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

10303

Title V Operating Permit

PERMIT NUMBER: 2300015004
DATE OF PERMIT: September 26, 2018
Date of Last Revision: August 29, 2022

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

Name of Permittee:

Ash Grove Cement Company
11011 Cody Street
Overland Park, KS 66210

Permitted Location:

Leamington Cement Plant
Hwy 132
Leamington, UT 84638

UTM coordinates: 397,040 m Easting, 4,379,850 m Northing
SIC code: 3241 (Cement, Hydraulic)

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:	January 30 of every calendar year that this permit is in force.
Renewal application due:	March 26, 2023
Permit expiration date:	September 26, 2023
Definition of "prompt":	written notification within 14 days.

ABSTRACT

Ash Grove Cement Company operates the Leamington cement manufacturing plant in Juab County, Utah. This plant has been in operation since 1981. At the Leamington cement plant, cement is produced when inorganic raw materials, primarily limestone (quarried on site), are correctly proportioned, ground and mixed, and then fed into a rotating kiln. The kiln alters the materials and recombines them into small stones called cement clinker. The clinker is cooled and ground with gypsum and additional limestone into a fine powdered cement. The final product is stored on site for later shipping. The major sources of air emissions are from the combustion of fuels for the kiln operation, from the kiln, and from the clinker cooling process. The Leamington cement plant is a major source for emissions of $PM_{2.5}$, PM_{10}, NO_x, SO_2, CO, and HAPs. The Leamington cement plant 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 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 LLL-National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry, and 40 CFR 63 Subpart ZZZZ-National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

OPERATING PERMIT HISTORY

Permit/Activity	Date Issued	Recorded Changes
Title V significant modification (Project #OPP0103030018)	08/29/2022	Changes: Incorporates DAQE-AN103030030-22, dated April 20, 2022, to add a new 762 hp diesel emergency engine for the kiln, add a portable crusher to crush limestone, replace the opacity for all mining operations with a source-wide fugitive dust opacity, and increase the processed material limit on the limestone bypass system; revision also includes new requirements from 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ and typographical corrections.
Title V administrative amendment - enhanced AO (Project #OPP0103030017)	11/18/2019	Changes: Incorporates DAQE-AN103030029-19, dated September 20, 2019, to add two dust collectors and a new truck loadout bay in the shipping area.
Title V administrative amendment by DAQ (Project #OPP0103030016)	01/15/2019	Changes: Incorporates DAQE-AN103030028-18, dated December 14, 2018, to reference 40 CFR 63 Subpart LLL for determination of clinker production.
Title V renewal application (Project #OPP0103030015)	09/26/2018	Changes: Incorporate changes approved in DAQE-AN103030026-18, January 17, 2018, that removed opacity conditions on the kiln and clinker cooler, updated monitoring, and made editorial/typographical changes.
Title V administrative amendment - enhanced AO (Project #OPP0103030014)	08/04/2016	Changes: Incorporate DAQE-AN103030024-16, February 3, 2016, to add a dust shuttle and carbon injection system and include consent decree requirements. The permit also contains updates to language from 40 CFR 63 Subpart LLL.
Title V renewal application (Project #OPP0103030013)	07/08/2013	Changes: Updates to language from 40 CFR 60 Subpart Y, 40 CFR 60 Subpart OOO, and 40 CFR 63 Subpart LLL; correction to emission unit description list to include emergency generators and the associated condition.
Title V administrative amendment - enhanced AO (Project #OPP0103030009)	10/01/2007	Changes: Incorporate DAQE-AN0103030015-07, July 23, 2007, for replacement of three baghouses (419.BF3,4,5) with one larger baghouse (514.BF3) and correction to some of the equipment unit numbers and descriptions.
Title V renewal application (Project #OPP0103030004)	12/01/2006	Changes: Action initiated by a renewal of an operating permit.
Title V administrative amendment by DAQ (Project #OPP0103030005)	07/29/2005	Changes: to incorporate changes approved in DAQE-AN0303011-05, dated May 20, 2005, including the following: installation of a limestone bypass system to incorporate additional limestone into the clinker and gypsum prior to the finish mill, addition of two new baghouses associated with the limestone bypass system

		located at the new limestone silo and conveyor, and replacement of two baghouses (419.BF4, 419.BF5) controlling discharge from the east and west clinker belts into the clinker storage silos. Additional permit changes include: correction of typographical errors, update of emission unit identification numbers, and revision of the SSMP and O&M plan conditions to more closely reflect MACT language.
Title V administrative amendment by source (Project #OPP0103030002)	12/24/2003	Changes: To add the cross-belt analyzer approved in DAQE-AN0303009-03 and incorporate limit changes from DAQE-AN0303006-03. In addition, a number of small changes or corrections were made. These result from minor changes in previously listed equipment and to correct typographical errors.
Title V initial application (Project #OPP0103030001)	01/05/2000	

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

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

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

SECTION I: GENERAL PROVISIONS

I.A **Federal Enforcement.**

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

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

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

I.C **Duty to Comply.**

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

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

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

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

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

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

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

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

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

I.E **Application Shield.**

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

I.F **Severability.**

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

I.G **Permit Fee.**

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

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

I.H **No Property Rights.**

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

I.I **Revision Exception.**

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

I.J **Inspection and Entry.**

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

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

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

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

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

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

I.K **Certification.**

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

I.L **Compliance Certification.**

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

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

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

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

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

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

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

I.M **Permit Shield.**

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

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

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

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

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

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

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

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

I.N **Emergency Provision.**

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

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

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

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

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

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

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

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

I.O **Operational Flexibility.**

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

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

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

I.Q **Administrative Permit Amendments.**

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

I.R **Permit Modifications.**

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

I.S **Records and Reporting.**

I.S.1 Records.

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

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

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

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

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

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

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

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

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

I.S.2 Reports.

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

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

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

I.S.3 Notification Addresses.

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

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

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

For annual compliance certifications:

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

For reports, notifications, or other correspondence related to permit modifications,

applications, etc.:

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

I.T **Reopening for Cause.**

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

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

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

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

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

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

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

I.U **Inventory Requirements.**

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

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

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

SECTION II: SPECIAL PROVISIONS

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

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

II.A.2 **Quarry: Quarry Operations**
Rock drilling operations, truck hauling, and storage piles.

II.A.3 **211.BF1: Stationary Crusher**
Stationary crusher with an approximate production rate of 1,000 tons per hour, for reduction of quarried material to 3 inch minus sized material. The crusher is equipped with a baghouse and with water sprays on the feed hopper. (pre-1983)

II.A.4 **211.BF2: Raw Material Transfer**
Crushed material is transported to raw material storage by belt B8. The raw material transfers at the end of conveyor B8 prior to loading into raw material reclaim area. The conveyor transfer point is equipped with a baghouse & water sprays. (pre-1983)

II.A.5 **315.SX1 thru 4: Raw Material Silos**
Raw materials such as limestone, silica, iron, and shale are stored in one of four silos. The four silos are controlled by one common baghouse (stack C125).

II.A.6 **315.BF2: Fifth Component Silo**
Raw materials are stored in a silo. This silo is equipped with a baghouse.

II.A.7 **317.BF3: Kiln & Pre-Calciner and Raw Mill**
Kiln burning process, calciner, and preheater tower off gases are directed through the bottom of the raw mill where finely ground raw material is picked up. Combustion gases and fine raw materials are then vented to a baghouse on the main stack (D38). The following equipment is installed: selective non-catalytic reduction (SNCR) for NO_x control; NO_x, CO, total hydrocarbons, and oxygen (O_2) CEMS; mercury (Hg) CEMS or integrated sorbent trap monitoring system; PM continuous parametric monitoring system (CPMS). A carbon injection system is installed at the raw mill bypass duct for mercury adsorption capacity. The carbon injection system is not an emission point as it is in an enclosed building.

II.A.8 **412.BF1 and 2: Blending Silo Elevators (2)**
Blended kiln feed is transferred to the kiln by bucket elevators. The elevators are equipped with a baghouse.

II.A.9 **411.BF1 and 2: Kiln Feed Blending Silos (2)**
Raw material is blended in one of two blending silos prior to feeding the kiln. The blending silos are controlled by one common baghouse.

II.A.10 **414.BF1: Kiln Feed Alleviator**
A baghouse controls particulate from the central material silo between the blending silos and the preheater. Raw feed is removed from the system near the top of the preheater tower.

II.A.11 **419.BF1: Clinker Cooler**
Grate type cooler used for cooling clinker from the kiln prior to transfer to clinker storage. The clinker cooler vent air is controlled by a baghouse on the clinker cooler stack (F31). A PM CPMS is installed.

II.A.12 **419.BF8 and 419.BF10: Clinker Belt Transfer**
Clinker is removed from the clinker cooler by drag chains and dropped onto one of two clinker conveyor

belts. One baghouse (419.BF10) controls particulate from the outside clinker belt. The other conveyor and transfer points are controlled by a second baghouse (419.BF8).

II.A.13 **419.BF9: Clinker Silos**
Clinker from the clinker cooler is transferred to one of three storage silos. Emissions generated when loading the east and west clinker silos and the out-of-spec silo are controlled by a baghouse.

II.A.14 **419.BF9: East Clinker Belt**
Clinker from the clinker cooler is transferred into the East clinker silo by conveyor belt. The discharge from the belt is controlled by a baghouse.

II.A.15 **419.BF9: West Clinker Belt**
Clinker from the clinker cooler is transferred into the West clinker silo by conveyor belt. The discharge from the belt is controlled by a baghouse.

II.A.16 **511.BF3: Clinker Reclaim Hopper**
Imported clinker is fed to the clinker tunnel conveyor belt by the outside clinker hopper. Emissions during transfer of clinker to the conveyor are controlled by a baghouse that discharges into the clinker tunnel.

II.A.17 **511.BF1: East Clinker Silo Discharge**
Produced clinker is fed to the clinker tunnel conveyor belt from the East clinker storage silo. Emissions during transfer of clinker to the conveyor are controlled by a baghouse that discharges into the clinker tunnel.

II.A.18 **511.BF2: West Clinker Silo Discharge**
Produced clinker is fed to the clinker tunnel conveyor belt from the West clinker storage silo. Emissions during transfer of clinker to the conveyor are controlled by a baghouse that discharges into the clinker tunnel.

II.A.19 **511.BF4: Gypsum Silo Discharge**
Gypsum is fed to the clinker tunnel conveyor belt from the gypsum storage silo. Emissions during transfer of gypsum to the conveyor are controlled by a baghouse that discharges into the clinker tunnel.

II.A.20 **512.SX1: Gypsum Silo**
Gypsum is stored in the gypsum storage silo. A baghouse is installed on the gypsum storage silo to control dust during loading.

II.A.21 **514.BF2: Finish Mill**
The finish mill (ball mill) grinds clinker and gypsum to produce finished cement product. Dust generated during milling is controlled by a baghouse (stack G105).

II.A.22 **514.BF1: Finish Mill Separator**
After clinker and gypsum are ground into cement product, a separator returns the oversized cement particles to the finish mill. Dust generated by the finish mill separator is controlled by a baghouse (stack G55).

II.A.23 **611.BF1: Finish Cement Storage Silos**
There are six storage and two interstice silos where the finished cement product is stored. A single common baghouse is located on top of the silos (stack H7) and is used to control emissions during loading and unloading operations.

II.A.24 **611.BF3: North Cement Load Out**
The cement loadout system located on the North side of the silos (rail load outside) is controlled by a baghouse during unloading from the silos for rail shipping.

II.A.25 **611.BF2, 611.BF4, 611.BF5: South Cement Load Out**
The cement loadout system located on the South side of the silos (truck load outside) is controlled by a baghouse (611.BF2) during unloading from the silos for truck shipping. Two pulse jet baghouses (611.BF4, 611.BF5) control emissions from the cement conveyor fluidslides and truck loading chutes.

II.A.26 **41B.BF1: Coal Silo**
Storage of coal for grinding to powder, which is subsequently fired in the kiln and calciner. The coal storage silo is equipped with a baghouse.

II.A.27 **41B.BF2: Coal Grinding System**
Coal is ground in a coal mill. Gases drawn from the preheater for the kiln entrain the coal in the mill and are controlled by a baghouse.

II.A.28 **316.BF1 thru 5: Raw Mill Recirculation**
Larger particles are removed from the raw mill, recirculated, and re-introduced into the raw mill feed. This system includes vibrating feeders, a conveyor system, and surge bin. Emissions are controlled by five equivalent baghouses.

II.A.29 **511.BF1 thru 4: Clinker Tunnel Exitway**
The clinker reclaim hopper baghouse (511.BF3), east clinker silo discharge baghouse (511.BF1), west clinker silo discharge baghouse (511.BF2), and gypsum silo discharge baghouse (511.BF4) all discharge in the clinker tunnel. Emissions are discharged through the tunnel exitway.

II.A.30 **MHO: Materials Handling Operation**
Includes the following emission units: 315.SX1 thru 4; 315.BF2; 316.BF1 thru 5; 316.BF6; 411.BF1 & 2; 412.BF1 & 2; 414.BF1; 419.BF8; 514.BF3; 419.BF9; 419.BF10; 511.BF1 thru 4; 512.SX1; 611.BF1 thru 5; 512.BF2 & 3; 413.BF1.

II.A.31 **316.BF6: Cross-Belt Analyzer**
Used for quality control. Emissions are controlled by a baghouse.

II.A.32 **LBS: Limestone Bypass System**
Additional limestone is added to the clinker and gypsum by the limestone bypass system (LBS). The LBS consists of a screen and conveyors. Emissions are controlled by water sprays at the screen and material handling drop points.

II.A.33 **512.BF2 and 3: Limestone Silo & Belt**
Limestone is stored in the limestone storage silo and transferred to the finish mill by conveyor belt. Emissions from the silo and conveyor are controlled by two baghouses. 512.BF2 discharges in the clinker tunnel. 512.BF3 is located on top of the silo.

II.A.34 **311.BC1: Belt Conveyor Transfer Baghouse**
Located prior to raw materials processing, this baghouse controls emissions from the conveyor belt that transfers the stacked material to the raw material silos.

II.A.35 **GEN: Emergency Generators**
One diesel-fired emergency generator rated at 762 hp (Kiln) permitted in 2022 and one diesel-fired emergency generator rated at 560 hp (Shipping) installed in 1981.

II.A.36 **Dust Shuttle System**
A dust shuttling system is used intermittently to mitigate mercury emissions as required. The system includes the following equipment: elevator from baghouse (317.BE1), pneumatic air slide (317.AS12), alkali silo (413.BN1), pug mill (413.MZ1), pug mill loadout (wetted material), fringe bin (Finish Mill) (514.BN1), 14 inch knife gate (317.GA2), 8 inch knife gate (317.GA4), 8 inch air slides (317.AS21, 317.AS22, 317.AS23), surge bin (317.BN1), pneumatic blower system (413.BL2). Emissions from the

dust shuttle system are controlled by a baghouse on the fringe bin (514.BF3) and a baghouse on the alkali silo (413.BF1).

II.A.37 **Portable Crusher**
Portable crusher used for crushing limestone. The portable crusher is not a stationary source and has no unit specific applicable requirements.

II.B **Requirements and Limitations**

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

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

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

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-AN103030030-22]. [40 CFR 60.11(d), R307-401-4, R307-401-8(2)]

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

Records required for this permit condition will serve as monitoring.

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

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

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

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

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

The permittee shall comply with the applicable requirements for 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 Subpart F]. [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 Subpart B]. [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:**

Unless otherwise specified in this permit, and except for blasting, visible emissions shall be no greater than 20 percent opacity. [Origin: R307-201-3(2), R307-205-4, DAQE-AN103030030-22]. [R307-201-3(2), R307-401-8]

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

(a) The permittee shall conduct a monthly 1-minute visible emissions test of each affected source in accordance with 40 CFR 60, Appendix A, Method 22. The test must be conducted while the affected source is in operation.
(b) If no visible emissions are observed in six consecutive monthly tests for any affected source, the permittee may decrease the frequency of testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, the permittee must resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.
(c) If no visible emissions are observed during the semi-annual test for any affected source, the permittee may decrease the frequency of testing from semiannually to annually for that affected source. If visible emissions are observed during any annual test, the permittee shall resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.
(d) If visible emissions are observed during any Method 22 test, the permittee shall conduct a
    i. six minute test of opacity in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, for point sources, or
    ii. one minute test of opacity with five second observation intervals in accordance with 40 CFR 51, Appendix M, Method 203C, or other EPA-approved testing method, as acceptable to the Director, for fugitive emission sources.

The Method 9 or 203C test must begin within one hour of any observation of visible emissions.

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

Records of visible emission tests performed and data required by 40 CFR 60, Appendix A, Method 22, Method 9, or 40 CFR 51, Appendix M, Method 203C, or other EPA-approved testing method, as acceptable to the Director, shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.1.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:**

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 the surface material in a condition to minimize fugitive dust as necessary to meet an opacity limitation of 20 percent from fugitive dust sources. The permittee is not required to apply water to surfaces during freezing conditions. If chemical treatment is to be used, the plan shall be pre-approved by the Director. All disturbed surfaces not involved with operations shall be stabilized to minimize generation of fugitive dusts as dry conditions warrant or as determined necessary by the Director. Fugitive dust at all operational and mining operations shall be minimized as an integral part of site preparation, mining activities, and reclamation operations in accordance with R307-205-7. [Origin: DAQE-AN103030030-22, R307-205-7]. [R307-205-7, R307-401-8]

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

Records required for this permit condition will serve as monitoring.

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

Instances of water and/or chemical application to unpaved areas shall be recorded and maintained by the permittee for all periods when the plant is in operation. The ambient temperature shall be recorded any time water should be applied but cannot be due to freezing conditions. Records demonstrating compliance with this condition and records of all methods used to control fugitive dust shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

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

All paved roads and paved operational areas shall be swept and/or water sprayed to minimize fugitive dust as necessary to maintain an opacity limitation of 20 percent from fugitive dust sources. The sweeping and/or water spray shall be conducted as dry conditions warrant or as determined necessary by the Director. [Origin: DAQE-AN103030030-22]. [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:**

Instances of each sweeping event or water application to the paved areas shall be recorded and maintained by the permittee for all periods when the plant is in operation. Records demonstrating compliance with this condition 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:**

For all emission units subject to 40 CFR 63 Subpart LLL:
The permittee shall prepare and implement a written operations and maintenance (O&M) plan in accordance with 40 CFR 63.1347(a). The plan shall include the following elements:
(1) Procedures for proper operation and maintenance of the affected source and air pollution control devices in accordance with 40 CFR 63.1347(a)(1). The O&M plan shall address periods of startup and shutdown.
(2) Corrective actions to be taken when required by 40 CFR 63.1350(f)(3).
(3) Procedures to be used during an inspection of the components of the combustion system of the in-line kiln/raw mill at least once per year.
Failure to comply with any provision of the O&M plan is a violation of the standard.
[Origin: 40 CFR 63 Subpart LLL]. [40 CFR 63.1347(a), 40 CFR 63.1347(b)]

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

Records required for this permit condition will serve as monitoring.

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

The permittee shall maintain files of all information (including all reports and notifications) required by this condition in a form suitable and readily available for expeditious inspection and review. Records shall be maintained in accordance with Provision I.S.1 of this permit and 40 CFR 63.1355.

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

One summary report shall be submitted semiannually for the hazardous air pollutants monitored at each affected source. All reports shall be submitted in accordance with 40 CFR 63.1354 and as specified in Section I of this permit.

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

For all emission units subject to 40 CFR 63 Subpart LLL:
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. 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 LLL]. [40 CFR 63.1348(d)]

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

Records required for this permit condition will serve as monitoring.

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

Permittee shall document activities performed to assure proper operation and maintenance. The permittee shall keep records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.1348(d) including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. (40 CFR 63.1355(g)(2)) Records shall be maintained in accordance with Provision I.S.1 of this permit and 40 CFR 63.1355.

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

Reports shall be submitted in accordance with 40 CFR 63.1354 and as specified in Section I of this permit.

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

Visible emissions shall be no greater than 10 percent opacity from the baghouses unless otherwise specified in this permit. [Origin: DAQE-AN103030030-22]. [R307-401-8]

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

(a) The permittee shall conduct a monthly 1-minute visible emissions test of each affected source in accordance with 40 CFR 60, Appendix A, Method 22. The test must be conducted while the affected source is in operation.
(b) If no visible emissions are observed in six consecutive monthly tests for any affected source, the permittee may decrease the frequency of testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, the permittee must resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.
(c) If no visible emissions are observed during the semi-annual test for any affected source, the permittee may decrease the frequency of testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual test, the permittee shall resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.
(d) If visible emissions are observed during any Method 22 test, the permittee shall conduct a 6-minute test of opacity in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director. The Method 9 test must begin within one hour of any observation of visible emissions.

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

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

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

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

II.B.2 **Conditions on Stationary Crusher (211.BF1).**

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

The permittee shall operate water sprays or chemical dust suppression sprays to control fugitive emissions. The sprays shall operate whenever dry conditions warrant or as determined necessary by the Director. Water sprays shall not be required during periods of freezing temperatures. [Origin: DAQE-AN103030030-22]. [R307-401-8]

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

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

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

An operator's log shall be maintained of all monitoring provisions listed above. Records of water or chemical dust suppression spray system inspections shall be kept for all periods of operation and the ambient temperature shall be recorded any time water should be applied but cannot be due to freezing conditions. Records shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

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

Visible emissions shall be no greater than 10 percent opacity from the baghouse. [Origin: DAQE-AN103030030-22]. [R307-401-8]

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

Compliance with the visible emission limitation shall be demonstrated by one of the following options.

Option A:

(I) The permittee shall monitor opacity by conducting daily visual emissions observations in accordance with the procedures of 40 CFR 60, Appendix A, Method 22. The duration of the Method 22 test shall be 6 minutes.

(II) If visible emissions are observed during any Method 22 visible emissions test, the permittee shall:
   a) Initiate corrective actions, within one-hour; and
   b) Within 24 hours of the end of the Method 22 test in which visible emissions were observed, conduct a followup Method 22 test of each stack from which visible emissions were observed during the previous Method 22 test. If visible emissions are observed during the followup Method 22 test from any stack from which visible emissions were observed during the previous Method 22 test, conduct a visual opacity test of each stack in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director. The duration of the Method 9 test shall be 30 minutes.

(III) Performance Criteria:
   a) The Method 22 test, and Method 9 test if applicable, shall be conducted while the affected unit is operating at representative performance conditions.
   b) The visual observer shall be familiar with 40 CFR, Appendix A, Method 22 and follow Method 22 procedures. The opacity determination shall be conducted by a certified visible emissions observer in accordance with 40 CFR 60, Appendix A, Method 9.

c) The observation shall be documented by the observer and all data required by 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, shall be maintained if the opacity determination is conducted.

Option B:

(I) A BLDS shall be installed on the baghouse exhaust stack and generate a signal proportional to PM concentration. An alarm shall sound when the signal exceeds a preset limit.

(II) The permittee shall maintain and operate the fabric filter such that the bag leak detector alarm is not activated and alarm condition does not exist for more than 5 percent of the total operating time in a 6-month block period. Each time the alarm activates, alarm time shall be counted as the actual amount of time taken by the permittee to initiate corrective actions. If inspection of the fabric filter demonstrates that no corrective actions are necessary, no alarm time shall be counted.

(III) Performance Criteria:

a) For a positive-pressure fabric filter, the bag leak detector shall be installed in the exit vent. For a negative-pressure or induced-air fabric filter, the bag leak detector shall be installed downstream of the fabric filter. If multiple bag leak detectors are required (for either type of fabric filter), detectors may share the system instrumentation and alarm.

b) The baseline output of the system shall be established as follows:
   i) Adjust the range and the averaging period of the device; and
   ii) Establish the alarm set points and the alarm delay time.

c) The sensor on the BLDS shall provide output of relative PM emissions.

d) The BLDS shall have an alarm that will activate automatically when it detects PM emissions greater than or equal to 50% of scale during normal operating conditions.

e) The presence of an alarm condition shall be clearly apparent to facility operating personnel.

f) The probe shall be inspected at least monthly for dust buildup.

g) Lens cleaning, O-ring replacement, and window value rechecks shall be performed at least annually.

h) The BLDS shall be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less. "Certify" shall mean that the instrument manufacturer has tested the instrument on gas streams having a range of particle size distributions and confirmed by means of valid filterable PM tests that the minimum detectable concentration limit is at or below 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.

i) All BLDS shall be installed, operated, adjusted, and maintained so that they are based on the manufacturer's written specifications and recommendations.

j) After initial adjustment, the range, averaging period, alarm set points, or alarm delay time shall not be adjusted except as specified in the BLDS standard operating procedure (SOP). In no event shall the range be increased by more than 100 percent or decreased by more than 50 percent over a 1 calendar year period unless a responsible official as defined in R307-415-3 certifies in writing to the Director that the fabric filter has been inspected and found to be in good operating condition.

k) The BLDS signal shall be monitored continuously. The instantaneous values from the transmitter output shall be displayed and recorded. All alarms shall be logged electronically.

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

In addition to the recordkeeping requirements described in Provision I.S.1 of this permit, the following records shall be maintained:

(a) The permittee shall continuously record the output from the BLDS during periods of normal operation. Normal operation does not include periods when the BLDS is being maintained or during startup, shutdown or malfunction.

(b) Alarm times as defined in Monitoring shall be recorded.

(c) Records of visual emission observations and visual opacity tests required by 40 CFR 60, Appendix A, Methods 22 and 9 shall be maintained if a BLDS is not used.

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

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

II.B.3 **Conditions on Raw Material Transfer (211.BF2).**

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

Visible emissions shall be no greater than 10 percent opacity. [Origin: DAQE-AN103030030-22]. [R307-401-8]

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

(a) The permittee shall conduct a monthly 1-minute visible emissions test of each affected source in accordance with 40 CFR 60, Appendix A, Method 22. The test must be conducted while the affected source is in operation.
(b) If no visible emissions are observed in six consecutive monthly tests for any affected source, the permittee may decrease the frequency of testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, the permittee must resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.
(c) If no visible emissions are observed during the semi-annual test for any affected source, the permittee may decrease the frequency of testing from semiannually to annually for that affected source. If visible emissions are observed during any annual test, the permittee shall resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.
(d) If visible emissions are observed during any Method 22 test, the permittee shall conduct a six minute test of opacity in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director. The Method 9 test must begin within one hour of any observation of visible emissions.

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

Records of visible emission tests performed and data required by 40 CFR 60, Appendix A, Method 22 and 9, or other EPA-approved testing method, as acceptable to the Director, shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

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

The permittee shall operate water sprays or chemical dust suppression sprays to control fugitive emissions. The sprays shall operate whenever dry conditions warrant or as determined necessary by the Director. Water sprays shall not be required during periods of freezing temperatures. [Origin: DAQE-AN103030030-22]. [R307-401-8]

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

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

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

An operator's log shall be maintained of all monitoring provisions listed above. Records of water or chemical dust suppression spray system inspections shall be kept for all periods of operation and the ambient temperature shall be recorded any time water should be applied but cannot be due to freezing conditions. Records shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

II.B.4 **Conditions on Kiln & Pre-Calciner and Raw Mill (317.BF3)**

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

At all times, emissions of NO_x shall not exceed 2.8 lbs per ton clinker based upon a 30-day rolling average and 1,347.2 tons per rolling 12-month period. [Origin: DAQE-AN103030030-22, SIP Section IX.H.23.a]. [R307-401-8, SIP Section IX.H.23.a]

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

The permittee shall install, calibrate, maintain and continuously operate a continuous emissions monitoring system that complies with all applicable sections of R307-170, UAC, 40 CFR 60.13, and 40 CFR 60, Appendix B. While the affected emission unit is operating, hourly NO_x emission rates expressed in tons per hour shall be determined in accordance with R307-170 using the appropriate conversion factors. The applicable performance specification in R307-170 shall be 40 CFR 60, Appendix B, Performance Specification 6 - "Specifications and Test Procedures for Continuous Emission Rate Monitoring Systems in Stationary Sources". By the 25th day of each month a new 12-month NO_x emission total for the common stack shall be calculated as the sum of the monthly NO_x emission totals for each of the previous 12 months.

For the NO_x mass emission limits, during any time when the CEMS are inoperable and otherwise not measuring emissions of NO_x from the kiln, the permittee shall apply the missing data substitution procedures used by the UDAQ or the missing data substitution procedures in 40 CFR Part 75, Subpart D, whichever is deemed appropriate by the UDAQ. In calculating the 30-day rolling average emission rate the total pounds of NO_x emitted during a specified period shall include all kiln emissions that occur during the specified period including during each startup, shutdown, or malfunction.

Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under paragraph (d) 40 CFR 60.13, 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 and Section UAC R307-170.

The permittee shall determine clinker production according to the requirements in 40 CFR 63.1350(d).

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

The permittee shall record the output of the system: the quantity of NO_x emissions at the kiln stack. Additionally, the permittee shall keep the records specified in R307-170-8 and any records required by provision I.S.1 of this permit. Results of monitoring shall be maintained in accordance with Provision I.S.1.

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

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

The quarterly reports required in R307-170-9 are considered prompt notification of permit deviations required in Provision I.S.2.c of this permit if all information required by Provision I.S.2.c is included in the report.

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

The permittee shall use only the following fuels in the kiln and pre-calciner:

A. Coal
B. Diaper Derived Fuel (DDF)
C. Tire Derived Fuel (TDF)
D. Natural Gas
E. Coke
F. Fuel Oil
G. Used Oil Fuel
H. Synthetic Fuel
I. Wood
J. Cherry Pits
K. Tire Poly Cord Fuel
L. Plastic Resin Waste Product
M. Coal Additives consisting of alternative fuels approved by the Director. Prior to burning any proposed coal additive, the permittee shall obtain approval from the Director. To obtain approval, the permittee shall submit Material Safety Data Sheets (MSDS) or the results of suitable tests giving data similar to a Proximate and Ultimate analysis of the proposed coal additive.

   Approval by the Director shall consist of a letter approving the use of the proposed coal additive. Approval is not required to change from one previously approved coal additive to another previously approved coal additive.

   The average quantity of coal additives burned shall not be greater than 15% of the total daily heat input of the kiln and precalciner. The permittee may increase the average quantity of coal additives up to 25% of the total daily heat input of the kiln and precalciner upon approval by the Director in accordance with the approval process described for new coal additives above.

   Additionally, the permittee shall be limited to a maximum TDF consumption not to exceed 15% of the combined energy input to the rotary kiln and pre-calciner.

[Origin: DAQE-AN103030030-22]. [R307-401-8]

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

Records required for this permit condition will serve as monitoring.

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

Within the first 25 days of each month, a rolling 12-month total of fuel usage shall be determined using records from the previous 12 months. The fuel usage records shall include the type, quantity, and respective heating value for each material used as fuel. Copies of Director approval of each coal additive shall be maintained. Records shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

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

Consumption of used oil fuel shall be no greater than 85,724 gallons per rolling 12-month period. [Origin: DAQE-AN103030030-22]. [R307-401-8]

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

Consumption shall be determined within the first 25 calendar days of each month, for the previous month, using purchase records and inventory information. The total shall then be added to the previous 11 months total for a 12 month rolling total. Consumption shall be calculated through use of the plant data acquisition system.

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

Records of used oil combusted shall be kept daily for all periods when the plant is in operation. Records shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

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

The permittee shall meet the following requirements when used oil or tire derived fuel (TDF) is burned in the rotary kiln:

i. Combustion gas temperature at the rotary kiln exit shall not drop below 1500 degrees Fahrenheit for more than five minutes in any 60-minute period.
ii. Oxygen content at the kiln system ID fan shall not drop below 2% for more than five minutes in any 60-minute period.

[Origin: DAQE-AN103030030-22]. [R307-401-8]

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

The permittee shall continuously monitor the temperature and oxygen content at all times used oil or TDF is burned in the kiln using equipment approved by the Director. Calibration procedure and frequency shall be according to manufacturer's specifications. Use of factory calibrated thermocouples for temperature measurement is approved. All monitoring equipment for both temperature and oxygen shall be located such that an inspector can safely read the output at any time.

Additionally, the permittee shall monitor the quantities and times that used oil or TDF is burned in kiln.

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

The permittee shall record the temperature and oxygen content at no less than every 5 minutes during operations when used oil or TDF is burned in the kiln. The permittee shall record the quantities and times when used oil or TDF is burned in the kiln. Records shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

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

The concentration of contaminants or parameters in any used oil fuel burned in the Kiln shall not exceed the following levels:

Arsenic 5 ppm by weight,
Barium 100 ppm by weight,
Cadmium 2 ppm by weight,
Chromium 10 ppm by weight,
Lead 100 ppm by weight,
Total Halogens 1,000 ppm by weight,
Sulfur 0.5 percent by weight, and
Flash Point not less than 100 degrees F.

Used oil exceeding any of the above contaminants shall not be burned until the permittee has submitted and received approval of a modeling analysis of the projected emissions for each contaminant from the Director. The modeling analysis shall show in each case that the resulting concentration of contaminant in the ambient air does not exceed the TLV/100 value at the fence line for the given contaminant. Any used oil fuel that contains more than 1,000 ppm by weight of total halogens shall be considered a hazardous waste and shall not be burned in the kiln. [Origin: DAQE-AN103030030-22]. [R307-401-8]

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

The permittee shall maintain test certification data for each load of used oil fuel received. 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, or other method acceptable to the Director, before used oil fuel is transferred to a holding tank or burned.

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

Records of used oil fuel consumption and the test reports shall be kept for all periods when the plant is in operation. Records shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

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

As part of demonstration of compliance with the dioxin/furans (D/F) emission limitation under 40 CFR 63.1343, the permittee shall operate the kiln such that the temperature of the gas at the inlet to the kiln

particulate matter control device (PMCD), does not exceed the applicable temperature limit (for both raw mill operating and not operating) as determined in accordance with 40 CFR 63.1349(b)(3)(iv) and established during the performance test (for both raw mill operating and not operating), except during periods of startup and shutdown when the temperature limit may be exceeded by no more than 10 percent. The permittee shall conduct an inspection of the components of the combustion system of each kiln or in-line kiln/raw mill at least once per year. [Origin: 40 CFR 63 Subpart LLL]. [40 CFR 63.1346(a), 40 CFR 63.1346(b), 40 CFR 63.1347(a)(3)]

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

The permittee shall demonstrate compliance as specified in 40 CFR 63.1348.

A. The permittee shall demonstrate continuous compliance using a CMS that is installed, operated and maintained to record the temperature of specified gas streams in accordance with the following requirements. (40 CFR 63.1348(b)(4))
   i) The permittee shall install, calibrate, maintain, and continuously operate a CMS to record the temperature of the exhaust gases from the kiln and alkali bypass, if applicable, at the inlet to, or upstream of, the kiln and/or alkali bypass PMCDs.
      a) The temperature recorder response range shall include zero and 1.5 times the average temperature established according to the requirements in 40 CFR 63.1349(b)(3)(iv).
      b) The calibration reference for the temperature measurement shall be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Administrator.
      c) The calibration of all thermocouples and other temperature sensors shall be verified at least once every three months.
   ii) The permittee shall monitor and continuously record the temperature of the exhaust gases from the kiln and alkali bypass, if applicable, at the inlet to the kiln and/or alkali bypass PMCD.
   iii) The required minimum data collection frequency shall be one minute.
   iv) Every hour, record the calculated rolling three-hour average temperature using the average of 180 successive one-minute average temperatures in accordance with 40 CFR 63.1349(b)(3).
   v) When the operating status of the raw mill of the in-line kiln/ raw mill is changed from off to on or from on to off, the calculation of the three-hour rolling average temperature shall begin anew, without considering previous recordings. (40 CFR 63.1350(g))
B. The permittee shall install, operate, and maintain each continuous parameter monitoring system (CPMS) according to 40 CFR 63.1350(m)(1)-(4).
C. The permittee shall develop a site-specific monitoring plan according to the requirements in 40 CFR 63.1350(p)(1)-(4).
D. Except for periods of startup and shutdown, monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall operate the monitoring system and collect data at all required intervals at all times the affected source is operating. (40 CFR 63.1348(b)(1)(ii))
E. The permittee shall not use data recorded during monitoring system startup, shutdown or malfunctions or repairs associated with monitoring system malfunctions in calculations used to report emissions or operating levels. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. (40 CFR 63.1348(b)(1)(iii))

F. For each existing unit that is equipped with a CMS, the permittee shall maintain the average emissions or the operating parameter values within the operating parameter limits established through performance tests. Any instance where the permittee fails to comply with the continuous monitoring requirements of 40 CFR 63.1350 is a violation. (40 CFR 63.1350(a)).

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

The permittee shall comply with the recordkeeping requirements specified in Provision I.S.1 of this permit and 40 CFR 63.1355. Additionally, the permittee shall keep a log of the annual inspections of the components of the combustion system of each kiln or in-line kiln/raw mill.

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

In addition to the reporting requirements of Section I of this permit, the permittee shall comply with the reporting requirements specified in 40 CFR 63.1349 and 63.1354 and the notification requirements specified in 40 CFR 63.1353.

II.B.4.g **Condition:**

At all times, emissions of Dioxins/Furans (D/F) from the kiln shall not exceed 0.2 ng/dscm (TEQ) on a dry basis, corrected to 7 percent oxygen. If the average temperature at the inlet to the first PM control device (fabric filter or electrostatic precipitator) during the D/F performance test is 400 degrees Fahrenheit or less, this limit is changed to 0.40 ng/dscm (TEQ). [Origin: 40 CFR 63 Subpart LLL, DAQE-AN103030030-22]. [40 CFR 63.1343(a), 40 CFR 63.1343(b)(1), R307-401-8]

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

The permittee shall demonstrate compliance as required in 40 CFR 63.1348.

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

Records shall be maintained in accordance with Provision I.S.1 of this permit and 40 CFR 63.1355.

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

In addition to the reporting requirements of Section I of this permit, the permittee shall comply with the reporting requirements specified in 40 CFR 63.1349, 40 CFR 63.1354 and the notification requirements specified in 40 CFR 63.1353.

II.B.4.h **Condition:**

Unless otherwise specified in this permit, sulfur content of fuel burned shall be no greater than 1.0 lbs sulfur/MMBtu for any mixture of coal nor 0.85 pounds sulfur per million gross Btu heat input for any oil except used oil or 0.5 percent by weight for any used oil. [Origin: DAQE-AN103030030-22]. [R307-203, R307-401-8]

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

Certification of fuels shall be either by permittee's testing or test reports from the fuel marketer. Methods for determining sulfur content of coal and fuel oil shall be those methods of the American Society for Testing and Materials, UAC R307-203-1(4)

(a) For determining sulfur content in coal, ASTM Methods D3177-75 or D4239-85, or other method acceptable to the Director, is to be used.
(b) For determining sulfur content in oil, ASTM Methods D2880-71 or D4294-89, or other method acceptable to the Director, is to be used.

(c) For determining the gross calorific (or Btu) content of coal, ASTM Methods D2015-77 or D3286-85, or other method acceptable to the Director, is to be used.

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

Compliance with the above limitation shall be demonstrated by maintaining fuel receipt records showing sulfur content of the delivered fuel or maintaining records of all sulfur content testing performed on the delivered fuel. Records shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

II.B.4.i **Condition:**

Emissions of CO shall be no greater than 13,045 tons per rolling 12-month period and 6,600 pounds per hour. [Origin: DAQE-AN103030030-22]. [R307-401-8]

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

The permittee shall install, calibrate, maintain and continuously operate a continuous emissions monitoring system that complies with all applicable sections of R307-170, UAC; and 40 CFR 60, Appendix B. While the affected emission unit is operating, hourly CO emission rates expressed in tons per hour shall be determined in accordance with R307-170 using the appropriate conversion factors. The applicable performance specification in R307-170 shall be 40 CFR 60, Appendix B, Performance Specification 6 - "Specifications and Test Procedures for Continuous Emission Rate Monitoring Systems in Stationary Sources". By the 25th day of each month a new 12-month CO emission total for the common stack shall be calculated as the sum of the monthly CO emission totals for each of the previous 12 months.

Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under paragraph (d) 40 CFR 60.13, 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 and Section UAC R307-170.

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

The permittee shall record the output of the system: the quantity of CO emissions at the kiln stack. Additionally, the permittee shall keep the records specified in R307-170-8 and any records required by provision I.S.1 of this permit. These records shall be maintained in accordance with Provision I.S.1.

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

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

The quarterly reports required in R307-170-9 are considered prompt notification of permit deviations required in Provision I.S.2.c of this permit if all information required by Provision I.S.2.c is included in the report.

II.B.4.j **Condition:**

Production of clinker shall be no greater than 962,265 tons per 12-month rolling period. [Origin: DAQE-AN103030030-22]. [R307-401-8]

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

Records required for this permit condition will serve as monitoring.

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

Daily records of clinker production and kiln feed rates shall be kept for all periods of operation. By the 25th day of each month, a new 12-month total shall be calculated for clinker production using data from the previous 12 months. Production shall be calculated through use of the plant data acquisition system. Records shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

II.B.4.k **Condition:**

No greater than 10 percent of the kiln gases shall be routed to the Coal Grinding System (designated as 41B.BF2). [Origin: Alternative Monitoring EPA Approval 11/6/02]. [40 CFR 63.8(f)]

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

Records required for this permit condition will serve as monitoring.

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

Records verifying the percent of kiln gases routed to the coal grinding system shall be maintained in accordance with Provision I.S.1 of this permit and made available for review by the Director or his representative.

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

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

II.B.4.l **Condition:**

At all times, emissions of filterable PM from the kiln shall not exceed 0.07 lb/ton clinker. Combined PM emissions from the kiln and the inline coal mill stack are subject to the PM emissions limit. [Origin: 40 CFR 63 Subpart LLL, DAQE-AN103030030-22, SIP Section IX.H.23.a]. [40 CFR 63.1343(b)(1), 40 CFR 63.1343(b)(2), SIP Section IX.H.23.a]

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

The permittee shall demonstrate compliance as specified in 40 CFR 63.1348.

A. The permittee shall demonstrate compliance with PM emissions standards by using the test methods and procedures in 40 CFR 63.1349(b)(1). The permittee shall conduct a performance test using Method 5 or Method 5I at 40 CFR 60 appendix A-3. The permittee

shall also monitor continuous performance through use of a PM continuous parametric monitoring system (PM CPMS).

i) For PM performance test reports used to set a PM CPMS operating limit, the electronic submission of the test report shall also include the make and model of the PM CPMS instrument, serial number of the instrument, analytical principle of the instrument (e.g. beta attenuation), span of the instruments primary analytical range, milliamp value or digital equivalent to the instrument zero output, technique by which this zero value was determined, and the average milliamp or digital equivalent signals corresponding to each PM compliance test run.

ii) When there is an alkali bypass and/or an inline coal mill with a separate stack associated with a kiln, the main exhaust and alkali bypass and/or inline coal mill shall be tested simultaneously and the combined emission rate of PM from the kiln and alkali bypass and/or inline coal mill shall be computed for each run using Equation 8 in 40 CFR 63.1349(b)(1)(viii).

iii) The permittee of a kiln with an in-line raw mill and subject to limitations on PM emissions shall demonstrate initial compliance by conducting separate performance tests while the raw mill is under normal operating conditions and while the raw mill is not operating, and calculate the time weighted average emissions. The operating limit shall then be determined using 40 CFR 63.1349(b)(1)(i).

(40 CFR 63.1343(b)(1), 40 CFR 63.1348(a)(1), 40 CFR 63.1349(b)(1))

B. The permittee shall demonstrate continuous compliance using the following monitoring methods and procedures. (40 CFR 63.1348(b)(2))

i) The permittee shall use a PM CPMS to establish a site-specific operating limit corresponding to the results of the performance test demonstrating compliance with the PM limit. The permittee shall conduct the performance test using Method 5 or Method 5I at 40 CFR 60 appendix A-3. The permittee shall use the PM CPMS to demonstrate continuous compliance with this operating limit. The permittee shall repeat the performance test annually and reassess and adjust the site-specific operating limit in accordance with the results of the performance test using the procedures in 40 CFR 63.1349(b)(1)(i) through (vi). The permittee shall also repeat the test if the permittee changes the analytical range of the instrument, or if the permittee replaces the instrument itself or any principle analytical component of the instrument that would alter the relationship of output signal to in-stack PM concentration.

ii) To determine continuous compliance, the permittee shall use the PM CPMS output data for all periods when the process is operating and the PM CPMS is not out-of-control. The permittee shall demonstrate continuous compliance by using all quality-assured hourly average data collected by the PM CPMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit (milliamps) on a 30 operating day rolling average basis, updated at the end of each new kiln operating day.

iii) For any exceedance of the 30 process operating day PM CPMS average value from the established operating parameter limit, the permittee shall:

a) Within 48 hours of the exceedance, visually inspect the APCD;

b) If inspection of the APCD identifies the cause of the exceedance, take corrective action as soon as possible and return the PM CPMS measurement to within the established value; and

c) Within 30 days of the exceedance or at the time of the annual compliance test, whichever comes first, conduct a PM emissions compliance test to determine compliance with the PM emissions limit and to verify or re-establish the PM CPMS operating limit within 45 days. The permittee is not required to conduct additional testing for any exceedances that occur between the time of the original exceedance and the PM emissions compliance test required under this paragraph.

iv) PM CPMS exceedances leading to more than four required performance tests in a 12-month process operating period (rolling monthly) constitute a presumptive violation of this subpart.

(40 CFR 63.1350(b))

C. The permittee shall determine clinker production according to the requirements in 40 CFR 63.1350(d).
D. The permittee shall develop a site-specific monitoring plan according to the requirements in 40 CFR 63.1350(p)(1)-(4).
E. Performance tests shall be completed no more than 13 calendar months after the previous performance test. (40 CFR 63.1349(c)) Performance tests shall be conducted as specified based on representative performance of the affected source for the period being tested. Upon request, the permittee shall make available such records as may be necessary to determine the conditions of performance tests. (40 CFR 63.1349(e))
F. Except for periods of startup and shutdown, monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall operate the monitoring system and collect data at all required intervals at all times the affected source is operating. (40 CFR 63.1348(b)(1)(ii))
G. The permittee shall not use data recorded during monitoring system startup, shutdown or malfunctions or repairs associated with monitoring system malfunctions in calculations used to report emissions or operating levels. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. (40 CFR 63.1348(b)(1)(iii))
H. For each existing unit that is equipped with a CMS, the permittee shall maintain the average emissions or the operating parameter values within the operating parameter limits established through performance tests. Any instance where the permittee fails to comply with the continuous monitoring requirements of 40 CFR 63.1350 is a violation. (40 CFR 63.1350(a)).

Additionally, stack testing shall be performed as specified below:
(i) Tests may also be required at the direction of the Director.
(ii) Notification. The Director shall be notified at least 60 days prior to conducting any required emission testing. A source test protocol shall be submitted to DAQ when the testing notification is submitted to the Director. The source test protocol shall be approved by the Director prior to performing the test(s). The source test protocol shall outline the proposed test methodologies, stack to be tested, procedures to be used, the date, time, and place of testing. A pretest conference shall be held, if directed by the Director.
(iii) Methods.
  a. Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other EPA-approved testing method, as acceptable to the Director, and Occupational Safety and Health Administration (OSHA) and/or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.
  b. 40 CFR 60, Appendix A, Method 2 shall be used to determine the volumetric flow rate.
  c. The initial and subsequent PM performance tests shall be performed using Method 5 or 5I and consist of a minimum of three 1-hr tests. Determination of the particulate matter collected in the impingers ("back half") of the Method 5 or Method 5I particulate sampling train is not required to demonstrate compliance with the PM standards.
(iv) 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.l.2 **Recordkeeping:**

Records shall be maintained in accordance with Provision I.S.1 of this permit and 40 CFR 63.1355.

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

In addition to the reporting requirements of Section I of this permit, the permittee shall comply with the reporting requirements specified in 40 CFR 63.1349, 40 CFR 63.1354 and the notification requirements specified in 40 CFR 63.1353.

II.B.4.m **Condition:**

At all times, emissions of mercury (Hg) from the kiln shall not exceed 55 lb/MM tons clinker based on a rolling 30-day average. The 30-day period means all operating hours within 30 consecutive kiln operating days excluding periods of startup and shutdown. The permittee shall ensure appropriate corrections for moisture are made when measuring flow rates used to calculate mercury emissions. [Origin: 40 CFR 63 Subpart LLL, DAQE-AN103030030-22]. [40 CFR 63.1343(a), 40 CFR 63.1343(b)(1), R307-401-8]

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

The permittee shall demonstrate compliance as specified in 40 CFR 63.1348, 40 CFR 63.1350(k), and R307-170.

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

Records shall be maintained in accordance with Provision I.S.1 of this permit, R307-170, and 40 CFR 63.1355.

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

In addition to the reporting requirements of Section I of this permit, the permittee shall comply with the reporting requirements specified in 40 CFR 63.1349, 40 CFR 63.1354, and R307-170 and the notification requirements specified in 40 CFR 63.1353 and R307-170.

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

II.B.4.n **Condition:**

At all times, emissions of total hydrocarbons (THC) from the kiln shall not exceed 24 ppmvd, measured as propane, corrected to 7 percent oxygen, based on a rolling 30-day average. The 30-day period means all operating hours within 30 consecutive kiln operating days excluding periods of startup and shutdown. The permittee may elect to meet an alternative limit of 12 ppmvd for total organic HAP. [Origin: 40 CFR 63 Subpart LLL, DAQE-AN103030030-22]. [40 CFR 63.1343(a), 40 CFR 63.1343(b)(1), R307-401-8]

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

The permittee shall demonstrate compliance as specified in 40 CFR 63.1348 and R307-170.

A. i) The permittee shall demonstrate compliance with the THC emissions standards by using the performance test methods and procedures in 40 CFR 63.1349(b)(4)(i). The permittee shall use the average THC concentration obtained during the first 30 kiln operating days after the compliance date to determine initial compliance.

ii) If the permittee elects to demonstrate compliance with the total organic HAP emissions limit in lieu of the THC emissions limit, the permittee shall demonstrate compliance with the total organic HAP emissions standards by using the performance test methods and procedures in 40 CFR 63.1349(b)(7).

iii) To demonstrate initial compliance, the permittee shall conduct the separate performance tests as specified in 40 CFR 63.1349(b)(7) while the raw mill of the inline kiln/raw mill is operating and while the raw mill of the inline kiln/raw mill is not operating.

iv) The time weighted average total organic HAP concentration measured during the separate initial performance test specified by 40 CFR 63.1349(b)(7) shall be used to determine initial compliance.

v) The time weighted average THC concentration measured during the initial performance test specified by 40 CFR 63.1349(b)(4) shall be used to determine the site-specific THC limit. Using the fraction of time the inline kiln/raw mill is on and the fraction of time that the inline kiln/raw mill is off, calculate this limit as a time weighted average of the THC levels measured during raw mill on and raw mill off testing using one of the two approaches in 40 CFR 63.1349(b)(7)(vii) or (viii) depending on the level of organic HAP measured during the compliance test.

(40 CFR 63.1348(a)(4))

B. i) The permittee shall operate a CEMS in accordance with the requirements in 40 CFR 63.1350(i). For the purposes of conducting the accuracy and quality assurance evaluations for CEMS, the THC span value (as propane) is 50 to 60 ppmvw and the reference method (RM) is Method 25A of 40 CFR 60 appendix A.

ii) Use the THC CEMS to conduct the initial compliance test for the first 30 kiln operating days of kiln operation after the compliance date.

iii) If kiln gases are diverted through an alkali bypass or to a coal mill and exhausted through a separate stack, the permittee shall calculate a kiln-specific THC limit using Equation 9 in 40 CFR 63.1349(b)(4)(iii).

iv) THC shall be measured either upstream of the coal mill or the coal mill stack.

v) Instead of conducting the performance test specified in paragraph B., the permittee may conduct a performance test to determine emissions of total organic HAP by following the procedures in 40 CFR 63.1349(b)(7).

(40 CFR 63.1349(b)(4))

C. The permittee shall comply with the monitoring requirements of paragraphs i) and ii) of this section.

i) The permittee shall install, operate, and maintain a THC continuous emission monitoring system in accordance with Performance Specification 8 or Performance Specification 8A of 40 CFR 60 appendix B and comply with all of the requirements for continuous monitoring systems found in the general provisions, 40 CFR 63 subpart A. The permittee shall operate and maintain each CEMS according to the quality assurance requirements in Procedure 1 of 40 CFR 60 appendix F. For THC continuous emission monitoring systems certified under Performance Specification 8A, conduct the relative accuracy test audits required under Procedure 1 in accordance with Performance Specification 8, Sections 8 and 11 using Method 25A in 40 CFR 60 appendix A as the reference method; the relative accuracy shall meet the criteria of Performance Specification 8, Section 13.2.

ii) Performance tests on alkali bypass and coal mill stacks shall be conducted using Method 25A in 40 CFR 60 appendix A and repeated every 30 months.

iii) If complying with the total organic HAP emissions limits, the permittee shall continuously monitor THC according to paragraph i) and ii) of this section or in accordance with Performance Specification 8 or Performance Specification 8A of 40 CFR 60 appendix B and comply with all of the requirements for continuous monitoring systems found in the general provisions, 40 CFR 63 subpart A. The permittee shall operate and maintain each CEMS according to the quality assurance requirements in Procedure 1 of 40 CFR 60 appendix F.

(40 CFR 63.1350(i), (j))

D. The permittee shall demonstrate continuous compliance using the monitoring methods and procedures in paragraph C. (40 CFR 63.1350(i) and (j)). THC shall be measured either upstream of the coal mill or in the coal mill stack. (40 CFR 63.1348(b)(6))

E. The permittee shall install, operate, and maintain each continuous parameter monitoring system (CPMS) according to 40 CFR 63.1350(m)(1)-(4).

F. The permittee shall develop a site-specific monitoring plan according to the requirements in 40 CFR 63.1350(p)(1)-(4).

G. Performance tests shall be conducted as specified based on representative performance of the affected source for the period being tested. Upon request, the permittee shall make available such records as may be necessary to determine the conditions of performance tests. (40 CFR 63.1349(e))

H. Except for periods of startup and shutdown, monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall operate the monitoring system and collect data at all required intervals at all times the affected source is operating. (40 CFR 63.1348(b)(1)(ii))

I. The permittee shall not use data recorded during monitoring system startup, shutdown or malfunctions or repairs associated with monitoring system malfunctions in calculations used to report emissions or operating levels. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. (40 CFR 63.1348(b)(1)(iii))

J. For each existing unit that is equipped with a CMS, the permittee shall maintain the average emissions or the operating parameter values within the operating parameter limits established through performance tests. Any instance where the permittee fails to comply with the continuous monitoring requirements of 40 CFR 63.1350 is a violation. (40 CFR 63.1350(a)).

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

Records shall be maintained in accordance with Provision I.S.1 of this permit, R307-170, and 40 CFR 63.1355.

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

In addition to the reporting requirements of Section I of this permit, the permittee shall comply with the reporting requirements specified in 40 CFR 63.1349, 40 CFR 63.1354, and R307-170 and the notification requirements specified in 40 CFR 63.1353 and R307-170.

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

II.B.4.o **Condition:**

Emissions of hydrochloric acid (HCl) from the kiln shall not exceed 3 ppmvd, corrected to 7 percent oxygen. This condition applies to major sources of HAP as defined in 40 CFR 63.2.

If using a CEMS to determine compliance with the HCl standard, this standard is based on a rolling 30-day average. The 30-day period means all operating hours within 30 consecutive kiln operating days excluding periods of startup and shutdown.
[Origin: 40 CFR 63 Subpart LLL, DAQE-AN103030030-22]. [40 CFR 63.1343(a), 40 CFR 63.1343(b)(1), R307-401-8]

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

The permittee shall demonstrate compliance as specified in 40 CFR 63.1348, 40 CFR 63.1350(l), and R307-170.

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

Records shall be maintained in accordance with Provision I.S.1 of this permit, R307-170, and 40 CFR 63.1355.

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

In addition to the reporting requirements of Section I of this permit, the permittee shall comply with the reporting requirements specified in 40 CFR 63.1349, 40 CFR 63.1354, and R307-170 and the notification requirements specified in 40 CFR 63.1353 and R307-170.

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

II.B.4.p **Condition:**

For kiln limits originating in 40 CFR 63.1343(b), during periods of startup and shutdown, the permittee shall comply with the following work practices.

(1) The permittee shall use any one or combination of the following clean fuels: natural gas, synthetic natural gas, propane, distillate oil, synthesis gas (syngas), and ultra-low sulfur diesel (ULSD) until the kiln reaches a temperature of 1200 degrees Fahrenheit.
(2) Combustion of the primary kiln fuel may commence once the kiln temperature reaches 1200 degrees Fahrenheit.
(3) All dry sorbent and activated carbon systems that control hazardous air pollutants shall be turned on and operating at the time the gas stream at the inlet to the baghouse reaches 300 degrees Fahrenheit (five minute average) during startup. Temperature of the gas stream shall be measured at the inlet of the baghouse every minute. Such injection systems can be turned off during shutdown. Particulate control and all remaining devices that control hazardous air pollutants shall be operational during startup and shutdown.

[Origin: 40 CFR 63 Subpart LLL]. [40 CFR 63.1343, 40 CFR 63.1346(g)]

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

Records required for this permit condition will serve as monitoring.

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

Records demonstrating compliance with this condition shall be maintained in accordance with Provision I.S.1 of this permit and 40 CFR 63.1355. (40 CFR 63.1346(g)(4)).

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

In addition to the reporting requirements of Section I of this permit, the permittee shall comply with the reporting requirements specified in 40 CFR 63.1354.

II.B.4.q **Condition:**

Emissions of SO_2 shall be no greater than 0.4 lbs per ton clinker (3-hr average). [Origin: DAQE-AN103030030-22]. [R307-401-8]

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

Stack testing shall be performed as specified below:

(i) Frequency. Emissions shall be tested once every two years. Tests may also be required at the direction of the Director.

(ii) Notification. The Director shall be notified at least 30 days prior to conducting any required emission testing. A source test protocol shall be submitted to DAQ when the testing notification is submitted to the Director. The source test protocol shall be approved by the Director prior to performing the test(s). The source test protocol shall outline the proposed test methodologies, stack to be tested, procedures to be used, the date, time, and place of testing. A pretest conference shall be held, if directed by the Director.

(iii) Methods.

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

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

c. 40 CFR 60, Appendix A-4, Method 6 or 6C, or other EPA approved method, as acceptable to the Director.

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

(v) 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 clinker production according to the requirements in 40 CFR 63.1350(d).

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

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

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

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 Clinker Cooler (419.BF1).**

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

At all times, emissions of filterable PM from the clinker cooler shall not exceed 0.07 lb/ton clinker. [Origin: 40 CFR 63 Subpart LLL, DAQE-AN103030030-22]. [40 CFR 63.1343(b)(1), R307-401-8]

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

The permittee shall demonstrate compliance as specified in 40 CFR 63.1348.

A. The permittee shall demonstrate compliance with PM emissions standards by using the test methods and procedures in 40 CFR 63.1349(b)(1). The permittee shall demonstrate initial compliance by conducting a performance test using Method 5 or Method 5I at 40 CFR 60 appendix A-3. The permittee shall also monitor continuous performance through use of a PM continuous parametric monitoring system (PM CPMS).

i) For PM performance test reports used to set a PM CPMS operating limit, the electronic submission of the test report shall also include the make and model of the PM CPMS instrument, serial number of the instrument, analytical principle of the instrument (e.g. beta attenuation), span of the instruments primary analytical range, milliamp value or digital equivalent to the instrument zero output, technique by which this zero value was

determined, and the average milliamp or digital equivalent signals corresponding to each PM compliance test run.
(40 CFR 63.1348(a)(1), 40 CFR 63.1349(b)(1))

B. The permittee shall demonstrate continuous compliance using the following monitoring methods and procedures. (40 CFR 63.1348(b)(2))
   i) The permittee shall use a PM CPMS to establish a site-specific operating limit corresponding to the results of the performance test demonstrating compliance with the PM limit. The permittee shall conduct the performance test using Method 5 or Method 5I at 40 CFR 60 appendix A-3. The permittee shall use the PM CPMS to demonstrate continuous compliance with this operating limit. The permittee shall repeat the performance test annually and reassess and adjust the site-specific operating limit in accordance with the results of the performance test using the procedures in 40 CFR 63.1349(b)(1)(i) through (vi). The permittee shall also repeat the test if the permittee changes the analytical range of the instrument, or if the permittee replaces the instrument itself or any principle analytical component of the instrument that would alter the relationship of output signal to in-stack PM concentration.
   ii) To determine continuous compliance, the permittee shall use the PM CPMS output data for all periods when the process is operating and the PM CPMS is not out-of-control. The permittee shall demonstrate continuous compliance by using all quality-assured hourly average data collected by the PM CPMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit (milliamps) on a 30 operating day rolling average basis, updated at the end of each new kiln operating day.
   iii) For any exceedance of the 30 process operating day PM CPMS average value from the established operating parameter limit, the permittee shall:
      a) Within 48 hours of the exceedance, visually inspect the APCD;
      b) If inspection of the APCD identifies the cause of the exceedance, take corrective action as soon as possible and return the PM CPMS measurement to within the established value; and
      c) Within 30 days of the exceedance or at the time of the annual compliance test, whichever comes first, conduct a PM emissions compliance test to determine compliance with the PM emissions limit and to verify or re-establish the PM CPMS operating limit within 45 days. The permittee is not required to conduct additional testing for any exceedances that occur between the time of the original exceedance and the PM emissions compliance test required under this paragraph.
   iv) PM CPMS exceedances leading to more than four required performance tests in a 12-month process operating period (rolling monthly) constitute a presumptive violation of this subpart.

   (40 CFR 63.1350(b)).

C. The permittee shall determine clinker production according to the requirements in 40 CFR 63.1350(d).

D. The permittee shall develop a site-specific monitoring plan according to the requirements in 40 CFR 63.1350(p)(1)-(4).

E. Performance tests shall be completed no more than 13 calendar months after the previous performance test. (40 CFR 63.1349(c)) Performance tests shall be conducted as specified based on representative performance of the affected source for the period being tested. Upon request, the permittee shall make available such records as may be necessary to determine the conditions of performance tests. (40 CFR 63.1349(e))

F. Except for periods of startup and shutdown, monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall operate the monitoring system and collect data at all required intervals at all times the affected source is operating. (40 CFR 63.1348(b)(1)(ii))

G. The permittee shall not use data recorded during monitoring system startup, shutdown or malfunctions or repairs associated with monitoring system malfunctions in calculations used

to report emissions or operating levels. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. (40 CFR 63.1348(b)(1)(iii))

H. For each existing unit that is equipped with a CMS, the permittee shall maintain the average emissions or the operating parameter values within the operating parameter limits established through performance tests. Any instance where the permittee fails to comply with the continuous monitoring requirements of 40 CFR 63.1350 is a violation. (40 CFR 63.1350(a))

Additionally, stack testing shall be performed as specified below:

(i) Tests may also be required at the direction of the Director.

(ii) Notification. The Director shall be notified at least 60 days prior to conducting any required emission testing. A source test protocol shall be submitted to DAQ when the testing notification is submitted to the Director. The source test protocol shall be approved by the Director prior to performing the test(s). The source test protocol shall outline the proposed test methodologies, stack to be tested, procedures to be used, the date, time, and place of testing. A pretest conference shall be held, if directed by the Director.

(iii) Methods.

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

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

c. The initial and subsequent PM performance tests shall be performed using Method 5 or 5I and consist of three 1-hr tests. Determination of the particulate matter collected in the impingers ("back half") of the Method 5 or Method 5I particulate sampling train is not required to demonstrate compliance with the PM standards.

(iv) 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.a.2 **Recordkeeping:**

Records shall be maintained in accordance with Provision I.S.1 of this permit and 40 CFR 63.1355.

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

In addition to the reporting requirements of Section I of this permit, the permittee shall comply with the reporting requirements specified in 40 CFR 63.1349, 40 CFR 63.1354 and the notification requirements specified in 40 CFR 63.1353.

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

For clinker cooler limits originating in 40 CFR 63.1343(b), all particulate control and all remaining devices that control hazardous air pollutants shall be operational during periods of startup and shutdown in accordance with 40 CFR 63.1348(b)(9). [Origin: 40 CFR 63 Subpart LLL]. [40 CFR 63.1343, 40 CFR 63.1348(b)(9)]

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

Records required for this permit condition will serve as monitoring.

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

Records demonstrating compliance with this condition shall be maintained in accordance with Provision I.S.1 of this permit and 40 CFR 63.1355.

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

In addition to the reporting requirements of Section I of this permit, the permittee shall comply with the reporting requirements specified in 40 CFR 63.1354.

II.B.6 **Conditions on Finish Mill (514.BF2).**

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

Visible emissions shall be no greater than 10 percent opacity during all modes of operation. [Origin: 40 CFR 63 Subpart LLL, DAQE-AN103030030-22]. [40 CFR 63.1343(b)(1), 40 CFR 63.1345, R307-401-8]

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

The permittee shall demonstrate compliance as specified in 40 CFR 63.1348 and, if applicable, R307-170.

A. The permittee shall demonstrate continuous compliance by using the monitoring methods and procedures in 40 CFR 63.1350(f) based on the maximum 6-minute average opacity exhibited during the performance test period. The permittee shall initiate corrective actions within one hour of detecting visible emissions above the applicable limit.
   i) For a finish mill, the permittee shall monitor opacity by conducting daily visible emissions observations of the mill sweep and air separator PM control devices (PMCD) of these affected sources in accordance with the procedures of Method 22 of 40 CFR 60 appendix A-7. The duration of the Method 22 performance test shall be 6 minutes.
   ii) Within 24 hours of the end of the Method 22 performance test in which visible emissions were observed, the permittee shall conduct a follow up Method 22 performance test of each stack from which visible emissions were observed during the previous Method 22 performance test.
   iii) If visible emissions are observed during the follow-up Method 22 performance test required by paragraph ii) of this section, the permittee shall then conduct an opacity test of each stack from which emissions were observed during the follow up Method 22 performance test in accordance with Method 9 of 40 CFR 60 appendix A-4. The duration of the Method 9 test shall be 30 minutes.
   iv) If visible emissions are observed during any Method 22 visible emissions test conducted under this section, the permittee shall initiate, within one-hour, the corrective actions specified in the operation and maintenance plan as required in 40 CFR 63.1347.
   v) The requirements under this section to conduct daily Method 22 testing do not apply to any specific finish mill equipped with a COMS or BLDS.
   vi) If the permittee installs a COMS in lieu of conducting the daily visible emissions testing, the permittee shall demonstrate compliance using a COMS that it is installed, operated, and maintained in accordance with the requirements in paragraph vi)a).
      a) The COMS shall be installed at the outlet of the PM control device of the finish mill and the COMS shall be installed, maintained, calibrated, and operated as required by the general provisions in 40 CFR 60 subpart A and according to PS-1 of 40 CFR 60 appendix B.
   vii) If the permittee installs a BLDS on a finish mill in lieu of conducting the daily visible emissions testing, the permittee shall demonstrate compliance using a BLDS that is installed, operated, and maintained in accordance with the requirements of paragraphs B. through D. of this section. (40 CFR 63.1350(m)(1)-(4), (m)(10), and (m)(11))

(40 CFR 63.1348(b)(3), 40 CFR 63.1350(f))

B. The permittee shall install, operate, and maintain each continuous parameter monitoring system (CPMS) according to 40 CFR 63.1350(m)(1)-(4).

C. If a fabric filter bag leak detection system is used, the permittee shall install, calibrate, maintain, and continuously operate a BLDS as specified in paragraphs C.i) through viii).
   i) The permittee shall install and operate a BLDS for each exhaust stack of the fabric filter.
   ii) Each BLDS shall be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations and in accordance with the guidance provided in EPA-454/R-98-015, September 1997.
   iii) The BLDS shall be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 or fewer milligrams per actual cubic meter.
   iv) The BLDS sensor shall provide output of relative or absolute PM loadings.
   v) The BLDS shall be equipped with a device to continuously record the output signal from the sensor.
   vi) The BLDS shall be equipped with an alarm system that will alert an operator automatically when an increase in relative PM emissions over a preset level is detected. The alarm shall be located such that the alert is detected and recognized easily by an operator.
   vii) For positive pressure fabric filter systems that do not duct all compartments of cells to a common stack, a BLDS shall be installed in each baghouse compartment or cell.
   viii) Where multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.

   (40 CFR 63.1350(m)(10))

D. For each BLDS, the permittee shall initiate procedures to determine the cause of every alarm within 8 hours of the alarm. The permittee shall alleviate the cause of the alarm within 24 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to the following:
   i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions;
   ii) Sealing off defective bags or filter media;
   iii) Replacing defective bags or filter media or otherwise repairing the control device;
   iv) Sealing off a defective fabric filter compartment;
   v) Cleaning the BLDS probe or otherwise repairing the BLDS; or
   vi) Shutting down the process producing the PM emissions.

   (40 CFR 63.1350(m)(11))

E. The permittee shall develop a site-specific monitoring plan according to the requirements in 40 CFR 63.1350(p)(1)-(5).

F. Except for periods of startup and shutdown, monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall operate the monitoring system and collect data at all required intervals at all times the affected source is operating. (40 CFR 63.1348(b)(1)(ii))

G. The permittee shall not use data recorded during monitoring system startup, shutdown or malfunctions or repairs associated with monitoring system malfunctions in calculations used to report emissions or operating levels. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. (40 CFR 63.1348(b)(1)(iii))

H. For each existing unit that is equipped with a CMS, the permittee shall maintain the average emissions or the operating parameter values within the operating parameter limits established through performance tests. Any instance where the permittee fails to comply with the continuous monitoring requirements of 40 CFR 63.1350 is a violation. (40 CFR 63.1350(a)).

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

Records shall be maintained in accordance with Provision I.S.1 of this permit and 40 CFR 63.1355. Records shall also be maintained in accordance with R307-170 if a COMS is used.

Additionally, records of visual emission observations and visual opacity tests required by 40 CFR 60, Appendix A, Methods 22 and 9 shall be maintained in accordance with Provision I.S.1 of this permit if a COMS or BLDS is not used.

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

In addition to the reporting requirements of Provision I.S.2 of this permit, the permittee shall comply with the reporting requirements specified in 40 CFR 63.1349, 40 CFR 63.1354 and the notification requirements specified in 40 CFR 63.1353.

If a COMS is used:

i. The permittee shall also comply with the reporting and notification requirements specified in R307-170.
ii. Reports shall be submitted quarterly, as required by R307-170, Continuous Emission Monitoring Program. The reports are considered prompt notification of permit deviation required in Provision I.S.2.c of this permit, if all information required by Provision I.S.2.c is included in the report.

II.B.7 **Conditions on Finish Mill Separator (514.BF1).**

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

Visible emissions shall be no greater than 10 percent opacity during all modes of operation. [Origin: 40 CFR 63 Subpart LLL, DAQE-AN103030030-22]. [40 CFR 63.1345, R307-401-8]

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

The permittee shall demonstrate compliance as specified in 40 CFR 63.1348 and, if applicable, R307-170.

A. The permittee shall demonstrate continuous compliance by using the monitoring methods and procedures in 40 CFR 63.1350(f) based on the maximum 6-minute average opacity exhibited during the performance test period. The permittee shall initiate corrective actions within one hour of detecting visible emissions above the applicable limit.
    i) For a finish mill, the permittee shall monitor opacity by conducting daily visible emissions observations of the mill sweep and air separator PM control devices (PMCD) of these affected sources in accordance with the procedures of Method 22 of 40 CFR 60 appendix A-7. The duration of the Method 22 performance test shall be 6 minutes.
    ii) Within 24 hours of the end of the Method 22 performance test in which visible emissions were observed, the permittee shall conduct a follow up Method 22 performance test of each stack from which visible emissions were observed during the previous Method 22 performance test.
    iii) If visible emissions are observed during the follow-up Method 22 performance test required by paragraph ii) of this section, the permittee shall then conduct an opacity test of each stack from which emissions were observed during the follow up Method 22 performance test in accordance with Method 9 of 40 CFR 60 appendix A-4. The duration of the Method 9 test shall be 30 minutes.
    iv) If visible emissions are observed during any Method 22 visible emissions test conducted under this section, the permittee shall initiate, within one-hour, the corrective actions specified in the operation and maintenance plan as required in 40 CFR 63.1347.
    v) The requirements under this section to conduct daily Method 22 testing do not apply to any specific finish mill equipped with a COMS or BLDS.

vi) If the permittee installs a COMS in lieu of conducting the daily visible emissions testing, the permittee shall demonstrate compliance using a COMS that it is installed, operated, and maintained in accordance with the requirements in paragraph vi)a).
a) The COMS shall be installed at the outlet of the PM control device of the finish mill and the COMS shall be installed, maintained, calibrated, and operated as required by the general provisions in 40 CFR 60 subpart A and according to PS-1 of 40 CFR 60 appendix B.

vii) If the permittee installs a BLDS on a finish mill in lieu of conducting the daily visible emissions testing, the permittee shall demonstrate compliance using a BLDS that is installed, operated, and maintained in accordance with the requirements of paragraphs B. through D. of this section. (40 CFR 63.1350(m)(1)-(4), (m)(10), and (m)(11))

(40 CFR 63.1348(b)(3), 40 CFR 63.1350(f))

B. The permittee shall install, operate, and maintain each continuous parameter monitoring system (CPMS) according to 40 CFR 63.1350(m)(1)-(4).

C. If a fabric filter bag leak detection system is used, the permittee shall install, calibrate, maintain, and continuously operate a BLDS as specified in paragraphs C.i) through viii).
i) The permittee shall install and operate a BLDS for each exhaust stack of the fabric filter.
ii) Each BLDS shall be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations and in accordance with the guidance provided in EPA-454/R-98-015, September 1997.
iii) The BLDS shall be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 or fewer milligrams per actual cubic meter.
iv) The BLDS sensor shall provide output of relative or absolute PM loadings.
v) The BLDS shall be equipped with a device to continuously record the output signal from the sensor.
vi) The BLDS shall be equipped with an alarm system that will alert an operator automatically when an increase in relative PM emissions over a preset level is detected. The alarm shall be located such that the alert is detected and recognized easily by an operator.
vii) For positive pressure fabric filter systems that do not duct all compartments of cells to a common stack, a BLDS shall be installed in each baghouse compartment or cell.
viii) Where multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.

(40 CFR 63.1350(m)(10))

D. For each BLDS, the permittee shall initiate procedures to determine the cause of every alarm within 8 hours of the alarm. The permittee shall alleviate the cause of the alarm within 24 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to the following:
i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions;
ii) Sealing off defective bags or filter media;
iii) Replacing defective bags or filter media or otherwise repairing the control device;
iv) Sealing off a defective fabric filter compartment;
v) Cleaning the BLDS probe or otherwise repairing the BLDS; or
vi) Shutting down the process producing the PM emissions.

(40 CFR 63.1350(m)(11))

E. The permittee shall develop a site-specific monitoring plan according to the requirements in 40 CFR 63.1350(p)(1)-(5).

F. Except for periods of startup and shutdown, monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall operate the monitoring system and collect data at all required intervals at all times the affected source is operating. (40 CFR 63.1348(b)(1)(ii))

G. The permittee shall not use data recorded during monitoring system startup, shutdown or malfunctions or repairs associated with monitoring system malfunctions in calculations used to report emissions or operating levels. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. (40 CFR 63.1348(b)(1)(iii))

H. For each existing unit that is equipped with a CMS, the permittee shall maintain the average emissions or the operating parameter values within the operating parameter limits established through performance tests. Any instance where the permittee fails to comply with the continuous monitoring requirements of 40 CFR 63.1350 is a violation. (40 CFR 63.1350(a)).

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

Records shall be maintained in accordance with Provision I.S.1 of this permit and 40 CFR 63.1355. Records shall also be maintained in accordance with R307-170 if a COMS is used.

Additionally, records of visual emission observations and visual opacity tests required by 40 CFR 60, Appendix A, Methods 22 and 9 shall be maintained in accordance with Provision I.S.1 of this permit if a COMS or BLDS is not used.

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

In addition to the reporting requirements of Provision I.S.2 of this permit, the permittee shall comply with the reporting requirements specified in 40 CFR 63.1349, 40 CFR 63.1354 and the notification requirements specified in 40 CFR 63.1353.

If a COMS is used:

i. The permittee shall also comply with the reporting and notification requirements specified in R307-170.

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

II.B.8 **Conditions on Coal Silo (41B.BF1).**

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

Visible emissions shall be less than 20 percent opacity. [Origin: 40 CFR 60 Subpart Y, DAQE-AN103030030-22]. [40 CFR 60.254(a)]

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

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

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

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

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

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

II.B.9 **Conditions on Coal Grinding System (41B.BF2).**

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

Visible emissions shall be less than 20 percent opacity. [Origin: 40 CFR 60 Subpart Y]. [40 CFR 60.254(a)]

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

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

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

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

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

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

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

During all periods of operation, the permittee shall record the operating temperature of the Coal Grinding System baghouse. [Origin: Alternative Monitoring EPA Approval 11/6/02]. [40 CFR 63.8(f)]

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

The permittee shall install and operate a temperature alarm on the baghouse inlet in accordance with the manufacturer's specifications.

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

Records required by this permit condition and copies of the manufacturer's alarm specifications shall be maintained in accordance with Provision I.S.1 of this permit and made available for review by the Director or his representative.

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

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

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

During normal operation, emissions of PM from the kiln shall be no greater than 0.07 lb/ton clinker. Combined PM emissions from the kiln and/or the inline coal mill stack are subject to the PM emissions limit. [Origin: 40 CFR 63 Subpart LLL]. [40 CFR 63.1343(b)(1), 40 CFR 63.1343(b)(2)]

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

The permittee shall demonstrate compliance as specified in 40 CFR 63.1348 and condition II.B.4.l.1 of this permit.

For purposes of determining exhaust gas flow rate to the atmosphere from a coal mill stack, the permittee shall either install, operate, calibrate and maintain an instrument for continuously measuring and recording the exhaust gas flow rate according to the requirements in 40 CFR 63.1350(n)(1) through (10) or use the maximum design exhaust gas flow rate. For purposes of determining the combined emissions from kilns that exhaust kiln gases to a coal mill that exhausts through a separate stack, instead of installing a CEMS on the coal mill stack, the permittee may use the results of the initial and subsequent performance test to demonstrate compliance with the relevant emissions limit. (40 CFR 63.1349(a)).

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

Records shall be maintained in accordance with Provision I.S.1 of this permit and 40 CFR 63.1355.

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

In addition to the reporting requirements of Section I of this permit, the permittee shall comply with the reporting requirements specified in 40 CFR 63.1349, 40 CFR 63.1354 and the notification requirements specified in 40 CFR 63.1353.

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

During normal operation, emissions of mercury (Hg) from the kiln shall be no greater than 55 lb/MM tons clinker based on a rolling 30-day average. The 30-day period means all operating hours within 30 consecutive kiln operating days excluding periods of startup and shutdown. The permittee shall ensure appropriate corrections for moisture are made when measuring flow rates used to calculate mercury emissions. [Origin: 40 CFR 63 Subpart LLL]. [40 CFR 63.1343(b)(1)]

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

The permittee shall demonstrate compliance as specified in 40 CFR 63.1348, condition II.B.4.m.1 of this permit, and R307-170, as applicable.

For purposes of determining exhaust gas flow rate to the atmosphere from a coal mill stack, the permittee shall either install, operate, calibrate and maintain an instrument for continuously measuring and recording the exhaust gas flow rate according to the requirements in 40 CFR 63.1350(n)(1) through (10) or use the maximum design exhaust gas flow rate. For purposes of determining the combined emissions from kilns that exhaust kiln gases to a coal mill that exhausts through a separate stack, instead of installing a CEMS on the coal mill stack, the

permittee may use the results of the initial and subsequent performance test to demonstrate compliance with the relevant emissions limit. (40 CFR 63.1349(a)).

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

Records shall be maintained in accordance with Provision I.S.1 of this permit, R307-170, as applicable, and 40 CFR 63.1355.

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

In addition to the reporting requirements of Section I of this permit, the permittee shall comply with the reporting requirements specified in 40 CFR 63.1349, 40 CFR 63.1354, and R307-170, as applicable, and the notification requirements specified in 40 CFR 63.1353 and R307-170, as applicable.

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

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

During normal operation, emissions of total hydrocarbons (THC) from the kiln shall be no greater than 24 ppmvd, measured as propane, corrected to 7 percent oxygen, based on a rolling 30-day average. The 30-day period means all operating hours within 30 consecutive kiln operating days excluding periods of startup and shutdown. The permittee may elect to meet an alternative limit of 12 ppmvd for total organic HAP. [Origin: 40 CFR 63 Subpart LLL]. [40 CFR 63.1343(b)(1)]

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

The permittee shall demonstrate compliance as specified in 40 CFR 63.1348, condition II.B.4.n.1 of this permit, and R307-170, as applicable.

For purposes of determining exhaust gas flow rate to the atmosphere from a coal mill stack, the permittee shall either install, operate, calibrate and maintain an instrument for continuously measuring and recording the exhaust gas flow rate according to the requirements in 40 CFR 63.1350(n)(1) through (10) or use the maximum design exhaust gas flow rate. For purposes of determining the combined emissions from kilns that exhaust kiln gases to a coal mill that exhausts through a separate stack, instead of installing a CEMS on the coal mill stack, the permittee may use the results of the initial and subsequent performance test to demonstrate compliance with the relevant emissions limit. (40 CFR 63.1349(a)).

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

Records shall be maintained in accordance with Provision I.S.1 of this permit, R307-170, as applicable, and 40 CFR 63.1355.

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

In addition to the reporting requirements of Section I of this permit, the permittee shall comply with the reporting requirements specified in 40 CFR 63.1349, 40 CFR 63.1354, and R307-170, as applicable, and the notification requirements specified in 40 CFR 63.1353 and R307-170, as applicable.

Reports shall be submitted quarterly, as required by R307-170, Continuous Emission Monitoring Program, as applicable. The reports are considered prompt notification of permit deviation

required in Provision I.S.2.c of this permit, if all information required by Provision I.S.2.c is included in the report.

II.B.9.f **Condition:**

During normal operation, emissions of hydrochloric acid (HCl) from the kiln shall be no greater than 3 ppmvd, corrected to 7 percent oxygen. This condition applies to major sources of HAP as defined in 40 CFR 63.2.

If using a CEMS to determine compliance with the HCl standard, this standard is based on a rolling 30-day average. The 30-day period means all operating hours within 30 consecutive kiln operating days excluding periods of startup and shutdown. [Origin: 40 CFR 63 Subpart LLL]. [40 CFR 63.1343(b)(1)]

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

The permittee shall demonstrate compliance as specified in 40 CFR 63.1348, condition II.B.4.o.1 of this permit, and R307-170, as applicable.

For purposes of determining exhaust gas flow rate to the atmosphere from a coal mill stack, the permittee shall either install, operate, calibrate and maintain an instrument for continuously measuring and recording the exhaust gas flow rate according to the requirements in 40 CFR 63.1350(n)(1) through (10) or use the maximum design exhaust gas flow rate. For purposes of determining the combined emissions from kilns that exhaust kiln gases to a coal mill that exhausts through a separate stack, instead of installing a CEMS on the coal mill stack, the permittee may use the results of the initial and subsequent performance test to demonstrate compliance with the relevant emissions limit. (40 CFR 63.1349(a)).

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

Records shall be maintained in accordance with Provision I.S.1 of this permit, R307-170, as applicable, and 40 CFR 63.1355.

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

In addition to the reporting requirements of Section I of this permit, the permittee shall comply with the reporting requirements specified in 40 CFR 63.1349, 40 CFR 63.1354, and R307-170, as applicable, and the notification requirements specified in 40 CFR 63.1353 and R307-170, as applicable.

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

II.B.10 **Conditions on Materials Handling Operation (MHO).**

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

Visible emissions shall be no greater than 10 percent opacity from each affected unit. [Origin: 40 CFR 63 Subpart LLL]. [40 CFR 63.1345]

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

The permittee shall demonstrate compliance as specified in 40 CFR 63.1348.

a) The permittee shall demonstrate initial compliance by using the following performance test methods and procedures. The permittee shall use the maximum 6-minute average opacity

exhibited during the performance test period to determine whether the affected source is in compliance with the standard. (40 CFR 63.1348(a)(2))

i) The permittee shall conduct opacity tests in accordance with Method 9 of 40 CFR 60, appendix A-4. The duration of the Method 9 performance test shall be 3 hours (30 6-minute averages), except that the duration of the Method 9 performance test may be reduced to 1 hour if the conditions of paragraphs (a) and (b) apply. For batch processes that are not run for 3-hour periods or longer, the permittee shall compile observations totaling 3 hours when the unit is operating.
   (a) There are no individual readings greater than 10 percent opacity;
   (b) There are no more than three readings of 10 percent for the first 1-hour period.

(40 CFR 63.1349(b)(2).

b) The permittee shall demonstrate continuous compliance by using the monitoring methods and procedures in 40 CFR 63.1350(f) based on the maximum 6-minute average opacity exhibited during the performance test period. The permittee shall initiate corrective actions within one hour of detecting visible emissions above the applicable limit.

i) The permittee shall conduct a monthly 10-minute visible emissions test of each affected source in accordance with Method 22 of 40 CFR 60 appendix A-7. The performance test shall be conducted while the affected source is in operation.

ii) If no visible emissions are observed in six consecutive monthly tests for any affected source, the permittee may decrease the frequency of performance testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, the permittee shall resume performance testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

iii) If no visible emissions are observed during the semi-annual test for any affected source, the permittee may decrease the frequency of performance testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual performance test, the permittee shall resume performance testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

iv) If visible emissions are observed during any Method 22 performance test, of 40 CFR 60 appendix A-7, the permittee shall conduct 30 minutes of opacity observations, recorded at 15-second intervals, in accordance with Method 9 of 40 CFR 60 appendix A-4. The Method 9 performance test, of 40 CFR 60 appendix A-4, shall begin within 1 hour of any observation of visible emissions.

v) Any totally enclosed conveying system transfer point, regardless of the location of the transfer point is not required to conduct Method 22 visible emissions monitoring under this paragraph. The enclosures for these transfer points shall be operated and maintained as total enclosures on a continuing basis in accordance with the facility operations and maintenance plan.

vi) If any partially enclosed or unenclosed conveying system transfer point is located in a building, the permittee shall conduct a Method 22 performance test, of 40 CFR 60 appendix A-7, according to the requirements of paragraphs i) through iv) of this section for each such conveying system transfer point located within the building, or for the building itself, according to paragraph vii) of this section.

vii) If visible emissions from a building are monitored, the requirements of paragraphs i) through iv) of this section apply to the monitoring of the building, and the permittee shall also test visible emissions from each side, roof, and vent of the building for at least 10 minutes.

viii) If visible emissions are observed during any Method 22 visible emissions test, the permittee shall initiate, within one-hour, the corrective actions specified in the operation and maintenance plan as required in 40 CFR 63.1347.
(40 CFR 63.1348(b)(3), 40 CFR 63.1350(f)).

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

Records shall be maintained in accordance with Provision I.S.1 of this permit and 40 CFR 63.1355.

Results from opacity observations and all data required by 40 CFR 60, Appendix A, Method 22 and 9 shall be recorded and maintained in accordance with Provision I.S.1 of this permit.

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

The permittee shall comply with the reporting requirements specified in Section I of this permit, 40 CFR 63.1349, 40 CFR 63.1354 and the notification requirements specified in 40 CFR 63.1353.

II.B.11 **Conditions on Limestone Bypass System (LBS).**

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

Visible emissions shall be no greater than 10 percent opacity. [Origin: DAQE-AN103030030-22, 40 CFR 60 Subpart OOO]. [40 CFR 60.672(b)]

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

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

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

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

II.B.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:**

Limestone bypass material processed shall be no greater than 150,000 tons per 12-month rolling period. [Origin: DAQE-AN103030030-22]. [R307-401-8]

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

Records required for this permit condition will serve as monitoring.

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

Daily records of limestone bypass material processed shall be kept for all periods of operation. By the 25th day of each month, a new 12-month total shall be calculated using data from the

previous 12 months. Production shall be calculated through use of the plant data acquisition system. Records shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

II.B.11.c **Condition:**

Permittee shall operate water sprays or chemical dust suppression sprays to control fugitive emissions. The sprays shall operate whenever dry conditions warrant or as determined necessary by the Director. Water sprays shall not be required during periods of freezing temperatures. [Origin: DAQE-AN103030030-22]. [R307-401-8]

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

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

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

An operator's log shall be maintained of all monitoring provisions listed above. Records of water or chemical dust suppression spray system inspections shall be kept for all periods of operation and the ambient temperature shall be recorded any time water should be applied but cannot be due to freezing conditions. Records shall be maintained in accordance with Provision I.S.1 of this permit.

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

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

II.B.12 **Conditions on GEN: Emergency Generators.**

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

Visible emissions shall be no greater than 20 percent opacity, except for stationary operation not exceeding three minutes in any hour. [Origin: R307-201-3(5), DAQE-AN103030030-22]. [R307-201-3(5), R307-401-8]

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

During any period that the emergency generator(s) is(are) operated for longer than 12 hours consecutively, visual observation(s) of each generator exhaust shall be made by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. The individual is not required to be a certified visual emissions observer. If any visible emissions are observed, then a 6-minute opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, by a certified visual emissions observer. If the generator(s) continue to operate on consecutive days following the initial observation, an opacity determination shall be performed on a daily basis.

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

The permittee shall record the date of each visual opacity survey and keep a list of the emission points checked during the visual opacity survey. The permittee shall also keep a log of the

following information for each observed visual emission: date and time visual emissions observed, emission point location and description, time and date of opacity test, and percent opacity. The records required by this provision and all data required by 40 CFR 60, Appendix A, Method 9, or other EPA-approved testing method, as acceptable to the Director, shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.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:**

For the 762 hp (kiln) engine:
2007 model year and later emergency affected emission units with a displacement of less than 30 liters per cylinder that are not fire pump engines shall comply with the emission standards for new nonroad CI ICE in 40 CFR 60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE. Modified or reconstructed affected emission units shall meet the emission standards for new nonroad CI ICE in 40 CFR 60.4202 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 emergency stationary CI ICE with a displacement of less than 30 liters per cylinder they shall meet the not-to-exceed (NTE) standards as indicated in 40 CFR 60.4212. [Origin: 40 CFR 60 Subpart IIII]. [40 CFR 60.4205(b), 40 CFR 60.4205(e), 40 CFR 60.4205(f)]

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

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

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

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

(Origin: 40 CFR 60.4211(g))

For modified or reconstructed affected emission units that must comply with the emission standards specified in 40 CFR 60.4205(f), the permittee shall demonstrate compliance by purchasing, or otherwise owning or operating, an engine certified to the emission standards in 40 CFR 60.4205(f) 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.12.b.2 **Recordkeeping:**

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

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

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

II.B.12.c **Condition:**

For the 762 hp (kiln) engine:
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 (b).

(a) After December 31, 2008, the permittee shall not install affected emission units (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines.
(b) In addition to the requirements specified in 40 CFR 60.4202 and 40 CFR 60.4205, 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 40 CFR 60.4208 after the dates specified in 40 CFR 60.4208.

[Origin: 40 CFR 60 Subpart IIII]. [40 CFR 60.4208]

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

Records required for this permit condition will serve as monitoring.

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

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

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

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

II.B.12.d **Condition:**

For the 762 hp (kiln) engine:
The permittee shall operate and maintain affected emission units that achieve the emission standards as required in 40 CFR 60.4205 over the entire life of the engine. The permittee shall do all of the following, except as permitted in II.B.12.d.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 part 1068, as applicable.

[Origin: 40 CFR 60 Subpart IIII]. [40 CFR 60.4206, 40 CFR 60.4211(a)]

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

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

(Origin: 40 CFR 60.4211(g)).

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

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

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

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

II.B.12.e **Condition:**

For the 762 hp (kiln) engine:
The permittee of affected emission units with a displacement of less than 30 liters per cylinder that use diesel fuel shall use diesel fuel that meets the following ULSD per-gallon standards of 40 CFR 1090.305 for nonroad diesel fuel.
1. Maximum sulfur content of 15 ppm and
2. A minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.

[Origin: 40 CFR 60 Subpart IIII]. [40 CFR 60.4207(b)]

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

Records required for this permit condition will serve as monitoring.

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

The permittee shall maintain documentation that all diesel fuel meets the specifications of 40 CFR 1090.305. Certification of diesel fuel shall be either by the permittee’s own testing using ASTM Method D2880-71, D4294-89, or other method approved by the Director, or by fuel receipt records from the vendor documenting test results. 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.12.e.3 **Reporting:**

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

II.B.12.f **Condition:**

For the 762 hp (kiln) engine:
The permittee shall operate the emergency affected emission units according to the requirements in paragraphs (1) through (3). In order for the engine to be considered an emergency stationary ICE under 40 CFR 60 Subpart IIII, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in (1) through (3), is prohibited. If the engine is not operated in accordance with paragraphs (1) through (3), it will not be considered an emergency engine and shall meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary ICE in emergency situations.
(2) Emergency stationary ICE may be operated for the purpose specified in paragraph (a) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (3) counts as part of the 100 hours per calendar year allowed by this paragraph (2).
    (a) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. A petition for approval of additional hours to be used for maintenance checks and readiness testing is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.
(3) Emergency engines may operate up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (2). Except as provided in 40 CFR 60.4211(f)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for the permittee to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

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

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

If an emergency affected emission unit does not meet the standards applicable to non-emergency engines, the permittee shall install a non-resettable hour meter prior to startup of the engine. [Origin: 40 CFR 60.4209(a)] Records required for this permit condition will also serve as monitoring.

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

Records of each affected emission unit shall be kept on a monthly basis in an operation and maintenance log. Records shall distinguish between maintenance-related hours and emergency use-related hours. If additional hours are to be used for maintenance checks and readiness testing, the permittee shall maintain records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

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

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

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

For each affected emergency emission unit with a maximum engine power more than 100 HP that operates for the purpose specified in 40 CFR 60.4211(f)(3)(i), the permittee shall submit an annual report according to the requirements in 40 CFR 60.4214(d).

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

II.B.12.g **Condition:**

For the 762 hp (kiln) engine:
The permittee shall submit an Initial Notification as required in 40 CFR 63.6645(f) for each new or reconstructed emergency stationary RICE. [Origin: 40 CFR 63 Subpart ZZZZ]. [40 CFR 63.6590(b)(1)]

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

Records required for this permit condition will serve as monitoring.

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

The permittee shall keep a copy of each notification in accordance with 40 CFR 63.6660 and Provision I.S.1 of this permit.

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

For each affected emission unit, the permittee shall submit an Initial Notification containing the information in 40 CFR 63.9(b)(2)(i) through (v), and a statement that the stationary RICE has no additional requirements and that explains the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions). There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.12.h **Condition:**

By October 20, 2023, the permittee shall submit documentation of the status of installation of the 762 hp emergency generator to the Director. The referenced approval order (AO) may become invalid if construction is not commenced by October 20, 2023 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: R307-401-18, DAQE-AN103030030-22]. [R307-401-18]

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

Records required for this permit condition will serve as monitoring.

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

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

II.B.13 **Conditions on Dust Shuttle System**

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

The fringe bin baghouse (514.BF3) and the alkali silo baghouse (413.BF1) shall be operating at all times when the dust shuttle system is operating to assist in the capture of mercury emissions. [Origin: DAQE-AN103030030-22]. [R307-401-8]

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

Records required for this permit condition will serve as monitoring.

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

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

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

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

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

Not applicable to this source.

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

Not applicable to this source.

SECTION III: PERMIT SHIELD

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

III.A. 40 CFR 63 Subpart CCCCCC (NESHAP for Source Category: Gasoline Dispensing Facilities)

This regulation is not applicable to the Permitted Source for the following reason(s): it applies to area sources of HAPs and the permitted source is a major HAP source. [Last updated June 29, 2022]

III.B. 40 CFR 60 Subpart OOO (NSPS / Standards of Performance for Nonmetallic Mineral Processing Plants)

This regulation is not applicable to the 211.BF1: Stationary Crusher for the following reason(s): it was constructed in 1981, prior to the Subpart OOO applicability date of August 31, 1983 [Last updated June 29, 2022]

III.C. 40 CFR 60 Subpart OOO (NSPS / Standards of Performance for Nonmetallic Mineral Processing Plants)

This regulation is not applicable to the 211.BF2: Raw Material Transfer for the following reason(s): it was constructed in 1981, prior to the Subpart OOO applicability date of August 31, 1983. [Last updated June 29, 2022]

III.D. 40 CFR 63.1349(b)(3), 63.1350(g) (NESHAP for the Portland Cement Manufacturing Industry)

This regulation is not applicable to the 41B.BF2: Coal Grinding System for the following reason(s): EPA granted a waiver in a letter dated November 6, 2002 from Martin Hestmark, EPA, to Robert Vantuyl, Ash Grove. The waiver is contingent on Ash Grove's compliance with Conditions II.B.4.f, II.B.4.g, II.B.4.k, and II.B.9.b of this permit. [Last updated June 29, 2022]

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-AN103030030-22 dated April 20, 2022
Incorporates	[State-only Requirements] SIP Section IX.H.23.a dated July 7, 2022

1. Comment on an item originating in this permit regarding Permitted Source
   CAM plan removed: The CAM requirements originating in 40 CFR 64 for the stationary crusher (211.BF1) were removed in the 2018 renewal permit because the crusher is only subject to an opacity limit, not a PM limit. [12/01/2006] [Last updated June 29, 2022]

2. Comment on an item originating in 40 CFR 60 Subpart Y regarding 41B.BF2: Coal Grinding System
   Thermal dryer/coal mill clarification: The coal mill meets the Subpart Y definition for thermal dryer in 40 CFR 60.251(r)(1) because gases are drawn from the preheater for the kiln to entrain the coal in the mill. However, the preamble to the 2009 final rule states, "a thermal dryer that is part of an in-line coal mill at a Portland cement manufacturing plant where all of the thermal input is supplied by cement kiln exhaust or clinker cooler exhaust, is not subject to the requirements in subpart Y, but, rather, must meet the applicable requirements in the appropriate Portland Cement kiln regulations (40 CFR 60 subpart F and 40 CFR 63 subpart LLL)." (See 74 Fed. Reg. 51952 dated 10/8/2009) The PM limit applicable to the kiln/inline coal mill originating in 40 CFR 63 Subpart LLL is included in the permit under the coal grinding system conditions. The PM limit applicable to thermal dryers originating in 40 CFR 60 Subpart Y was removed in the 2018 renewal permit. [3/5/2018] [Last updated June 29, 2022]

3. Comment on an item originating in 40 CFR 63 Subpart ZZZZ and 40 CFR 60 Subpart IIII regarding GEN: Emergency Generators
   40 CFR 63 Subpart ZZZZ applicability:
   The 560 hp (shipping) diesel engine is rated greater than 500 hp, was installed prior to December 19, 2002, and is an existing emergency stationary RICE as defined in the subpart. Per 40 CFR 63.6590(b)(3)(iii), it does not have to meet the requirements of 40 CFR 63 Subpart ZZZZ and of 40 CFR 63 Subpart A, including initial notification requirements.

   The 762 hp (kiln) diesel engine is rated greater than 500 hp, is installed after December 19, 2002, and is a new emergency stationary RICE as defined in the subpart. Per 40 CFR 63.6590(b)(1)(i), it does not have to meet the requirements of 40 CFR 63 Subpart ZZZZ and of 40 CFR 63 Subpart A except for the initial notification requirements of 40 CFR 63.6645(f).

   40 CFR 60 Subpart IIII applicability:
   Per 40 CFR 60.4200(a)(2), stationary compression ignition (CI) internal combustion engines (ICE) that are ordered after July 11, 2005 and manufactured after April 1, 2006, and are not fire pump engines, are subject to Subpart IIII. The 560 hp (shipping) diesel engine was installed in 1981 and does not meet the date criteria for applicability under Subpart IIII. The 762 hp (kiln) diesel engine was permitted in 2022 and is subject to the requirements in Subpart IIII.
   [1/17/2022] [Last updated August 22, 2022]

4. Comment on an item originating in 40 CFR 63 Subpart LLL regarding Permitted Source

Rather than exempting affected emission units subject to 40 CFR 63 Subpart LLL provisions from otherwise applicable standards contained in 40 CFR 60 Subpart F, Y, or OOO, 40 CFR 63.1356 and 40 CFR 60.62(d), as revised in the Federal Register 9/9/2010, require affected facilities to comply with the most stringent emission limit or requirement and exempts them from the less stringent requirement for the same pollutant under another 40 CFR regulation. All Subpart F affected facilities are covered by Subpart LLL, so no requirement from Subpart F is included in this permit. Future modifications to affected emission units may trigger more stringent requirements from Subpart F. Requirements from Subpart OOO are included for those emission points that precede raw material storage. Subpart Y and Subpart LLL requirements are included for the coal grinding system. [11/7/2011] [Last updated June 29, 2022]

5. Comment on an item originating in 40 CFR 63 Subpart LLL regarding 41B.BF2: Coal Grinding System

   Because gases drawn from the preheater for the kiln entrain the coal in the mill, the coal mill meets the definition in 40 CFR 63 Subpart LLL for in-line coal mill. As noted in the definition for kiln in Subpart LLL, the term kiln also applies to the exhaust of the inline coal mill. The coal mill exhaust has been included in the monitoring conditions for the kiln emission limits that are required by Subpart LLL to use combined kiln and coal mill exhaust to demonstrate compliance. [4/11/2016] [Last updated June 29, 2022]

6. Comment on an item originating in 40 CFR 63 Subpart LLL regarding 317.BF3: Kiln & Pre-Calciner and Raw Mill

   Mercury (Hg) monitoring: EPA posted an approved alternative to the 'above span' calibration requirements of 40 CFR 63.1350(k)(2) including notification requirements and a temporary extension of compliance. The letter, dated 6/28/2016, is labeled ALT-120 and can be viewed on EPA's website at http://www3.epa.gov/ttn/emc/approalt.html.

   Hydrochloric acid (HCl) monitoring: EPA published a direct final rule in the Federal Register on 7/25/2016 at https://www.gpo.gov/fdsys/pkg/FR-2016-07-25/pdf/2016-17293.pdf that temporarily revises the testing and monitoring requirements for HCl.

   The monitoring contained in this permit for Hg and HCl references 40 CFR 63 Subpart LLL to prevent any discrepancies between permit and subpart language. [7/18/2016] [Last updated June 29, 2022]

7. Comment on an item originating in 40 CFR 63 Subpart LLL regarding Permitted Source

   Continuous parametric monitoring: References to R307-170 have been removed from permit conditions that require continuous monitoring systems (CMS) or continuous parametric monitoring systems (CPMS) to comply with requirements originating in 40 CFR 63 Subpart LLL. The definition for CMS in 40 CFR 63 differs from the definition in R307-170. It has been determined that R307-170 does not apply to parametric monitoring. R307-170 only applies to continuous emission monitoring systems (CEMS) and continuous opacity monitors (COM) as defined in the State rule. [02/16/2018] [Last updated June 29, 2022]

8. Comment on an item originating in DAQE-AN103030030-22 regarding 317.BF3: Kiln & Pre-Calciner and Raw Mill

   NO_x monitoring clarification: The referenced approval order contains the following language. "In calculating the 30-day rolling average emission rate the total pounds of NO_x emitted during a specified period shall include all kiln emissions that occur during the specified period including during each startup, shutdown, or malfunction." That language has been carried forward in the operating permit. To clarify, "specified period" (operating day) means any period when any raw materials are fed into the kiln and any combustion is occurring. Only the startup, shutdown, or malfunction emissions that occur during the

"specified period" are included in the calculation for NO_x compliance demonstration. [5/25/2018] [Last updated June 29, 2022]

9. Comment on an item originating in historical approval order regarding Permitted Source
   Source-wide clinker production is determined as specified in 40 CFR 63.1350(d) because the permittee is already subject to the requirements of 40 CFR 63 Subpart LLL. The approval order, DAQE-AN103030028-18, was revised to clarify determination of clinker production resulting in a corresponding language update for the kiln NO_x and SO_2 limits in the Title V permit. [10/26/2018] [Last updated June 29, 2022]

10. Comment on an item originating in 40 CFR 63 Subpart LLL and DAQE-AN103030030-22 regarding Permitted Source
    40 CFR 63 Subpart LLL contains an HCl limit that applies to kilns at major HAP sources. That limit has been included in condition II.B.1.c of the referenced approval order with qualifying language that unless the permittee operates as an area HAP source, the HCl limit applies. The intent of that language has been incorporated into the operating permit by adding a sentence to the condition that states, "This condition applies to major sources of HAP as defined in 40 CFR 63.2." To clarify, major source means the stationary source emits or has the potential to emit considering controls, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants. If the source demonstrates they no longer meet the criteria for a major source of HAP, the HCl limit would no longer apply. [9/18/2019] [Last updated June 29, 2022]

11. Comment on an item originating in DAQE-AN103030030-22 regarding Permitted Source
    Condition II.B.2.b in the referenced approval order requires the surface material of unpaved roads and operational areas be kept in a damp/moist condition unless it is below freezing. At the permittee's request, that language has not been included in the operating permit because chemical treatment is also a permitted option, which would allow the source to conserve water while still minimizing fugitive dust and meeting the 20 percent opacity requirement. [6/3/2022] [Last updated June 29, 2022]