-170 UAC. At no time shall the permittee allow excess gaseous emissions to be emitted to the atmosphere, except as provided by the provisions of R307-107 (Breakdowns), UAC.

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

The permittee shall record the output of the system for measuring the opacity of emissions in addition to the records specified in R307-170-8. Records and results of monitoring shall be maintained in accordance with R307-170 and Provision I.S.1 of this permit.

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

Reports shall be submitted quarterly, as outlined in R307-170, Continuous Emission Monitoring Program. These quarterly reports are considered prompt notifications of deviation, as required in Provision I.S.2.c of this permit, provided all information required by Provision I.S.2.c is included in the report. For the purpose of reporting required under 40 CFR 60.7(c), periods of excess emissions that shall be reported are defined as all 6-minute periods during which the average opacity of the visible emissions from the lime kiln is greater than 15 percent opacity. All exceedances shall be reported in the quarterly report with explanations and corrective actions, in

accordance with R307-170.

There are no additional reporting requirements except as outlined in Section I of this permit.

II.B.3.f **Condition:**

Emissions to the atmosphere from the baghouse exhaust stack shall not exceed the following rates and concentrations (standardized at 68 degrees F, 29.92 in Hg):
i. PM: 8.23 lb/hour, 0.020 grain/dscf, and 0.12 lb/ton of stone feed (tsf)
ii. PM_{10} (Filterable + Condensable): 6.58 lb/hour and 0.016 grain/dscf
This condition only applies if the permittee is operating in accordance with the AOS in Section II.D of this permit. [Origin: DAQE-AN103130044-21]. [40 CFR 60 Subpart HH, R307-401-8]

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

Stack testing shall be performed as specified below:
(a) Frequency. Emissions shall be tested every three years. Tests may also be required at the direction of the Director.
(b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and submit a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. The source test protocol shall be approved by the Director prior to performing the test. A pretest conference shall be held, if directed by the Director.
(c) Methods.
(1) 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 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.
(2) Sample Methods
PM - 40 CFR 60, Appendix A, Method 5 shall be used to determine the particulate matter concentration (cs) and the volumetric flow rate (Qsd) of the effluent gas. The minimum sample volume for each run shall be 0.90 dry standard cubic meter (dscm) (31.8 dry standard cubic foot (dscf)). The permittee shall conduct three separate test runs for each performance test. The minimum sample time for each run shall be at least 60 minutes.

PM_{10} (Filterable + Condensable)
For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201, 201a, or other EPA-approved method as acceptable to the Director. The back half condensables shall also be tested using 40 CFR 51, Appendix M, Method 202, or other EPA-approved method acceptable to the Director. All particulate captured shall be considered PM_{10}.

For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, or 5e as appropriate, or other EPA-approved method as acceptable to the Director. The back half condensables shall also be tested using 40 CFR 51, Appendix M, Method 202, or other EPA-approved method as acceptable to the Director. The portion of the front half of the catch considered PM_{10} shall be based on information in Appendix B of the fifth edition of the EPA document, AP-42, or other data acceptable to the Director.
(d) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate

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

The emission rate (E) of particulate matter shall be computed for each run using the following equation.

$E = (c_s Q_{sd})/PK)$

where: E = emission rate of particulate matter, kg/Mg (1b/ton) of stone feed.
c_s = concentration of particulate matter, g/dscm (gr/dscf).
Q_{sd} = volumetric flow rate of effluent gas, dscm/hr (dscf/hr).
P = stone feed rate, Mg/hr (ton/hr).
K = conversion factor, 1000 g/kg (7000 gr/lb).

(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

The permittee shall install, calibrate, maintain, and operate a device for measuring the mass rate of stone feed to any affected rotary lime kiln. The measuring device used shall be accurate to within +/- 5 percent of the mass rate over its operating range. This monitoring device shall be used to determine the stone feed rate (P) for each run. (40 CFR 60.343(d), 40 CFR 60.344(b)(3)).

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

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

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

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

II.B.4 **Conditions on Lime Kiln #3 (Unit #K-3).**

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

Visible emissions shall not exceed 15 percent opacity from the baghouse exhaust stack. This condition does not apply if the permittee is operating in accordance with the AOS in Section II.D of this permit. [Origin: DAQE-AN103130044-21, 40 CFR 60 Subpart HH, 40 CFR 63 Subpart AAAAA Table 3]. [40 CFR 60.342(a)(2), 40 CFR 63.7090(b), R307-401-8]

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

Prior to the PM performance test specified in this permit, the permittee shall install, calibrate, maintain and operate a continuous monitoring system to monitor and record the opacity of a representative portion of the gases discharged into the atmosphere in accordance with the standard operating procedures incorporated into the OM&M plan, R307-170, UAC, 40 CFR 63, Subpart A, and 40 CFR 60, Appendix B, PS-1. The COMS shall be installed at the outlet of the control device. The span of the system shall be set at a minimum of 40 percent opacity. At no time shall the permittee allow excess gaseous emissions to be emitted to the atmosphere, except as provided by the provisions of R307-107 (Breakdowns), UAC.

Continuous compliance shall be demonstrated by collecting COMS data at least once every 15 seconds, determining block averages for each 6-minute period and demonstrating that for each 6-minute block period the average opacity does not exceed 15 percent.

The permittee shall monitor continuously (or collect data at all required intervals) at all times that the emission unit is operating, except for monitor malfunctions, associated repairs, required quality assurance or control activities (including, as applicable, calibration checks and required zero adjustments). Data recorded during the conditions described below shall not be used either in data averages or calculations of emission or operating limits; or in fulfilling a minimum data availability requirement.

(1) Monitoring system breakdowns, repairs, preventive maintenance, calibration checks, and zero (low-level) and high-level adjustments;
(2) Periods of non-operation of the process unit (or portion thereof), resulting in cessation of the emissions to which the monitoring applies.

The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system.

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

The permittee shall record the output of the system for measuring the opacity of emissions in addition to the records specified in R307-170-8 and 40 CFR 63.7132. Records and results of monitoring shall be maintained in accordance with R307-170, 40 CFR 63.7133, and Provision I.S.1 of this permit.

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

Reports shall be submitted quarterly, as outlined in R307-170, Continuous Emission Monitoring Program. These quarterly reports are considered prompt notifications of deviation, as required in Provision I.S.2.c of this permit, provided all information required by Provision I.S.2.c is included in the report. For the purpose of reporting required under 40 CFR 60.7(c), periods of excess emissions that shall be reported are defined as all 6 minute periods during which the average opacity of the visible emissions from the lime kiln is greater than 15 percent opacity. All exceedances shall be reported in the quarterly report with explanations and corrective actions, in accordance with R307-170.

The permittee shall submit a compliance report semiannually containing the information required in Table 8 to 40 CFR 63 Subpart AAAAA and in accordance with 40 CFR 63.7131. If the permittee submits the compliance report along with, or as part of, the quarterly report required above, and the compliance report includes all required information concerning deviations from any emission limitation (including any operating limit), submission of the compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report required in Section I of this permit. However, submission of a compliance report shall not otherwise affect any obligation the permittee has to report deviations from permit requirements to the permit authority. [40 CFR 63.7131(f)]

Reports shall be submitted in accordance with 40 CFR 63.7131 and as outlined in Section I of this permit.

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

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

i. PM: 7.49 lb/hour, 0.020 grain/dscf, and 0.10 lb/ton of stone feed (tsf)
ii. PM_{10} (Filterable + Condensable): 7.54 lb/hour and 0.016 grain/dscf

This condition does not apply if the permittee is operating in accordance with the AOS in Section II.D of this permit. [Origin: DAQE-AN103130044-21, 40 CFR 63 Subpart AAAAA Table 1]. [40 CFR 60 Subpart HH, 40 CFR 63.7090(a), R307-401-8]

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

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every three years. Tests may also be required at the direction of the Director.

(b) Notification. At least 60 days before the test, the source shall notify the Director of the date, time, and place of testing and submit a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. The source test protocol shall be approved by the Director prior to performing the test(s). A pretest conference shall be held, if directed by the Director.

(c) Methods.

(1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1 or 1A, and Occupational Safety and Health Administration (OSHA) and/or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location. Sampling sites shall be located at the outlet of the control device(s) and prior to any releases to the atmosphere.

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

(3) Conduct gas molecular weight analysis using 40 CFR 60, Appendix A, Method 3, 3A, 3B, or other EPA-approved testing method acceptable to the Director.

(4) Measure moisture content of the stack gas using 40 CFR 60, Appendix A, Method 4, or other EPA-approved testing method acceptable to the Director.

(5) Sample Method - 40 CFR 60, Appendix A, Method 5 shall be used to determine the particulate matter concentration. The minimum sample volume for each run shall be 0.85 dry standard cubic meter (dscm) (30 dry standard cubic foot (dscf)). The permittee shall conduct three separate test runs for each performance test. The minimum sample time for each run shall be at least 60 minutes.

The back half condensables shall also be tested using 40 CFR 51, Appendix M, Method 202, or other EPA-approved testing method, as acceptable to the Director, to demonstrate compliance with the PM_{10} (Filterable + Condensable) limit.

(6) Each performance test shall be conducted based on representative performance (i.e., performance based on normal operating conditions) of the affected source and under the specific conditions in Table 5 to 40 CFR 63 Subpart AAAAA. Representative conditions exclude periods of startup and shutdown. The permittee shall not conduct performance tests during periods of startup, shutdown, or malfunction. (40 CFR 63.7112(b), (c))

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

The emission rate of particulate matter (lb/tsf) from each kiln shall be computed for each run using the following equation.

$$E = C_k Q_k / PK$$

Where: E = Emission rate of PM, pounds per ton (lb/ton) of stone feed.
C_k = Concentration of PM in the kiln effluent, grain/dry standard cubic feet (gr/dscf).

Q_k = Volumetric flow rate of kiln effluent gas, dry standard cubic feet per hour (dscf/hr).
P = Stone feed rate, tons per hour (ton/hr).
K = Conversion factor, 7000 grains per pound (grains/lb).

(d) Production Rate During Testing. Tests shall be conducted at a production rate of no less than 90% of the maximum production achieved in the previous three (3) years.

The permittee shall determine the mass rate of stone feed to the kiln using any suitable device during the kiln PM emissions test. The measuring device shall be accurate to within +/- 5 percent of the mass rate of stone feed over its operating range and shall be calibrated and maintained according to manufacturer's instructions. [40 CFR 60.343(d), 40 CFR 63.7112 Table 5].

During startup, kilns shall be tested hourly to determine when lime product meets the definition of on-specification lime product. (40 CFR 63.7112(m)).

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

In addition to the records specified in 40 CFR 63.7132:
Results of all stack testing shall be recorded in accordance with the associated test method and Provision I.S.1 of this permit. The permittee shall record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, the permittee shall make available to the Director such records as may be necessary to determine the conditions of performance tests.

Records and results of monitoring shall be maintained in accordance with 40 CFR 63.7133 and Provision I.S.1 of this permit.

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

The permittee shall submit a Notification of Compliance Status, including the performance test results, before the close of business on the 60th calendar day following completion of the performance test.

Performance test results shall be documented in complete test reports that contain the information required in 40 CFR 63.7(g) and 40 CFR 63.7112(h). 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.

The permittee shall submit a compliance report semiannually containing the information required in Table 8 to 40 CFR 63 Subpart AAAAA and in accordance with 40 CFR 63.7131. If the permittee submits the compliance report along with, or as part of, the semiannual monitoring report required in Section I of this permit and the compliance report includes all required information concerning deviations from any emission limitation (including any operating limit), submission of the compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report shall not otherwise affect any obligation the permittee has to report deviations from permit requirements to the permit authority. [40 CFR 63.7131(f)]

Reports shall be submitted in accordance with 40 CFR 63.7131 and as outlined in Section I of this permit.

II.B.4.c **Condition:**

Emissions to the atmosphere from the baghouse exhaust stack shall not exceed the following rates and concentrations (standardized at 68 degrees F, 29.92 in Hg):
SO_2: 27.2 lb/hr
[Origin: DAQE-AN103130044-21]. [R307-401-8]

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

(I) Stack testing shall be performed as specified below:
  (a) Frequency. Emissions shall be tested every three years. Tests may be also required at the direction of the Director.
  (b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and submit a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. The source test protocol shall be approved by the Director prior to performing the test(s). A pretest conference shall be held, if directed by the Director.
  (c) Methods.
    (1) 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. Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.
    (2) 40 CFR 60, Appendix A, Method 6, 6A, 6B, 6C, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the pollutant emission rate.
    (3) 40 CFR 60, Appendix A, Method 2, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the volumetric flow rate.
  (d) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Director to give the results in the specified units of the emission limitation.
  (e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

(II) The permittee shall install, calibrate, maintain, and continuously operate a continuous emissions monitoring system (consisting of a SO_2 pollutant concentration monitor and a flow monitoring device) for the continuous measurement of SO_2 emissions on a kiln prior to that kiln burning coal with a sulfur content in excess of 1.0 lb Sulfur/MMBtu.

After installation of an SO_2 CEMS,
a. compliance with the SO_2 limit shall be based on a 3-hour block average,
b. compliance with the SO_2 limit shall be demonstrated using the CEMS regardless of fuel burned in the kiln, and
c. stack testing, as specified in (I) above, shall not be required.

The monitoring system shall comply with all applicable sections of R307-170, UAC and 40 CFR 60, Appendix B, Performance Specification 2 - SO_2 and NO_x Continuous Emission Monitoring Systems. Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under 40 CFR 60.13(d), the permittee shall continuously operate all required continuous monitoring devices and shall meet minimum frequency of operation requirements as outlined in 40 CFR 60.13(e) and R307-170.

When the SO_2 CEMS has been installed calibrated, and is operating, the emission rate of SO_2 in pounds per hour measured by the SO_2 CEMS for each 3-hour block averaging period shall be calculated by the following formula:

$E_h = K * C_{hp} * Q_{hs} * ((100 - \%H_2O)/100)$

Where: E_h = hourly SO_2 mass emission rate during unit operation, lb/hour
K = 1.66 x 10-7 for SO_2, lb/scf/ppm
C_{hp} = hourly average SO_2 concentration during unit operation, ppm (dry)
Q_{hs} = hourly average volumetric flow rate during unit operation, scfh (wet)
$\%H_2O$ = constant moisture value specific to each kiln, percent by volume.

The Director shall consider the continuous monitoring requirements to be met when the following provisions are met:

a. The SO_2 CEMS shall operate in accordance with 40 CFR 60.13 and R307-170 UAC.
b. Prior to installation of a SO_2 CEMS on a kiln, the average of three one-hour stack test results is less than the corresponding SO_2 emission limit for that kiln.
c. After installation of the SO_2 CEMS on a kiln, the 3-hour block average is less than the corresponding SO_2 emission limit for that kiln.
d. Three-hour block averages shall begin at 12:01 a.m. and end every 3 hours, thereafter.

At no time shall the permittee allow excess gaseous emissions to be emitted to the atmosphere, except as provided by the provisions of R307-107 (Breakdowns), UAC.

II.B.4.c.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.

For the SO_2 CEMS, the permittee shall record the output of the system for measuring the SO_2 emissions in addition to the records specified in R307-170-8. Records shall be maintained in accordance with R307-170 and Provision I.S.1 of this permit.

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

In addition to the reporting requirements specified in Section I of this permit:

(a) 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.
(b) For the SO_2 CEMS, the permittee shall submit a quarterly report in accordance with the reporting provisions in R307-170-9. All exceedances shall be reported in the quarterly report with explanations and corrective actions, in accordance with R307-170. The quarterly reports are considered prompt notification of permit deviations required in Provision I.S.2.c of this permit if all information required by Provision I.S.2.c is included in the report.

II.B.4.d **Condition:**

Emissions to the atmosphere from the baghouse exhaust stack shall not exceed the following rates and concentrations (standardized at 68 degrees F, 29.92 in Hg):
NO_x: 160.0 lb/hr
[DAQE-AN103130044-21]. [R307-401-8]

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

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every three years. Tests may be required at the direction of the Director.

(b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and submit a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. The source test protocol shall be approved by the Director prior to performing the test(s). A pretest conference shall be held, if directed by the Director.

(c) Methods.

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

(2) 40 CFR 60, Appendix A, Method 7, 7A, 7B, 7C, 7D, 7E, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the pollutant emission rate.

(3) 40 CFR 60, Appendix A, Method 2, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the volumetric flow rate.

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

(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

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

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

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

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

II.B.4.e **Condition:**

Visible emissions shall not exceed 15 percent opacity from the baghouse exhaust stack. This condition only applies if the permittee is operating in accordance with the AOS in Section II.D of this permit. [Origin: DAQE-AN103130044-21, 40 CFR 60 Subpart HH]. [40 CFR 60.342(a)(2), R307-401-8]

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

The permittee shall install, calibrate, maintain, and continuously operate a continuous monitoring system to monitor and record the opacity of a representative portion of the gases discharged into the atmosphere from the kiln stack. The monitoring system shall operate continuously and shall comply with all applicable sections of R307-170, UAC and 40 CFR 60, Appendix B, Performance Specification 1 - Specifications and test procedures for continuous opacity monitoring systems in stationary sources. The permittee shall install the COMS at the outlet of

the control device. The span of the system shall be set at a minimum of 40 percent opacity.

Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under 40 CFR 60.13(d), the permittee shall continuously operate all required continuous monitoring devices and shall meet minimum frequency of operation requirements as outlined in 40 CFR 60.13(e) and R307-170. The Director shall consider the continuous monitoring requirements to be met when the opacity monitor operates in accordance with 40 CFR 60.13 and R307-170 UAC. At no time shall the permittee allow excess gaseous emissions to be emitted to the atmosphere, except as provided by the provisions of R307-107 (Breakdowns), UAC.

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

The permittee shall record the output of the system for measuring the opacity of emissions in addition to the records specified in R307-170-8. Records and results of monitoring shall be maintained in accordance with R307-170 and Provision I.S.1 of this permit.

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

Reports shall be submitted quarterly, as outlined in R307-170, Continuous Emission Monitoring Program. These quarterly reports are considered prompt notifications of deviation, as required in Provision I.S.2.c of this permit, provided all information required by Provision I.S.2.c is included in the report. For the purpose of reporting required under 40 CFR 60.7(c), periods of excess emissions that shall be reported are defined as all 6-minute periods during which the average opacity of the visible emissions from the lime kiln is greater than 15 percent opacity. All exceedances shall be reported in the quarterly report with explanations and corrective actions, in accordance with R307-170.

There are no additional reporting requirements except as outlined in Section I of this permit.

II.B.4.f **Condition:**

Emissions to the atmosphere from the baghouse exhaust stack shall not exceed the following rates and concentrations (standardized at 68 degrees F, 29.92 in Hg):
i. PM: 7.49 lb/hour, 0.020 grain/dscf, and 0.10 lb/ton of stone feed (tsf)
ii. PM_{10} (Filterable + Condensable): 7.54 lb/hour and 0.016 grain/dscf
This condition only applies if the permittee is operating in accordance with the AOS in Section II.D of this permit. [Origin: DAQE-AN103130044-21]. [40 CFR 60 Subpart HH, R307-401-8]

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

Stack testing shall be performed as specified below:
(a) Frequency. Emissions shall be tested every three years. Tests may also be required at the direction of the Director.
(b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and submit a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. The source test protocol shall be approved by the Director prior to performing the test. A pretest conference shall be held, if directed by the Director.
(c) Methods.
    (1) 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 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.

(2) Sample Methods

PM - 40 CFR 60, Appendix A, Method 5 shall be used to determine the particulate matter concentration (cs) and the volumetric flow rate (Qsd) of the effluent gas. The minimum sample volume for each run shall be 0.90 dry standard cubic meter (dscm) (31.8 dry standard cubic foot (dscf)). The permittee shall conduct three separate test runs for each performance test. The minimum sample time for each run shall be at least 60 minutes.

PM_{10} (Filterable + Condensable)

For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201, 201a, or other EPA-approved method as acceptable to the Director. The back half condensables shall also be tested using 40 CFR 51, Appendix M, Method 202, or other EPA-approved method acceptable to the Director. All particulate captured shall be considered PM_{10}.

For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, or 5e as appropriate, or other EPA-approved method as acceptable to the Director. The back half condensables shall also be tested using 40 CFR 51, Appendix M, Method 202, or other EPA-approved method as acceptable to the Director. The portion of the front half of the catch considered PM_{10} shall be based on information in Appendix B of the fifth edition of the EPA document, AP-42, or other data acceptable to the Director.

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

The emission rate (E) of particulate matter shall be computed for each run using the following equation.

$E = (c_s Q_{sd})/PK)$

where: E = emission rate of particulate matter, kg/Mg (1b/ton) of stone feed.
c_s = concentration of particulate matter, g/dscm (gr/dscf).
Q_{sd} = volumetric flow rate of effluent gas, dscm/hr (dscf/hr).
P = stone feed rate, Mg/hr (ton/hr).
K = conversion factor, 1000 g/kg (7000 gr/lb).

(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

The permittee shall install, calibrate, maintain, and operate a device for measuring the mass rate of stone feed to any affected rotary lime kiln. The measuring device used shall be accurate to within +/- 5 percent of the mass rate over its operating range. This monitoring device shall be used to determine the stone feed rate (P) for each run. (40 CFR 60.343(d), 40 CFR 60.344(b)(3)).

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

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

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

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

II.B.5 **Conditions on Lime Kiln #4 (Unit #K-4).**

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

Visible emissions shall not exceed 15 percent opacity from the baghouse exhaust stack. This condition does not apply if the permittee is operating in accordance with the AOS in Section II.D of this permit. [Origin: DAQE-AN103130044-21, 40 CFR 60 Subpart HH, 40 CFR 63 Subpart AAAAA Table 3]. [40 CFR 60.342(a)(2), 40 CFR 63.7090(b), R307-401-8]

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

Prior to the PM performance test specified in this permit, the permittee shall install, calibrate, maintain and operate a continuous monitoring system to monitor and record the opacity of a representative portion of the gases discharged into the atmosphere in accordance with the standard operating procedures incorporated into the OM&M plan, R307-170, UAC, 40 CFR 63, Subpart A, and 40 CFR 60, Appendix B, PS-1. The COMS shall be installed at the outlet of the control device. The span of the system shall be set at a minimum of 40 percent opacity. At no time shall the permittee allow excess gaseous emissions to be emitted to the atmosphere, except as provided by the provisions of R307-107 (Breakdowns), UAC.

Continuous compliance shall be demonstrated by collecting COMS data at least once every 15 seconds, determining block averages for each 6-minute period and demonstrating that for each 6-minute block period the average opacity does not exceed 15 percent.

The permittee shall monitor continuously (or collect data at all required intervals) at all times that the emission unit is operating, except for monitor malfunctions, associated repairs, required quality assurance or control activities (including, as applicable, calibration checks and required zero adjustments). Data recorded during the conditions described below shall not be used either in data averages or calculations of emission or operating limits; or in fulfilling a minimum data availability requirement.

(1) Monitoring system breakdowns, repairs, preventive maintenance, calibration checks, and zero (low-level) and high-level adjustments;
(2) Periods of non-operation of the process unit (or portion thereof), resulting in cessation of the emissions to which the monitoring applies.

The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system.

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

The permittee shall record the output of the system for measuring the opacity of emissions in addition to the records specified in R307-170-8 and 40 CFR 63.7132. Records and results of monitoring shall be maintained in accordance with R307-170, 40 CFR 63.7133, and Provision I.S.1 of this permit.

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

Reports shall be submitted quarterly, as outlined in R307-170, Continuous Emission Monitoring Program. These quarterly reports are considered prompt notifications of deviation, as required in Provision I.S.2.c of this permit, provided all information required by Provision I.S.2.c is included in the report. For the purpose of reporting required under 40 CFR 60.7(c), periods of excess emissions that shall be reported are defined as all 6 minute periods during which the average opacity of the visible emissions from the lime kiln is greater than 15 percent opacity. All exceedances shall be reported in the quarterly report with explanations and corrective actions, in accordance with R307-170.

The permittee shall submit a compliance report semiannually containing the information required in Table 8 to 40 CFR 63 Subpart AAAAA and in accordance with 40 CFR 63.7131. If the permittee submits the compliance report along with, or as part of, the quarterly report required above, and the compliance report includes all required information concerning deviations from any emission limitation (including any operating limit), submission of the compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report required in Section I of this permit. However, submission of a compliance report shall not otherwise affect any obligation the permittee has to report deviations from permit requirements to the permit authority. [40 CFR 63.7131(f)]

Reports shall be submitted in accordance with 40 CFR 63.7131 and as outlined in Section I of this permit.

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

Emissions to the atmosphere from the baghouse exhaust stack shall not exceed the following rates and concentrations (standardized at 68 degrees F, 29.92 in Hg):
i. PM: 17.14 lb/hour, 0.020 grain/dscf, and 0.12 lb/ton of stone feed (tsf)
ii. PM_{10} (Filterable + Condensable): 13.7 lb/hour and 0.016 grain/dscf
This condition does not apply if the permittee is operating in accordance with the AOS in Section II.D of this permit. [Origin: DAQE-AN103130044-21, 40 CFR 63 Subpart AAAAA Table 1]. [40 CFR 60 Subpart HH, 40 CFR 63.7090(a), R307-401-8]

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

Stack testing shall be performed as specified below:
(a) Frequency. Emissions shall be tested every three years. Tests may also be required at the direction of the Director.
(b) Notification. At least 60 days before the test, the source shall notify the Director of the date, time, and place of testing and submit a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. The source test protocol shall be approved by the Director prior to performing the test(s). A pretest conference shall be held, if directed by the Director.
(c) Methods.
    (1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1 or 1A, and Occupational Safety and Health Administration (OSHA) and/or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location. Sampling sites shall be located at the outlet of the control device(s) and prior to any releases to the atmosphere.
    (2) Volumetric Flow Rate - 40 CFR 60, Appendix A, Method 2 or other EPA-approved testing method acceptable to the Director.
    (3) Conduct gas molecular weight analysis using 40 CFR 60, Appendix A, Method 3, 3A, 3B, or other EPA-approved testing method acceptable to the Director.

(4) Measure moisture content of the stack gas using 40 CFR 60, Appendix A, Method 4, or other EPA-approved testing method acceptable to the Director.

(5) Sample Method - 40 CFR 60, Appendix A, Method 5 shall be used to determine the particulate matter concentration. The minimum sample volume for each run shall be 0.85 dry standard cubic meter (dscm) (30 dry standard cubic foot (dscf)). The permittee shall conduct three separate test runs for each performance test. The minimum sample time for each run shall be at least 60 minutes.

The back half condensables shall also be tested using 40 CFR 51, Appendix M, Method 202, or other EPA-approved testing method, as acceptable to the Director, to demonstrate compliance with the PM_{10} (Filterable + Condensable) limit.

(6) Each performance test shall be conducted based on representative performance (i.e., performance based on normal operating conditions) of the affected source and under the specific conditions in Table 5 to 40 CFR 63 Subpart AAAAA. Representative conditions exclude periods of startup and shutdown. The permittee shall not conduct performance tests during periods of startup, shutdown, or malfunction. (40 CFR 63.7112(b), (c))

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

The emission rate of particulate matter (lb/tsf) from each kiln shall be computed for each run using the following equation.

$$E = C_k Q_k / PK$$

Where: E = Emission rate of PM, pounds per ton (lb/ton) of stone feed.
C_k = Concentration of PM in the kiln effluent, grain/dry standard cubic feet (gr/dscf).
Q_k = Volumetric flow rate of kiln effluent gas, dry standard cubic feet per hour (dscf/hr).
P = Stone feed rate, tons per hour (ton/hr).
K = Conversion factor, 7000 grains per pound (grains/lb).

(d) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

The permittee shall determine the mass rate of stone feed to the kiln using any suitable device during the kiln PM emissions test. The measuring device shall be accurate to within +/- 5 percent of the mass rate of stone feed over its operating range and shall be calibrated and maintained according to manufacturer's instructions. [40 CFR 60.343(d), 40 CFR 63.7112 Table 5].

During startup, kilns shall be tested hourly to determine when lime product meets the definition of on-specification lime product. (40 CFR 63.7112(m)).

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

In addition to the records specified in 40 CFR 63.7132:
Results of all stack testing shall be recorded in accordance with the associated test method and Provision I.S.1 of this permit. The permittee shall record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, the permittee shall make available to the Director such records as may be necessary to determine the

conditions of performance tests.

Records and results of monitoring shall be maintained in accordance with 40 CFR 63.7133 and Provision I.S.1 of this permit.

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

The permittee shall submit a Notification of Compliance Status, including the performance test results, before the close of business on the 60th calendar day following completion of the performance test.

Performance test results shall be documented in complete test reports that contain the information required in 40 CFR 63.7(g) and 40 CFR 63.7112(h). 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.

The permittee shall submit a compliance report semiannually containing the information required in Table 8 to 40 CFR 63 Subpart AAAAA and in accordance with 40 CFR 63.7131. If the permittee submits the compliance report along with, or as part of, the semiannual monitoring report required in Section I of this permit and the compliance report includes all required information concerning deviations from any emission limitation (including any operating limit), submission of the compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report shall not otherwise affect any obligation the permittee has to report deviations from permit requirements to the permit authority. [40 CFR 63.7131(f)]

Reports shall be submitted in accordance with 40 CFR 63.7131 and as outlined in Section I of this permit.

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

Emissions to the atmosphere from the baghouse exhaust stack shall not exceed the following rates and concentrations (standardized at 68 degrees F, 29.92 in Hg):
SO_2: 38.4 lb/hr
[Origin: DAQE-AN103130044-21]. [R307-401-8]

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

(I) Stack testing shall be performed as specified below:
  (a) Frequency. Emissions shall be tested every three years. Tests may be also required at the direction of the Director.
  (b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and submit a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. The source test protocol shall be approved by the Director prior to performing the test(s). A pretest conference shall be held, if directed by the Director.
  (c) Methods.
    (1) 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. Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.

(2) 40 CFR 60, Appendix A, Method 6, 6A, 6B, 6C, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the pollutant emission rate.
(3) 40 CFR 60, Appendix A, Method 2, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the volumetric flow rate.

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

(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

(II) The permittee shall install, calibrate, maintain, and continuously operate a continuous emissions monitoring system (consisting of a SO_2 pollutant concentration monitor and a flow monitoring device) for the continuous measurement of SO_2 emissions on a kiln prior to that kiln burning coal with a sulfur content in excess of 1.0 lb Sulfur/MMBtu.

After installation of an SO_2 CEMS,

a. compliance with the SO_2 limit shall be based on a 3-hour block average,
b. compliance with the SO_2 limit shall be demonstrated using the CEMS regardless of fuel burned in the kiln, and
c. stack testing, as specified in (I) above, shall not be required.

The monitoring system shall comply with all applicable sections of R307-170, UAC and 40 CFR 60, Appendix B, Performance Specification 2 - SO_2 and NO_x Continuous Emission Monitoring Systems. Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under 40 CFR 60.13(d), the permittee shall continuously operate all required continuous monitoring devices and shall meet minimum frequency of operation requirements as outlined in 40 CFR 60.13(e) and R307-170.

When the SO_2 CEMS has been installed calibrated, and is operating, the emission rate of SO_2 in pounds per hour measured by the SO_2 CEMS for each 3-hour block averaging period shall be calculated by the following formula:

$$E_h = K * C_{hp} * Q_{hs} * ((100 - \%H_2O)/100)$$

Where: E_h = hourly SO_2 mass emission rate during unit operation, lb/hour
K = 1.66 x 10-7 for SO_2, lb/scf/ppm
C_{hp} = hourly average SO_2 concentration during unit operation, ppm (dry)
Q_{hs} = hourly average volumetric flow rate during unit operation, scfh (wet)
$\%H_2O$ = constant moisture value specific to each kiln, percent by volume.

The Director shall consider the continuous monitoring requirements to be met when the following provisions are met:

a. The SO_2 CEMS shall operate in accordance with 40 CFR 60.13 and R307-170 UAC.
b. Prior to installation of a SO_2 CEMS on a kiln, the average of three one-hour stack test results is less than the corresponding SO_2 emission limit for that kiln.
c. After installation of the SO_2 CEMS on a kiln, the 3-hour block average is less than the corresponding SO_2 emission limit for that kiln.
d. Three-hour block averages shall begin at 12:01 a.m. and end every 3 hours, thereafter.

At no time shall the permittee allow excess gaseous emissions to be emitted to the atmosphere, except as provided by the provisions of R307-107 (Breakdowns), UAC.

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

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

For the SO_2 CEMS, the permittee shall record the output of the system for measuring the SO_2 emissions in addition to the records specified in R307-170-8. Records shall be maintained in accordance with R307-170 and Provision I.S.1 of this permit.

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

In addition to the reporting requirements specified in Section I of this permit:

(a) 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.

(b) For the SO_2 CEMS, the permittee shall submit a quarterly report in accordance with the reporting provisions in R307-170-9. All exceedances shall be reported in the quarterly report with explanations and corrective actions, in accordance with R307-170. The quarterly reports are considered prompt notification of permit deviations required in Provision I.S.2.c of this permit if all information required by Provision I.S.2.c is included in the report.

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

Emissions to the atmosphere from the baghouse exhaust stack shall not exceed the following rates and concentrations (standardized at 68 degrees F, 29.92 in Hg):
NO_x: 200.0 lb/hr
[Origin: DAQE-AN103130044-21]. [R307-401-8]

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

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every three years. Tests may be required at the direction of the Director.

(b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and submit a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. The source test protocol shall be approved by the Director prior to performing the test(s). A pretest conference shall be held, if directed by the Director.

(c) Methods.
  (1) 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. Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.
  (2) 40 CFR 60, Appendix A, Method 7, 7A, 7B, 7C, 7D, 7E, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the pollutant emission rate.
  (3) 40 CFR 60, Appendix A, Method 2, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the volumetric flow rate.

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

(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

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

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

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

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

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

Visible emissions shall not exceed 15 percent opacity from the baghouse exhaust stack. This condition only applies if the permittee is operating in accordance with the AOS in Section II.D of this permit. [Origin: DAQE-AN103130044-21, 40 CFR 60 Subpart HH]. [40 CFR 60.342(a)(2), R307-401-8]

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

The permittee shall install, calibrate, maintain, and continuously operate a continuous monitoring system to monitor and record the opacity of a representative portion of the gases discharged into the atmosphere from the kiln stack. The monitoring system shall operate continuously and shall comply with all applicable sections of R307-170, UAC and 40 CFR 60, Appendix B, Performance Specification 1 - Specifications and test procedures for continuous opacity monitoring systems in stationary sources. The permittee shall install the COMS at the outlet of the control device. The span of the system shall be set at a minimum of 40 percent opacity.

Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under 40 CFR 60.13(d), the permittee shall continuously operate all required continuous monitoring devices and shall meet minimum frequency of operation requirements as outlined in 40 CFR 60.13(e) and R307-170. The Director shall consider the continuous monitoring requirements to be met when the opacity monitor operates in accordance with 40 CFR 60.13 and R307-170 UAC. At no time shall the permittee allow excess gaseous emissions to be emitted to the atmosphere, except as provided by the provisions of R307-107 (Breakdowns), UAC.

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

The permittee shall record the output of the system for measuring the opacity of emissions in addition to the records specified in R307-170-8. Records and results of monitoring shall be maintained in accordance with R307-170 and Provision I.S.1 of this permit.

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

Reports shall be submitted quarterly, as outlined in R307-170, Continuous Emission Monitoring Program. These quarterly reports are considered prompt notifications of deviation, as required in Provision I.S.2.c of this permit, provided all information required by Provision I.S.2.c is included in the report. For the purpose of reporting required under 40 CFR 60.7(c), periods of excess emissions that shall be reported are defined as all 6-minute periods during which the average opacity of the visible emissions from the lime kiln is greater than 15 percent opacity. All exceedances shall be reported in the quarterly report with explanations and corrective actions, in

accordance with R307-170.

There are no additional reporting requirements except as outlined in Section I of this permit.

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

Emissions to the atmosphere from the baghouse exhaust stack shall not exceed the following rates and concentrations (standardized at 68 degrees F, 29.92 in Hg):
i. PM: 17.14 lb/hour, 0.020 grain/dscf, and 0.12 lb/ton of stone feed (tsf)
ii. PM_{10} (Filterable + Condensable): 13.7 lb/hour and 0.016 grain/dscf
This condition only applies if the permittee is operating in accordance with the AOS in Section II.D of this permit. [Origin: DAQE-AN103130044-21]. [40 CFR 60 Subpart HH, R307-401-8]

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

Stack testing shall be performed as specified below:
(a) Frequency. Emissions shall be tested every three years. Tests may also be required at the direction of the Director.
(b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and submit a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. The source test protocol shall be approved by the Director prior to performing the test. A pretest conference shall be held, if directed by the Director.
(c) Methods.
(1) 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 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.
(2) Sample Methods
PM - 40 CFR 60, Appendix A, Method 5 shall be used to determine the particulate matter concentration (cs) and the volumetric flow rate (Qsd) of the effluent gas. The minimum sample volume for each run shall be 0.90 dry standard cubic meter (dscm) (31.8 dry standard cubic foot (dscf)). The permittee shall conduct three separate test runs for each performance test. The minimum sample time for each run shall be at least 60 minutes.

PM_{10} (Filterable + Condensable)
For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201, 201a, or other EPA-approved method as acceptable to the Director. The back half condensables shall also be tested using 40 CFR 51, Appendix M, Method 202, or other EPA-approved method acceptable to the Director. All particulate captured shall be considered PM_{10}.

For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, or 5e as appropriate, or other EPA-approved method as acceptable to the Director. The back half condensables shall also be tested using 40 CFR 51, Appendix M, Method 202, or other EPA-approved method as acceptable to the Director. The portion of the front half of the catch considered PM_{10} shall be based on information in Appendix B of the fifth edition of the EPA document, AP-42, or other data acceptable to the Director.
(d) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate

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

The emission rate (E) of particulate matter shall be computed for each run using the following equation.

$E = (c_s Q_{sd})/PK)$

where: E = emission rate of particulate matter, kg/Mg (1b/ton) of stone feed.
c_s = concentration of particulate matter, g/dscm (gr/dscf).
Q_{sd} = volumetric flow rate of effluent gas, dscm/hr (dscf/hr).
P = stone feed rate, Mg/hr (ton/hr).
K = conversion factor, 1000 g/kg (7000 gr/lb).

(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

The permittee shall install, calibrate, maintain, and operate a device for measuring the mass rate of stone feed to any affected rotary lime kiln. The measuring device used shall be accurate to within +/- 5 percent of the mass rate over its operating range. This monitoring device shall be used to determine the stone feed rate (P) for each run. (40 CFR 60.343(d), 40 CFR 60.344(b)(3)).

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

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

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

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

II.B.6 **Conditions on Lime Kiln #5 (Unit #K-5).**

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

Visible emissions shall not exceed 15 percent opacity from the baghouse exhaust stack. This condition does not apply if the permittee is operating in accordance with the AOS in Section II.D of this permit. [Origin: DAQE-AN103130044-21, 40 CFR 60 Subpart HH, 40 CFR 63 Subpart AAAAA Table 3]. [40 CFR 60.342(a)(2), 40 CFR 63.7090(b), R307-401-8]

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

Prior to the PM performance test specified in this permit, the permittee shall install, calibrate, maintain and operate a continuous monitoring system to monitor and record the opacity of a representative portion of the gases discharged into the atmosphere in accordance with the standard operating procedures incorporated into the OM&M plan, R307-170, UAC, 40 CFR 63, Subpart A, and 40 CFR 60, Appendix B, PS-1. The permittee shall install the COMS at the outlet of the control device. The span of the system shall be set at a minimum of 40 percent opacity. At no time shall the permittee allow excess gaseous emissions to be emitted to the atmosphere, except as provided by the provisions of R307-107 (Breakdowns), UAC.

Continuous compliance shall be demonstrated by collecting COMS data at least once every 15 seconds, determining block averages for each 6-minute period and demonstrating that for each 6-minute block period the average opacity does not exceed 15 percent.

The permittee shall monitor continuously (or collect data at all required intervals) at all times that the emission unit is operating, except for monitor malfunctions, associated repairs, required quality assurance or control activities (including, as applicable, calibration checks and required zero adjustments). Data recorded during the conditions described below shall not be used either in data averages or calculations of emission or operating limits; or in fulfilling a minimum data availability requirement.

(1) Monitoring system breakdowns, repairs, preventive maintenance, calibration checks, and zero (low-level) and high-level adjustments;
(2) Periods of non-operation of the process unit (or portion thereof), resulting in cessation of the emissions to which the monitoring applies.

The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system.

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

The permittee shall record the output of the system for measuring the opacity of emissions in addition to the records specified in R307-170-8 and 40 CFR 63.7132. Records and results of monitoring shall be maintained in accordance with R307-170, 40 CFR 63.7133, and Provision I.S.1 of this permit.

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

Reports shall be submitted quarterly, as outlined in R307-170, Continuous Emission Monitoring Program. These quarterly reports are considered prompt notifications of deviation, as required in Provision I.S.2.c of this permit, provided all information required by Provision I.S.2.c is included in the report. For the purpose of reporting required under 40 CFR 60.7(c), periods of excess emissions that shall be reported are defined as all 6 minute periods during which the average opacity of the visible emissions from the lime kiln is greater than 15 percent opacity. All exceedances shall be reported in the quarterly report with explanations and corrective actions, in accordance with R307-170.

The permittee shall submit a compliance report semiannually containing the information required in Table 8 to 40 CFR 63 Subpart AAAAA and in accordance with 40 CFR 63.7131. If the permittee submits the compliance report along with, or as part of, the quarterly report required above, and the compliance report includes all required information concerning deviations from any emission limitation (including any operating limit), submission of the compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report required in Section I of this permit. However, submission of a compliance report shall not otherwise affect any obligation the permittee has to report deviations from permit requirements to the permit authority. [40 CFR 63.7131(f)]

Reports shall be submitted in accordance with 40 CFR 63.7131 and as outlined in Section I of this permit.

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

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

i. PM: 0.020 grain/dscf and 0.10 lb/ton of stone feed (tsf)
ii. PM_{10} (Filterable + Condensable): 11.7 lb/hour and 0.016 grain/dscf

This condition does not apply if the permittee is operating in accordance with the AOS in Section II.D of this permit. [Origin: DAQE-AN103130044-21, 40 CFR 63 Subpart AAAAA Table 1]. [40 CFR 60 Subpart HH, 40 CFR 63.7090(a), R307-401-8]

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

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every three years. Tests may also be required at the direction of the Director.

(b) Notification. At least 60 days before the test, the source shall notify the Director of the date, time, and place of testing and submit a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. The source test protocol shall be approved by the Director prior to performing the test(s). A pretest conference shall be held, if directed by the Director.

(c) Methods.

(1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1 or 1A, and Occupational Safety and Health Administration (OSHA) and/or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location. Sampling sites shall be located at the outlet of the control device(s) and prior to any releases to the atmosphere.

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

(3) Conduct gas molecular weight analysis using 40 CFR 60, Appendix A, Method 3, 3A, 3B, or other EPA-approved testing method acceptable to the Director.

(4) Measure moisture content of the stack gas using 40 CFR 60, Appendix A, Method 4, or other EPA-approved testing method acceptable to the Director.

(5) Sample Method - 40 CFR 60, Appendix A, Method 5 shall be used to determine the particulate matter concentration. The minimum sample volume for each run shall be 0.85 dry standard cubic meter (dscm) (30 dry standard cubic foot (dscf)). The permittee shall conduct three separate test runs for each performance test. The minimum sample time for each run shall be at least 60 minutes.

The back half condensables shall also be tested using 40 CFR 51, Appendix M, Method 202, or other EPA-approved testing method, as acceptable to the Director, to demonstrate compliance with the PM_{10} (Filterable + Condensable) limit.

(6) Each performance test shall be conducted based on representative performance (i.e., performance based on normal operating conditions) of the affected source and under the specific conditions in Table 5 to 40 CFR 63 Subpart AAAAA. Representative conditions exclude periods of startup and shutdown. The permittee shall not conduct performance tests during periods of startup, shutdown, or malfunction. (40 CFR 63.7112(b), (c))

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

The emission rate of particulate matter (lb/tsf) from each kiln shall be computed for each run using the following equation.

$$E = C_k Q_k / PK$$

Where: E = Emission rate of PM, pounds per ton (lb/ton) of stone feed.
C_k = Concentration of PM in the kiln effluent, grain/dry standard cubic feet (gr/dscf).

Q_k = Volumetric flow rate of kiln effluent gas, dry standard cubic feet per hour (dscf/hr).
P = Stone feed rate, tons per hour (ton/hr).
K = Conversion factor, 7000 grains per pound (grains/lb).

(d) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

The permittee shall determine the mass rate of stone feed to the kiln using any suitable device during the kiln PM emissions test. The measuring device shall be accurate to within +/- 5 percent of the mass rate of stone feed over its operating range and shall be calibrated and maintained according to manufacturer's instructions. [40 CFR 60.343(d), 40 CFR 63.7112 Table 5].

During startup, kilns shall be tested hourly to determine when lime product meets the definition of on-specification lime product. (40 CFR 63.7112(m)).

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

In addition to the records specified in 40 CFR 63.7132:
Results of all stack testing shall be recorded in accordance with the associated test method and Provision I.S.1 of this permit. The permittee shall record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, the permittee shall make available to the Director such records as may be necessary to determine the conditions of performance tests.

Records and results of monitoring shall be maintained in accordance with 40 CFR 63.7133 and Provision I.S.1 of this permit.

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

The permittee shall submit a Notification of Compliance Status, including the performance test results, before the close of business on the 60th calendar day following completion of the performance test.

Performance test results shall be documented in complete test reports that contain the information required in 40 CFR 63.7(g) and 40 CFR 63.7112(h). 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.

The permittee shall submit a compliance report semiannually containing the information required in Table 8 to 40 CFR 63 Subpart AAAAA and in accordance with 40 CFR 63.7131. If the permittee submits the compliance report along with, or as part of, the semiannual monitoring report required in Section I of this permit and the compliance report includes all required information concerning deviations from any emission limitation (including any operating limit), submission of the compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report shall not otherwise affect any obligation the permittee has to report deviations from permit requirements to the permit authority. [40 CFR 63.7131(f)]

Reports shall be submitted in accordance with 40 CFR 63.7131 and as outlined in Section I of this permit.

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

Emissions to the atmosphere from the baghouse exhaust stack shall not exceed the following rates and concentrations (standardized at 68 degrees F, 29.92 in Hg):
SO_2: 59.0 lb/hr and 1.01 lb/ton lime
[Origin: DAQE-AN103130044-21]. [R307-401-8]

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

(I) Stack testing shall be performed as specified below:
  (a) Frequency. Emissions shall be tested every three years. Tests may also be required at the direction of the Director.
  (b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and submit a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. The source test protocol shall be approved by the Director prior to performing the test(s). A pretest conference shall be held, if directed by the Director.
  (c) Methods.
    (1) 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. Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.
    (2) 40 CFR 60, Appendix A, Method 6, 6A, 6B, 6C, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the pollutant emission rate.
    (3) 40 CFR 60, Appendix A, Method 2, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the volumetric flow rate.
  (d) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Director to give the results in the specified units of the emission limitation. To determine emission rates in units of lbs/ton lime, the emission rate in lbs/hour shall be divided by the tons/hour lime production rate. Lime production rate shall either be a direct measurement or shall be calculated using the following conversion factor: 2 tons of limestone feed equates to 1 ton of lime produced (2 tons limestone : 1 ton lime).
  (e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

(II) The permittee shall install, calibrate, maintain, and continuously operate a continuous emissions monitoring system (consisting of a SO_2 pollutant concentration monitor and a flow monitoring device) for the continuous measurement of SO_2 emissions on a kiln prior to that kiln burning pet coke or coal with a sulfur content in excess of 1.0 lb Sulfur/MMBtu.

After installation of an SO_2 CEMS,
a. compliance with the SO_2 limit shall be based on a 3-hour block average,
b. compliance with the SO_2 limit shall be demonstrated using the CEMS regardless of fuel burned in the kiln, and
c. stack testing, as specified in (I) above, shall not be required.

The monitoring system shall comply with all applicable sections of R307-170, UAC and 40 CFR 60, Appendix B, Performance Specification 2 - SO_2 and NO_x Continuous Emission

Monitoring Systems. Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under 40 CFR 60.13(d), the permittee shall continuously operate all required continuous monitoring devices and shall meet minimum frequency of operation requirements as outlined in 40 CFR 60.13(e) and R307-170.

When the SO_2 CEMS has been installed calibrated, and is operating, the emission rate of SO_2 in pounds per hour measured by the SO_2 CEMS for each 3-hour block averaging period shall be calculated by the following formula:

$E_h = K * C_{hp} * Q_{hs} * ((100 - \%H_2O)/100)$

Where: E_h = hourly SO_2 mass emission rate during unit operation, lb/hour
$K = 1.66 \times 10\text{-}7$ for SO_2, lb/scf/ppm
C_{hp} = hourly average SO_2 concentration during unit operation, ppm (dry)
Q_{hs} = hourly average volumetric flow rate during unit operation, scfh (wet)
$\%H_2O$ = constant moisture value specific to each kiln, percent by volume

The Director shall consider the continuous monitoring requirements to be met when the following provisions are met:

a. The SO_2 CEMS shall operate in accordance with 40 CFR 60.13 and R307-170 UAC.
b. Prior to installation of a SO_2 CEMS on a kiln, the average of three one-hour stack test results is less than the corresponding SO_2 emission limit for that kiln.
c. After installation of the SO_2 CEMS on a kiln, the 3-hour block average is less than the corresponding SO_2 emission limit for that kiln.
d. Three-hour block averages shall begin at 12:01 a.m. and end every 3 hours, thereafter.

At no time shall the permittee allow excess gaseous emissions to be emitted to the atmosphere, except as provided by the provisions of R307-107 (Breakdowns), UAC.

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

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

For the SO_2 CEMS, the permittee shall record the output of the system for measuring the SO_2 emissions in addition to the records specified in R307-170-8. Records shall be maintained in accordance with R307-170 and Provision I.S.1 of this permit.

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

In addition to the reporting requirements specified in Section I of this permit:

(a) 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.
(b) For the SO_2 CEMS, the permittee shall submit a quarterly report in accordance with the reporting provisions in R307-170-9. All exceedances shall be reported in the quarterly report with explanations and corrective actions, in accordance with R307-170. The quarterly reports are considered prompt notification of permit deviations required in Provision I.S.2.c of this permit if all information required by Provision I.S.2.c is included in the report.

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

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

NO_x: 210.0 lb/hr and 3.60 lb/ton lime
[Origin: DAQE-AN103130044-21]. [R307-401-8]

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

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every three years. Tests may also be required at the direction of the Director.

(b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and submit a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. The source test protocol shall be approved by the Director prior to performing the test(s). A pretest conference shall be held, if directed by the Director.

(c) Methods.

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

(2) 40 CFR 60, Appendix A, Method 7, 7A, 7B, 7C, 7D, 7E, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the pollutant emission rate.

(3) 40 CFR 60, Appendix A, Method 2, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the volumetric flow rate.

(d) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Director to give the results in the specified units of the emission limitation. To determine emission rates in units of lbs/ton lime, the emission rate in lbs/hour shall be divided by the tons/hour lime production rate. Lime production rate shall either be a direct measurement or shall be calculated using the following conversion factor: 2 tons of limestone feed equates to 1 ton of lime produced (2 tons limestone : 1 ton lime).

(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

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

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

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

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

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

Emissions to the atmosphere from the baghouse exhaust stack shall not exceed the following rates and concentrations (standardized at 68 degrees F, 29.92 in Hg):
CO: 233.0 lb/hr and 4.00 lb/ton lime
[Origin: DAQE-AN103130044-21]. [R307-401-8]

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

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every three years. Tests may also be required at the direction of the Director.

(b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and submit a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. The source test protocol shall be approved by the Director prior to performing the test(s). A pretest conference shall be held, if directed by the Director.

(c) Methods.

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

(2) 40 CFR 60, Appendix A, Method 10, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the pollutant emission rate.

(3) 40 CFR 60, Appendix A, Method 2, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the volumetric flow rate.

(d) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Director to give the results in the specified units of the emission limitation. To determine emission rates in units of lbs/ton lime, the emission rate in lbs/hour shall be divided by the tons/hour lime production rate. Lime production rate shall either be a direct measurement or shall be calculated using the following conversion factor: 2 tons of limestone feed equates to 1 ton of lime produced (2 tons limestone : 1 ton lime).

(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

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

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

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

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

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

Visible emissions shall not exceed 15 percent opacity from the baghouse exhaust stack. This condition only applies if the permittee is operating in accordance with the AOS in Section II.D of this permit. [Origin: DAQE-AN103130044-21, 40 CFR 60 Subpart HH]. [40 CFR 60.342(a)(2), R307-401-8]

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

The permittee shall install, calibrate, maintain, and continuously operate a continuous monitoring system to monitor and record the opacity of a representative portion of the gases discharged into the atmosphere from the kiln stack. The monitoring system shall operate continuously and shall

comply with all applicable sections of R307-170, UAC and 40 CFR 60, Appendix B, Performance Specification 1 - Specifications and test procedures for continuous opacity monitoring systems in stationary sources. The permittee shall install the COMS at the outlet of the control device. The span of the system shall be set at a minimum of 40 percent opacity.

Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under 40 CFR 60.13(d), the permittee shall continuously operate all required continuous monitoring devices and shall meet minimum frequency of operation requirements as outlined in 40 CFR 60.13(e) and R307-170. The Director shall consider the continuous monitoring requirements to be met when the opacity monitor operates in accordance with 40 CFR 60.13 and R307-170 UAC. At no time shall the permittee allow excess gaseous emissions to be emitted to the atmosphere, except as provided by the provisions of R307-107 (Breakdowns), UAC.

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

The permittee shall record the output of the system for measuring the opacity of emissions in addition to the records specified in R307-170-8. Records and results of monitoring shall be maintained in accordance with R307-170 and Provision I.S.1 of this permit.

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

Reports shall be submitted quarterly, as outlined in R307-170, Continuous Emission Monitoring Program. These quarterly reports are considered prompt notifications of deviation, as required in Provision I.S.2.c of this permit, provided all information required by Provision I.S.2.c is included in the report. For the purpose of reporting required under 40 CFR 60.7(c), periods of excess emissions that shall be reported are defined as all 6-minute periods during which the average opacity of the visible emissions from the lime kiln is greater than 15 percent opacity. All exceedances shall be reported in the quarterly report with explanations and corrective actions, in accordance with R307-170.

There are no additional reporting requirements except as outlined in Section I of this permit.

II.B.6.g **Condition:**

Emissions to the atmosphere from the baghouse exhaust stack shall not exceed the following rates and concentrations (standardized at 68 degrees F, 29.92 in Hg):
i. PM: 0.020 grain/dscf and 0.10 lb/ton of stone feed (tsf)
ii. PM_{10} (Filterable + Condensable): 11.7 lb/hour and 0.016 grain/dscf
This condition only applies if the permittee is operating in accordance with the AOS in Section II.D of this permit. [Origin: DAQE-AN103130044-21]. [40 CFR 60 Subpart HH, R307-401-8]

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

Stack testing shall be performed as specified below:
(a) Frequency. Emissions shall be tested every three years. Tests may also be required at the direction of the Director.
(b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and submit a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. The source test protocol shall be approved by the Director prior to performing the test. A pretest conference shall be held, if directed by the Director.
(c) Methods.
    (1) 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 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.

(2) Sample Methods

PM - 40 CFR 60, Appendix A, Method 5 shall be used to determine the particulate matter concentration (cs) and the volumetric flow rate (Qsd) of the effluent gas. The minimum sample volume for each run shall be 0.90 dry standard cubic meter (dscm) (31.8 dry standard cubic foot (dscf)). The permittee shall conduct three separate test runs for each performance test. The minimum sample time for each run shall be at least 60 minutes.

PM_{10} (Filterable + Condensable)

For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201, 201a, or other EPA-approved method as acceptable to the Director. The back half condensables shall also be tested using 40 CFR 51, Appendix M, Method 202, or other EPA-approved method acceptable to the Director. All particulate captured shall be considered PM_{10}.

For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, or 5e as appropriate, or other EPA-approved method as acceptable to the Director. The back half condensables shall also be tested using 40 CFR 51, Appendix M, Method 202, or other EPA-approved method as acceptable to the Director. The portion of the front half of the catch considered PM_{10} shall be based on information in Appendix B of the fifth edition of the EPA document, AP-42, or other data acceptable to the Director.

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

The emission rate (E) of particulate matter shall be computed for each run using the following equation.

$E = (c_s Q_{sd})/PK)$

where: E = emission rate of particulate matter, kg/Mg (1b/ton) of stone feed.
c_s = concentration of particulate matter, g/dscm (gr/dscf).
Q_{sd} = volumetric flow rate of effluent gas, dscm/hr (dscf/hr).
P = stone feed rate, Mg/hr (ton/hr).
K = conversion factor, 1000 g/kg (7000 gr/lb).

(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

The permittee shall install, calibrate, maintain, and operate a device for measuring the mass rate of stone feed to any affected rotary lime kiln. The measuring device used shall be accurate to within +/- 5 percent of the mass rate over its operating range. This monitoring device shall be used to determine the stone feed rate (P) for each run. (40 CFR 60.343(d), 40 CFR 60.344(b)(3)).

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

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

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

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

II.B.7 **Conditions on Lime Kilns #1 through #5 (Unit #K-1-5).**

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

The permittee shall use only the following fuels in the kilns.

Kiln #1, 5: Coal
Petroleum coke (pet coke)*
Coal with sulfur content exceeding 1.0 lb/MMBtu*
Propane and fuel oil as startup fuel

Kiln #2, 3, 4: Coal
Coal with sulfur content exceeding 1.0 lb/MMBtu*
Propane and fuel oil as startup fuel

[Origin: DAQE-AN103130044-21]. [R307-401-8]

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

Records required for this permit condition will serve as monitoring.

*Prior to burning pet coke or coal with a sulfur content in excess of 1.0 lb/MMBtu, the permittee shall install, calibrate, operate an SO_2 CEM on that kiln.

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

Use of fuel which has not been approved for use shall be recorded in a log. The log shall include the date, time, type and quantity of non-approved fuel used. Records shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

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

For kilns #1, #2, #3, #4, #5 collectively, the following limits shall not be exceeded: 4,706 tons lime per day and 1,516,250 tons lime per rolling 12-month period. [Origin: DAQE-AN103130044-21]. [R307-401-8]

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

Production shall be monitored on a daily basis. Compliance with the 12-month production limitation shall be demonstrated through a rolling 12-month total. The permittee shall calculate a new 12-month total by the 25th day of each month using data from the previous 12 months. Records required for this permit condition will also serve as monitoring.

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

Production shall be determined using plant production records, such as scale records or sales receipts. Production totals shall be kept on a daily basis in an operations log. Records of production shall be kept for all periods of operation. The rolling 12-month totals shall be recorded monthly. Records shall be kept in accordance with Provision I.S.1 of this permit.

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

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

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

Unless otherwise specified in this permit, the sulfur content of any coal or any mixture of coals burned shall not exceed 1.0 pound sulfur per MMBtu heat input. Except for diesel, the sulfur content of any fuel oil burned as a startup fuel shall not exceed 0.85 pounds sulfur per MMBtu heat input. [Origin: DAQE-AN103130044-21, R307-203]. [R307-203-1, R307-401]

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

(a) For coal: The sulfur content shall be determined by the permittee or the fuel supplier using ASTM Method D3174-12(2018), D3176-15, D4239-18e1, D5016-16, or an approved equivalent ASTM Method. If certification is provided by the fuel supplier, the sulfur content shall be tested quarterly from a composite sample. If the permittee chooses to test the sulfur content of the coal, the composite sample shall be tested quarterly from a composite grab sample taken every 24 hours of operation.

After an SO_2 CEMS has been installed, calibrated, and is operating on a kiln, the coal that is burned in that kiln is exempt from the 1.0 pound of sulfur per MMBTU heat input limitation of UAC R307-203-1(1).

(b) For fuel oil: The sulfur content shall be determined by the permittee or the fuel supplier using ASTM Method D3175-75, or an approved equivalent ASTM Method. The sulfur content shall be tested if directed by the Director.

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

Records, or supplier furnished certifications, of the testing shall be kept for all periods when the plant is in operation and shall be made available to the director upon request. Records of supplier certifications for fuel oil, shall contain the following specifications for each purchase of fuel oil from the vendor: weight percent sulfur, gross heating value (btu per unit volume), and density. Results of monitoring, or records of supplier furnished certifications, that demonstrate compliance with this condition shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

II.B.8 **Conditions on Miscellaneous Engines (Unit #ME).**

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

The permittee shall not allow, cause or permit visible emissions from gasoline powered engines. [Origin: R307-201-3(4)]. [R307-201-3(4)]

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

The permittee shall make at least one visual opacity survey each quarter for each engine. The visual opacity survey shall be performed while the unit is operating by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. The individual is not required to be a certified visual emissions observer.

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

The permittee shall maintain a log of the visual opacity surveys including the date, emission unit, and if visible emissions are observed. Records shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

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

Visible emissions shall not exceed 20 percent opacity from all diesel engines. [Origin: DAQE-AN103130044-21]. [R307-401-8, R307-201-3]

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

The permittee shall make at least one visual opacity survey each quarter for each engine. The visual opacity survey shall be performed while the unit is operating by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. The individual is not required to be a certified visual emissions observer. If 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.

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

The permittee shall maintain a log of the visual opacity surveys, opacity determinations, and all data required by 40 CFR 60, Appendix A, Method 9 in accordance with Provision I.S.1 of this permit.

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

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

II.B.9 **Conditions on Observation Points A, C: NSPS Subpart OOO Baghouses (Unit #A, C:NSPS-OOO).**

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

Visible emissions shall not exceed 7 percent opacity. [Origin: DAQE-AN103130044-21, 40 CFR 60 Subpart OOO]. [40 CFR 60.672(a), R307-401-8]

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

A certified observer shall conduct a visible emissions observation, in accordance with 40 CFR 60, Appendix A, Method 9, of affected emission units monthly. Alternately, to satisfy this requirement, the permittee may survey a group of affected units visible from a pre-determined observation location (A, B, C or D) monthly. A certified observer shall determine the unit with the highest observed opacity. A visible emissions observation shall be conducted, in accordance with Method 9, on that unit. If this unit does not exceed its opacity limitation, no further observation is required for any other affected emission units, surveyed for this location, with an equal or higher opacity limit. If the unit exceeds its opacity limitation, a visual observation shall be conducted on the unit that appears to have the next highest opacity, and so on, until an emission unit of this group does not exceed the opacity limitation. Once an emission unit has been determined to comply with this condition, units with the same or higher opacity limit, that were surveyed from the same location and appear to have less visible emissions, shall be considered to be in compliance with their opacity limitation.

For affected emission units constructed, modified, or reconstructed on or after April 22, 2008, the permittee shall conduct monitoring according to 40 CFR 60.674(c), (d), or (e). Observed visible emissions shall not exceed 7 percent opacity.

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

The permittee shall record the location of each visual opacity observation and keep a list of the emission units checked during the observation. The records required by this provision and all data required by 40 CFR 60, Appendix A, Method 9 shall be maintained in accordance with Provision I.S.1 of this permit.

For affected emission units constructed, modified, or reconstructed on or after April 22, 2008, records shall be kept in accordance with 40 CFR 60.676(b) and Provision I.S.1 of this permit. Records shall be made available to the director upon request.

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

Reports shall be submitted in accordance with 40 CFR 60.676(f) and as specified in Section I of this permit.

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

Unless otherwise specified, emissions of particulate matter (PM) shall not exceed 0.05 g/dscm (0.022 grains/dscf). [Origin: 40 CFR 60 Subpart OOO]. [40 CFR 60.672(a)]

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

A) Stack testing shall be performed as specified below:
   (1) Frequency. Emissions shall be tested at least once every five years. Tests may also be required at the direction of the Director.
   (2) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Director.

(3) Methods.
(a) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, and Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.
(b) Sample Method - 40 CFR 60, Appendix A, Method 5 or Method 17 shall be used to determine the particulate matter concentration. The minimum sample volume shall be 1.70 dscm (60 dscf). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 deg. C (250 deg F), to prevent water condensation on the filter.
(4) Calculations. To determine mass emission rates (lb./hr., etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Director to give the results in the specified units of the emission limitation.
(5) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

B) For the D-7122 baghouse only, in addition to the stack testing required above, the permittee shall use two indicators, differential pressure and visible emissions, to provide reasonable assurance of compliance with the PM emission limitation. [40 CFR 64.6]
(1) 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 using EPA Reference Method 22 procedures.
(2) Indicator Range: Excursions are defined for the two indicators as follows. Each excursion triggers an inspection, corrective action, and a reporting requirement.
(a) Indicator No. 1: An excursion is defined as a pressure drop outside the range of 4 to 12 inches of water column.
(b) Indicator No. 2: An excursion is defined as the presence of visible emissions.
(3) Performance Criteria:
(a) Data Representativeness:
i) 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 +/- 0.25 inches of water.
ii) Indicator No. 2: Visible emissions shall be monitored at the baghouse exhaust while the baghouse is operating.
(b) QA/QC Practices and Criteria:
i) Indicator No. 1: The pressure gauge shall be calibrated according to the manufacturer's recommendations or at least annually.
ii) Indicator No. 2: The visible emissions observer shall be familiar with EPA Reference Method 22 and shall follow Method 22 procedures.
(c) Monitoring Frequency:
i) Indicator No. 1: Pressure drop shall be monitored continuously.
ii) Indicator No. 2: The visible emissions observer shall perform a 6-minute Method 22 observation once each day.
(d) Data Collection Procedure:
i) Indicator No. 1: One pressure drop reading shall be recorded each hour for comparison to the indicator range.
ii) Indicator No. 2: The permittee shall record the results of each visible emission observation in a log.

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

C) For the D-7122 baghouse only, 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.9.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.

For the D-7122 baghouse only:

(i) The permittee shall maintain records of test data from the most recent stack test and any calculations used to evaluate or revise the indicator range and excursion level. The permittee shall maintain records of all calibration checks, adjustments and maintenance.

(ii) In addition to the recordkeeping requirement described in Provision I.S.1 of this permit, the permittee shall maintain a file of the occurrence and duration of any excursion, corrective actions taken, and any other supporting information required to be maintained under 40 CFR 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

(iii) Instead of paper records, the permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. (40 CFR 64.9(b)).

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

In addition to the reporting requirements in Provision I.S.2 of this permit, 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.

For the D-7122 baghouse only, monitoring reports shall also 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))

(iii) Test data and any calculations used to evaluate or revise the indicator range and excursion level.

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

All affected emission units constructed, modified, or reconstructed on or after April 22, 2008, shall meet a particulate matter (PM) limit of 0.014 grains/dscf. [Origin: 40 CFR 60 Subpart OOO]. [40 CFR 60.672(a)]

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

A) The permittee shall demonstrate compliance with the particulate matter standard by performing stack testing as specified below:

(1) Frequency. Emissions shall be tested at least once every five years, based on the date of the most recent stack test. Tests may also be required at the direction of the Director. [R307-415-6a(3)]
(2) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Director.
(3) Methods.
(a) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, and Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.
(b) Sample Method - 40 CFR 60, Appendix A, Method 5 or Method 17 shall be used to determine the particulate matter concentration. The minimum sample volume shall be 1.70 dscm (60 dscf). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 deg. C (250 deg F), to prevent water condensation on the filter.
(4) Calculations. To determine mass emission rates (lb./hr., etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Director to give the results in the specified units of the emission limitation.
(5) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

B) The permittee shall monitor the baghouses according to 40 CFR 60.674(c), (d), or (e).

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

Records shall be kept in accordance with 40 CFR 60.676(b). Results of all stack testing shall be recorded and maintained in accordance with the associated test method. All records shall be maintained in accordance with Provision I.S.1 of this permit.

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

Notification of the actual date of initial startup of each affected emission unit shall be submitted in accordance with 40 CFR 60.676(i). Reports shall be submitted in accordance with 40 CFR 60.676(f). The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.10 **Conditions on Observation Point A, C: Non-Subpart OOO Baghouses (Unit #A, C: NON-NSPS-OOO).**

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

Visible emissions shall not exceed 10 percent opacity. [Origin: DAQE-AN103130044-21]. [R307-401-8]

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

A certified observer shall conduct a visible emissions observation, in accordance with 40 CFR 60, Appendix A, Method 9, of affected emission units monthly. Alternately, to satisfy this requirement, the permittee may survey a group of affected units visible from a pre-determined

observation location (A, B, C or D) monthly. A certified observer shall determine the unit with the highest observed opacity. A visible emissions observation shall be conducted, in accordance with Method 9, on that unit. If this unit does not exceed its opacity limitation, no further observation is required for any other affected emission units, surveyed for this location, with an equal or higher opacity limit. If the unit exceeds its opacity limitation, a visual observation shall be conducted on the unit that appears to have the next highest opacity, and so on, until an emission unit of this group does not exceed the opacity limitation. Once an emission unit has been determined to comply with this condition, units with the same or higher opacity limit, that were surveyed from the same location and appear to have less visible emissions, shall be considered to be in compliance with their opacity limitation.

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

The permittee shall record the location of each visual opacity observation and keep a list of the emission units checked during the observation. The records required by this provision and all data required by 40 CFR 60, Appendix A, Method 9 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:**

The pressure drop on the D-488 baghouse shall not be less than 4.0 inches of water column or more than 8.0 inches of water column. [Origin: DAQE-AN103130044-21]. [R307-401-8]

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

The pressure drop shall be monitored weekly, while the unit is operating, with equipment located such that an inspector/operator can safely read the output at any time. All instruments shall be calibrated according to the manufacturer's instructions at least once every 12 months.

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

Results of pressure drop monitoring shall be recorded weekly. Records of calibrations and results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

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

Emissions shall not exceed the following rates and concentrations from the D-488 baghouse exhaust stack (standardized at 68 degrees F, 29.92 in Hg):
i. PM: 0.29 lb/hour and 0.020 grain/dscf
ii. PM_{10} (Filterable): 0.15 lb/hour and 0.010 grain/dscf
iii. $PM_{2.5}$ (Filterable): 0.15 lb/hour and 0.010 grain/dscf
[Origin: DAQE-AN103130044-21]. [R307-401-8]

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

The permittee shall demonstrate compliance with each of the three particulate matter standards by performing stack testing as specified below:

(a) Frequency. Emissions shall be tested every three years. Tests may also be required at the direction of the Director.

(b) Notification. At least 30 days before the test, the permittee shall notify the Director of the date, time, and place of testing and submit a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. The source test protocol shall be approved by the Director prior to performing the test(s). A pretest conference shall be held, if directed by the Director.

(c) Methods.

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

(2) The following methods shall be used to measure particulate emissions:

a) For PM, 40 CFR 60, Appendix A, Method 5, or other EPA-approved testing method, as acceptable to the Director.

b) For PM_{10},
For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201, 201a, or other EPA-approved method as acceptable to the Director. The back half condensables shall also be tested using the EPA-approved method acceptable to the Director. All particulate captured shall be considered PM_{10}.

For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, or 5e as appropriate, or other EPA-approved method as acceptable to the Director. The back half condensables shall also be tested using the EPA method as acceptable to the Director. The portion of the front half of the catch considered PM_{10} shall be based on information in Appendix B of the fifth edition of the EPA document, AP-42, or other data acceptable to the Director.

c) For $PM_{2.5}$, 40 CFR 60, Appendix A, Method 5, 40 CFR 51, Appendix M, Method 201A, or other EPA-approved testing method, as acceptable to the Director. If other approved testing methods are used which cannot measure the $PM_{2.5}$ fraction of the filterable particulate emissions, all of the filterable particulate emissions shall be considered $PM_{2.5}$. The portion of the front half of the catch considered $PM_{2.5}$ shall be based on information in Appendix B of the fifth edition of the EPA document, AP-42, or other data acceptable to the Director.

(3) 40 CFR 60, Appendix A, Method 2, or other EPA-approved testing method, as acceptable to the Director, shall be used to determine the volumetric flow rate.

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

(e) Production Rate During Testing. Tests shall be conducted at a production rate of no less than 90% of the maximum production achieved in the previous three (3) years.

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

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

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

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

II.B.11 **Conditions on Observation Point A, D: Limestone Screens (Unit #A, D: SCREENS).**

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

Visible emissions shall be no greater than 10 percent opacity. [Origin: DAQE-AN103130044-21, 40 CFR 60 Subpart OOO]. [40 CFR 60.672(b), R307-401-8]

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

A certified observer shall conduct a visible emissions observation, in accordance with 40 CFR 60, Appendix A, Method 9, of affected emission units monthly. Alternately, to satisfy this requirement, the permittee may survey a group of affected units visible from a pre-determined observation location (A, B, C or D) monthly. A certified observer shall determine the unit with the highest observed opacity. A visible emissions observation shall be conducted, in accordance with Method 9, on that unit. If this unit does not exceed its opacity limitation, no further observation is required for any other affected emission units, surveyed for this location, with an equal or higher opacity limit. If the unit exceeds its opacity limitation, a visual observation shall be conducted on the unit that appears to have the next highest opacity, and so on, until an emission unit of this group does not exceed the opacity limitation. Once an emission unit has been determined to comply with this condition, units with the same or higher opacity limit, that were surveyed from the same location and appear to have less visible emissions, shall be considered to be in compliance with their opacity limitation.

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

The permittee shall record the location of each visual opacity observation and keep a list of the emission units checked during the observation. The records required by this provision and all data required by 40 CFR 60, Appendix A, Method 9 shall be maintained in accordance with Provision I.S.1 of this permit.

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

Reports shall be submitted in accordance with 40 CFR 60.676(f) and as specified in Section I of this permit.

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

Water sprays shall be installed at the following limestone handling points to control fugitive emissions: crushers, screens (emissions not controlled by a baghouse), conveyor transfer points. The sprays shall operate whenever dry conditions warrant or as determined necessary by the Director such that the opacity limitations are not exceeded. Sprays shall not be required during periods of freezing conditions. [Origin: DAQE-AN103130044-21]. [R307-401-8]

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

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

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

An operator's log shall be maintained of all monitoring provisions listed above. The records shall contain all applicable information as required by section I.S.1 of this permit.

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

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

II.B.12 **Conditions on Observation Point A, C: Coal Silo (Unit #A, C: COAL SILO).**

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

Visible emissions shall be no greater than 10 percent opacity from all affected emission units constructed, reconstructed, or modified after October 27, 1974 and on or before April 28, 2008. [Origin: DAQE-AN103130044-21, 40 CFR 60 Subpart Y]. [40 CFR 60.254(a), R307-401-8]

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

A certified observer shall conduct a visible emissions observation, in accordance with 40 CFR 60, Appendix A, Method 9, of affected emission units monthly. Alternately, to satisfy this requirement, the permittee may survey a group of affected units visible from a pre-determined observation location (A, B, C or D) monthly. A certified observer shall determine the unit with the highest observed opacity. A visible emissions observation shall be conducted, in accordance with Method 9, on that unit. If this unit does not exceed its opacity limitation, no further observation is required for any other affected emission units, surveyed for this location, with an equal or higher opacity limit. If the unit exceeds its opacity limitation, a visual observation shall be conducted on the unit that appears to have the next highest opacity, and so on, until an emission unit of this group does not exceed the opacity limitation. Once an emission unit has been determined to comply with this condition, units with the same or higher opacity limit, that were surveyed from the same location and appear to have less visible emissions, shall be considered to be in compliance with their opacity limitation.

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

The permittee shall record the location of each visual opacity observation and keep a list of the emission units checked during the observation. The records required by this provision and all data required by 40 CFR 60, Appendix A, Method 9 shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

II.B.12.b **Condition:**

Visible emissions from all affected emission units constructed, reconstructed, or modified after April 28, 2008, shall be no greater than 10 percent opacity. [Origin: DAQE-AN103130044-21, 40 CFR 60 Subpart Y]. [40 CFR 60.254(b)(1), R307-401-8]

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

Compliance shall be demonstrated in accordance with 40 CFR 60.255(b) and as specified below.

40 CFR 60, Appendix A, Method 9 and the procedures of 40 CFR 60.11 shall be used to determine opacity, with the exceptions specified in (i) and (ii).

(i) Duration of the Method 9 performance test shall be 1 hour (ten 6-minute averages).

(ii) If, during the initial 30 minutes of the Method 9 observation, all of the 6-minute average opacity readings are less than or equal to half the applicable opacity limit, then the observation period may be reduced from 1 hour to 30 minutes.

A visible emissions observer may conduct visible emission observations from a pre-determined observation location (A, B, C or D) for up to three fugitive, stack, or vent emission points within a 15-second interval if the following conditions specified in (i) through (iii) are met.

(i) No more than three emissions points shall be read concurrently.

(ii) All three emissions points shall be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points.

(iii) If an opacity reading for any one of the three emissions points is within 5 percent opacity from the applicable standard (excluding readings of zero opacity), then the observer shall stop taking readings for the other two points and continue reading just that single point.

An initial performance test shall be performed for all affected emission units. Thereafter a new performance test shall be conducted according to the requirements in paragraphs (i) and (ii) below. As an alternative, the permittee may elect to comply with the requirements of 40 CFR 60.255(f).

(i) If any 6-minute average opacity reading in the most recent performance test exceeds half the applicable opacity limit, a new performance test shall be conducted within 90 operating days of the date that the previous performance test was required to be completed.

(ii) If all 6-minute average opacity readings in the most recent performance test are equal to or less than half the applicable opacity limit, a new performance test shall be conducted within 12 calendar months of the date that the previous performance test was required to be completed.

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

The permittee shall maintain a logbook on-site in accordance with 40 CFR 60.258(a) and Provision I.S.1 of this permit.

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

Reports shall be submitted as required in 40 CFR 60.258(c)-(d) and as specified in Section I of this permit.

II.B.12.c **Condition:**

Gases discharged into the atmosphere from any mechanical vent on an affected emission unit constructed, modified, or reconstructed on or after April 28, 2008, shall not contain particulate matter in excess of 0.010 grains/dscf. [Origin: 40 CFR 60 Subpart Y]. [40 CFR 60.254(b)(2)]

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

Compliance shall be demonstrated in accordance with 40 CFR 60.255(b) and as specified below.

a) An initial performance test shall be performed for all affected emission units. Thereafter, a new performance test shall be conducted according the following requirements in paragraphs (i) through (iii) or as specified in 40 CFR 60.255(d).
   (i) If the results of the most recent performance test demonstrate that emissions are greater than 50 percent of the applicable emissions standard, a new performance test shall be conducted within 12 calendar months of the date that the previous performance test was required to be completed.
   (ii) If the results of the most recent performance test demonstrate that emissions are 50 percent or less of the applicable emissions standard, a new performance test shall be conducted within 24 calendar months of the date that the previous performance test was required to be completed.
   (iii) If an affected emission unit has not operated for the 60 calendar days prior to the due date of a performance test, the permittee is not required to perform the subsequent performance test until 30 calendar days after the next operating day.
b) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and submit a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Director.
c) 40 CFR 60, Appendix A, Method 1 or 1A shall be used to select sampling port locations and the number of traverse points in each stack or duct. Sampling sites shall be located at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere.
d) 40 CFR 60, Appendix A, Method 2, 2A, 2C, 2D, 2F, or 2G shall be used to determine the volumetric flow rate of the stack gas.
e) 40 CFR 60, Appendix A, Method 3, 3A, 3B, or an approved alternative, shall be used to determine the dry molecular weight of the stack gas.
f) 40 CFR 60, Appendix A, Method 4 shall be used to determine the moisture content of the stack gas.
g) 40 CFR 60, Appendix A, Method 5 or 5D or 40 CFR 60, Appendix A, Method 17 shall be used to determine the PM concentration as follows:
   (i) The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf). Sampling shall begin no less than 30 minutes after startup and shall terminate before shutdown procedures begin. A minimum of three valid test runs are needed to comprise a PM performance test.
   (ii) Method 5D shall be used for positive pressure fabric filters and other similar applications (e.g., stub stacks and roof vents).
   (iii) Method 17 may be used in accordance with 40 CFR 60.257(b)(5)(v) and provided the stack gas temperature does not exceed a temperature of 160 degrees C (320 degrees F).

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

Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit. The permittee shall also maintain a logbook on-site in accordance with 40 CFR 60.258(a).

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

The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall be submitted as required in 40 CFR 60.258(c)-(d) and as specified in Section I of this permit.

II.B.13 **Conditions on Observation Point A, B, C, D: Conveyor Transfer Points (Unit #A, B, C, D: TRANSFER POINTS).**

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

Visible emissions shall be no greater than 10 percent opacity from all affected emission units constructed, modified, or reconstructed on or after August 31, 1983 but before April 22, 2008. [Origin: DAQE-AN103130044-21, 40 CFR Subpart OOO]. [40 CFR 60.672(b), R307-401-8]

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

A certified observer shall conduct a visible emissions observation, in accordance with 40 CFR 60, Appendix A, Method 9, of affected emission units monthly. Alternately, to satisfy this requirement, the permittee may survey a group of affected units visible from a pre-determined observation location (A, B, C or D) monthly. A certified observer shall determine the unit with the highest observed opacity. A visible emissions observation shall be conducted, in accordance with Method 9, on that unit. If this unit does not exceed its opacity limitation, no further observation is required for any other affected emission units, surveyed for this location, with an equal or higher opacity limit. If the unit exceeds its opacity limitation, a visual observation shall be conducted on the unit that appears to have the next highest opacity, and so on, until an emission unit of this group does not exceed the opacity limitation. Once an emission unit has been determined to comply with this condition, units with the same or higher opacity limit, that were surveyed from the same location and appear to have less visible emissions, shall be considered to be in compliance with their opacity limitation.

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

The permittee shall record the location of each visual opacity observation and keep a list of the emission units checked during the observation. The records required by this provision and all data required by 40 CFR 60, Appendix A, Method 9 shall be maintained in accordance with Provision I.S.1 of this permit.

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

Reports shall be submitted in accordance with 40 CFR 60.676(f) and as specified in Section I of this permit.

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

Water sprays shall be installed at the following limestone handling points to control fugitive emissions: crushers, screens (emissions not controlled by a baghouse), conveyor transfer points. The sprays shall operate whenever dry conditions warrant or as determined necessary by the Director such that the opacity limitations are not exceeded. Sprays shall not be required during periods of freezing conditions. [Origin: DAQE-AN103130044-21]. [R307-401-8]

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

Except for affected emission units constructed, modified, or reconstructed on or after April 22, 2008, visual inspections of the water spray system(s) shall be made weekly to ensure proper operating condition.

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

An operator's log shall be maintained of all monitoring provisions listed above. The records shall contain all applicable information as required by section I.S.1 of this permit.

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

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

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

Visible emissions shall be no greater than 7 percent opacity from all affected emission units constructed, modified, or reconstructed on or after April 22, 2008. [Origin: 40 CFR 60 Subpart OOO, DAQE-AN103130044-21]. [40 CFR 60.672(b), R307-401-8]

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

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

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

Records shall be kept in accordance with 40 CFR 60.676(b) and Provision I.S.1 of this permit. Records shall be made available to the director upon request.

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

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

II.B.14 **Conditions on Observation Point A, C: Coal Conveyor Transfer Points (Unit #A, C: COAL TRANSFER POINTS).**

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

Visible emissions shall be no greater than 10 percent opacity. [Origin: DAQE-AN103130044-21, 40 CFR 60 Subpart Y]. [40 CFR 60.254(a), R307-401-8]

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

A certified observer shall conduct a visible emissions observation, in accordance with 40 CFR 60, Appendix A, Method 9, of affected emission units monthly. Alternately, to satisfy this requirement, the permittee may survey a group of affected units visible from a pre-determined observation location (A, B, C or D) monthly. A certified observer shall determine the unit with the highest observed opacity. A visible emissions observation shall be conducted, in accordance with Method 9, on that unit. If this unit does not exceed its opacity limitation, no further observation is required for any other affected emission units, surveyed for this location, with an equal or higher opacity limit. If the unit exceeds its opacity limitation, a visual observation shall be conducted on the unit that appears to have the next highest opacity, and so on, until an emission unit of this group does not exceed the opacity limitation. Once an emission unit has

been determined to comply with this condition, units with the same or higher opacity limit, that were surveyed from the same location and appear to have less visible emissions, shall be considered to be in compliance with their opacity limitation.

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

The permittee shall record the location of each visual opacity observation and keep a list of the emission units checked during the observation. The records required by this provision and all data required by 40 CFR 60, Appendix A, Method 9 shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

II.B.15 **Conditions on Observation Point A, B, C, D: Drop Points (Unit #A, B, C, D: DROP POINTS).**

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

Visible emissions shall not exceed 20 percent opacity. [Origin: DAQE-AN103130044-21]. [R307-401-8]

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

A certified observer shall conduct a visible emissions observation, in accordance with 40 CFR 60, Appendix A, Method 9, of affected emission units monthly. Alternately, to satisfy this requirement, the permittee may survey a group of affected units visible from a pre-determined observation location (A, B, C or D) monthly. A certified observer shall determine the unit with the highest observed opacity. A visible emissions observation shall be conducted, in accordance with Method 9, on that unit. If this unit does not exceed its opacity limitation, no further observation is required for any other affected emission units, surveyed for this location, with an equal or higher opacity limit. If the unit exceeds its opacity limitation, a visual observation shall be conducted on the unit that appears to have the next highest opacity, and so on, until an emission unit of this group does not exceed the opacity limitation. Once an emission unit has been determined to comply with this condition, units with the same or higher opacity limit, that were surveyed from the same location and appear to have less visible emissions, shall be considered to be in compliance with their opacity limitation.

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

The permittee shall record the location of each visual opacity observation and keep a list of the emission units checked during the observation. The records required by this provision and all data required by 40 CFR 60, Appendix A, Method 9 shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

II.B.16 **Conditions on A: Generator: Sugar Stone System**

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

Hours of operation shall not exceed 750 hours per rolling 12-month period. [Origin: DAQE-AN103130044-21]. [R307-401-8]

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

Compliance with the limitation shall be demonstrated through a rolling 12-month total. The permittee shall calculate a new 12-month total by the 25th day of each month using data from the previous 12 months.

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

Hours of operation shall be kept in a log. Records shall be kept on a daily basis for each day the generator operates. Records shall include the date the generator was used and the duration in hours of generator usage. The rolling 12-month totals shall be recorded monthly. Records shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

II.B.16.b **Condition:**

Visible emissions shall not exceed 20 percent opacity. [Origin: DAQE-AN103130044-21]. [R307-401-8]

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

A certified observer shall conduct a visible emissions observation, in accordance with 40 CFR 60, Appendix A, Method 9, of affected emission units monthly. Alternately, to satisfy this requirement, the permittee may survey a group of affected units visible from a pre-determined observation location (A, B, C or D) monthly. A certified observer shall determine the unit with the highest observed opacity. A visible emissions observation shall be conducted, in accordance with Method 9, on that unit. If this unit does not exceed its opacity limitation, no further observation is required for any other affected emission units, surveyed for this location, with an equal or higher opacity limit. If the unit exceeds its opacity limitation, a visual observation shall be conducted on the unit that appears to have the next highest opacity, and so on, until an emission unit of this group does not exceed the opacity limitation. Once an emission unit has been determined to comply with this condition, units with the same or higher opacity limit, that were surveyed from the same location and appear to have less visible emissions, shall be considered to be in compliance with their opacity limitation.

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

The permittee shall record the location of each visual opacity observation and keep a list of the emission units checked during the observation. The records required by this provision and all data required by 40 CFR 60, Appendix A, Method 9 shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

II.B.17 **Conditions on Direct Fire Heating System (Unit #LS-GRIND).**

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

All used oil burned as fuel shall meet the following:
not more than 5 ppm by weight – Arsenic
not more than 2 ppm by weight – Cadmium
not more than 10 ppm by weight – Chromium
not more than 100 ppm by weight – Lead
not more than 1,000 ppm by weight - Total Halogens
not more than 0.50 percent by weight – Sulfur
Flash point shall not be less than 100 degrees Fahrenheit.
Sources utilizing used oil as a fuel shall comply with the State Division of Waste Management and Radiation Control in accordance with R315-15, UAC. [Origin: DAQE-AN103130044-21]. [R307-401-8]

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

Certification shall be either by permittee testing or test reports provided by the used oil fuel vendor. The used oil fuel shall be tested for halogen content by ASTM Method D-808-81, EPA Method 8240 or Method 8260 before used oil fuel is transferred to a holding tank or burned.

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

The permittee shall maintain test certification data for each load of used oil fuel received. Records shall document the results of EPA test methods or ASTM methods either by permittee testing or test reports provided by the vendor. The permittee shall record the quantities of used oil burned. All records and certifications shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

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

The permittee shall use propane, diesel and used oil in any combination in the direct fire heating system for the limestone grinding plant. [Origin: DAQE-AN103130044-21]. [R307-401-8]

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

Records required for this permit condition will serve as monitoring.

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

Use of fuel which has not been approved for use shall be recorded in a log. The log shall include the date, time, type and quantity of non-approved fuel used. Records shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

II.B.18 **Conditions on Observation Point D: NSPS Subpart OOO Baghouses (Unit #D: NSPS-OOO).**

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

Emissions of particulate matter (PM) shall be no greater than 0.022 grains/dscf. [Origin: 40 CFR 60 Subpart OOO]. [40 CFR 60.672(a)]

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

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every three calendar years. Tests may also be required at the direction of the Director.

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

(c) Methods.

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

(2) Sample Method - 40 CFR 60, Appendix A, Method 5 or Method 17 shall be used to determine the particulate matter concentration. The minimum sample volume shall be 1.70 dscm (60 dscf). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 deg. C (250 deg F), to prevent water condensation on the filter.

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

(e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

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

Reports shall be submitted in accordance with 40 CFR 60.676(f). The results of stack testing shall be submitted to the Director within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

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

Visible emissions shall be no greater than 7 percent opacity. [Origin: DAQE-AN103130044-21, 40 CFR 60 Subpart OOO]. [40 CFR 60.672(a), R307-401-8]

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

A certified observer shall conduct a visible emissions observation, in accordance with 40 CFR 60, Appendix A, Method 9, of affected emission units monthly. Alternately, to satisfy this requirement, the permittee may survey a group of affected units visible from a pre-determined observation location (A, B, C or D) monthly. A certified observer shall determine the unit with the highest observed opacity. A visible emissions observation shall be conducted, in accordance with Method 9, on that unit. If this unit does not exceed its opacity limitation, no further observation is required for any other affected emission units, surveyed for this location, with an equal or higher opacity limit. If the unit exceeds its opacity limitation, a visual observation shall be conducted on the unit that appears to have the next highest opacity, and so on, until an emission unit of this group does not exceed the opacity limitation. Once an emission unit has been determined to comply with this condition, units with the same or higher opacity limit, that were surveyed from the same location and appear to have less visible emissions, shall be considered to be in compliance with their opacity limitation.

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

The permittee shall record the location of each visual opacity observation and keep a list of the emission units checked during the observation. The records required by this provision and all data required by 40 CFR 60, Appendix A, Method 9 shall be maintained in accordance with Provision I.S.1 of this permit.

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

Reports shall be submitted in accordance with 40 CFR 60.676(f) and as specified in Section I of this permit.

II.B.19 **Conditions on Observation Point D: Limestone Crushers (Unit #D: CRUSHERS).**

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

Visible emissions shall not exceed 15 percent opacity. [Origin: DAQE-AN103130044-21]. [R307-401-8]

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

A certified observer shall conduct a visible emissions observation, in accordance with 40 CFR 60, Appendix A, Method 9, of affected emission units monthly. Alternately, to satisfy this requirement, the permittee may survey a group of affected units visible from a pre-determined observation location (A, B, C or D) monthly. A certified observer shall determine the unit with the highest observed opacity. A visible emissions observation shall be conducted, in accordance with Method 9, on that unit. If this unit does not exceed its opacity limitation, no further observation is required for any other affected emission units, surveyed for this location, with an equal or higher opacity limit. If the unit exceeds its opacity limitation, a visual observation shall be conducted on the unit that appears to have the next highest opacity, and so on, until an emission unit of this group does not exceed the opacity limitation. Once an emission unit has been determined to comply with this condition, units with the same or higher opacity limit, that were surveyed from the same location and appear to have less visible emissions, shall be considered to be in compliance with their opacity limitation.

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

The permittee shall record the location of each visual opacity observation and keep a list of the emission units checked during the observation. The records required by this provision and all

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

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

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

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

Water sprays shall be installed at the following limestone handling points to control fugitive emissions: crushers, screens (emissions not controlled by a baghouse), conveyor transfer points. The sprays shall operate whenever dry conditions warrant or as determined necessary by the Director such that the opacity limitations are not exceeded. Sprays shall not be required during periods of freezing conditions. [Origin: DAQE-AN103130044-21]. [R307-401-8]

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

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

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

An operator's log shall be maintained of all monitoring provisions listed above. The records shall contain all applicable information as required by section 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 Abrasive Blasting (Unit #AB).**

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

Visible emissions shall not exceed 40% opacity, except for an aggregate period of three minutes in any one hour. [Origin: R307-206]. [R307-206]

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

(a) Visible emissions shall be measured at least semi-annually using EPA Method 9. 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 R307-206-2 through 4.
(d) Visible emissions from confined blasting shall be measured at the densest point after the air contaminant leaves the enclosure.

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

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

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

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

II.B.21 **Conditions on Fuel Storage Tanks (Unit #TANKS)**

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

For each gasoline storage tank:
The permittee shall not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:

(1) Minimize gasoline spills;
(2) Clean up spills as expeditiously as practicable;
(3) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;
(4) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.
(5) Portable gasoline containers that meet the requirements of 40 CFR part 59, subpart F, are considered acceptable for compliance with paragraph (3) of this section.

At all times, the permittee shall operate and maintain any affected emission unit, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in Table 3 of 40 CFR 63 Subpart CCCCCC.

This condition only applies if the permittee is operating in accordance with the AOS in Section II.D of this permit. [Origin: 40 CFR 63 Subpart CCCCCC]. [40 CFR 63.11111(b), 40 CFR 63.11115, 40 CFR 63.11116, 40 CFR 63.11130]

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

Records required for this permit condition will serve as monitoring. Additionally, the permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in Table 3 of 40 CFR 63 Subpart CCCCCC. [40 CFR 63.11130].

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

The permittee shall keep records demonstrating monthly throughput is less than the 10,000-gallon threshold level. Records shall be available within 24 hours of a request by the Director to document gasoline throughput in the affected emission unit. [40 CFR 63.11111(e), 40 CFR 63.11116(b)]

The permittee shall keep records of the occurrence and duration of each malfunction of operation

(i.e., process equipment) or the air pollution control and monitoring equipment. Records shall be kept of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.11115(b), 40 CFR 63.11125(d)]

The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in Table 3 of 40 CFR 63 Subpart CCCCCC. [40 CFR 63.11130]

Documentation shall be kept that demonstrates compliance with this provision. Records shall be maintained in accordance with Provision I.S.1. of this permit.

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

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

II.B.22 **Conditions on Haul Roads (Unit #HR).**

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

Fugitive dust shall be minimized in accordance with the fugitive dust control plan. All unpaved roads and other unpaved operational areas that are used by mobile equipment shall be water sprayed and/or chemically treated to control fugitive dust. Treatment shall be of sufficient frequency and quantity to maintain surface material in a damp/moist condition, such that the opacity shall be minimized at all times the areas are in use or unless it is below freezing.

The main haul road and the sales road shall be chemically treated to stabilize the road surface at least three (3) times per year. More frequent applications shall be applied if necessary or if required by the fugitive dust control plan or the Director.

The half mile portion of the main haul road, closest to the plant, shall be swept as needed to meet the requirements of R307-205. Additional sweeping shall be required, if necessary, as determined by the Director. [Origin: DAQE-AN103130044-21]. [R307-401-8]

II.B.22.a.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. Records required for this permit condition shall also serve as monitoring.

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

Records of sweeping, water and/or chemical treatment shall be kept for all periods when the plant is in operation. The records shall contain at a minimum: the date and time of applications, number of treatments made, dilution ratio, quantity applied, any rainfall received and approximate amount. Records 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:**

The permittee shall limit the speeds on haul roads as follows:
Twenty-five (25) mph within the plant and in the vicinity of the crusher in the quarry area.
Forty (40) mph within 1.5 miles of either the plant or the quarry on the quarry road.
Fifty (50) mph outside the 1.5 mile distance point of the plant or quarry on the quarry road.
Forty (40) mph between the plant and the paved highway.
The haul road speed shall be posted. [Origin: DAQE-AN103130044-21]. [R307-401-8]

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

The permittee shall demonstrate compliance with each of the above limits by monitoring vehicle speeds at a minimum of once each year. Additionally, at least once each year, all speed limit signs shall be inspected to ensure they are still posted and legible.

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

The permittee shall keep records of the results of the vehicle speed observations and results of the speed limit sign inspections. Records and results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

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

Truck hauling of stone from the quarry to the plant shall not exceed 108 round trips per 24-hour period (midnight to midnight). [Origin: DAQE-AN103130044-21]. [R307-401-8]

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

Records required for this permit condition will serve as monitoring.

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

The number of round trips per 24-hour period shall be recorded in a log on a daily basis. Records shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

II.B.23 **Conditions on Sugar Stone System (Unit #SS).**

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

Production of sugar stone shall not exceed 135,000 tons per rolling 12-month period. [Origin: DAQE-AN103130044-21]. [R307-401-8]

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

Compliance with the limitation shall be demonstrated through a rolling 12-month total. The permittee shall calculate a new 12-month total by the 25th day of each month using data from the previous 12 months. Records required for this permit condition will also serve as monitoring.

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

Production shall be determined using plant production records, such as scale records or sales receipts. Records of production shall be kept on a daily basis for all periods of operation. The rolling 12-month totals shall be recorded monthly. Records shall be kept 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.24 **Conditions on Portable Crushing System (Unit #PCS-0).**

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

Hours of operation shall not exceed 4,000 hours per rolling 12-month period. [Origin: DAQE-AN103130044-21]. [R307-401-8]

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

Compliance with the limitation shall be demonstrated through a rolling 12-month total. The permittee shall calculate a new 12-month total by the 25th day of each month using data from the previous 12 months.

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

Hours of operation for each emission unit shall be recorded in a log on a daily basis. The rolling 12-month totals shall be recorded monthly. Records 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.24.b **Condition:**

Production of limestone shall not exceed 750,000 tons per rolling 12-month period. [Origin: DAQE-AN103130044-21]. [R307-401-8]

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

Compliance with the limitation shall be demonstrated through a rolling 12-month total. The permittee shall calculate a new 12-month total by the 25th day of each month using data from the previous 12 months. Records required for this permit condition will also serve as monitoring.

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

Production shall be determined using plant production records, such as scale records or sales receipts. Records of production shall be kept on a daily basis for all periods of operation. The rolling 12-month totals shall be recorded monthly. Records shall be kept in accordance with Provision I.S.1 of this permit.

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

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

II.B.25 **Conditions on Portable Crushing System Crushers (Unit #PCS-1).**

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

Visible emissions shall be no greater than 15 percent opacity from each affected emission unit constructed, modified, or reconstructed after August 31, 1983 but before April 22, 2008. [Origin: DAQE-AN103130044-21, 40 CFR 60 Subpart OOO]. [40 CFR 60.672(b), R307-401-8]

II.B.25.a.1 **Monitoring:**

A certified observer shall conduct a visible emissions observation, in accordance with 40 CFR 60, Appendix A, Method 9, of affected emission units monthly. Alternately, to satisfy this requirement, the permittee may survey a group of affected units visible from a pre-determined observation location (A, B, C or D) monthly. A certified observer shall determine the unit with the highest observed opacity. A visible emissions observation shall be conducted, in accordance with Method 9, on that unit. If this unit does not exceed its opacity limitation, no further observation is required for any other affected emission units, surveyed for this location, with an equal or higher opacity limit. If the unit exceeds its opacity limitation, a visual observation shall be conducted on the unit that appears to have the next highest opacity, and so on, until an emission unit of this group does not exceed the opacity limitation. Once an emission unit has been determined to comply with this condition, units with the same or higher opacity limit, that were surveyed from the same location and appear to have less visible emissions, shall be considered to be in compliance with their opacity limitation.

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

The permittee shall record the location of each visual opacity observation and keep a list of the emission units checked during the observation. The records required by this provision and all data required by 40 CFR 60, Appendix A, Method 9 shall be maintained in accordance with Provision I.S.1 of this permit.

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

Reports shall be submitted in accordance with 40 CFR 60.676(f) and as specified in Section I of this permit.

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

Water sprays shall be installed at the following limestone handling points to control fugitive emissions: crushers, screens (emissions not controlled by a baghouse), conveyor transfer points. The sprays shall operate whenever dry conditions warrant or as determined necessary by the Director such that the opacity

limitations are not exceeded. Sprays shall not be required during periods of freezing conditions. [Origin: DAQE-AN103130044-21]. [R307-401-8]

II.B.25.b.1 **Monitoring:**

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

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

An operator's log shall be maintained of all monitoring provisions listed above. The records shall contain all applicable information as required by 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.25.c **Condition:**

Within 60 days after achieving the maximum production rate at which the affected emission unit will be operated, but not later than 180 days after initial startup, visible emissions shall be no greater than 12 percent opacity from each affected emission unit constructed, modified, or reconstructed on or after April 22, 2008. [Origin: DAQE-AN103130044-21, 40 CFR 60 Subpart OOO]. [40 CFR 60.672(b), R307-401-8]

II.B.25.c.1 **Monitoring:**

The permittee shall conduct an initial performance test using 40 CFR 60, Appendix A, Method 9, and the procedures in 40 CFR 60.11, with the additions specified in 40 CFR 60.675(c)(1). The duration of the Method 9 observations shall be 30 minutes (five 6-minute averages). Compliance shall be based on the average of the five 6-minute averages. Alternately, to satisfy this requirement, the permittee may survey a group of affected units visible from a pre-determined observation location (A, B, C or D) within a 15-second interval if the following conditions are met:

(i) No more than three emission points shall be read concurrently.
(ii) All three emission points shall be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points.
(iii) If an opacity reading for any one of the three emission points equals or exceeds the applicable standard, then the observer shall stop taking readings for the other two points and continue reading just that single point.

Before the initial Method 9 performance test, the permittee shall provide a 7-day advance notification to the Director of the anticipated date for conducting the opacity observations.

Repeat performance tests shall be conducted according to 40 CFR 60.675 every 5 years from the previous performance test.

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

Records documenting the results of monitoring shall be kept in accordance with Provision I.S.1 of this permit.

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

Notification of the actual date of initial startup of each affected emission unit shall be submitted in accordance with 40 CFR 60.676(i). Reports shall be submitted in accordance with 40 CFR 60.676(f) and as specified in Section I of this permit.

II.B.26 **Conditions on PCS-2: Portable Crushing System Screen/Conveyor Transfer Points**

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

Visible emissions from each screening operation and each conveyor transfer point shall be no greater than 10 percent opacity. [Origin: DAQE-AN103130044-21, 40 CFR 60 Subpart OOO]. [40 CFR 60.672(b), R307-401-8]

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

A certified observer shall conduct a visible emissions observation, in accordance with 40 CFR 60, Appendix A, Method 9, of affected emission units monthly. Alternately, to satisfy this requirement, the permittee may survey a group of affected units visible from a pre-determined observation location (A, B, C or D) monthly. A certified observer shall determine the unit with the highest observed opacity. A visible emissions observation shall be conducted, in accordance with Method 9, on that unit. If this unit does not exceed its opacity limitation, no further observation is required for any other affected emission units, surveyed for this location, with an equal or higher opacity limit. If the unit exceeds its opacity limitation, a visual observation shall be conducted on the unit that appears to have the next highest opacity, and so on, until an emission unit of this group does not exceed the opacity limitation. Once an emission unit has been determined to comply with this condition, units with the same or higher opacity limit, that were surveyed from the same location and appear to have less visible emissions, shall be considered to be in compliance with their opacity limitation.

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

The permittee shall record the location of each visual opacity observation and keep a list of the emission units checked during the observation. The records required by this provision and all data required by 40 CFR 60, Appendix A, Method 9 shall be maintained in accordance with Provision I.S.1 of this permit.

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

Reports shall be submitted in accordance with 40 CFR 60.676(f) and as specified in Section I of this permit.

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

Water sprays shall be installed at the following limestone handling points to control fugitive emissions: crushers, screens (emissions not controlled by a baghouse), conveyor transfer points. The sprays shall operate whenever dry conditions warrant or as determined necessary by the Director such that the opacity limitations are not exceeded. Sprays shall not be required during periods of freezing conditions. [Origin: DAQE-AN103130044-21]. [R307-401-8]

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

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

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

An operator's log shall be maintained of all monitoring provisions listed above. The records shall contain all applicable information as required by section I.S.1 of this permit.

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

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

II.B.27 **Conditions on Portable Crushing System Conveyor Drop Points (Unit #PCS-3).**

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

Visible emissions shall be no greater than 20 percent opacity. [Origin: DAQE-AN103130044-21]. [R307-401-8]

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

A certified observer shall conduct a visible emissions observation, in accordance with 40 CFR 60, Appendix A, Method 9, of affected emission units monthly. Alternately, to satisfy this requirement, the permittee may survey a group of affected units visible from a pre-determined observation location (A, B, C or D) monthly. A certified observer shall determine the unit with the highest observed opacity. A visible emissions observation shall be conducted, in accordance with Method 9, on that unit. If this unit does not exceed its opacity limitation, no further observation is required for any other affected emission units, surveyed for this location, with an equal or higher opacity limit. If the unit exceeds its opacity limitation, a visual observation shall be conducted on the unit that appears to have the next highest opacity, and so on, until an emission unit of this group does not exceed the opacity limitation. Once an emission unit has been determined to comply with this condition, units with the same or higher opacity limit, that were surveyed from the same location and appear to have less visible emissions, shall be considered to be in compliance with their opacity limitation.

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

The permittee shall record the location of each visual opacity observation and keep a list of the emission units checked during the observation. The records required by this provision and all data required by 40 CFR 60, Appendix A, Method 9 shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

II.B.28 **Conditions on Portable Crushing System Engines (Unit #PCS-4).**

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

Visible emissions shall not exceed 20 percent opacity. [Origin: DAQE-AN103130044-21]. [R307-401-8]

II.B.28.a.1 **Monitoring:**

A certified observer shall conduct a visible emissions observation, in accordance with 40 CFR 60, Appendix A, Method 9, of affected emission units monthly. Alternately, to satisfy this requirement, the permittee may survey a group of affected units visible from a pre-determined observation location (A, B, C or D) monthly. A certified observer shall determine the unit with the highest observed opacity. A visible emissions observation shall be conducted, in accordance with Method 9, on that unit. If this unit does not exceed its opacity limitation, no further observation is required for any other affected emission units, surveyed for this location, with an equal or higher opacity limit. If the unit exceeds its opacity limitation, a visual observation shall be conducted on the unit that appears to have the next highest opacity, and so on, until an emission unit of this group does not exceed the opacity limitation. Once an emission unit has been determined to comply with this condition, units with the same or higher opacity limit, that were surveyed from the same location and appear to have less visible emissions, shall be considered to be in compliance with their opacity limitation.

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

The permittee shall record the location of each visual opacity observation and keep a list of the emission units checked during the observation. The records required by this provision and all data required by 40 CFR 60, Appendix A, Method 9 shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

II.B.29 **Conditions on Processed Stone Handling Operations (Unit #PSH)**

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

Stack emissions of PM shall not exceed 0.05 grams per dry standard cubic meter (g/dscm). This condition does not apply if the permittee is operating in accordance with the AOS in Section II.D of this permit. [Origin: 40 CFR 63 Subpart AAAAA]. [40 CFR 63.7090(a)]

II.B.29.a.1 **Monitoring:**

Stack testing shall be performed as specified below:

(a) Frequency. Emissions shall be tested every five years, based on the date of the most recent stack test. Tests may also be required at the direction of the Director.

(b) Notification. At least 60 days before the test, the source shall notify the Director of the date, time, and place of testing and submit a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Director.

(c) Sample Method - PM emissions shall be measured using Method 5 or Method 17 in 40 CFR part 60 appendix A. (Method 17 may be used only with exhaust gas temperatures of not more than 250 degrees Fahrenheit). The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough to prevent water condensation on the filter, but no higher than 121 degrees Celsius (250 degrees Fahrenheit). The permittee shall conduct three separate test runs for each performance test. Each test run shall last at least 1 hour.

(d) Each performance test shall be conducted based on representative performance (i.e., performance based on normal operating conditions) of the affected source and under the specific conditions in Table 5 to 40 CFR 63 Subpart AAAAA. Representative conditions exclude periods of startup and shutdown. The permittee shall not conduct performance tests during periods of startup, shutdown, or malfunction. (40 CFR 63.7112(b), (c)).

II.B.29.a.2 **Recordkeeping:**

In addition to the records specified in 40 CFR 63.7132:
Results of stack testing shall be recorded in accordance with the associated test method and Provision I.S.1 of this permit. The permittee shall record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, the permittee shall make available to the Director such records as may be necessary to determine the conditions of performance tests.

Records and results of monitoring shall be maintained in accordance with 40 CFR 63.7133 and Provision I.S.1 of this permit.

II.B.29.a.3 **Reporting:**

The permittee shall submit a Notification of Compliance Status, including the performance test results, before the close of business on the 60th calendar day following completion of the performance test.

Performance test results shall be documented in complete test reports that contain the information required in 40 CFR 63.7(g) and 40 CFR 63.7112(h). 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.

The permittee shall submit a compliance report semiannually containing the information required in Table 8 to 40 CFR 63 Subpart AAAAA and in accordance with 40 CFR 63.7131. If the permittee submits the compliance report along with, or as part of, the semiannual monitoring report required in Section I of this permit and the compliance report includes all required information concerning deviations from any emission limitation (including any operating limit), submission of the compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report shall not otherwise affect any obligation the permittee has to report deviations from permit requirements to the permit authority. [40 CFR 63.7131(f)]

Reports shall be submitted in accordance with 40 CFR 63.7131 and as outlined in Section I of this permit.

II.B.29.b **Condition:**

Stack emissions shall not exceed 7 percent opacity. This condition does not apply if the permittee is operating in accordance with the AOS in Section II.D of this permit. [Origin: 40 CFR 63 Subpart AAAAA, DAQE-AN103130044-21]. [40 CFR 63.7090(a), R307-401-8]

II.B.29.b.1 **Monitoring:**

The permittee shall demonstrate ongoing compliance by:

(i) Conducting a monthly 1-minute visible emission (VE) check of each emission unit in accordance with (a) - (c) below; the check shall be conducted while the affected source is in operation.
   (a) Conduct visual inspections that consist of a visual survey of each stack or process emission point over the test period to identify if there are VE, other than condensed water vapor. If wet dust suppression is used to control PM from PSH operations, the visible mist generated by the spray shall not be confused with particulate matter emissions and shall not be considered VE. When a water mist of this nature is present, the permittee shall observe emissions at a point in the plume where the mist is no longer visible.
   (b) Select a position at least 15 but not more 1,320 feet from the affected emission point with the sun or other light source generally at the observer's back. The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun shall be followed.
   (c) The observer conducting the VE checks need not be certified to conduct EPA Method 9 in 40 CFR 60 appendix A, but shall meet the training requirements as described in EPA Method 22 of 40 CFR 60 appendix A.

(ii) If no VE are observed in 6 consecutive monthly checks for any emission unit, the permittee may decrease the frequency of VE checking from monthly to semi-annually for that emission unit. If VE are observed during any semiannual check, the permittee shall resume VE checking of that emission unit on a monthly basis and maintain that schedule until no VE are observed in 6 consecutive monthly checks;

(iii) If no VE are observed during the semiannual check for any emission unit, the permittee may decrease the frequency of VE checking from semi-annually to annually for that emission unit. If VE are observed during any annual check, the permittee shall resume VE checking of that emission unit on a monthly basis and maintain that schedule until no VE are observed in 6 consecutive monthly checks; and

(iv) If VE are observed during any VE check, the permittee shall conduct a 6-minute test of opacity in accordance with Method 9 of 40 CFR 60 appendix A. The permittee shall begin the Method 9 test within 1 hour of any observation of VE and the 6-minute opacity reading shall not exceed the applicable opacity limit.

In addition, the permittee shall conduct opacity observations every five years, based on the date of the last performance test, using Method 9 in 40 CFR part 60 appendix A. The test duration shall be for at least 3 hours and at least thirty, 6-minute averages shall be obtained. If a fabric filter controls emissions from only an individual, enclosed storage bin, the test duration shall be for at least 1 hour and ten 6-minute averages shall be obtained. The permittee shall submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin.

II.B.29.b.2 **Recordkeeping:**

In addition to the records specified in 40 CFR 63.7132, results of monitoring and all data required by 40 CFR 60, Appendix A, Method 9 shall be recorded and maintained in accordance with 40 CFR 63.7133 and Provision I.S.1 of this permit.

II.B.29.b.3 **Reporting:**

The permittee shall submit a Notification of Compliance Status, including the performance test results, before the close of business on the 60th calendar day following completion of the 5-year performance test.

Performance test results shall be documented in complete test reports that contain the information

required in 40 CFR 63.7(g) and 40 CFR 63.7112(h).

The permittee shall submit a compliance report semiannually containing the information required in Table 8 to 40 CFR 63 Subpart AAAAA and in accordance with 40 CFR 63.7131. If the permittee submits the compliance report along with, or as part of, the semiannual monitoring report required in Section I of this permit and the compliance report includes all required information concerning deviations from any emission limitation (including any operating limit), submission of the compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report shall not otherwise affect any obligation the permittee has to report deviations from permit requirements to the permit authority. [40 CFR 63.7131(f)]

The permittee shall report the opacity or visible emission results in accordance with 40 CFR 63.10(d)(3). For the periodic monitoring in II.B.29.b.1(i)-(iv), the permittee shall report the opacity or visible emission results before the close of business on the 30th day following the completion of the opacity or visible emission observations only if visible emissions are observed and a subsequent visual opacity test is required.

Reports shall be submitted in accordance with 40 CFR 63.7131 and as outlined in Section I of this permit.

II.B.29.c **Condition:**

Fugitive emissions shall not exceed 10 percent opacity. This condition does not apply if the permittee is operating in accordance with the AOS in Section II.D of this permit. [Origin: 40 CFR 63 Subpart AAAAA, DAQE-AN103130044-21]. [40 CFR 63.7090(a), R307-401-8]

II.B.29.c.1 **Monitoring:**

The permittee shall demonstrate ongoing compliance by:

(i) Conducting a monthly 1-minute visible emission (VE) check of each emission unit in accordance with (a) - (c) below; the check shall be conducted while the affected source is in operation.
  (a) Conduct visual inspections that consist of a visual survey of each stack or process emission point over the test period to identify if there are VE, other than condensed water vapor. If wet dust suppression is used to control PM from PSH operations, the visible mist generated by the spray shall not be confused with particulate matter emissions and shall not be considered VE. When a water mist of this nature is present, the permittee shall observe emissions at a point in the plume where the mist is no longer visible.
  (b) Select a position at least 15 but not more 1,320 feet from the affected emission point with the sun or other light source generally at the observer's back. The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun shall be followed.
  (c) The observer conducting the VE checks need not be certified to conduct EPA Method 9 in 40 CFR 60 appendix A, but shall meet the training requirements as described in EPA Method 22 of 40 CFR 60 appendix A.

(ii) If no VE are observed in 6 consecutive monthly checks for any emission unit, the permittee may decrease the frequency of VE checking from monthly to semi-annually for that emission unit. If VE are observed during any semiannual check, the permittee shall resume VE checking of that emission unit on a monthly basis and maintain that schedule until no VE are observed in 6 consecutive monthly checks;

(iii) If no VE are observed during the semiannual check for any emission unit, the permittee may decrease the frequency of VE checking from semi-annually to annually for that emission unit. If VE are observed during any annual check, the permittee shall resume VE checking of that emission unit on a monthly basis and maintain that schedule until no VE are observed in 6 consecutive monthly checks; and

(iv) If VE are observed during any VE check, the permittee shall conduct a 6-minute test of opacity in accordance with Method 9 of 40 CFR 60 appendix A. The permittee shall begin the Method 9 test within 1 hour of any observation of VE and the 6-minute opacity reading shall not exceed the applicable opacity limit.

In addition, the permittee shall conduct opacity observations every five years, based on the date of the last performance test, using Method 9 in 40 CFR 60 appendix A. The test duration shall be for at least 3 hours, but the 3-hour test may be reduced to 1 hour if, during the first 1-hour period, there are no individual readings greater than 10 percent opacity and there are no more than three readings of 10 percent during the first 1-hour period. The permittee shall submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin.

II.B.29.c.2 **Recordkeeping:**

In addition to the records specified in 40 CFR 63.7132, results of monitoring and all data required by 40 CFR 60, Appendix A, Method 9 shall be recorded and maintained in accordance with 40 CFR 63.7133 and Provision I.S.1 of this permit.

II.B.29.c.3 **Reporting:**

The permittee shall submit a Notification of Compliance Status, including the performance test results, before the close of business on the 60th calendar day following completion of the 5-year performance test.

Performance test results shall be documented in complete test reports that contain the information required in 40 CFR 63.7(g) and 40 CFR 63.7112(h).

The permittee shall submit a compliance report semiannually containing the information required in Table 8 to 40 CFR 63 Subpart AAAAA and in accordance with 40 CFR 63.7131. If the permittee submits the compliance report along with, or as part of, the semiannual monitoring report required in Section I of this permit and the compliance report includes all required information concerning deviations from any emission limitation (including any operating limit), submission of the compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report shall not otherwise affect any obligation the permittee has to report deviations from permit requirements to the permit authority. [40 CFR 63.7131(f)]

The permittee shall report the opacity or visible emission results in accordance with 40 CFR 63.10(d)(3). For the periodic monitoring in II.B.29.c.1(i)-(iv), the permittee shall report the opacity or visible emission results before the close of business on the 30th day following the completion of the opacity or visible emission observations only if visible emissions are observed and a subsequent visual opacity test is required.

Reports shall be submitted in accordance with 40 CFR 63.7131 and as outlined in Section I of this permit.

II.B.29.d **Condition:**

Fugitive emissions from PSH operations shall not exceed 10 percent opacity. This condition only applies if the permittee is operating in accordance with the AOS in Section II.D of this permit. [Origin: DAQE-AN103130044-21]. [R307-401-8]

II.B.29.d.1 **Monitoring:**

A certified observer shall conduct a visible emissions observation, in accordance with 40 CFR 60, Appendix A, Method 9, of affected emission units monthly. Alternately, to satisfy this requirement, the permittee may survey a group of affected units visible from a pre-determined observation location (A, B, C or D) monthly. A certified observer shall determine the unit with the highest observed opacity. A visible emissions observation shall be conducted, in accordance with Method 9, on that unit. If this unit does not exceed its opacity limitation, no further observation is required for any other affected emission units, surveyed for this location, with an equal or higher opacity limit. If the unit exceeds its opacity limitation, a visual observation shall be conducted on the unit that appears to have the next highest opacity, and so on, until an emission unit of this group does not exceed the opacity limitation. Once an emission unit has been determined to comply with this condition, units with the same or higher opacity limit, that were surveyed from the same location and appear to have less visible emissions, shall be considered to be in compliance with their opacity limitation.

II.B.29.d.2 **Recordkeeping:**

The permittee shall record the location of each visual opacity observation and keep a list of the emission units checked during the observation. The records required by this provision and all data required by 40 CFR 60, Appendix A, Method 9 shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.29.d.3 **Reporting:**

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

II.B.29.e **Condition:**

Stack emissions from PSH operations shall not exceed 7 percent opacity. This condition only applies if the permittee is operating in accordance with the AOS in Section II.D of this permit. [Origin: DAQE-AN103130044-21]. [R307-401-8]

II.B.29.e.1 **Monitoring:**

A certified observer shall conduct a visible emissions observation, in accordance with 40 CFR 60, Appendix A, Method 9, of affected emission units monthly. Alternately, to satisfy this requirement, the permittee may survey a group of affected units visible from a pre-determined observation location (A, B, C or D) monthly. A certified observer shall determine the unit with the highest observed opacity. A visible emissions observation shall be conducted, in accordance with Method 9, on that unit. If this unit does not exceed its opacity limitation, no further observation is required for any other affected emission units, surveyed for this location, with an equal or higher opacity limit. If the unit exceeds its opacity limitation, a visual observation shall be conducted on the unit that appears to have the next highest opacity, and so on, until an emission unit of this group does not exceed the opacity limitation. Once an emission unit has been determined to comply with this condition, units with the same or higher opacity limit, that

were surveyed from the same location and appear to have less visible emissions, shall be considered to be in compliance with their opacity limitation.

II.B.29.e.2 **Recordkeeping:**

The permittee shall record the location of each visual opacity observation and keep a list of the emission units checked during the observation. The records required by this provision and all data required by 40 CFR 60, Appendix A, Method 9 shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.29.e.3 **Reporting:**

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

II.B.30 **Conditions on NSPS-CI-ICE: NSPS Stationary Compression Ignition (CI) Internal Combustion Engines (ICE).**

II.B.30.a **Condition:**

For KDE 1, KDE 2, KDE 5, and both LFP engines:
2007 model year and later non-emergency stationary affected emission units with a displacement of less than 30 liters per cylinder shall comply with the emission standards for new CI engines in 40 CFR 60.4201 for their 2007 model year and later stationary CI ICE, as applicable. Modified or reconstructed non-emergency stationary affected emission units shall meet the emission standards for new CI engines in 40 CFR 60.4201 applicable to the model year, maximum engine power, and displacement of the modified or reconstructed engine. If the permittee conducts performance tests in-use on non-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 60.4204(b), 40 CFR 60.4204(d), 40 CFR 60.4204(e), 40 CFR 63 Subpart ZZZZ]

II.B.30.a.1 **Monitoring:**

The permittee shall comply by purchasing an engine certified to the emission standards in 40 CFR 60.4204(b) for the same model year and maximum engine power. The engine shall be installed and configured according to the manufacturer's emission-related specifications, except as permitted below. [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 with maximum engine power 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. In addition, if the permittee does not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or changes the emission-related settings in a way that is not permitted by the manufacturer, the permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.

(b) For affected emission units greater than or equal to 100 HP and less than or equal to 500 HP, the permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good

air pollution control practice for minimizing emissions. In addition, the permittee shall conduct an initial performance test 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.
[40 CFR 60.4211(g)]

For modified or reconstructed affected emission units that shall comply with the emission standards specified in 40 CFR 60.4204(e), the permittee shall demonstrate compliance by purchasing, or otherwise owning or operating, an engine certified to the emission standards in 40 CFR 60.4204(e) or by conducting a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in 40 CFR 60.4212. The test shall be conducted within 60 days after the engine commences operation after the modification or reconstruction. [40 CFR 60.4211(e)].

II.B.30.a.2 **Recordkeeping:**

The permittee shall keep records of engine certifications indicating compliance with the standards. The permittee shall keep records demonstrating compliance with the manufacturer's emission-related specifications for engine installation and configuration or results of performance tests, as applicable. Records and results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.30.a.3 **Reporting:**

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

II.B.30.b **Condition:**

For KDE 1, KDE 2, KDE 5, and both LFP engines:
The permittee shall operate and maintain affected emission units that achieve the emission standards as required in 40 CFR 60.4204 over the entire life of the engine. The permittee shall do all of the following, except as permitted in II.B.30.b.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.30.b.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:
    i. For affected emission units with maximum engine power 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. In addition, if the permittee does not install and configure the engine and control device

according to the manufacturer's emission-related written instructions, or changes the emission-related settings in a way that is not permitted by the manufacturer, the permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.

ii. For affected emission units greater than or equal to 100 HP and less than or equal to 500 HP, the permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee shall conduct an initial performance test 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.

[40 CFR 60.4211(g)].

II.B.30.b.2 **Recordkeeping:**

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

II.B.30.b.3 **Reporting:**

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

II.B.30.c **Condition:**

For KDE 1, KDE 2, KDE 5, and both LFP engines:
For all affected emission units, with a displacement of less than 30 liters per cylinder, the permittee 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.30.c.1 **Monitoring:**

For all diesel fuel combusted, the permittee shall demonstrate compliance either by measuring the fuel parameters in accordance with 40 CFR 1090.300 or by maintaining the specified records.

II.B.30.c.2 **Recordkeeping:**

The permittee shall maintain records documenting the results of diesel fuel testing or keep diesel fuel purchase invoices or certifications obtained from the diesel fuel supplier. The diesel fuel purchase invoices and/or certifications shall indicate the diesel fuel meets the requirements in 40 CFR 1090.305. Records demonstrating compliance with this condition shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.30.c.3 **Reporting:**

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

II.B.30.d **Condition:**

For all affected emission units, except those that are modified, reconstructed, or removed from one existing location and reinstalled at a new location, the permittee shall comply with paragraphs (a) through (h).

(a) After December 31, 2008, the permittee shall not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines.

(b) After December 31, 2009, the permittee shall not install stationary CI ICE with a maximum engine power of less than 19 KW (25 HP) (excluding fire pump engines) that do not meet the applicable requirements for 2008 model year engines.

(c) After December 31, 2014, the permittee shall not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 19 KW (25 HP) and less than 56 KW (75 HP) that do not meet the applicable requirements for 2013 model year non-emergency engines.

(d) After December 31, 2013, the permittee shall not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 56 KW (75 HP) and less than 130 KW (175 HP) that do not meet the applicable requirements for 2012 model year non-emergency engines.

(e) After December 31, 2012, the permittee shall not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 130 KW (175 HP), including those above 560 KW (750 HP), that do not meet the applicable requirements for 2011 model year non-emergency engines.

(f) After December 31, 2016, the permittee shall not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 560 KW (750 HP) that do not meet the applicable requirements for 2015 model year non-emergency engines.

(g) After December 31, 2018, the permittee shall not install non-emergency stationary CI ICE with a maximum engine power greater than or equal to 600 KW (804 HP) and less than 2,000 KW (2,680 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that do not meet the applicable requirements for 2017 model year non-emergency engines.

(h) The permittee shall not import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in paragraphs (a) and through (g) of this section after the dates specified in paragraphs (a) and through (g) of this section.

[Origin: 40 CFR 60 Subpart IIII]. [40 CFR 60.4200(a)(4), 40 CFR 60.4208, 40 CFR 63 Subpart ZZZZ]

II.B.30.d.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.30.d.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. Records shall be maintained as described in Provision I.S.1 of this permit.

II.B.30.d.3 **Reporting:**

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

II.B.31 **Conditions on NESHAP-CI-RICE: NESHAP Stationary Compression Ignition (CI) Reciprocating Internal Combustion Engines (RICE).**

II.B.31.a **Condition:**

For KDE 4:
The permittee shall comply with the following requirements at all times for each non-emergency CI RICE less than 100 HP:

1. The permittee shall meet the following requirements at all times, except during periods of startup:
   a. Change oil and filter every 1,000 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.
2. The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in Table 8 of 40 CFR 63 Subpart ZZZZ.

This condition does not apply if the permittee is operating in accordance with the AOS in Section II.D of this permit. [Origin: 40 CFR 63 Subpart ZZZZ]. [40 CFR 63.6595(a)(1), 40 CFR 63.6602, 40 CFR 63.6605(a), 40 CFR 63.6625(h), 40 CFR 63.6665, 40 CFR 63 Subpart ZZZZ Table 2c, 40 CFR 63 Subpart ZZZZ Table 8]

II.B.31.a.1 **Monitoring:**

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.31.a.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 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.31.a.3 **Reporting:**

The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in 40 CFR 63 Subpart ZZZZ Table 8. [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.31.b **Condition:**

For GEN-1:
For each affected non-emergency CI RICE greater than or equal to 100 HP and less than or equal to 300 HP, the permittee shall limit concentration of CO in the stationary RICE exhaust to 230 ppmvd or less at 15 percent O_2, at all times except during periods of startup. 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.

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.

This condition does not apply if the permittee is operating in accordance with the AOS in Section II.D of this permit. [Origin: 40 CFR 63 Subpart ZZZZ]. [40 CFR 63.6595(a)(1), 40 CFR 63.6602, 40 CFR 63.6605(a), 40 CFR 63.6625(h), 40 CFR 63.6665, 40 CFR 63 Subpart ZZZZ Table 2c, 40 CFR 63 Subpart ZZZZ Table 8]

II.B.31.b.1 **Monitoring:**

The permittee shall demonstrate ongoing compliance by performing an emissions test at least once every five years, based on the date of the most recent test, using the methods specified in 40 CFR 63 Subpart ZZZZ Table 4. At least 30 days before the test, the source shall notify the Director of the date, time and place of testing. [R307-165]

Each performance test shall be conducted according to the requirements specified in 40 CFR 63 Subpart ZZZZ Table 4, number 3.a. The permittee shall conduct three separate test runs for each required performance test, as specified in 40 CFR 63.7(e)(3). Each test run shall last at least 1 hour. Compliance with the numerical emission limitations is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in 40 CFR 63.6620 and 40 CFR 63 Subpart ZZZZ Table 4. [40 CFR 63.6602, 40 CFR 63.6620(b), (d)]

The engine percent load during a performance test shall be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. [40 CFR 63.6620(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.31.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)]

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.31.b.3 **Reporting:**

A written report of the average percent load determination shall be included in the Notification of Compliance Status. The following information shall be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test shall be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value shall be provided. [40 CFR 63.6620(i)]

The permittee shall report each instance in which it did not meet an applicable emission limitation in 40 CFR 63 Subpart ZZZZ Table 2c. These instances are deviations from the emission limitations. These deviations shall be reported according to the requirements in 40 CFR 63.6650. [40 CFR 63.6640(b)]

The permittee shall submit each report in 40 CFR 63 Subpart ZZZZ Table 7 as applicable. [40 CFR 63.6650(a)]

If there are no deviations from any applicable emission limitations, the permittee shall submit a compliance report semiannually for affected emission units according to the requirements of 40 CFR 63.6650(b)(1)-(5) that contains the information required in 40 CFR 63.6650(c)(1)-(3) and a statement that there were no deviations from the emission limitations during the reporting period. [40 CFR 63 Subpart ZZZZ Table 7.1.a]

If a deviation from any emission limitation occurs during the reporting period, the permittee shall submit a compliance report semiannually according to the requirements of 40 CFR 63.6650(b), (f) that contains the information required in 40 CFR 63.6650(c)(1)-(3), (d). [40 CFR 63 Subpart ZZZZ Table 7.1.b]

If a malfunction occurs during the reporting period, the permittee shall submit a compliance report semiannually according to the requirements of 40 CFR 63.6650(b) that contains the information required in 40 CFR 63.6650(c)(1)-(4). [40 CFR 63 Subpart ZZZZ Table 7.1.c]

The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in 40 CFR 63 Subpart ZZZZ Table 8 and shall submit all of the applicable notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) by the dates specified. [40 CFR 63.6645(a), 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)]

The results of ongoing compliance testing shall be submitted to the Director within 60 days of completion of testing. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.31.c **Condition:**

For KDE 4 and GEN-1:
At all times the permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [Origin: 40 CFR 63 Subpart ZZZZ]. [40 CFR 63.6595(a)(1), 40 CFR 63.6605(b)]

II.B.31.c.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.31.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.31.c.3 **Reporting:**

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

II.B.31.d **Condition:**

For KDE 4 and GEN-1:
The permittee shall comply with the following requirements at all times for each non-emergency CI RICE less than or equal to 300 HP:

1. The permittee shall meet the following requirements at all times, except during periods of startup:
   a. Change oil and filter every 1,000 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.
2. The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in Table 8 of 40 CFR 63 Subpart ZZZZ.

This condition only applies if the permittee is operating in accordance with the AOS in Section II.D of this permit. [Origin: 40 CFR 63 Subpart ZZZZ]. [40 CFR 63.6595(a)(1), 40 CFR 63.6603, 40 CFR 63.6605(a), 40 CFR 63.6625(h), 40 CFR 63.6665, 40 CFR 63 Subpart ZZZZ Table 2d, 40 CFR 63 Subpart ZZZZ Table 8]

II.B.31.d.1 **Monitoring:**

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.31.d.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 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.31.d.3 **Reporting:**

The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in 40 CFR 63 Subpart ZZZZ Table 8. [40 CFR 63.6665] The permittee shall also report each instance in which it did not meet the applicable requirements in Table 8. [40 CFR 63.6640(e)]

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

II.B.32 **Conditions on NESHAP-SI-RICE: NESHAP Stationary Spark Ignition (SI) Reciprocating Internal Combustion Engines (RICE).**

II.B.32.a **Condition:**

For KDE 3:
The permittee shall comply with the following requirements at all times for each non-emergency SI RICE less than 100 HP:
1. The permittee shall meet the following requirements at all times, except during periods of startup:

a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;
b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary;
c. Inspect all hoses and belts every 1,440 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.

2. The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in Table 8 of 40 CFR 63 Subpart ZZZZ.

This condition does not apply if the permittee is operating in accordance with the AOS in Section II.D of this permit. [Origin: 40 CFR 63 Subpart ZZZZ]. [40 CFR 63.6595(a)(1), 40 CFR 63.6602, 40 CFR 63.6605(a), 40 CFR 63.6625(h), 40 CFR 63.6665, 40 CFR 63 Subpart ZZZZ Table 2c, 40 CFR 63 Subpart ZZZZ Table 8]

II.B.32.a.1 **Monitoring:**

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(j).

The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in Table 8 of 40 CFR 63 Subpart ZZZZ. [40 CFR 63.6665].

II.B.32.a.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 keep records that demonstrate continuous compliance with each applicable operating limitation [including, but not limited to, the manufacturer's emission-related operation and maintenance instructions or the permittee-developed maintenance plan]. [40 CFR 63.6655(d), 40 CFR 63 Subpart ZZZZ Table 6]

Records of the maintenance conducted shall be kept in order to demonstrate that the permittee operated and maintained the affected emission unit and after-treatment control device (if any) according to their own maintenance plan. [40 CFR 63.6655(e)]

The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in Table 8 of 40 CFR 63 Subpart ZZZZ. [40 CFR 63.6665]

Records shall be maintained in accordance with 40 CFR 63.6660 and Provision I.S.1 of this permit.

II.B.32.a.3 **Reporting:**

The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in 40 CFR 63 Subpart ZZZZ Table 8. [40 CFR 63.6665] The permittee shall also

report each instance in which it did not meet the applicable requirements in Table 8. [40 CFR 63.6640(e)]

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

II.B.32.b **Condition:**

For KDE 3:
At all times the permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [Origin: 40 CFR 63 Subpart ZZZZ]. [40 CFR 63.6595(a)(1), 40 CFR 63.6605(b)]

II.B.32.b.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.32.b.2 **Recordkeeping:**

The permittee shall keep the records described in 40 CFR 63.6655(a)(1)-(5) as applicable. [40 CFR 63.6655(a)] The permittee shall document activities performed to assure proper operation and maintenance. Records shall be maintained in accordance with 40 CFR 63.6660 and Provision I.S.1 of this permit.

II.B.32.b.3 **Reporting:**

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

II.B.32.c **Condition:**

For KDE 3:
The permittee shall comply with the following requirements at all times for each non-emergency SI RICE less than or equal to 500 HP:

1. The permittee shall meet the following requirements at all times, except during periods of startup:
   a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;
   b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary;
   c. Inspect all hoses and belts every 1,440 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.
2. The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in Table 8 of 40 CFR 63 Subpart ZZZZ.

This condition only applies if the permittee is operating in accordance with the AOS in Section II.D of this permit. [Origin: 40 CFR 63 Subpart ZZZZ]. [40 CFR 63.6595(a)(1), 40 CFR 63.6603, 40 CFR

63.6605(a), 40 CFR 63.6625(h), 40 CFR 63.6665, 40 CFR 63 Subpart ZZZZ Table 2d, 40 CFR 63 Subpart ZZZZ Table 8]

II.B.32.c.1 **Monitoring:**

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(j).

The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in Table 8 of 40 CFR 63 Subpart ZZZZ. [40 CFR 63.6665].

II.B.32.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 keep records that demonstrate continuous compliance with each applicable operating limitation [including, but not limited to, the manufacturer's emission-related operation and maintenance instructions or the permittee-developed maintenance plan]. [40 CFR 63.6655(d), 40 CFR 63 Subpart ZZZZ Table 6]

Records of the maintenance conducted shall be kept in order to demonstrate that the permittee operated and maintained the affected emission unit and after-treatment control device (if any) according to their own maintenance plan. [40 CFR 63.6655(e)]

The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in Table 8 of 40 CFR 63 Subpart ZZZZ. [40 CFR 63.6665]

Records shall be maintained in accordance with 40 CFR 63.6660 and Provision I.S.1 of this permit.

II.B.32.c.3 **Reporting:**

The permittee shall comply with the applicable general provisions in 40 CFR 63.1-15 as identified in 40 CFR 63 Subpart ZZZZ Table 8. [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.33 **Conditions on Limestone Fines Product (LFP) Loadout System**

II.B.33.a **Condition:**

Hours of operation shall not exceed 6,500 hours per rolling 12-month period. [Origin: DAQE-AN103130044-21]. [R307-401-8]

II.B.33.a.1 **Monitoring:**

Compliance with the limitation shall be demonstrated through a rolling 12-month total. The permittee shall calculate a new 12-month total by the 25th day of each month using data from the previous 12 months.

II.B.33.a.2 **Recordkeeping:**

Hours of operation for each emission unit shall be recorded in a log on a daily basis. The rolling 12-month totals shall be recorded monthly. Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.33.a.3 **Reporting:**

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

II.B.33.b **Condition:**

Production of limestone shall not exceed 200,000 tons per rolling 12-month period. [Origin: DAQE-AN103130044-21]. [R307-401-8]

II.B.33.b.1 **Monitoring:**

Compliance with the limitation shall be demonstrated through a rolling 12-month total. The permittee shall calculate a new 12-month total by the 25th day of each month using data from the previous 12 months. Records required for this permit condition will also serve as monitoring.

II.B.33.b.2 **Recordkeeping:**

Production shall be determined using plant production records, such as scale records or sales receipts. Records of production shall be kept on a daily basis for all periods of operation. The rolling 12-month totals shall be recorded monthly. Records shall be kept in accordance with Provision I.S.1 of this permit.

II.B.33.b.3 **Reporting:**

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

II.B.33.c **Condition:**

By October 7, 2022, the permittee shall submit documentation to the Director on the status of construction or modification of the LFP Loadout System. The referenced approval order (AO) may become invalid if construction is not commenced by October 7, 2022 or if construction is discontinued for 18 months or more. To ensure proper credit when notifying the Director, send the documentation to the Director, attn.: NSR Section. [Origin: DAQE-AN103130044-21, R307-401-18]. [R307-401-18]

II.B.33.c.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.33.c.2 **Recordkeeping:**

As applicable, the permittee shall maintain a copy of each notification required by this permit condition in accordance with Provision I.S.1 of this permit.

II.B.33.c.3 **Reporting:**

The documentation shall be submitted as required by this condition. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.34 **Conditions on E: LFP Screen/Conveyor Transfer Points**

II.B.34.a **Condition:**

Within 60 days after achieving the maximum production rate at which the affected emission unit will be operated, but not later than 180 days after initial startup, visible emissions from each screening operation and each conveyor transfer point shall be no greater than 7 percent opacity from all affected emission units constructed, modified, or reconstructed on or after April 22, 2008. [Origin: DAQE-AN103130044-21, 40 CFR 60 Subpart OOO]. [40 CFR 60.672(b), R307-401-8]

II.B.34.a.1 **Monitoring:**

The permittee shall conduct an initial performance test using 40 CFR 60, Appendix A, Method 9, and the procedures in 40 CFR 60.11, with the additions specified in 40 CFR 60.675(c)(1). The duration of the Method 9 observations shall be 30 minutes (five 6-minute averages). Compliance shall be based on the average of the five 6-minute averages. Alternately, to satisfy this requirement, the permittee may survey a group of affected units visible from a pre-determined observation location (E) within a 15-second interval if the following conditions are met:

(i) No more than three emission points shall be read concurrently.
(ii) All three emission points shall be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points.
(iii) If an opacity reading for any one of the three emission points equals or exceeds the applicable standard, then the observer shall stop taking readings for the other two points and continue reading just that single point.

Before the initial Method 9 performance test, the permittee shall provide a 7-day advance notification to the Director of the anticipated date for conducting the opacity observations.

Repeat performance tests shall be conducted according to 40 CFR 60.675 every 5 years from the previous performance test.

II.B.34.a.2 **Recordkeeping:**

Records documenting the results of monitoring shall be kept in accordance with Provision I.S.1 of this permit.

II.B.34.a.3 **Reporting:**

Notification of the actual date of initial startup of each affected emission unit shall be submitted in accordance with 40 CFR 60.676(i). Reports shall be submitted in accordance with 40 CFR 60.676(f) and as specified in Section I of this permit.

II.B.35 **Conditions on LFP Engines**

II.B.35.a **Condition:**

Visible emissions shall not exceed 20 percent opacity. [Origin: DAQE-AN103130044-21]. [R307-401-8]

II.B.35.a.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. The individual is not required to be a certified visual emissions observer. 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.

II.B.35.a.2 **Recordkeeping:**

The permittee shall maintain a log of the visual opacity surveys, opacity determinations, and all data required by 40 CFR 60, Appendix A, Method 9. Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.35.a.3 **Reporting:**

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

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

Not applicable to this source.

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

Alternate Operating Scenario (AOS) for Synthetic Minor Operations for HAPs:
If the permittee chooses to comply with the following AOS requirements, the source shall be reclassified to an area source of HAPs, as defined in 40 CFR 63.2, effective on the date AOS operations commence. As noted in Section II.B of this permit, once reclassified, the requirements of 40 CFR 63 Subpart AAAAA shall no longer apply.

Effective on the date AOS operations commence, the limits of the AOS shall apply permanently and a modification to the referenced approval order shall be required for the permittee to remove or modify these limits. All other requirements in this permit, except as specifically noted in Section II.B, shall continue to apply in addition to the AOS limits listed in this section.
[Origin: DAQE-AN103130044-21]. [R307-401-8]

II.D.1 **AOS Conditions.**

II.D.1.a **Condition:**

The permittee shall notify the Director at least 30 days prior to the effective date on which AOS operations will commence. The notification shall include test results for HCl and total organic HAPs that demonstrate the source meets the definition of area source given in 40 CFR 63.2. [Origin: DAQE-AN103130044-21]. [R307-401-8]

II.D.1.a.1 **Monitoring:**

Methods for measuring HCl and total HAPs shall be those specified in 40 CFR 63.7142, or other EPA-approved methods, as acceptable to the Director. Records required for this permit condition will also serve as monitoring.

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

The notification shall include:

(a) Documentation of the testing that includes the test results for HCl and total organic HAPs that demonstrate the source meets the definition of area source given in 40 CFR 63.2 and the methods used for measuring HCl and total HAPs as specified in 40 CFR 63.7142, or other EPA-approved methods, as acceptable to the Director.
(b) The date when AOS operations will commence and the AOS conditions limiting HAPs emissions become effective.
(c) The proposed schedule for CEMS installation.

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

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

The permittee shall submit the notification at least 30 days prior to the effective date on which AOS operations will commence. There are no additional reporting requirements except as outlined in Section I of this permit.

II.D.1.b **Condition:**

Facility-wide emissions shall be limited to:

i. 9.5 tons of HCl per 12-month block period, and
ii. 24 tons of total HAPs per 12-month block period.
Total HAPs emissions shall include the following compounds:
(a) Organic HAPs: acetaldehyde benzene, chlorine, ethylbenzene, formaldehyde, hexane, toluene, and xylenes
(b) Metal HAPs: arsenic, cadmium, chromium compounds, cobalt, lead, manganese, mercury, nickel, and selenium
(c) HCl

[Origin: DAQE-AN103130044-21]. [R307-401-8]

II.D.1.b.1 **Monitoring:**

(a) The permittee shall install, calibrate, maintain, and continuously operate a continuous emissions monitoring system(s) for the continuous measurement of HCl emissions on Kilns #1-#5. The CEMS(s) shall be installed and used as the primary method of compliance within 180 days from the date AOS operation commences. At a minimum, the HCl CEMS shall consist of HCl concentration monitor(s) for each kiln, flow monitors, and a data acquisition system capable of recording measurements from Kilns #1-#5.
(b) Except as specified in paragraph (d), the permittee shall demonstrate compliance with the HCl emission limit using CEMS data as outlined in paragraph (c). The HCl CEMS shall operate during all periods the kilns are in operation.
(c) When the HCl CEMS have been installed, calibrated, and are operating, HCl emissions shall be calculated as follows for each kiln:
(1) Hourly HCl emissions (Eh) shall be calculated using CEMS data as follows:

$$Eh = K * C * Q$$

Where:

Eh = hourly HCl mass emission rate during unit operation, lb/hr
K = 9.46E-8 for HCl, lb/scf/ppm
C = HCl concentration averaged for each one-hour period, ppmvw, as measured by the CEMS
Q = volumetric flow rate averaged for each one-hour period, scfh (wet)

(2) The daily HCl emissions (Ed) in pounds shall be calculated by summing the hourly HCl emissions (Eh) measured during the day. For purposes of this subsection, a "day" is defined as a period of 24-hours commencing at midnight and ending the following midnight.
(3) Measured monthly HCl emissions shall be calculated by summing the daily emissions for all operating days in each month.

(d) If the CEMS are not in operation when AOS operations commence, compliance with the HCl emission limit shall be demonstrated as follows for the first 180 days of operation under the AOS:
(1) Emissions shall be estimated by multiplying the lime throughput (tons/month) for each kiln by HCl emission factors.
(2) The following emission factors shall be used:
a) 1.67E-1 lbs HCl/ton of lime for the dolomitic lime line
b) 1.26E-1 lbs HCl/ton of lime for the high calcium line

(e) To demonstrate compliance with the 12-month block period, the permittee shall calculate a monthly total by the 25th day of each month using data from the previous month. The monthly totals shall be added to determine HCl and total HAPs emissions for the current 12-month block. The 12-month block period starts on the day AOS operations commence. A new 12-month block period will begin each year on the date AOS operations commenced.

(f) The permittee shall demonstrate compliance with the total HAPs limit using the following data:
(1) HCl CEMS data, as per paragraph (b).
(2) Emission rates in lbs/hr measured in the most recent stack test for organic HAPs and metal HAPs. Stack testing requirements are specified in paragraph (g).
(3) Monthly hours of operations.

(g) Stack testing of organic and metal HAPs shall be performed on each kiln as specified below:
(1) Frequency. Initial compliance testing shall be performed as soon as possible and in no case later than 180 days after the date AOS operation commences. After the initial compliance testing, emissions shall be tested every three years. Tests may also be required at the direction of the Director.
(2) Notification. At least 30 days before the test, the source shall notify the Director of the date, time, and place of testing and submit a copy of the test protocol. The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. The source test protocol shall be approved by the Director prior to performing the test(s). A pretest conference shall be held, if directed by the Director.
(3) 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. Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.
b) 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.
c) Organic HAPs - 40 CFR 60, Appendix A, Method 320 and Method 18, or other EPA-approved testing method, as acceptable to the Director.
d) Chlorine - 40 CFR 60, Appendix A, Method 26A, or other EPA-approved testing method, as acceptable to the Director.
e) Metal HAPs - 40 CFR 60, Appendix A, Method 29, or other EPA-approved testing method, as acceptable to the Director.
(4) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Director to give the results in the specified units of the emission limitation.
(5) Production Rate During Testing. Tests shall be conducted at a production rate of no less than 90% of the maximum production achieved in the previous three (3) years.

(h) The permittee shall follow the data replacement procedure below when the HCl CEMS data are not valid or unavailable due to monitor downtime or because the monitor is out of control, as determined by 40 CFR 60 Appendix F, Procedure 1 and/or 6:

Ema = Em * (1 +(1/DA - 1) * C

Where:

Ema = adjusted monthly HCl emissions, lbs
Em = total unadjusted HCl mass emission for the month, prior to data replacement procedure, lb/hr
DA = data availability, fraction of operating time for which monitor data is available during the reporting period (e.g. 95% data availability = 0.95) and,
C = Conservative Factor = 1.05 = 5% increase

(i) The monitoring system shall operate continuously and shall comply with all applicable sections of R307-170, UAC, 40 CFR 60 Subpart A and Appendix B, and either Performance Specification (PS) PS-18 or PS-15 as applicable and as approved by the Director.

(j) The Director shall consider the continuous monitoring requirements to be met when the following provisions are met:
  (1) Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under 40 CFR 60.13(d), the permittee shall continuously operate all required continuous monitoring devices and shall meet minimum frequency of operation requirements as outlined in 40 CFR 60.13(e) and R307-170, UAC. Flow measurement shall be in accordance with the requirements of 40 CFR 52; Appendix E, 40 CFR 60 Appendix B; or 40 CFR 75, Appendix A.
  (2) Initial performance specification test shall be performed within 60 days of installation. The performance specification test shall be conducted in accordance with the procedures contained in 40 CFR 60, Appendix B, PS-15 or 18. The Director shall be notified prior to conducting the performance specification test.
  (3) At no time shall the permittee allow excess gaseous emissions to be emitted to the atmosphere, except as provided by the provisions of R307-107(Breakdowns), UAC.

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

In addition to the recordkeeping requirements specified in Provision I.S.1 of this permit, the permittee shall keep the following records:

(a) Records of HCl CEMS data and all calculated emissions shall be tabulated for each day. A monthly total of HCl emissions shall be recorded each month.

(b) If the CEMS are not in operation during the first 180 days of AOS operation, the permittee shall record the calculated HCl emissions estimated using the emission factors in II.D.1.b.1(d). Documentation of all calculations, including the monthly lime throughput, and the monthly total of HCl emissions shall be recorded each month.

(c) Results of all stack testing shall be recorded and maintained in accordance with the associated test method.

(d) Hours of operation shall be recorded on a daily basis for all periods of operation.

(e) Documentation of all calculations used to demonstrate compliance with the total HAPs limit shall be recorded each month.

(f) The permittee shall record the output of the system for measuring HCl emissions in addition to the records specified in R307-170-8.

(g) By the 25th day of each month, using data from the previous month, the permittee shall record the cumulative monthly totals of HCl and total HAPs emissions calculated for the current 12-month block.

Results of monitoring and all records used to demonstrate compliance with this condition shall be maintained in accordance with R307-170 and Provision I.S.1 of this permit.

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

In addition to the reporting requirements specified in Section I of this permit:

(a) The results of stack testing shall be submitted to the Director within 60 days of completion of the testing.

(b) The permittee shall submit quarterly reports in accordance with the reporting provisions in R307-170-9. All exceedances shall be reported in the quarterly report with explanations and corrective actions, in accordance with R307-170. The reports shall also include:
   (1) Total HCl emissions for the current 12-month block, and
   (2) Total HAPs emissions for the current 12-month block.

   The quarterly reports are considered prompt notification of permit deviations required in Provision I.S.2.c of this permit if all information required by Provision I.S.2.c is included in the report.

SECTION III: PERMIT SHIELD

A permit shield was not granted for any specific requirements.

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-AN103130044-21 dated May 4, 2021

1. Comment on an item originating in 40 CFR 63 Subpart ZZZZ, 40 CFR 60 Subparts IIII and JJJJ regarding Permitted Source

   40 CFR 63 Subpart ZZZZ applicability: Kiln drive engine 3 pre-dates 6/12/2006 and is an existing spark ignition (SI) stationary RICE as defined in the subpart. Kiln drive engine 4 and the sugar stone generator pre-date 6/12/2006 and are existing compression ignition (CI) stationary RICE as defined in the subpart. Subpart ZZZZ contains requirements for existing non-emergency CI and SI engines.

   40 CFR 63.6590(c) states that new or reconstructed CI stationary RICE less than 500 brake hp at major HAP sources and new or reconstructed stationary RICE at area sources must meet the requirements of Subpart ZZZZ by meeting the requirements of 40 CFR 60 subpart IIII. No further requirements from Subpart ZZZZ apply to them. Kiln drive engines 1 and 2 are reconstructed CI stationary RICE, as defined in Subpart ZZZZ. Kiln drive engine 5 and both LFP engines are new stationary RICE, as defined in Subpart ZZZZ.

   40 CFR 60 Subpart IIII applicability in renewal permit:
   Per 40 CFR 60.4200(a), Subpart IIII applies to the permittee's CI ICE ordered after 7/11/05 and manufactured after 4/1/06. It also applies to CI ICE modified or reconstructed after 7/11/05. Kiln drive engines 1, 2, 5, and both LFP engines meet that criteria and are subject to Subpart IIII requirements.

   40 CFR 60 Subpart JJJJ applicability in renewal permit:
   Kiln drive engine 3 does not meet the applicability date criteria in 40 CFR Subpart JJJJ.

   None of the stationary RICE listed in Section II.A of this permit are emergency engines as defined in 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ. Engines used to power the portable crushing system are not subject to 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ because they do not meet the definition for stationary RICE given in the subparts. [6/25/2009] [Last updated June 15, 2021]

2. Comment on an item originating in DAQE-AN103130044-21 regarding Permitted Source

   BACT vs. NSPS Subpart Y opacity limit: The referenced approval order places a 10% opacity limit on conveyor transfer points and silo/storage bin baghouses. 40 CFR 60.254(a) places a 20% opacity limit on coal storage systems and coal conveying equipment constructed, reconstructed, or modified on or before April 28, 2008. They are both applicable requirements to the coal silos and coal conveyor transfer points. The more stringent requirement for 10% opacity has been included in this permit. The authority reference shows NSPS Subpart Y authority in addition to BACT authority for pre-4/28/08 affected emission units listed in the following unit descriptions.
   A: COAL SILO: Observation Point A: Coal Silo
   C: COAL SILO: Observation Point C: Coal Silo
   A, C: COAL TRANSFER POINTS: Coal Conveyor Transfer Points
   [3/23/2006] [Last updated June 15, 2021]

3. Comment on an item originating in 40 CFR 60 Subpart Y regarding Permitted Source
Clarification of opacity observations: For post-4/28/2008 affected emission units, subpart Y allows the permittee to conduct visible emission observations for up to three emission points within a 15-second interval if certain criteria are met. Per 40 CFR 60.257(a)(3)(iii), 'If an opacity reading for any one of the three emission points is within 5 percent opacity from the applicable standard (excluding readings of zero opacity), then the observer shall stop taking readings for the other two points and continue reading just that single point.' To clarify, visible emission observations are required for each affected emission unit. If the opacity reading of two points is interrupted so that the observer can focus on a single point, the permittee must conduct a visible emission observation on the two interrupted points individually or group them within another three points that meet the criteria specified in the rule. [12/3/2009] [Last updated June 15, 2021]

4. Comment on an item originating in 40 CFR 60 Subpart OOO regarding Permitted Source
Clarification of opacity observations: For post-4/22/2008 affected emission units, subpart OOO allows the permittee to conduct visible emission observations for up to three emission points within a 15-second interval if certain criteria are met. Per 40 CFR 60.675(e)(2)(iii), 'If an opacity reading for any one of the three emission points equals or exceeds the applicable standard, then the observer shall stop taking readings for the other two points and continue reading just that single point.' To clarify, visible emission observations are required for each affected emission unit. If the opacity reading of two points is interrupted so that the observer can focus on a single point, the permittee must conduct a visible emission observation on the two interrupted points individually or group them within another three points that meet the criteria specified in the rule. [12/3/2009] [Last updated June 15, 2021]

5. Comment on an item originating in 40 CFR 60 Subpart Kb regarding Permitted Source
Condition on NSPS Fuel Storage Tanks: The condition originating in 40 CFR 60.110b, Subpart Kb, was removed from the Operating Permit dated 2/24/2004, based on the updated EPA rule, dated October 15, 2003. [2/03/2004] [Last updated June 15, 2021]

6. Comment on an item originating in this permit regarding Permitted Source
Identification of Observation Points: The observation points listed within this permit shall be defined as:
Observation Point A: Elevator Deck of Calcium Carbonate Plant.
Observation Point B: Access road between #1 and #3 stone piles.
Observation Point C: Top of Kiln 5 Run Silo.
Observation Point D: Quarry Crusher Operator's Shack.
Observation Point E: Northeast side of screened fines storage area.
[2/15/2006] [Last updated June 15, 2021]

7. Comment on an item originating in DAQE-AN103130044-21 regarding Permitted Source
Kiln PM_{10} limits: The referenced approval order contains PM_{10} limits for the kilns that are equal to or less stringent than the PM limits originating in 40 CFR 63 Subpart AAAAA. The PM limits originating in Subpart AAAAA have also been incorporated into the approval order. So, the PM limits originating in 40 CFR 63 Subpart AAAAA apply to the permittee under AOS operation even though Subpart AAAAA does not apply under the AOS. Both the PM limits and the PM_{10} limits are contained in a single condition for each of the kilns for each operating scenario: one applicable for current operations where Subpart AAAAA applies, and one applicable for AOS operation where Subpart AAAAA does not apply. The authority and origin citations have been updated in the particulate conditions based on the appropriate operating scenario. The permittee shall demonstrate compliance with each individual limit under the PM conditions contained in this permit. [12/10/2007] [Last updated June 15, 2021]

8. Comment on an item originating in DAQE-AN103130044-21 regarding Permitted Source
The referenced approval order refers to a "DAQ Policy Document for Continuous Emission Monitoring Systems" that could not be located. Therefore, that language was not brought forward in the operating permit. Instead, the operating permit conditions for CEMS and COMS reference R307-170, 40 CFR 60 Subpart A and Appendix B performance specifications. [3/24/2021] [Last updated June 15, 2021]

9. Comment on an item originating in DAQE-AN103130044-21 regarding Permitted Source
Radial Stacker Drop Distance: The referenced approval order requires the drop distance between radial stackers and stockpiles be minimized. Radial stackers are subject to a 20% opacity limitation and reduction of drop distance is a standard work practice. Therefore, this condition has not been included in the Operating Permit for the following emission units.
A: DROP POINTS: Observation Point A: Drop Points
B: DROP POINTS: Observation Point B: Drop Points
C: DROP POINTS: Observation Point C: Drop Points
D: DROP POINTS: Observation Point D: Drop Points
[3/23/2006] [Last updated June 15, 2021]

10. Comment on an item originating in 40 CFR 60 Subpart OOO regarding A, C NSPS-OOO: A, C NSPS Subpart OOO Baghouses
Opacity and monitoring for baghouses constructed, modified, or reconstructed on or after April 22, 2008 (baghouses D-503 and D-514 only): These units are not subject to an opacity limit in Table 2 of NSPS Subpart OOO. However, the approval order places a 7% opacity limit on all Subpart OOO baghouses. The requirement for 7% opacity has been included in this permit for all baghouses subject to Subpart OOO and the authority citation includes both NSPS and BACT authority. The permittee may use any of the options specified in 40 CFR 60.674(c), (d), or (e) on post-4/22/08 units, however, observed visible emissions shall not exceed 7 percent opacity. [10/1/2009] [Last updated June 15, 2021]

11. Comment on an item originating in 40 CFR 60 Subpart OOO regarding A, C NSPS-OOO: A, C NSPS Subpart OOO Baghouses
PM Test Frequency of Subpart OOO Baghouses: A PM test frequency of five (5) years has been specified for these Subpart OOO baghouses due to a low potential for noncompliance with the particulate standard. The low potential is demonstrated by previous stack test results. Results and percentage of limit from the most recent tests are as follows:
PM Limit 0.022 gr/dscf:
D-7122: 0.002 gr/dscf PM (9%)
D-7133: 0.0009 gr/dscf PM (4%)
D-7141: 0.0074 gr dscf PM (34%)
D-310: 0.001 gr/dscf PM (5%)
D-414: 0.001 gr/dscf PM (5%)
D-403: 0.003 gr/dscf PM (14%)
D-415: 0.0038 gr/dscf PM (17%)
PM Limit 0.014 gr/dscf:
D-503: 0.0003 gr/dscf PM (2%)
D-514: 0.0010 gr/dscf PM (7%)
[8/27/2002] [Last updated June 15, 2021]

12. Comment on an item originating in 40 CFR 64 regarding A:NSPS-OOO: Observation Point A: NSPS Subpart OOO Baghouses

    CAM applicability: 40 CFR 64 applies to unit D-7122 for the PM limit and has been included in condition II.B.9.b of the renewal permit. [6/25/2009] [Last updated June 15, 2021]

13. Comment on an item originating in DAQE-AN103130044-21 regarding PCS-3: Portable Crushing System Conveyor Drop Points

    NSPS clarification: The referenced approval order notes the applicability of 40 CFR 60 Subpart OOO to the PCS conveyor drop points. Although conveyors are affected facilities under Subpart OOO, there are no requirements applicable to conveyor drop points to stockpiles. [2/25/2021] [Last updated June 15, 2021]

14. Comment on an item originating in 40 CFR 63.6612(a) regarding NESHAP-CI-RICE: NESHAP Stationary Compression Ignition (CI) Reciprocating Internal Combustion Engines (RICE)

    Initial compliance testing: Initial compliance testing and notification has been completed on the sugar stone generator (A: Generator). Language referencing initial compliance testing from 40 CFR 63 Subpart ZZZZ was removed from Condition II.B.30.b in the 4/30/2014 operating permit. [4/2/14] [Last updated June 15, 2021]

15. Comment on an item originating in R307-205-7 regarding Permitted Source

    Fugitive dust: The requirement to minimize fugitive dust in condition II.B.1.e of this permit originates in R307-205-7. Although R307-1-4.5 (March 31, 1992) is the current Environmental Protection Agency (EPA)-approved State Implementation Plan (SIP) version of the rule, R307-205-7 is as stringent and is cited as the authority for the condition. [10/14/2015] [Last updated June 15, 2021]

16. Comment on an item originating in DAQE-AN103130044-21 regarding A: NON-NSPS-OOO: Observation Point A: Non-Subpart OOO Baghouses

    Particulate limits on D-488: The referenced approval order placed PM, PM_{10} (filterable), and $PM_{2.5}$ (filterable) limits on baghouse D-488. Due to the size of the baghouse, the permittee anticipates using Method 5 to demonstrate compliance with each of the limits. So rather than separating each limit into individual conditions, the particulate matter limits are combined into one condition in the operating permit. The permittee must still demonstrate compliance with each individual limit. [11/2/2017] [Last updated June 15, 2021]

17. Comment on an item originating in historic approval order regarding Permitted Source

    This comment is no longer strictly relevant since DAQE-AN103130042-21 removed the NSPS reference on the affected emission units. However, the comment remains in the operating permit for historical information.

    D-488, R-486 NSPS applicability: DAQE-AN103130041-18 listed 40 CFR 60 Subpart OOO as applicable to the D-488 baghouse and R-486 crusher. However, the permittee confirmed the R-486 unit crushes dolomitic lime, not dolomite or limestone. Dolomitic lime does not meet the definition for non-metallic mineral given in 40 CFR 60.671. So the two units are not affected facilities under Subpart OOO. [2/8/2018] [Last updated June 15, 2021]

18. Comment on an item originating in this permit regarding TANKS: Fuel Storage Tanks

    The permittee has had existing fuel storage tanks listed in the operating permit since 2004. Except for the 500-gallon gasoline tank, those tanks are not listed in the approval order. This oversight will be corrected in the approval order at the next revision. [4/23/2021] [Last updated June 15, 2021]

19. Comment on an item originating in DAQE-AN103130044-21 regarding A: GENERATOR: Sugar Stone System

    The referenced approval order designates the rail loadout at the sugar stone system as R-1. The permittee confirmed R-1 identifies the primary crusher at the quarry. The equipment ID for the loadout system is 203255SSS001. This has been corrected in the operating permit and will be updated in the approval order at the next revision. [4/23/2021] [Last updated June 15, 2021]