

Draft

AIR QUALITY PERMIT

Permit No.: 3241-153-0056-P-01-0 **Effective Date:**

Facility Name: **Houston American Cement Plant**
319 A. E. Harris Road
Perry, Georgia 31069 (Houston County)

Mailing Address: 100 W. Bay Street, Suite 700
Jacksonville, Florida 32202

Parent/Holding Company: Houston American Cement, LLC (HAC)

Facility AIRS Number: 04-13-153-00056

In accordance with the provisions of the Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq and the Georgia Rules for Air Quality Control, Chapter 391-3-1, adopted pursuant to and in effect under the Act, the Permittee described above is issued a construction permit for:

The construction and operation of a Portland cement manufacturing plant

This Permit is conditioned upon compliance with all provisions of The Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq, the Rules, Chapter 391-3-1, adopted and in effect under that Act, or any other condition of this Permit. This Permit may be subject to revocation, suspension, modification or amendment by the Director for cause including evidence of noncompliance with any of the above; or for any misrepresentation made in Application No. 17509 dated June 25, 2007; any other applications upon which this Permit is based; supporting data entered therein or attached thereto; or any subsequent submittals or supporting data; or for any alterations affecting the emissions from this source.

This Permit is further subject to and conditioned upon the terms, conditions, limitations, standards, or schedules contained in or specified on the attached **61** pages.

Director
Environmental Protection Division

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Houston American Cement Plant

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PART 1.0 FACILITY DESCRIPTION**1.1 Overall Facility Process Description**

- 1.1.1 This new/greenfield facility is a dry process Portland cement plant capable of producing 1,095,000 short tons of clinker and 1,171,650 short tons of cement per year. The plant consists mainly of an on-site limestone-clay quarry, raw material handling and storage, kiln feed preparation with an in-line raw mill, a dry process rotary kiln coupled with preheater/precalciner and calciner, a clinker cooler, a coal mill, a finish mill, and cement storage, packaging and shipping operations.

The production process begins with quarrying of limestone and clay, and crushing of the limestone. Then the raw materials such as limestone, clay, fly ash and other additives are mixed according to specification, grinded and dried in the raw mill. The powdery material produced by the raw mill, referred to as dry/kiln feed, is then conveyed into the preheater/precalciner, calciner, and kiln in turn for pyroprocessing into cement clinker nodules. The clinker nodules are cooled in the clinker cooler and then mixed and grinded with limestone, gypsum and/or other additives as necessary in the finish mill to formulate Portland cement. The kiln system has a capacity of 229 short tons per hour of dry feed input to the preheater/precalciner, and 125 short tons per hour of clinker output from the kiln. The finish mill can produce 150 short tons per hour of Portland cement. Cement produced is stored or packaged as necessary, and distributed via both truck and rail.

Raw materials for the kiln system include limestone, clay, iron ore/mill scale (or other iron sources) and bauxite/fly ash (or other alumina sources), gypsum, either quarried on-site (limestone and clay) or brought in by both truck and freight train.

Fuel authorized for the kiln include natural gas, coal, petroleum coke, fuel oils, landfill gas, and other non-hazardous liquid and solid fuels such as “on-specification” used oil fuels, plastic, filter fluff and wood wastes. A coal mill grinds up to 205,618 short tons of coal, petroleum coke annually for firing the kiln. Emissions of regulated air pollutants from combustion of each fuel are evaluated via performance tests before the fuel authorization.

The facility uses ammonia (NH_3) solution-injection based Selective Non-Catalytic Reduction (SNCR) in combination with staged and controlled combustion (SCC) and low NO_x burners to minimize NO_x emissions from the pyroprocessing processes. Fabric filters/baghouses are employed to capture PM emitted from various process units in the plant. Wet suppression/water spray and other precautions are utilized as necessary to reduce fugitive emissions from the quarry operations and the material handling processes. An hydrated lime injection system is used as necessary to comply with SO_2 emission limits. The in-line kiln/raw mill system is also designed and operated to minimize emissions of CO and VOC via controlled combustion, and SO_2 via raw material management and hydrated lime injection.

PART 2.0 REQUIREMENTS PERTAINING TO THE ENTIRE FACILITY**2.1 Facility Wide General Requirements**

- 2.1.1 At all times, including periods of startup, shutdown, and malfunction, the Permittee shall maintain and operate this source, 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 Georgia Environmental Protection Division ("the Division") which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection or surveillance of the source.
[391-3-1-.02(2)(a)10]
- 2.1.2 The Permittee shall not build, erect, install or use any article, machine, equipment or process the use of which conceals an emission which would otherwise constitute a violation of an applicable emission standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard that is based on the concentration of a pollutant in the gases discharged into the atmosphere.
[391-3-1-.03(2)(c)]
- 2.1.3 The Permittee shall submit a Georgia Air Quality Permit application to the Division prior to the commencement of any modification, as defined in 391-3-1-.01(pp), which may result in air pollution and which is not exempt under 391-3-1-.03(6). Such application shall be submitted sufficiently in advance of any critical date involved to allow adequate time for review, discussion, or revision of plans, if necessary. The application shall include, but not be limited to, information describing the precise nature of the change, modifications to any emission control system, production capacity and pollutant emission rates of the plant before and after the change, and the anticipated completion date of the change.
[391-3-1-.03(1) through (8)]
- 2.1.4 At any time that the Division determines that additional control of emissions from the facility may reasonably be needed to provide for the continued protection of public health, safety and welfare, the Division reserves the right to amend the provisions of this Permit pursuant to the Division's authority as established in the Georgia Air Quality Act and the rules adopted pursuant to that Act.
[391-3-1-.03(3)(a)]
- 2.1.5 In cases where conditions of this permit conflict with each other for any particular source or operation, the most stringent condition shall prevail.
[391-3-1-.02(2)(a)2]
- 2.1.6 This permit is not transferable. Future owners and operators shall obtain a new permit from the Division. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new Permittee has been submitted to the Division at least thirty (30) days in advance of the transfer. [391-3-1-.03(4)]

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- 2.1.7 The Permit shall construct stacks discharging criteria and toxic air pollutants into the atmosphere such that the stacks can provide gaseous flows which disperse these pollutants into the atmosphere in such a manner that the ambient impacts of the emissions of these pollutants from this facility meet respectively the applicable requirements under NSR/PSD air quality analysis rules and the requirements determined following the “*Guideline for Ambient Impact Assessment of Toxic Air Pollutant Emissions*” pursuant to 391-3-1-.02(2)(a)3.(ii) of the Georgia Rules of Air Quality Control.
[40 CFR 52.21 and 391-3-1-.02(2)(a)3.(ii)]
- 2.1.8 This permit authorizes construction and operation of the Portland cement plant. The Permittee shall apply for a Part 70/Title V operation permit within 12 calendar months after commencing the operation of this facility. To apply for a Title V operation permit, the applicant shall demonstrate compliance with the emission limits in this permit, and submit the appropriate application forms including additional information as the Division may by law require. The application shall be submitted to the Stationary Source Permitting Program in Air Protection Branch of the Division at 4244 International Parkway, Suite 120, Atlanta, Georgia 30354.
[40 CFR 60.1340(d) and 40 CFR 70.5(a)(1)(ii)]
- 2.1.9 Approval to construct this Portland cement plant by this permit shall become invalid for any of the following reasons:
- The construction is not commenced within 18 months after issuance of this permit;
 - The construction is discontinued for a period of 18 months or more; or
 - The construction is not completed within a reasonable time.
- The Division may extend the 18-month period upon a satisfactory showing that an extension is justified. In conjunction with an extension of the 18-month period to commence or continue construction (or to construct the project in phases), the Division may require the Permittee to demonstrate the adequacy of any previous determination of Best Available Control Technology (BACT) for emissions units regulated by the project. For good cause, the Permittee may request that this permit be extended in writing at least 60 days prior to the expiration of the 18 month period. For purposes of this permit, the definition of “commence” is given in 40 CFR 52.21(b)(9).
[40 CFR 52.21(r)]
- 2.1.10 If any of the emission standards or requirements in this permit is revised by EPA or the state after the issuance of this permit, the Permittee shall comply with the revised standard(s) or requirement(s) on and after its effected date.

2.2 Facility Wide Emission Caps and Operating Limits

- 2.2.1 The Permittee shall not discharge, or cause the discharge, into the atmosphere from the entire Portland cement plant at this site, VOC in amounts exceeding 274 tons during any period of 12 consecutive months, expressed in total hydrocarbons (THC) reported as propane corrected to 7% oxygen on a dry basis.
[40 CFR 52.21 - PSD/BACT Review]
- 2.2.2 The Permittee shall not discharge, or cause the discharge, into the atmosphere from the entire Portland cement plant at this site, SO₂ in amounts exceeding 548 tons during any period of 12 consecutive months.
[40 CFR 52.21 - PSD/BACT Review]
- 2.2.3 The Permittee shall not discharge, or cause the discharge, into the atmosphere from the entire Portland cement plant at this site, NO_x in amounts exceeding 1,068 tons during any period of 12 consecutive months.
[40 CFR 52.21 - PSD/BACT Review]
- 2.2.4 The Permittee shall not discharge, or cause the discharge, into the atmosphere from the entire Portland cement plant at this site, CO in amounts exceeding 1,588 tons during any period of 12 consecutive months.
[40 CFR 52.21 - PSD/BACT Review]
- 2.2.5 The Permittee shall not discharge, or cause the discharge, into the atmosphere from the entire Portland cement plant at this site, PM in amounts exceeding 231 tons during any period of 12 consecutive months. This emission limit includes particulate matter less than 10 microns (PM₁₀) in amounts not exceeding 184 tons per 12 consecutive months.
[40 CFR 52.21 - PSD/BACT Review]
- 2.2.6 The Permittee shall not discharge, or cause the discharge, into the atmosphere from the entire Portland cement plant at this site, total mass of mercury compounds (expressed as Hg) in amounts exceeding 118 pounds during any period of 12 consecutive months.
[40 CFR 52.21 - PSD/BACT Review]

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PART 3.0 REQUIREMENTS FOR EMISSION UNITS

Note: Except where an applicable requirement specifically states otherwise, the averaging times of any of the Emissions Limitations or Standards included in this permit are tied to or based on the run time(s) specified for the applicable reference test method(s) or procedures required for demonstrating compliance.

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3.1. Emission Unit & Emission Group Listing

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	Point Source or Fugitive Description; Equipment Description; Equipment Number	Applicable Requirements/ Standards	Corresponding Permit Conditions	ID No.	Description
PT01	Raw Material Transport : Aeropol Alleviator 4F1.DP01, Alleviator 4F1.AL01, Bucket Elevator (bottom) 3J1.BE01, Nuisance Dust Collector 3J1.BF01, Piping 3J1.PS01 & Air Slide (Discharge from) 3J1.TC02	40 CFR 52.21, 40 CFR Part 63, Subpart LLL, 391-3-1-.02(2)(2)(b), 391-3-1-.02(2)(2)(e), 391-3-1-.02(2)(2)(n)	2.2.5, 3.2.7, 3.2.14, 3.2.15, 3.2.16, 3.2.21, 3.3.1, 3.4.1, 3.3.6, 4.2.1, 4.2.4, 4.2.8, 4.2.11, 4.2.20, 5.2.1, 5.2.7, 5.2.12, 5.2.13, 5.2.18, 6.2.1 thru 6.2.7, 6.2.17, 6.2.18, 6.2.23	DC01	Pulse Jet Baghouse
PT02	Blend Silo Inlet: Bucket Elevator (top) 3J1.BE01, Nuisance Dust Collector 3K1.BF01, Air Slide 3J1.TC03, Fan 3K1.BL01.MDS01, Homogenizing Silo 3K1.BL01, Diverter Gate (left) 4C1.CF01 & Air Slide (discharge from) 4C1.TC02	40 CFR 52.21, 40 CFR Part 63, Subpart LLL, 391-3-1-.02(2)(2)(b), 391-3-1-.02(2)(2)(e), 391-3-1-.02(2)(2)(n)	2.2.5, 3.2.5, 3.2.7, 3.2.14, 3.2.15, 3.2.16, 3.2.21, 3.3.1, 3.3.6, 3.4.1, 4.2.1, 4.2.4, 4.2.8, 4.2.11, 4.2.20, 5.2.1, 5.2.7, 5.2.12, 5.2.13, 5.2.15, 6.2.1 thru 6.2.7, 6.2.17, 6.2.18, 6.2.23	DC02	Pulse Jet Baghouse
PT03	Blend Silo Outlet: Nuisance Dust Collector 3K1.BF02, Blower 3K1.RB01, Blower 3K1.RB02 & Blower 3K1.RB03	40 CFR 52.21, 40 CFR Part 63, Subpart LLL, 391-3-1-.02(2)(2)(b), 391-3-1-.02(2)(2)(e), 391-3-1-.02(2)(2)(n)	2.2.5, 3.2.7, 3.2.14, 3.2.15, 3.2.16, 3.2.21, 3.3.1, 3.4.1, 3.3.6, 4.2.1, 4.2.4, 4.2.8, 4.2.11, 4.2.20, 5.2.1, 5.2.7, 5.2.12, 5.2.13, 5.2.18, 6.2.1 thru 6.2.7, 6.2.17, 6.2.18, 6.2.23	DC03	Pulse Jet Baghouse
PT04	Kiln Feed Transport to Kiln Feed Elevator: Bucket Elevator (bottom) 4C1.BE01, Nuisance Dust Collector 4C1.BF01, Flow Meter 4C1.FW01, Piping 4C1.PS01, Air Slide (Discharge from) 4C1.TC01 & Screw Conveyor 4G1.SC02			DC04	Pulse Jet Baghouse
PT05	Dust Surge Bin & Lime Bin : Nuisance Dust Collector 4E1.BF01, AERPOL Alleviator 4F1.DP01, Dust Bin 4E1.FB01 & Lime Bin 4E2.FB01			DC05	Pulse Jet Baghouse
PT06	Transport from Kiln Feed Elevator : Bucket Elevator (top) 4C1.BE01, Nuisance Dust Collector 4C1.BF01, Diverter Gate (right) 4C1.CF01, Air Slide 4C1.TC03 & Rotary Airlock 4C1.RF01			DC06	Pulse Jet Baghouse
PT07	Clinker Transport from Clinker Cooler: Nuisance Dust Collector 4T1.BF01 & Pan Conveyor 4T1.AY01			DC07	Pulse Jet Baghouse
PT08	Clinker Silo No. 1: Pan Conveyor 4T1.AY03, Nuisance Dust Collector 4T1.BF02, Silo 4V1.KL01, Pan Conveyor (Discharge from) 4T1.AY01, Diverter Gate 4T1.CF01, Piping 4T1.QS01, Diverter Gate 4T1.CF02 & Pan Conveyor (Discharge to) 4T1.AY02			DC08	Pulse Jet Baghouse

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Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	Point Source or Fugitive Description; Equipment Description; Equipment Number	Applicable Requirements/ Standards	Corresponding Permit Conditions	ID No.	Description
PT09	Clinker Silo No. 2: Pan Conveyor (Discharge from) 4T1.AY02, Nuisance Dust Collector 4T1.BF03 & Silo 4V1.KL02	40 CFR 52.21, 40 CFR Part 63, Subpart LLL, 391-3-1-.02(2)(b), 391-3-1-.02(2)(e), 391-3-1-.02(2)(n)	2.2.5, 3.2.7, 3.2.14, 3.2.15, 3.2.16, 3.2.21, 3.3.1, 3.4.1, 3.3.6, 4.2.1, 4.2.4, 4.2.8, 4.2.11, 4.2.20, 5.2.1, 5.2.7, 5.2.12, 5.2.13, 5.2.18, 6.2.1 thru 6.2.7, 6.2.17, 6.2.18, 6.2.23	DC09	Pulse Jet Baghouse
PT10	Clinker Silos Outlet Conveyor: Nuisance Dust Collector 5C1.BF01, Pan Conveyor (Discharge to) 5C1.AY01, Apron Feeder 5C1.AW01 & Pingates 5C1.SV01-5C1.SV06			DC10	Pulse Jet Baghouse
PT11	Natural Gypsum & Limestone Bins Inlet: Nuisance Dust Collector 5D1.BF02, Belt Conveyor (Discharge from) 5C2.BC01, Belt Conveyor 5C2.BC02, Gypsum Bin 5D1.FB02 & Limestone Bin 5D1.FB03			DC11	Pulse Jet Baghouse
PT12	Synthetic Gypsum Hopper and Nat. Gypsum, Limestone, and Clinker Bins Discharge: Nuisance Dust Collector 5E1.BF01, Weighbelt Feeder 5E1.WE01, Weighbelt Feeder 5E1.WE02, Weighbelt Feeder 5E1.WE03 & Belt Conveyor (Discharge to) 5E1.BC01			DC12	Pulse Jet Baghouse
PT13	Finish Mill Elevator & Conveying: Bucket Elevator 5F1.BE01, Air Slide (Discharge from) 5J1.TC01, Polysius Cement Cooler 5J1.FQ01, Nuisance Dust Collector 5F1.BF01, Piping 5J1.QS01			DC13	Pulse Jet Baghouse
PT14	Fringe Cement Bin: Air Slide (middle) 5J1.TC01, Fringe Cement Bin 5F1.FB01, Bucket Elevator 5F1.BE02 & Blower 5F1.RB01			DC14	Pulse Jet Baghouse
PT15	Cement Conveying to Silos : Bucket Elevator 5J1.BE01, Nuisance Dust Collector 5J1.BF01, , Air Slide 5J1.TC02 & Air Slide (Discharge to) 5J1.TC03			DC15	Pulse Jet Baghouse
PT16	Cement Silo No.1 NW : Nuisance Dust Collector 5J1.BF02, Air Slide (Discharge From) 5J1.TC03 & Silo(#1) 5K1.SL01			DC16	Pulse Jet Baghouse
PT17	Cement Silo No.2 NE : Nuisance Dust Collector 5J1.BF03, Air Slide 5J1.TC04 & Silo (#2) 5K1.SL01			DC17	Pulse Jet Baghouse
PT18	Cement Silo No. 3 Interstice: Nuisance Dust Collector 5J1.BF04, Air Slide 5J1.TC05 & Silo (#3) 5K1.SL01			DC18	Pulse Jet Baghouse
PT19	Cement Silo No. 5 SE: Nuisance Dust Collector 5J1.BF05, Air Slide 5J1.TC06 & Silo (#5) 5K1.SL01			DC19	Pulse Jet Baghouse
PT20	Cement Silo No. 4 SW: Nuisance Dust Collector 5J1.BF06 & Silo (#4) 5K1. SL01			DC20	Pulse Jet Baghouse
PT21	Rail Loadout : Nuisance Dust Collector 6E1.BF01, Bulk Loading System 6E1.LD01, Air Slide 6E1.TC01, Air Slide 6E1.TC02 & Weigh Scales 6E1.WG01			DC21	Pulse Jet Baghouse

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ID No.	Point Source or Fugitive Description; Equipment Description; Equipment Number	Applicable Requirements/ Standards	Corresponding Permit Conditions	ID No.	Description
PT22	Truck Loadout No. 1: Nuisance Dust Collector 6D1.BF01, Bulk Loading System 6D1.LD01, Air Slide 6D1.TC01, Air Slide 6D1.TC02, Air Slide 6D1.TC03 & Weigh Scales 6D1.WG01	40 CFR 52.21, 40 CFR Part 63, Subpart LLL, 391-3-1-.02(2)(b), 391-3-1-.02(2)(e), 391-3-1-.02(2)(n)	2.2.5, 3.2.7, 3.2.14, 3.2.15, 3.2.16, 3.2.21, 3.3.1, 3.4.1, 3.3.6, 4.2.1, 4.2.4, 4.2.8, 4.2.11, 4.2.20, 5.2.1, 5.2.7, 5.2.12, 5.2.13, 5.2.18, 6.2.1 thru 6.2.7, 6.2.17, 6.2.18, 6.2.23	DC22	Pulse Jet Baghouse
PT23	Truck Loadout No. 2: Nuisance Dust Collector 6D2.BF01, Bulk Loading System 6D2.LD01, Air Slide 6D2.TC01, Air Slide 6D2.TC02 & Weigh Scales 6D2.WG01			DC23	Pulse Jet Baghouse
PT24	Packaging Plant Bucket Elevator 6P1-BE01, Packer Pre-Bin 6P1-FB1, Rotary Packer 6P1-RP1, Air Slide 6P1-TC01	40 CFR 52.21, 40 CFR Part 63, Subpart LLL, 391-3-1-.02(2)(b), 391-3-1-.02(2)(e), 391-3-1-.02(2)(n)	2.2.5, 3.2.5, 3.2.7, 3.2.14, 3.2.15, 3.2.16, 3.2.21, 3.3.1, 3.3.6, 3.4.1, 4.2.1, 4.2.4, 4.2.8, 4.2.11, 4.2.20, 5.2.1, 5.2.7, 5.2.12, 5.2.13, 5.2.15, 6.2.1 thru 6.2.7, 6.2.17, 6.2.18, 6.2.23	DC24	Pulse Jet Baghouse
PT25	Coal/Coke Railcar Unloading: Nuisance Dust Collector CA1.BF01, Vibrator CA1.VD01, Pneumatic Feed Hopper CA1.FH01, Belt Conveyor CJ1.BC01, Metal Separator CJ1.MS01 & Belt Conveyor (Discharge to) CJ1.BC02	40 CFR 52.21, 40 CFR Part 60, Subpart Y, 391-3-1-.02(2)(b), 391-3-1-.02(2)(e), 391-3-1-.02(2)(n)	2.2.5, 3.2.7, 3.2.22, 3.3.1, 3.3.2, 3.3.3, 3.4.1, 4.2.14, 4.2.20, 5.2.11, 5.2.12, 5.2.13, 5.2.18, 6.2.17, 6.2.18, 6.2.23	DC25	Pulse Jet Baghouse
PT26	Coal/Coke Conveying : Belt Conveyor (Discharge to) CJ2.BS01, Belt Conveyor (Discharge to) CJ1.BC03, Nuisance Dust Collector CJ1.BF01, , Belt Conveyor (Discharge from) CJ1.BC02, Diverter CJ1.CF01 & Belt Conveyor CJ2.BC01			DC26	Pulse Jet Baghouse
PT27	4000-ton Dry Fly Ash Silo: Nuisance Dust Collector CV2.BF01, Silo CV2.SL01 & Blower CV2.RB01	40 CFR 52.21, 40 CFR Part 63, Subpart LLL, 391-3-1-.02(2)(b), 391-3-1-.02(2)(e), 391-3-1-.02(2)(n)	2.2.5, 3.2.7, 3.2.14, 3.2.15, 3.2.16, 3.2.21, 3.3.1, 3.4.1, 3.3.6, 4.2.1, 4.2.4, 4.2.8, 4.2.11, 4.2.20, 5.2.1, 5.2.7, 5.2.12, 5.2.13, 5.2.18, 6.2.1 thru 6.2.7, 6.2.17, 6.2.18, 6.2.23	DC27	Pulse Jet Baghouse
PT28	20-ton Dry Fly Ash Bin: Nuisance Dust Collector CV2.BF02, Dry Fly Ash Bin CV2.FB01, Blower CV2.RB02, Rotary Weigh Feeder CW3.DG01 & Blower CW3.RB01			DC28	Pulse Jet Baghouse
PT29	Pulverized Coal/Coke Bin: Nuisance Dust Collector CV1.BF01, Bin CV1.FB01	40 CFR 52.21, 40 CFR Part 60, Subpart Y, 391-3-1-.02(2)(b), 391-3-1-.02(2)(e), 391-3-1-.02(2)(n)	2.2.5, 3.2.7, 3.2.22, 3.3.1, 3.3.2, 3.3.3, 3.4.1, 4.2.14, 4.2.20, 5.2.11, 5.2.12, 5.2.13, 5.2.18, 6.2.17, 6.2.18, 6.2.23	DC29	Pulse Jet Baghouse

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Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	Point Source or Fugitive Description; Equipment Description; Equipment Number	Applicable Requirements/ Standards	Corresponding Permit Conditions	ID No.	Description
PT30	Off-Spec Clinker Silo: Nuisance Dust Collector 4V1.BF01, Silo 4V1.NL01 & Bulk Loading System 4V1.LD01	40 CFR 52.21, 40 CFR Part 63, Subpart LLL, 391-3-1-.02(2)(2)(b), 391-3-1-.02(2)(2)(e), 391-3-1-.02(2)(2)(n)	2.2.5, 3.2.7, 3.2.14, 3.2.15, 3.2.16, 3.2.21, 3.3.1, 3.4.1, 3.3.6, 4.2.1, 4.2.4, 4.2.8, 4.2.11, 4.2.20, 5.2.1, 5.2.7, 5.2.12, 5.2.13, 5.2.18, 6.2.1 thru 6.2.7, 6.2.17, 6.2.18, 6.2.23	DC30	Pulse Jet Baghouse
PT31	Raw Material Silos Discharge: Apron Feeder 3E1.AW01, Weighbelt Feeder 3E1.AW02, Weighbelt Feeder 3E1.AW03, Weighbelt Feeder 3E1.AW04, Belt Conveyor 3E1.BC01, Metal Separator 3E1.MS01, Nuisance Dust Collector 3E1.BF01 & Belt Conveyor (Discharge to) 3E1.BC02, Cross Belt Analyzer 3E1.QB01, Metal Separator 3E1.MS02			DC31	Pulse Jet Baghouse
PT32	Raw Material Storage Silo Inlet/Loading: Nuisance Dust Collector 3C2.BF01, Belt Conveyor 3C1.BC02, Belt Conveyor 3C2.BC02, Diverter Gate 3C2.CF01, Belt Conveyor 3C2.BC01 (Discharge from), Belt Conveyor 3C1.BC01 (Discharge from), Diverter Gate 3C1.CF01, Bin 3D1.FB01, Bin 3D1.FB02, Bin 3D1.FB03, Bin 3D1.FB04			DC32	Pulse Jet Baghouse
PT33	Raw Mill Separators Discharge: Air Slide 3J1.TC01 & Air Slide 3J1.TC02			DC33	Pulse Jet Baghouse
PT34	Clinker Bin Inlet: Nuisance Dust Collector 5D1.BF01, Pan Conveyor 5C1.AY01 (Discharge from) & Clinker Bin 5D1.FB01			DC34	Pulse Jet Baghouse
PT35	Kiln System with In-Line Raw Mill and Clinker Cooler: Baghouse 4E1.PB01, Screw Pump 4F1.SP01, Air Compressor 4F1.CP01, Air Compressor 4F1.CP02, Fan Process 3E1.FN01, Fan Process 3F1.FN01, Hot Gas Generator 3F1.HG01, Water Spray 3F1.WJ01, Polysius Vertical Mill 3F1.RM01, Polysius Separator 3F1.SE01, Bucket Elevator 3F1.BE01, Drag Chain Conveyor 3E1.CY01, Bin 3E1.FB01, Diverter Gate 3E1.CF01, Metal Detector 3E1.MT01, Belt Conveyor 3E1.BC02 (Discharge from), Polysius Cyclone 3F1.CN01, Polysius Cyclone 3F1.CN02, Diverter Gate 3F1.CF01, Screw Conveyor 4G1.SC02, Screw Conveyor 4G1.SC01, Fan Process 4G1.FN01, Conditioning Tower 4G1.ET01, Cyclone 4G1.PT01, Cyclone 4G1.PS02, Cyclone 4G1.PS01, Cyclone 4G1.PJ01, Calciner Burner 4G1.BU01, Calciner 4G1.CA01, Transfer Vessel 4G1.CC01, Tire Feed 4G1.KJ01, Elevator 4G1.EV01, SNCR System 4G1.AJ01, Polysius Kiln 4K1.KP01, Fan Auxiliary 4K1.KC01.FNC01, Fan Auxiliary 4K1.KC02.FNC01, Fan Auxiliary 4K1.KC01, Fan Auxiliary 4K1.KC02, Polysius Tertiary Air Duct 4G1.TD01, Burner 4K1.BU01, Fan Auxiliary 4K1.BU01.FNP01, Fan Auxiliary 4K1.BU01.FNC01, Polysius Cooler 4R1.GQ01, Polysius Clinker Hammer Crusher 4R1.HR01, Fan Coolers 4R1.FN01-4R1.FN12, Process Baghouse 4S1.PB01, Pan Conveyor (Discharge to) 4T1.AY01, Drag Chain Conveyor	40 CFR 52.21, 40 CFR Part 63, Subpart LLL, 391-3-1-.02(2)(2)(b), 391-3-1-.02(2)(2)(e), 391-3-1-.02(2)(2)(g), 391-3-1-.02(2)(2)(n)	2.2.1 thru 2.2.6, 3.2.1 thru 3.2.7, 3.2.14 thru 3.2.22, 3.3.1, 3.3.4, 3.4.1, 4.2.1, 4.2.2, 4.2.3, 4.2.5, 4.2.6, 4.2.7, 4.2.8, 4.2.9, 4.2.10, 4.2.11, 4.2.12, 4.2.13, 4.2.20, 4.2.21, 4.2.22, 5.2.1, 5.2.2, 5.2.3, 5.2.4 5.2.5, 5.2.6, 5.2.7, 5.2.8, 5.2.9, 5.2.11, 5.2.14, 5.2.15, 5.2.16, 6.2.1 thru 6.2.7, 6.2.16, 6.2.17, 6.2.18, 6.2.19, 6.2.21, 6.2.22, 6.2.23	DC35	Pulse Jet Baghouse

AIR QUALITY PERMIT

Houston American Cement Plant

Permit No.: 3241-153-0056-P-01-0

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	Point Source or Fugitive Description; Equipment Description; Equipment Number	Applicable Requirements/ Standards	Corresponding Permit Conditions	ID No.	Description
	4S1.CY01, Drag Chain Conveyor 4S1.CY02, Gas Piping 4S1.GP02, Fan Process 4S1.FN01, Rotor Weighfeeder CW1.DG01, Blower CW1.RB01, Rotor Weighfeeder CW2.DG01, Blower CW2.RB01 & Blower CW2.RB02	<i>Draft</i>			
PT36	Finish Bin Sweep Baghouse: Drag Chain Conveyor 5F1.CY01, Flow Meter 5F1.FW01, Polysius Mill Ball 5F1.TM01, Motor 5F1.TM01.DRV01, Grinding Aid System 5F1.GB02, Grinding Aid System 5F1.GB01, Water Spray 5F1.WJ01, Baghouse 5F1.PB01, Fan Process 5F1.FN01, Air Slide 5F1.TC03, Polysius Separator 5F1.DS01, Air Slide 5F1.TC01 & Screw Conveyor 5F1.SC01	40 CFR 52.21, 40 CFR Part 63, Subpart LLL, 391-3-1-.02(2)(2)(b), 391-3-1-.02(2)(2)(e), 391-3-1-.02(2)(2)(n)	2.2.5, 3.2.5, 3.2.7, 3.2.14, 3.2.15, 3.2.16, 3.2.21, 3.3.1, 3.3.5, 3.4.1, 4.2.1, 4.2.4, 4.2.8, 4.2.11, 4.2.20, 5.2.1, 5.2.3, 5.2.7, 5.2.9, 5.2.11, 5.2.13, 6.2.18, 6.2.23	DC36	Baghouse
PT37	Finish Mill Separator Baghouse: Baghouse 5F1.PB02, Air Slide 5F1.TC02, Polysius Separator 5F1.DS01 & Fan Process 5F1.FN02	40 CFR 52.21, 40 CFR Part 63, Subpart LLL, 391-3-1-.02(2)(2)(b), 391-3-1-.02(2)(2)(e), 391-3-1-.02(2)(2)(n)	2.2.5, 3.2.5, 3.2.7, 3.2.14, 3.2.21, 3.2.22, 3.3.1, 3.3.5, 4.2.1, 4.2.4, 4.2.8, 4.2.11, 4.2.20, 5.2.1, 5.2.3, 5.2.7, 5.2.12, 5.2.13, 5.2.15, 6.2.1 thru 6.2.7, 6.2.16, 6.2.18, 6.2.19, 6.2.24	DC37	Baghouse
PT38	Coal Mill Baghouse: Baghouse CR1.PB01, Fan CR1.SF07, Fan CR1.SF08, Explosion Vent CR1.PK01, Explosion Vent CR1.PK03, Separator CR1.SE01, Rotary Gate CR1.CV01, Explosion Vent CR1.PF02, Process Fan CR1.FN01, Vertical Mill CR1.RM01, Fan CR1.SF01, Fan CR1.SF03, Explosion Vent CR1.PK02, Water Spray CR1.WJ01, Fan CR1.SF02, Fan CR1.SF04, Process Fan CR1.FN02 & Gas Piping CR1.GP05	40 CFR 52.21, 40 CFR Part 63, Subpart LLL, 391-3-1-.02(2)(2)(b), 391-3-1-.02(2)(2)(e), 391-3-1-.02(2)(2)(n)	2.2.5, 3.2.3, 3.2.5, 3.2.7, 3.2.14, 3.2.15, 3.2.16, 3.3.1, 3.3.4, 3.4.1, 4.2.1, 4.2.2, 4.2.4, 4.2.8, 4.2.11, 4.2.20, 5.2.1, 5.2.7, 5.2.12, 5.2.13, 6.2.1 thru 6.2.7, 6.2.17, 6.2.18, 6.2.23	DC38	Pulse Jet Baghouse
EM01	750 kW Emergency Stationary Diesel Generator	40 CFR Part 60, Subpart IIII, 40 CFR Part 63, Subpart ZZZZ 391-3-1-.02(2)(2)(b), 391-3-1-.02(2)(2)(e), 391-3-1-.02(2)(2)(g)	3.2.23 thru 3.2.27, 3.3.8, 3.3.9, 5.2.10, 6.2.10 thru 6.2.15	No	No
Fugitive Emission Sources					
QA01	FEL to Limestone/Clay Piles	40 CFR 52.21, 40 CFR Part 60, Subpart OOO, 391-3-1-.02(2)(2)(b), 391-3-1-.02(2)(2)(e), 391-3-1-.02(2)(2)(n)	2.2.5, 3.2.7, 3.2.9, 3.3.1, 3.3.7, 3.4.1, 4.2.15 thru 4.2.19, 4.2.20, 5.2.17, 6.2.8, 6.2.9, 6.2.17, 6.2.18, 6.2.23	No	Slow Speed FEL & Wet Material
QA02	FEL Reclaim from Limestone/Clay Piles				
QA03	FEL Dump to Primary Crusher				
QA04	Primary Crusher Operation Crusher Q1-CR1				Wet material
QA05	Conveyors B01 thru B04 Belt Conveyor Q1-B01, Belt Conveyor Q1-B02, Belt Conveyor Q1-B03, Belt Conveyor Q1-B04,				Enclosed Conveyors

AIR QUALITY PERMIT

Houston American Cement Plant

Permit No.: 3241-153-0056-P-01-0

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	Point Source or Fugitive Description; Equipment Description; Equipment Number	Applicable Requirements/ Standards	Corresponding Permit Conditions	ID No.	Description
QA06	Conveyors B05 thru B08 Belt Conveyor Q1-B05, Belt Conveyor Q1-B06, Belt Conveyor Q1-B07, Belt Conveyor Q1-B08 (Discharge to)	40 CFR 52.21, 40 CFR Part 60, Subpart OOO 391-3-1-.02(2)(2)(b), 391-3-1-.02(2)(2)(e), 391-3-1-.02(2)(2)(n)	2.2.5, 3.2.7, 3.2.9, 3.3.1, 3.3.7, 3.4.1, 4.2.15 thru 4.2.19, 4.2.20, 5.2.17, 6.2.8, 6.2.9, 6.2.17, 6.2.18, 6.2.23	No	Enclosed Conveyors
QA07	Conveyors B08 to B20 Belt Conveyor Q1-B08 (Discharge from), Belt Conveyor Q1-B20 (Discharge to)				
QA08	Conveyors B20 to B21 (Overland Conveyors) or B22 Belt Conveyor Q1-B20 (Discharge from), Belt Conveyor Q1-B21 (Discharge to), Belt Conveyor Q1-B22 (Discharge to),				
QA10	Conveyor B22 to Base Rock Radial Stacker Belt Conveyor Q1-B22 (Discharge from), Stacker Q1-BS01 (Discharge to)				
QA11	Base Rock Radial Stacker Discharge to Pile Stacker Q1-BS01 (Discharge from)				Wet material
QA12	Base Rock FEL Reclaim				
QA13	Base Rock FEL Transfer to Truck				Slow Speed FEL & Wet Material
RM01	Overland Limestone Conveyor Transfer to Limestone/Clay Building Stacker: Belt conveyor 2E1.BC01, Stacker 2E1.BS01 (Discharge from)				Enclosed Conveyor Located Inside a Building
RM02	Stacker Discharge to Limestone/ Clay Piles: Stacker 2E1.BS01 (Discharge to limestone/clay piles SP04 & SP05)				Located Inside a Building
RM03	Limestone/Clay Piles Discharge to Reclaim Belt: Reclaimer 2F1.BR01 (Discharge from), Belt Conveyor 3C1.BC01 (Discharge to)				
RM04	Stacker Discharge to Pure Limestone Pile: Stacker 2E1.BS01 (Discharge from stacker to pure limestone pile SP06)				
RM05	Pure Limestone FEL Reclaim: Pure limestone Pile (SP06) to FEL Reclaim				Located Inside a Building & Low Speed FEL
RM06	Pure Limestone FEL Transfer to Hopper: Samson Feeder 2F1.WF01 (Pure limestone FEL transfer to hopper)				
RM07	Bauxite/Fly Ash Truck Dump to Hopper: Hopper 2E2.FH01, Drag Chain Conveyor (Discharge to) 2E2.CY01	40 CFR 52.21, 40 CFR Part 63, Subpart LLL, 391-3-1-.02(2)(2)(b), 391-3-1-.02(2)(2)(e), 391-3-1-.02(2)(2)(n)	2.2.5, 3.2.7, 3.2.9, 3.2.14, 3.2.15, 3.2.16, 3.2.21, 3.3.1, 3.3.6, 3.4.1, 4.2.1, 4.2.4, 4.2.8, 4.2.11, 4.2.20, 5.2.1, 5.2.7, 5.2.13, 6.2.1, 6.2.2, 6.2.3, 6.2.4, 6.2.5, 6.2.17, 6.2.18, 6.2.23	No	Located Inside a Building
RM08	Bauxite/Fly Ash Hopper Transfer to Belt: Drag Chain Conveyor (Discharge from) 2E2.CY01, Belt Conveyor (Discharge to) 2E2.BC01				
RM09	Bauxite/Fly Ash Belt Transfer to Reversible Belt: Belt Conveyor (Discharge from) 2E2.BC01, Belt Conveyor (Discharge to) 2E2.BC02				
RM10	Bauxite/Fly Ash Reversible Belt Transfer to Pile: Belt Conveyor (Discharge from, to pile SP07) 2E2.BC02				

AIR QUALITY PERMIT

Houston American Cement Plant

Permit No.: 3241-153-0056-P-01-0

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	Point Source or Fugitive Description; Equipment Description; Equipment Number	Applicable Requirements/ Standards	Corresponding Permit Conditions	ID No.	Description
RM11	Bauxite/Fly Ash Pile Transfer to Reclaim Belt: Reclaimer (Discharge from) 2F2.PR01 Belt Conveyor, (Discharge to) 3C2.BC01, Emergency Hopper 3C2. FH01	40 CFR 52.21, 40 CFR Part 63, Subpart LLL, 391-3-1-.02(2)(2)(b), 391-3-1-.02(2)(2)(e), 391-3-1-.02(2)(2)(n)	2.2.5, 3.2.7, 3.2.9, 3.2.14, 3.2.15, 3.2.16, 3.2.21, 3.3.1, 3.3.6, 3.4.1, 4.2.1, 4.2.4, 4.2.8, 4.2.11, 4.2.20, 5.2.1, 5.2.7, 5.2.13, 6.2.1, 6.2.2, 6.2.3, 6.2.4, 6.2.5, 6.2.17, 6.2.18, 6.2.23	No	Located Inside a Building
RM12	Iron Ore/Mill Scale Truck Dump to Piles				Located Inside a Building & Low Speed FEL
RM13	Iron Ore/Mill Scale Piles FEL Reclaim				
RM14	Iron Ore/Mill Scale FEL Transfer to Hopper: Samson Feeder 2F2.WF01				
RM15	Iron Ore/Mill Scale Hopper Discharge to Reclaim belt: Samson Feeder (Discharge from) 2F2.WF01, Belt Conveyor (Discharge to) 3C2.BC01				Located Inside a Building
RM16	Raw Mill Reject Bin Discharge to Truck				
RM17	Natural Gypsum Truck Dump to Pile				Located Inside a Building
RM18	Limestone Truck Dump to Pile	40 CFR 52.21, 40 CFR Part 60, Subpart OOO, 391-3-1-.02(2)(2)(b), 391-3-1-.02(2)(2)(e), 391-3-1-.02(2)(2)(n)	2.2.5, 3.2.7, 3.2.9, 3.3.1, 3.4.1, 5.2.17, 6.2.9, 6.2.17, 6.2.18, 6.2.23	No	Located Inside a Building
RM19	Natural Gypsum/ Limestone Piles FEL Reclaim	40 CFR 52.21, 40 CFR Part 63, Subpart LLL, 391-3-1-.02(2)(2)(b), 391-3-1-.02(2)(2)(e), 391-3-1-.02(2)(2)(n)	2.2.5, 3.2.7, 3.2.9, 3.2.14, 3.2.15, 3.2.16, 3.2.21, 3.3.1, 3.3.6, 3.4.1, 4.2.1, 4.2.4, 4.2.8, 4.2.11, 4.2.20, 5.2.1, 5.2.7, 5.2.13, 6.2.1, 6.2.2, 6.2.3, 6.2.4, 6.2.5, 6.2.17, 6.2.18, 6.2.23	No	Located Inside a Building & Low Speed FEL
RM20	Synthetic Gypsum Truck Dump to Pile				Located Inside a Building
RM21	Synthetic Gypsum Pile FEL Reclaim				Located Inside a Building & Low Speed FEL
RM22	Natural Gypsum/ Limestone FEL Transfer to Belt: Hopper 5C2. FH01, Belt conveyor (Discharge to) 5C2.BC01				
RM23	Synthetic Gypsum FEL Transfer to Belt: Hopper 5C2.FH01, Weighbelt 5D2.EW01, Weighbelt feeder 5E1.WE04				
FM01	Coal/Other Material Discharge to Pile: Belt Conveyor (Discharge to other material pile SP15) CJ2.BS01	40 CFR 52.21, 40 CFR Part 60, Subpart Y, 391-3-1-.02(2)(2)(b), 391-3-1-.02(2)(2)(e), 391-3-1-.02(2)(2)(n)	2.2.5, 3.2.7, 3.2.9, 3.3.1, 3.3.2, 3.3.3, 3.4.1, 4.2.14, 4.2.20, 5.2.11, 5.2.13, 6.2.17, 6.2.18, 6.2.23	No	
FM02	Coal/Other Material FEL Reclaim				Slow Speed FEL
FM03	Coal/Other Material FEL Transfer to Belt Hopper in Coal/Coke Building Hopper (Discharge to) CN1.FH01				Located Inside a Building & Low Speed FEL
FM04	Coal/Petcoke Belt transfer to Reversible Belt: Belt Conveyor (Discharge from) CJ1.BC03, Belt Conveyor (Discharge to) CJ1.BC01				Located Inside a Building
FM05	Coal/Petcoke Reversible Belt Transfer to Piles: Belt Conveyor (Discharge from) CJ1.BC01				
FM06	Coal/Petcoke Piles FEL Reclaim				Located Inside a Building & Low Speed FEL

AIR QUALITY PERMIT

Houston American Cement Plant

Permit No.: 3241-153-0056-P-01-0

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	Point Source or Fugitive Description; Equipment Description; Equipment Number	Applicable Requirements/ Standards	Corresponding Permit Conditions	ID No.	Description
FM07	Coal/Petcoke FEL Transfer to Belt Hopper: Hopper CN1.FH01	40 CFR 52.21, 40 CFR Part 60, Subpart Y, 391-3-1-.02(2)(2)(b), 391-3-1-.02(2)(2)(e), 391-3-1-.02(2)(2)(n)	2.2.5, 3.2.7, 3.2.9, 3.3.1, 3.3.2, 3.3.3, 3.4.1, 4.2.14, 4.2.20, 5.2.11, 5.2.13, 6.2.17, 6.2.18, 6.2.23	No	Located Inside a Building & Low Speed FEL
FM08	Coal/Petcoke Belt to Belt Transfer: Belt Conveyor CN1.BC01, Belt Conveyor (Discharge to) CF1.BC02				Complete Enclosed Belt Transfer
FM09	Coal/Petcoke Belt to Elevator: Belt Conveyor (Discharge from) CN1.BC02, Diverter Gate CN1.CF01, Bucket elevator (Discharge to) CN1.BE01				
FM10	Coal/Petcoke Elevator to Bins Bucket elevator (Discharge from) CN1.BE01, Diverter Gate CN1.CF02, Coal Bin (Discharge to) CP1.FB01, Petcoke Bin (Discharge to) CP1.FB02				
FM11	Coal/Petcoke Bins Discharge Coal Bin (Discharge from) CP1.FB01, Petcoke Bin (Discharge from) CP1.FB02, Rotary Airlock CP1.TA01, Rotary Airlock CP1.TA02 & Vent CR1.PF01				
SP01	Crushed Limestone Pile – Quarry	40 CFR 52.21, 40 CFR Part 60, Subpart OOO, 391-3-1-.02(2)(2)(b), 391-3-1-.02(2)(2)(e), 391-3-1-.02(2)(2)(n)	2.2.5, 3.2.7, 3.2.9, 3.3.1, 3.3.7, 3.4.1, 4.2.15 thru 4.2.19, 4.2.20, 5.2.17, 6.2.8, 6.2.9, 6.2.17, 6.2.18, 6.2.23	No	
SP02	Crushed Clay Pile – Quarry				
SP03	Base Rock Pile – Quarry				
SP04	Limestone/Clay Storage				
SP05	Limestone/Clay Storage				Located Inside a Building
SP06	Pure Limestone Storage				
SP07	Bauxite/Fly Ash Storage	40 CFR 52.21, 40 CFR Part 63, Subpart LLL, 391-3-1-.02(2)(2)(b), 391-3-1-.02(2)(2)(e), 391-3-1-.02(2)(2)(n)	2.2.5, 3.2.7, 3.2.9, 3.2.14, 3.2.15, 3.2.16, 3.2.21, 3.3.1, 3.3.6, 3.4.1, 4.2.1, 4.2.4, 4.2.8, 4.2.11, 4.2.20, 5.2.1, 5.2.7, 5.2.13, 6.2.1, 6.2.2, 6.2.3, 6.2.4, 6.2.5, 6.2.17, 6.2.18, 6.2.23	No	Located Inside a Building
SP08	Iron Ore Components Storage				
SP09	Mill Scale Components Storage				
SP10	Natural Gypsum Storage				
SP11	Synthetic Gypsum Storage				
SP12	Limestone Storage	40 CFR 52.21, 40 CFR Part 60, Subpart OOO, 391-3-1-.02(2)(2)(b), 391-3-1-.02(2)(2)(e), 391-3-1-.02(2)(2)(n)	2.2.5, 3.2.7, 3.2.9, 3.3.1, 3.3.7, 3.4.1, 4.2.15 thru 4.2.19, 4.2.20, 5.2.17, 6.2.8, 6.2.9, 6.2.17, 6.2.18, 6.2.23	No	Located Inside a Building
SP13	Coal Storage	40 CFR 52.21, 40 CFR Part 60, Subpart Y, 391-3-1-.02(2)(2)(b), 391-3-1-.02(2)(2)(e), 391-3-1-.02(2)(2)(n)	2.2.5, 3.2.7, 3.2.9, 3.3.1, 3.3.2, 3.3.3, 3.4.1, 4.2.14, 4.2.20, 5.2.11, 5.2.13, 6.2.17, 6.2.18, 6.2.23	No	Located Inside a Building
SP14	Pet Coke Storage				
SP15	Other Fuel material (Coal) Storage				

AIR QUALITY PERMIT

Houston American Cement Plant

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Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	Point Source or Fugitive Description; Equipment Description; Equipment Number	Applicable Requirements/ Standards	Corresponding Permit Conditions	ID No.	Description
PR01	Main Road Entrance	40 CFR 52.21, 40 CFR Part 63, Subpart LLL, 391-3-1-.02(2)(2)(n)	2.2.5, 3.2.7, 3.2.9, 3.2.13, 3.2.14, 3.2.15, 3.2.16, 3.3.1, 3.4.1, 5.2.17, 6.2.17, 6.2.18, 6.2.23	No	Paved Road
PR02	Main Road to Cement Packaging				
PR03	Cement Packaging In				
PR04	Cement Packaging Out				
PR05	Main Road to Bulk Cement Split				
PR06	Bulk Cement In				
PR07	Bulk Cement Out				
PR08	Cement Truck Exit				
PR09	Road to FM Additives				
PR10	Road to Office Buildings				
PR11	FM Additives Delivery				
PR12	Main Road to Clinker Silos				
PR13	Clinker Silos to Coal/Coke Road				
PR14	Coal/Coke Building Road to Spur				
PR15	Ammonia Delivery				
PR16	Road to Coal/Other fuel Material Pile				
PR17	Dry Fly Ash Delivery				
PR18	Mill Scale/Iron Ore delivery				
PR19	Road to Office Buildings				
PR20	Road to bauxite/Fly Ash Hopper				
PR21	Coal/Coke Building Spur	40 CFR 52.21, 40 CFR Part 60, Subpart Y, 391-3-1-.02(2)(2)(n)	2.2.5, 3.2.7, 3.2.9, 3.2.13, 3.3.1, 3.3.2, 3.3.3, 3.4.1, 6.2.17, 6.2.18, 6.2.23	No	Paved Road
PR22	FEL – Limestone (FM Additive) Pile	40 CFR 52.21, 40 CFR Part 60, Subpart OOO, 391-3-1-.02(2)(2)(n)	2.2.5, 3.2.7, 3.2.9, 3.2.13, 3.3.1, 3.4.1, 5.2.17, 6.2.9, 6.2.17, 6.2.18, 6.2.23	No	Paved Road – Low Speed FEL
PR23	FEL – Natural Gypsum Pile	40 CFR 52.21, 40 CFR Part 63, Subpart LLL, 391-3-1-.02(2)(2)(n)	2.2.5, 3.2.7, 3.2.9, 3.2.13, 3.2.14, 3.2.15, 3.2.16, 3.3.1, 3.4.1, 5.2.17, 6.2.17, 6.2.18, 6.2.23	NO	Paved Road – Low Speed FEL
PR24	FEL – Synthetic Gypsum Pile				
PR25	FEL – Coal/Petcoke Pile	40 CFR 52.21, 40 CFR Part 60, Subpart Y, 391-3-1-.02(2)(2)(n)	2.2.5, 3.2.7, 3.2.9, 3.2.13, 3.3.1, 3.3.2, 3.3.3, 3.4.1, 6.2.18, 6.2.19, 6.2.24	No	Paved Road – Low Speed FEL
PR26	FEL - Pure Limestone Pile	40 CFR 52.21, 40 CFR Part 63, Subpart LLL, 391-3-1-.02(2)(2)(n)	2.2.5, 3.2.7, 3.2.9, 3.2.13, 3.2.14, 3.2.15, 3.2.16, 3.3.1, 3.4.1, 5.2.17, 6.2.17, 6.2.18, 6.2.23		
PR27	FEL – Mill Scale/Iron Ore Piles				
UR01	Quarry Road to base rock Pile	40 CFR 52.21, 40 CFR Part 60, Subpart OOO, 391-3-1-.02(2)(2)(n)	2.2.5, 3.2.7, 3.2.9, 3.2.12, 3.3.1, 3.4.1, 5.2.17, 6.2.9, 6.2.17, 6.2.18, 6.2.20, 6.2.23	No	Unpaved Road – Water Spray
UR02	FEL – Limestone/Clay Piles (Quarry)				Unpaved Road – Water Spray, Slow Speed FEL
UR03	FEL – Base Rock Pile (Quarry)				
UR04	FEL – Coal/Other Fuel Material Pile	40 CFR 52.21, 40 CFR Part 60, Subpart Y, 391-3-1-.02(2)(2)(n)	2.2.5, 3.2.7, 3.2.9, 3.2.12, 3.3.1, 3.3.2, 3.3.3, 3.4.1, 4.2.14, 6.2.17, 6.2.18, 6.2.20, 6.2.23	No	Unpaved Road – Water Spray, Sloe Speed FEL

* Only source-specific conditions are listed for reference. Generally applicable requirements/conditions contained in this permit may also apply to emission units listed above.

3.2 Equipment Emission Caps and Operating Limits

40 CFR Part 52.21 – Prevention of Significant Deterioration (PSD)/Best Achievable Control Technology (BACT)

- Draft
- 3.2.1 The production rate of the kiln shall not exceed 125 tons per hour of clinker (24-hour rolling average), and 1,095,000 tons of clinker during any consecutive 12-month period.
- 3.2.2 The process air and flue gas streams exhausted from the in-line kiln/raw mill system, including the air heater, raw mill, preheater/precalciner, calciner, kiln, and clinker cooler, shall be controlled by a baghouse (Air Pollution Control Device ID. No. DC35) that exhausts through a single stack (Stack ID No. ST35). The stack shall be no less than 314 feet in height, no more than 14.6 feet in outlet diameter, and exhaust unobstructed upward into the atmosphere. The requirements of this condition do not apply to the portion of clinker cooler exhaust air stream routed to the coal mill.
- 3.2.3 The Permittee shall only burn authorized fuels whose impacts on air pollutant emissions from the in-line kiln/raw mill have been determined as acceptable based on a Division-approved fuel-specific performance test(s) required by Condition 4.2.22. Authorized fuels may include, but not to be limited to, coal, fuel oil, natural gas, petroleum coke, landfill gas, on-specification used oil, and other non-hazardous wastes as defined in 40 CFR Part 63, Subpart EEE – “*National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors*”. The Permittee shall demonstrate compliance with the usage requirements for any of the above or combination of the above authorized fuels with the Division before using the fuel in the in-line kiln/raw mill in accordance with the following procedures/requirements:
- a. Firing of an authorized non-hazardous liquid fuel shall not exceed the percentage of the total heat input of the in-line kiln/raw mill that was utilized during the most recent Division-approved performance test for firing the liquid fuel.
 - b. Firing of an authorized non-hazardous solid fuel shall not exceed the percentage of the calciner/kiln burner capacity that was utilized during the most recent Division-approved performance test for firing the solid fuel.
 - c. Total solid fuel usage including coal, petroleum coke and other non-hazardous alternative solid fuels shall not exceed 205,618 tons during any 12 consecutive month period.
 - d. Dry coal/fly ash may be injected directly into the calciner or kiln.
 - e. The air heater supplying hot air to the raw mill shall be fired only with natural gas, landfill gas or distillate fuel oil (No. 1 and No. 2) and No. 4 fuel oil.
 - f. The firing of the “on-specification” used oil fuel shall not exceed 2,000 gallons per hour and 3,000,000 gallons during any consecutive 12 month period. The “on-specification” used oil fuel shall meet the following specifications:

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- i. Arsenic shall not exceed 5.0 ppm
- ii. Cadmium shall not exceed 2.0 ppm
- iii. Chromium shall not exceed 10.0 ppm
- iv. Lead shall not exceed 100.0 ppm
- v. Total halogens shall not exceed 1000 ppm; and
- vi. Flash point shall not be less than 100°F.

“On-specification” used oil fuel may be generated from on site sources or purchased from a vendor, and shall not contain any PCB’s.

The Permittee shall submit a SIP Air Permit application for the authorization of use of any new fuel(s) which may have an adverse impact(s) on the emissions of any regulated air pollutants. Prior to the initial Division-approved fuel-specific performance test, the Permittee shall only fire coal, fuel oil, natural gas, and/or petroleum coke.

3.2.4 The Permittee shall use the following technologies and/or procedures to comply with the relevant BACT emission limits:

- a. Multi-staged combustion (MSC)/staged and controlled combustion (SCC) and NH_3 solution-injection based SNCR to reduce NO_x emissions. The NH_3 solutions shall be injected at a location with an appropriate temperature profile to support the SNCR process. To prevent excessive NH_3 slip, the ammonia injection rate shall not exceed a NH_3/NO_x molar ratio of 1.0. A maximum NH_3 injection rate that represents a NH_3/NO_x molar ratio of less than 1.0 shall be established via Division-approved performance testing, and shall be incorporated into the Title V operating permit.
- b. Indirect firing and low NO_x burner(s) for reducing NO_x emissions.
- c. Fabric filters/baghouses to reduce PM/PM_{10} emissions from process air and/or flue gas streams exhausting through vents/stacks.
- d. Control of SO_2 emissions through equipment design/inherent dry scrubbing, judicious selection/use of raw materials, and hydrated lime injection (as necessary).
- e. Control of CO and VOC emissions through equipment design and combustion process management with good operating practices (i.e., adequate combustion temperature, residence time and excess air), judicious selection/use of raw materials, and calciner fly ash injection.

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The Permittee shall include, with the performance test reports as required in Part 4.0 of this permit, written operation, inspection and maintenance procedures and work practice requirements. These procedures and requirements shall be developed to ensure the satisfaction of the operating requirements in this condition, including, for each baghouse, an operation and maintenance (O&M) plan, or, as an alternative, the operation and maintenance plan as required in Condition 5.2.1. All inspections and maintenance activities shall be recorded in a permanent form suitable for inspection and submission to the Division.

- 3.2.5 To achieve the capture efficiencies demonstrated during the most recent Division-approved performance tests, the Permittee shall, during all periods of the operations, maintain the pressure drops across the baghouse at the levels or inside the ranges utilized during the most recent Division-approved performance tests. The Permittee shall equip baghouse Nos. DC02, DC24, DC35, DC36, DC37 and DC38 with continuous pressure drop/differential monitoring systems. Records from such monitoring systems of any 3-hour period during which the average measured pressure drops fall below the levels or stray away from the ranges as utilized during the most recent Division approved performance tests shall be reported as excursions per Condition 6.1.4.
- 3.2.6 The Permittee shall submit a SIP Air Permit Application to obtain an amendment to this permit before constructing and operating an alkali bypass on the cement kiln at this facility.
- 3.2.7 A critical spare parts inventory for control equipment including measuring device(s) and/or monitoring system(s) shall be maintained by the Permittee as necessary. Critical spare parts includes those such as bag filters and water spray nozzles which are most probable to fail under normal conditions of the control equipment operation and which can be practically inventoried and installed by the Permittee.
- 3.2.8 The Permittee shall operate, during all times when the primary crusher is in operation, the wet suppression/water-spray control system involved, except when the crusher is processing wet materials and during natural wet conditions. When the use of wet suppression/water-spray control system is required, the Permittee shall only operate the primary crusher when there is sufficient water and water pressure to adequately supply the wet suppression/water-spray control system involved such that a fine conical water mist spray pattern is produced that wets the surface area of the materials being processed. The wet suppression/water-spray control system shall be installed and maintained according to manufacturers' specifications.
- 3.2.9 The Permittee shall apply water to stockpile when necessary to prevent dust from becoming airborne.
- 3.2.10 The Permittee shall take reasonable precautions to minimize fugitive dust generated by blasting operation.
- 3.2.11 The Permittee shall maintain and operate, at all times the drilling equipment is in operation, appropriate dust control systems when necessary to reduce fugitive dust emissions, except during natural wet conditions.

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- 3.2.12 Except during natural wet conditions, the Permittee shall have, maintain, and operate at all times when truck travel is occurring on unpaved roads, a water truck equipped to effectively spray the unpaved roads which are being used, including roads used for in-plant travel, customer travel or construction travel, and this truck shall be equipped with a working water cannon.
- 3.2.13 Except during natural wet conditions, the Permittee shall install, maintain, and operate at all times when truck travel is occurring on paved roads, a fixed water sprinkle system adjusted to effectively spray the paved roads which are being used, including roads used for in-plant travel and customer travel.

40 CFR Part 63, Subpart LLL: National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry

- 3.2.14 The Permittee shall comply with the applicable provisions under 40 CFR Part 63, Subpart A, "General Provisions", as indicated by Table 1 to 40 CFR Part 63, Subpart LLL: *National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry* (Subpart LLL). Specifically, the Permittee shall develop a written startup, shutdown, and malfunction (SSM) plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction; and a program of corrective action for malfunctioning process, air pollution control, and monitoring equipment used to comply with the relevant standard. The SSM plan shall be developed by the source's compliance date as specified in Condition 3.2.15.
[40 CFR 63.1342]
- 3.2.15 On and after the commencement of the operation/production of the in-line kiln/raw mill and associated process equipment subject to Subpart LLL, the Permittee shall comply with all the applicable emissions standards and work practice, monitoring, testing, record keeping and reporting requirements of the Subpart.
[40 CFR 63.1351(b)]
- 3.2.16 The affected sources subject to Subpart LLL include, but are not to be limited to, the following operations/process units:
[40 CFR 63.1340(a), (b) and (c)]
- a. Each in-line kiln/raw mill;
 - b. Each clinker cooler;
 - c. Each raw mill;
 - d. Each finish mill;
 - e. Each raw material dryer;
 - f. Each raw material, clinker, or finished product storage bin;

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- g. Each conveying system transfer point including those associated with coal preparation used to convey coal from the mill to the kiln; and
- h. Each bagging and bulk loading and unloading system.

In addition, the first affected source in the sequence of materials handling operations subject to Subpart LLL is the raw material storage just prior to the raw mill. The primary and secondary crushers of the on-site nonmetallic mineral processing plant/quarrying operations, regardless of their locations in the process line, are not subject to Subpart LLL. The first conveyor transfer point subject to Subpart LLL is the transfer point associated with the conveyor transferring material from the raw material storage to the raw mill.

- 3.2.17 The Permittee shall not allow the in-line kiln/raw mill to burn hazardous wastes as defined in 40 CFR Part 63, Subpart EEE – “*National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors*”.
[40 CFR 63.1340(b)(1)/Avoidance of 40 CFR part 63, Subpart EEE]
- 3.2.18 The Permittee shall operate the in-line kiln/raw mill such that the respective temperature limits for the inlet(s) to the baghouse No. DC35 that exhausts to the main kiln stack No. ST35 during raw mill on and off periods, as established during the most recent Division-approved performance test required by Condition 4.2.5d, are not exceeded.
[40 CFR 63.1344(a) & (b)]
- 3.2.19 The in-line kiln/raw mill may not use as a raw material or fuel any fly ash where the mercury (Hg) content of the fly ash has been increased through the use of activated carbon, or any other sorbent unless the Permittee can demonstrate that the use of such fly ash will not result in an increase in Hg emissions over baseline emissions (i.e. Hg emissions not using the fly ash). The Permittee has the burden of proving that there has been no Hg emissions increase over baseline.
[40 CFR 63.1344(g)]
- 3.2.20 The in-line kiln/raw mill shall not exceed the average hourly captured kiln dust (CKD) recycle rate measured during most recent Division-approved Hg emission performance testing. Any exceedance of this average hourly rate is considered a violation of the standard.
[40 CFR 63.1344(i)]
- 3.2.21 All the sources subject to Subpart LLL at this site are exempt from any otherwise applicable new source performance standard (NSPS) contained in 40 CFR Part 60, Subpart F, “*Standard of Performance for Portland Cement Plants*” or 40 CFR Part 60, Subpart OOO, “*Standard of Performance for Nonmetallic Mineral Processing Plants*”.
[40 CFR 63.1356(a)]
- 3.2.22 The requirements of NSPS 40 CFR Part 60, Subpart Y, “*Standards of Performance for Coal Preparation Plants*,” do not apply to conveying system transfer points used to convey coal from the coal mill to the kiln.
[40 CFR 63.1356(b)]

40 CFR Part 60, Subpart IIII: Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

3.2.23 The accumulated maintenance check and readiness testing time for the 750 kilowatts emergency stationary diesel engine/generator shall not exceed 100 hours per year. The Permittee may petition the Division for approval of additional hours for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of the 750 kilowatts emergency stationary diesel engine/generator beyond 100 hours per year. Any operation other than emergency power generation, and maintenance check and readiness testing is prohibited.

[40 CFR 60.4211(e)]

3.2.24 The 750 kilowatts emergency stationary diesel engine/generator shall be certified for emission standards for new nonroad compress ignition engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants, operated and maintained according to the manufacturer's written specifications/instructions or procedures developed by the Permittee that are approved by the engine manufacturer, over the entire life of the engine. The Permittee may only change engine/generator settings that are permitted by the manufacturer.

[40 CFR 60.4202(a)(2), 60.4206 & 60.4211(a)]

3.2.25 The 750 kilowatts emergency stationary diesel engine/generator and any associated control devices if applicable, shall be installed and configured according to the manufacturer's written instructions.

[40 CFR 60.4211(c)]

40 CFR Part 63, Subpart ZZZZ: National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

3.2.26 The Permittee shall operate the 750 kilowatts emergency stationary diesel engine/generator only in an emergency situation such as to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility is interrupted, or to pump water in the case of fire or flood, etc. It may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine.

[40 CFR 63.6590(b)(i)]

3.2.27 The Permittee shall submit an Initial Notification for the 750 kilowatts emergency stationary diesel engine no later than 120 days after the startup of the engine, following the applicable requirements under 40 CFR 63.9(b)(2)(i) through (v), and a statement that the engine has no additional requirements and explain the basis of the exclusion.

[40 CFR 63.6645(d)]

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3.3 Equipment Federal Rule Standards

PSD/BACT

- 3.3.1 Emissions from the in-line kiln/raw mill (including the air heater, clinker cooler) shall not exceed the following BACT emissions standards:

TABLE 3.3.1: BACT Emission Limits

Pollutant	Operation	Emission Limit	Compliance Method	Averaging Time
PM	Air Heater, Raw Mill, Preheater/Precalciner, Calciner, Kiln, and Clinker Cooler/Main Kiln Stack No. ST35	0.153 lb PM/ton of clinker	Methods 5 and 202	Average of three 1-hour runs
		19.1 lb/hr	CEMS	Per EPA's requirement; may substitute the Method 9
PM ₁₀		0.129 lb PM ₁₀ /ton of clinker	Methods 201 or 201A and 202	Per Methods 201 or 201A and 202
Visible		10% opacity	COM	6-minute block average
PM/PM ₁₀	Finish Mill	0.01 gr/dscf (0.0085 gr/dscf for PM ₁₀)	Methods 5 and 202	Average of three 1-hour runs
Visible		10% opacity	COM	6-minute block average
PM/PM ₁₀	All other plant point sources	0.01 gr/dscf (0.0085 gr/dscf for PM ₁₀)	Methods 5 and 202	Average of three 1-hour runs
Visible		10% opacity	Method 9	6-minute block average
Fugitive	All fugitive sources excluding the quarry operations	10% opacity	Method 22	75-minute observation
Fugitive	Fugitive sources in the quarry operations excluding the crusher, enclosed process building and wet processing units	10% opacity	Method 9	6-minute block average
Fugitive	Fugitive emissions from crusher	15% opacity	Method 9	6-minute block average
Fugitive	Fugitive emissions from enclosed buildings and wet process in the quarry operations	No visible emissions	Method 22	75-minute observation
SO ₂	Air Heater, Raw Mill, Preheater, Calciner, Kiln, and Clinker Cooler/ Stack No. ST35	1.0 lb/ton clinker 125.0 lb/hr	CEM	30-day rolling CEMS average

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Pollutant	Operation	Emission Limit	Compliance Method	Averaging Time
NO _x	Air Heater, Raw Mill, Preheater, Calciner, Kiln, and Clinker Cooler/ Stack No. ST35	1.95 lb/ton clinker 243.8 lb/hr	CEM	30-day rolling average
NO _x (Initial Startup)	Air Heater, Raw Mill, Preheater, Calciner, Kiln, and Clinker Cooler/ Stack No. ST35	3.0 lb/ton clinker 375.0 lb/hr	CEM	30-day rolling average
CO	Air Heater, Raw Mill, Preheater, Calciner, Kiln, and Clinker Cooler/ Stack No. ST35	2.9 lb/ton clinker 362.5 lb/hr	CEM	30-day rolling average
VOC	Air Heater, Raw Mill, Preheater, Calciner, Kiln, and Clinker Cooler/ Stack No. ST35	0.5 lb/ton clinker 62.5 lb/hr.	CEM	30-day rolling average

- a. Continuous monitoring data collected during periods of startup, shutdown, and malfunction may be excluded from the compliance demonstration in accordance with applicable requirements in Conditions 4.2.1, 4.2.3, 4.2.6, 4.2.13, 4.2.21, 5.2.2, 5.2.5, 5.2.8, 5.2.9, and/or 5.2.14 of this permit.

The following applicable State rules or emission limits are subsumed by the applicable and more stringent BACT, NSPS or MACT emission limits:

- Georgia Air Quality Rule 391-3-1-.02(2)(b): “*Visible Emissions*”
- Georgia Air Quality Rule 391-3-1-.02(2)(e): “*Particulate Emission from Manufacturing Processes*”
- Georgia Rule 391-3-1-.02(2)(g): “*Sulfur Dioxide*”
- Georgia Air Quality Rule 391-3-1-.02(2)(n)2: “*Fugitive Dust*”

- b. Method 201 or 201A in conjunction with Method 202 shall be used in combination with Method 5 to demonstrate compliance with the relevant PM₁₀ emission limits during the performance testing. As an alternative to Method 201 or 201A, the Permittee may assume that 100% of the PM emissions from the baghouses as determined via Method 5 are PM₁₀ in the emission compliance demonstration. When an actual PM emission rate based on Method 5 exceeds its corresponding PM₁₀ emission limit, additional test will be required to demonstrate compliance with the PM₁₀ emission limit.
- c. A PM CEMS shall be used for the PM emissions from the in-line kiln/raw mill once U.S. EPA promulgates procedural requirements and deadline for the application of the PM CEM under §63.1350(k) of 40 CFR, Part 63, Subpart LLL.

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- d. For shakedown and optimization of the SNCR system for NO_x emission control, during an “initial startup” period the NO_x emissions shall not exceed 3.0 lb/ton of clinker based on a 30-day rolling average. The “initial startup” period shall begin after initial certification of the NO_x CEMS and shall end when any of the following conditions are met:

- i. The kiln system produces 75,000 tons of clinker or more in any 30-day rolling period.
- ii. The kiln system produces 150,000 tons of clinker. Or
- iii. 365 calendar days elapse after the initial certification of the NO_x CEMS.

After the “initial startup” period ends, the NO_x emissions shall not exceed 1.95 lb/ton of clinker based on a 30-day rolling average.

- e. The VOC emissions shall be measured by a THC CEM, expressed as THC as propane and corrected to 7% oxygen on a dry basis, and converted to the same unit as the emission limit.

40 CFR Part 60, Subpart Y - “Standards of Performance for Coal Preparation Plants”

- 3.3.2 The provisions of 40 CFR Part 60, Subpart Y are applicable to any of the following affected facilities at this site:

[40 CFR 60.250(a)]

- a. Coal processing and conveying equipment (including, but not limited to, breakers, crushers, screens, and conveyor belts); and
- b. Coal storage systems, and coal transfer and loading systems.

Conveying system transfer points used to convey coal from the mill to the kiln as listed in Condition 3.2.22 are not subject to any provisions of the this NSPS standard.

- 3.3.3 On and after the date on which the performance test required by 40 CFR 60.8 is completed, the Permittee shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal, gases which exhibit 20% opacity or greater.

[40 CFR 60.252]

40 CFR Part 63, Subpart LLL

- 3.3.4 On and after the initial startup of this Portland cement plant, the Permittee shall not cause to be discharged respectively into the atmosphere from the main kiln exhaust stack No. ST35 shared by the air heater, raw mill, preheater/precalciner, calciner, kiln, and clinker cooler, and from the coal mill stack No. ST38 shared by the coal mill and the clinker cooler, any gases which:

[40 CFR 60.1343(b)]

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- a. Contain PM in excess of 0.05 kg/Mg (0.10 lb/ton) of dry feed to the kiln.
- b. Exhibit opacity greater than 10%.
- c. Contain D/F (dioxins/furans) in excess of (This limit only applies to Stack No. ST35):
- i. 0.20 ng/dscm (8.7×10^{-11} gr/dscf) (TEQ¹); or
- ii. 0.40 ng/dscm (1.7×10^{-10} gr/dscf) (TEQ) when the average of the performance test run average temperatures at the inlet to the PM control device is 204°C (400°F) or less.
- d. Contain THC in excess of 20 ppmv as propane corrected to 7% oxygen based on dry basis and hourly block average (this limit only applies to Stack No. ST35). As an alternative, the Permittee may demonstrate a 98% reduction of the THC emissions.
- e. Contain mercury in excess of 41µg/dscm (This limit only applies to Stack No. ST35). As an alternative, the Permittee may route the emissions through a packed bed or spray tower wet scrubber with a liquid-to-gas (l/g) ratio of 30 gal/1000 acfm or more and meet a site specific emissions limit based on the measured performance of the wet scrubber.
- 3.3.5 The Permittee shall not cause to be discharged from the mill sweep or air separator air pollution control devices for the raw mill or finish mill any gases which exhibit opacity in excess of 10%.
[40 CFR 60.1347]
- 3.3.6 The Permittee shall not cause to be discharged any gases exhibiting opacity in excess of 10% from each raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system; and each raw material dryer subject to Subpart LLL.
[40 CFR 60.1348]

¹ TEQ means the international method of expressing toxicity equivalents for dioxins and furans as defined in U.S. EPA, Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 Update, March 1989.

40 CFR Part 60, Subpart OOO: Performance Standards for Nonmetallic Mineral Processing Plants

- 3.3.7 The Permittee shall comply with the provisions of 40 CFR, Part 60, Subpart OOO, “Standards of Performance for Nonmetallic Mineral Processing Plants” for all subject equipment {for reference, see listing in Section 3.1}. In particular, for sources subject to Subpart OOO, the Permittee shall comply with the following for each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station:
[40 CFR 60.672 (a) thru (h)]

The Permittee shall not discharge or cause the discharge into the atmosphere, from each of the processing equipment subject to 40 CFR 60 Subpart OOO, any

- a. fugitive emissions greater than 10 percent opacity except for any crusher that does not use a capture system, which shall not exhibit fugitive emissions greater than 15 percent opacity. Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this condition.
- b. stack emissions which:
 - i. Contain particulate matter in excess of 0.050 g/dscm (0.022 grains/dscf) except for any storage bin utilizing a dedicated bin vent.
 - ii. Exhibit greater than 7% opacity, unless a wet scrubbing control device is used as the primary control device. A wet scrubbing control device shall comply with the 40 CFR 60.676 (c), (d), and (e).
- c. visible emissions from:
 - i. Wet screening operations and subsequent screening operations, bucket elevators, and belt conveyors that process saturated material in the production line up to the next crusher, grinding mill or storage bin.
 - ii. Screening operations, bucket elevators, and belt conveyors in the production line downstream of wet mining operations, where such screening operations, bucket elevators, and belt conveyors process saturated materials up to the first crusher, grinding mill, or storage bin in the production line.

For processing equipment subject to the 40 CFR Part 60 Subpart OOO located inside a building, the Permittee shall comply with the above process equipment limits (a, b and c), or shall not discharge or cause the discharge into the atmosphere, any

- d. visible fugitive emissions from the building except for powered building vents subject to limits according to “e”.
- e. emissions from a powered building vent which:

- i. Contain particulate matter in excess of 0.050 g/dscm (0.022 grains/dscf).
- ii. Exhibit greater than 7% opacity.

40 CFR Part 60, Subpart IIII

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- 3.3.8 On and after startup of the operation, the 750 kW stationary emergency diesel engine shall comply with the applicable emission limits of 40 CFR Part 63, Subpart IIII during the entire life of the engine. The engine is in compliance with these applicable emissions limits provided that it is certified by the manufacturer per 40 CFR 89.112 and 40 CFR 89.113 for all pollutants and operated and maintained according to manufacturer's specification.
[40 CFR 60.4205 & 60.4206]
- 3.3.9 The Permittee shall operate the 750 kW stationary emergency diesel engines using diesel fuel that contains no more than 0.5% of sulfur by weight from startup of the engine. Beginning on October 1, 2007, the Permittee shall only use diesel fuel that has a maximum sulfur content of 500 parts per million (ppm) (0.05% by weight) and either a minimum cetane index of 40 or maximum aromatic content of 35 volume percent. Beginning on October 1, 2010, the Permittee shall only use diesel fuel that has a maximum sulfur content of 15 ppm (0.0015% by weight) and either a minimum cetane index of 40 or maximum aromatic content of 35 volume percent.
[40 CFR 60.4207]

3.4 Equipment SIP Rule Standards

Georgia Rule 391-3-1-.02(2)(n): *Fugitive Emissions*

- 3.4.1 The Permittee shall take all reasonable precautions to prevent fugitive dust from becoming airborne. Reasonable precautions that should be taken to prevent dust from becoming airborne include, but are not limited to, the following:
[391-3-1-.02(2)(n)1]
 - a Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;
 - b. Application of asphalt, water, or suitable chemicals on dirt roads, materials, stockpiles, and other surfaces that can give rise to airborne dusts;
 - c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials. Adequate containment methods can be employed during sandblasting or other similar operations;
 - d. Covering, at all times when in motion, open bodied trucks, transporting materials likely to give rise to airborne dusts; and
 - e. The prompt removal of earth or other material from paved streets onto which earth or other material has been deposited.

PART 4.0 REQUIREMENTS FOR PERFORMANCE AND COMPLIANCE TESTING**4.1 General Testing Requirements**

4.1.1 Performance and compliance tests shall be conducted and data reduced in accordance with applicable procedures and methods specified in the Division's Procedures for Testing and Monitoring Sources of Air Pollutants. The methods for the determination of compliance with emission limits listed under Sections 3.3 and 3.4 of this permit which pertain to the emission units listed in Section 3.1 are as follows:

- a. Method 1 or 1A for the determination of sample point locations;
- b. Method 2 for the determination of flow rate;
- c. Method 3, 3A, or 3B for the determination of stack gas molecular weight;
- d. Method 4 for the determination of stack gas moisture;
- e. Method 5 for the determination of PM emissions;
- f. Method 6 or 6C for the determination of SO₂ concentration.
- g. Method 7 or 7E for the determination of NO_x
- h. Method 9 and the procedures contained in Section 1.3 of the above reference document for the determination of opacity;
- i. Method 10 for the determination of CO emissions
- j. Method 22 for the visual determination of fugitive visible emissions;
- k. Method 23 for the determination of dioxin and furan (D/F) emissions;
- l. Method 25A for the determination of total gaseous nonmethane organic emissions as propane;
- m. Method 29 of 40 CFR Part 60 for the determination of Hg emissions. ASTM D6784-02, *Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury Gas Generated from Coal-Fired Stationary Sources* (Ontario Hydro Method), is an acceptable alternative to Method 29 (portion for mercury only). And
- n. Method 201 or 201 A in conjunction with Method 202 for the determination of PM₁₀ emissions.

Minor changes in methodology may be specified or approved by the Director or his designee when necessitated by process variables, changes in facility design, or improvement or corrections that, in his opinion, render those methods or procedures, or portions thereof, more reliable. [391-3-1-.02(3)(a)]

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- 4.1.2 All required continuous monitoring system(s) shall be installed, calibrated and operating in accordance with the applicable manufacturer specifications and/or specifications in applicable federal and/or state regulations when any performance test(s) is conducted.
[391-3-1-.02(3)(a)]
- 4.1.3 Should production rate(s) increase above the rate(s) at which the acceptable performance test(s) was made, the Division may require that the relevant emission control system(s) be tested for compliance at a higher production rate.
[391-3-1-.02(3)(a)]
- 4.1.4 The Permittee shall provide the Division (30) days [or sixty (60) days for tests required by 40 CFR Part 63] prior written notice of the date of any performance test(s) to afford the Division the opportunity to witness and/or audit the test, and shall provide with the notification a test plan in accordance with Division guidelines.
[391-3-1-.02(3)(a)]
- 4.1.5 The Permittee shall submit reports of performance test results for emission capture systems and add-on control devices no later than 60 days after completing the tests as specified in 40 CFR 63.10(d)(2).

4.2 Specific Testing Requirements

40 CFR Part 63, Subpart LLL Testing Requirements

- 4.2.1 Within 60 days after achieving the maximum production rate at which the affected process unit(s)/source(s) will be operated, but no later than 180 days of the initial startup of the source(s), the Permittee shall demonstrate initial compliance with the applicable emission limits in Conditions 3.3.4, 3.3.5 and 3.3.6 using the applicable test methods and/or procedures in Conditions 4.1.1, 4.1.2, 4.1.3, 4.1.4, 4.2.2, 4.2.3, 4.2.4, 4.2.5, 4.2.6 and 4.2.7 under 40 CFR 63.7. Performance test results shall be documented in complete test reports that contain the information required by paragraphs a through j of this condition, as well as all other relevant information. A testing plan shall be made available to the Division at least 60 days prior to testing.
[40 CFR 63.1349(a)]
- A brief description of the process(es) and the air pollution control system(s);
 - Sampling location description(s);
 - A description of sampling and analytical procedures and any modifications to standard procedures;
 - Test results;
 - Quality assurance procedures and results;
 - Records of operating conditions during the test, preparation of standards, and calibration procedures;

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- g. Raw data sheets for field sampling and field and laboratory analyses;
- h. Documentation of calculations;
- i. All data recorded and used to establish parameters for compliance monitoring; and
- j. Any other information required by the test method.

4.2.2 The Permittee shall demonstrate initial compliance with the applicable Subpart LLL PM emission limit in Conditions 3.3.4a by conducting separate performance tests on stack No. ST35 serving baghouse No. DC35 following paragraphs a through c of this condition while the raw mill is under normal operating conditions, i.e., “on”, and while the raw mill is not operating, i.e., “off”. Separate performance tests on the stack No. ST38 serving baghouse No. DC38 controlling the clinker cooler and the coal mill shall be conducted as specified in paragraphs a through c of this condition to demonstrate with the applicable Subpart LLL emission limits.

[40 CFR 63.1349(b)(1)(i) thru (iii)]

- a. Use Method 5 to determine PM emissions. Each test shall consist of 3 separate 1-hour runs under the conditions that exist when the affected source is operating at the representative performance conditions. The minimum sample volume shall be 0.85 dscm (30 dscf) for each run. The average of the 3 runs shall be used to determine compliance. A determination of the PM collected in the impingers (“back half”) of the sampling train is not required to demonstrate initial compliance with the PM standards of Subpart LLL. This shall not preclude the Division from requiring a determination of the “back half” for other purposes.
- b. Use suitable methods to determine the kiln or inline kiln/raw mill feed rate, except for fuels, for each run.
- c. calculate the PM emission rate, E , for each run using Equation 4.2.2-1:

$$E = \frac{(C_s Q_{sd})}{P} \quad \text{(Equation 4.2.2-1)}$$

Where:

- E = PM emission rate, kg/Mg (lb/ton) of kiln feed.
- C_s = concentration of PM, kg/dscm (lb/dscf).
- Q_{sd} = volumetric flow rate of effluent gas, dscm/hr (dscf/hr).
- P = total kiln feed (dry basis), Mg/hr (ton/hr).

4.2.3 The opacity exhibited by stack No. ST35 serving the baghouse No. DC35 during the Method 5 performance tests required by Condition 4.2.2a shall be determined using COM. The maximum 6-minute average opacity during 3 test runs shall be determined during each Method 5 test run, and used to demonstrate initial compliance with the applicable opacity limits of Condition 3.3.4b. respectively.

[40 CFR 63.1349(b)(1)(v) and (vi)]

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- 4.2.4 For any affected source subject to an opacity limit(s) under Subpart LLL but not subject to Condition 4.2.2, the Permittee shall demonstrate initial compliance with the applicable opacity limit by conducting a Method 9 test or using a COM if equipped. The test shall be conducted under the conditions that exist when the affected source(s) is operating at the representative performance conditions in accordance with 40 CFR 63.7(e). The maximum 6-minute average opacity exhibited during the test period shall be used to determine whether the affected source is in initial compliance with the standard. The duration of the Method 9 test shall be 3 hours (thirty 6-minute averages), except that the duration of the Method 9 test may be reduced to 1 hour if the conditions of paragraph a and b of this condition apply:
[40 CFR 63.1349(b)(2)(i) and (ii)]
- a. There are no individual readings greater than 10% opacity;
 - b. There are no more than 3 readings of 10% for the first 1-hour period.
- 4.2.5 The Permittee shall demonstrate initial compliance with the D/F emission limit in Condition 3.3.4 by conducting separate performance tests on the stack No. ST35 while the raw mill is under normal operating conditions, i.e., “on” and while the raw mill is not operating, i.e., “off” using Method 23. Separate tests shall be conducted to demonstrate initial compliance during the raw mill on and off.
[40 CFR 63.1349(b)(3)(i) through (iv)]
- a. Each test shall consist of 3 separate runs conducted individually under the conditions that exist when the affected source is operating at the representative performance conditions in accordance with 40 CFR 63.7(e). Each run shall last at least 3 hours with minimum sample volume of 2.5 dscm (90 dscf). The concentration shall be determined for each run and the arithmetic average of the concentrations measured for the 3 runs shall be calculated and used to determine compliance.
 - b. The temperature at the inlet to the in-line kiln/raw mill PM control device shall be continuously recorded during the Method 23 test, and the continuous temperature record(s) shall be included in the performance test report.
 - c. 1-minute average temperatures shall be calculated for each minute of each test run.
 - d. The run average temperature shall be calculated for each run, and the average of the run average temperatures shall be determined and included in the test report and will determine the applicable temperature limit in accordance with Condition 3.2.18 per 40 CFR 63.1344(b).
- 4.2.6 The Permittee shall demonstrate initial compliance with the THC limit of Subpart LLL by operating a THC CEM in accordance with Performance Specification 8A of Appendix B to 40 CFR Part 60. The test shall last 3 hours, and the average THC concentration (as calculated from the 1-minute averages) during the test shall be calculated. Separate tests shall be conducted for the in-line kiln/raw mill to demonstrate initial compliance during raw mill on and off. [40 CFR 63.1349(b)(4)(i)]

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- 4.2.7 The Permittee shall demonstrate compliance with the 41 µg/dscm mercury emission standard using Method 29 of 40 CFR Part 60. ASTM D6784-02, *Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method)*, is an acceptable alternative to Method 29 (portion for mercury only). The Permittee shall demonstrate compliance with both raw mill on and off, and record the hourly recycle rate of CKD during both test conditions and calculate an average hourly rate for the 3 test runs for each test condition.
[40 CFR 63.1349(b)(5)]
- 4.2.8 Except as provided in Conditions 4.2.10, 4.2.11 and 4.2.12, performance tests required under Conditions 4.2.2 and 4.2.4 shall be repeated every 5 years, except that no repeating of the initial performance test of opacity for the in-line kiln/raw mill or clinker cooler is required.
[40 CFR 63.1349(c)]
- 4.2.9 Performance tests required under Condition 4.2.5 shall be repeated every 30 months.
[40 CFR 63.1349(d)]
- 4.2.10 If the Permittee plans to undertake a source change in operations that may adversely affect compliance with the applicable D/F standard, the Permittee shall conduct a performance test on the source and establish new temperature limit(s) as specified in Condition 4.2.5.
[40 CFR 63.1349(e)(1)]
- 4.2.11 If the Permittee plans to undertake a source change in operations that may adversely affect compliance with an applicable PM standard under Condition 3.3.4, the Permittee shall conduct a performance test on the source as specified in Condition 4.2.2.
[40 CFR 63.1349(e)(2)]
- 4.2.12 In preparation for and while conducting a performance test required in Condition 4.2.10, a source may be operated under the planned operational change conditions for a period not to exceed 360 hours, provided that the provisions of this condition are met. The Permittee shall submit temperature and other monitoring data that are recorded during the pretest operations.
[40 CFR 63.1349(e)(3)(i) through (iv)]
- a. Provide the Division a written notice at least 60 days prior to the operational change specified in Condition 4.2.10, or as soon as practicable where 60 days advance notice is not feasible. The notice shall include a description of the planned change, the emissions standards that may be affected by the change, and a schedule for completion of the performance test required under Condition 4.2.10, including when the planned operational change period would begin.
 - b. The test results shall be documented in a test report according to Condition 4.2.1.
 - c. A test plan shall be made available to the Division prior to testing.
 - d. The performance test shall be conducted and completed within 360 hours after the planned operational change period begins.

4.2.13 When conducting PM CEM correlation tests (that is, correlation with manual stack methods), the Permittee is exempt from the followings provided that the Permittee is in compliance with the applicable requirements in 40 CFR 63.1357(b) through (f):
[40 CFR 63.1357(a) through (f)]

- a. Any applicable PM and opacity standards of Part 60 or Part 63;
- b. Any applicable permit or other emission and operating parameters or workplace practice limitations that ensure compliance with such PM and opacity standards

40 CFR Part 60, Subpart Y Testing Requirements

4.2.14 Within 60 days after achieving the maximum production rate at which the affected source(s) will be operated, but no later than 180 days of the initial startup of the affected source(s), the Permittee shall use Method 9 and the procedures in 40 CFR 60.11 to demonstrate compliance with the visible emission standard in Condition 3.3.3.
[40 CFR 60.254]

40 CFR Part 60, Subpart OOO Testing Requirements

4.2.15 Within 60 days after achieving the maximum production rate at which the affected source(s) will be operated, but no later than 180 days of the initial startup of the affected source(s), the Permittee shall conduct performance tests as required below:
[40 CFR 60.675(a), (b), (c)(1) and (2) and (e)]

- a. Determining compliance with the visible emission standards in Condition 3.3.7a using Method 9 and the procedures 40 CFR 60.11, with the following additions:
 - i. The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).
 - ii. The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9, Section 2.1) shall be followed.
 - iii. When a water mist caused by wet dust suppression/water spray is present, the observation of fugitive emissions is to be made at a point in the plume where the mist is no longer visible.
- b. Use Method 22 to determine compliance with the fugitive emissions in Condition 3.3.7b and c. The performance test shall be conducted while all affected facilities inside the building are operating. The performance test for each building shall be at least 75 minutes in duration, with each side of the building and the roof being observed for at least 15 minutes.

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- 4.2.16 When determining compliance with the fugitive emissions standard for any affected facility described under Condition 3.3.7a, the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:
[40 CFR 60.675(c)(3)]
- a. There are no individual readings greater than 10% opacity; and
- b. There are no more than 3 readings of 10% for the 1-hour period.
- 4.2.17 When determining compliance with the fugitive emissions standard for any uncontrolled crusher as described under Condition 3.3.7a per 40 CFR 60.672(c), the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:
[40 CFR 60.675(c)(4)]
- a. There are no individual readings greater than 15% opacity; and
- b. There are no more than 3 readings of 15% for the 1-hour period.
- 4.2.18 If the fugitive emissions from two or more facilities continuously interfere so that the opacity from an individual affected facility cannot be read, the Permittee may use the following as alternatives to the reference methods and procedures specified in Conditions 4.2.15, 4.2.16 and 4.2.17:
[40 CFR 60.675(e)]
- a. Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream.
- b. Separate the emissions so that the opacity of emissions from each affected facility can be read.
- 4.2.19 If, after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting any rescheduled performance test required in this section, the Permittee shall submit a notice to the Division at least 7 days prior to any rescheduled performance test.
[40 CFR 60.675(g)]

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- 4.2.20 The appropriate testing results from Conditions 4.2.1, 4.2.2, 4.2.3, 4.2.4, 4.2.6, 4.2.7, 4.2.8, 4.2.11, 4.2.13, 4.2.14, 4.2.15, 4.2.16, 4.2.17, 4.2.18, and 4.2.19 may be used respectively to demonstrate initial compliance with the Hg, PM, visible and THC emission limits for the same or similar process units/affected sources under the pertinent PSD/BACT and State rules in Subpart 3.3 and 3.4 of this permit. No additional testing is required. For the rest of process units/affected sources subject to any of the PM and/or visible emission limits in Condition 3.3.1, the Permittee shall demonstrate initial compliance with the limit(s) using Method 5 for PM emissions from point sources/stack outlets, Method 9 or COM if equipped for visible emissions from point sources/stack outlets, and Method 22 for fugitive emission sources.

The Permittee shall determine PM₁₀ emissions from each of the stacks/point sources of PM emissions using Method 201 or 201A in conjunction with Method 202 when no Division-approved PM₁₀ emission factor(s) is available for the source(s) or actual PM emissions from the source(s) indicated by Method 5 test exceed the applicable PM₁₀ emission limit(s) for the source(s). All the performance tests shall be conducted within 60 days after achieving the maximum production rate at which the affected units/sources will be operated, but no later than 180 days of the initial startup of the sources.

[40 CFR 52.21 – BACT/NSR Review]

- 4.2.21 Within 60 days after achieving the maximum production rate at which the affected process unit(s)/source(s) will be operated, but no later than 180 days of the initial startup of the source(s), the Permittee shall demonstrate initial compliance with the applicable CO, NO_x and SO₂ emission limits in Condition 3.3.1, using the CO, NO_x and SO₂ CEM and following procedures specified in Condition 5.2.14. The compliance testing shall be conducted under the conditions that exist when the affected source is operating at the representative performance conditions in accordance with 40 CFR 63.7(e). The Permittee shall conduct the SO₂ emission performance testing during the raw mill on and raw mill off respectively, and record if applicable the hourly input rate of fly ash and/or of the hydrated lime injection system during the testing. During the testing, the Permittee shall record the operating parameters and production conditions affecting the emissions involved in accordance with the appropriate methods and requirements in Part 5.0 of this permit. Such records shall include, but are not limited to, temperature, exhaust gas flow rate, operating parameters of the air pollution device(s) employed, quantities and sulfur content of the raw materials and fuels used, and quantities of the clinker produced. The Permittee shall submit a testing plan(s) to the Division for approval at least 60 days before the testing, including certifications for all the CEM to be utilized in the testing.

[40 CFR 52.21 – BACT/NSR Review]

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- 4.2.22 Before firing any fuel(s) which was not used during any previous Division-approved performance tests and which may adversely affect the emissions of a regulated air pollutant from the in-line kiln/raw mill, the Permittee shall conduct a performance test(s) to determine the impact of the combustion of the fuel on the emissions of the relevant pollutant, using the applicable testing method(s) and/or procedure(s) in this permit and/or pertinent Federal and State regulations. A testing plan(s) shall be submitted to the Division for approval at least 60 days before the testing.
[40 CFR 52.21 & 391-3-1-.03(2)(c)]

PART 5.0 REQUIREMENTS FOR MONITORING (Related to Data Collection)

5.1 General Monitoring Requirements

- 5.1.1 Any continuous monitoring system required by the Division and installed by the Permittee shall be in continuous operation and data recorded during all periods of operation of the affected facility except for continuous monitoring system breakdowns and repairs. Monitoring system response, relating only to calibration checks and zero and span adjustments, shall be measured and recorded during such periods. Maintenance or repair shall be conducted in the most expedient manner to minimize the period during which the system is out of service.
[391-3-1-.02(6)(b)1]

5.2 Specific Monitoring Requirements

40 CFR Part 63, Subpart LLL Monitoring Requirements

- 5.2.1 The Permittee shall prepare for each affected source subject to Subpart LLL, a written operations and maintenance plan. The plan shall be submitted to the Division for review and approval as part of the application for a Part 70/Title V operating permit and shall include the following information:
[40 CFR 63.1350(a) and (b)]
- a. Procedures for proper operation and maintenance of the affected source and air pollution control devices to meet the emission and operating limits of Conditions 3.3.4, 3.3.5, 3.3.6 and 3.2.18;
 - b. Corrective actions to be taken when required by Condition 5.2.3;
 - c. 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; and
 - d. Procedures used to periodically monitor the affected sources subject to the opacity standards of Condition 3.3.6. Such procedures shall include the paragraphs i through iv below:
 - i. Conduct a monthly 1-minute visible emissions test of each affected source in operation using Method 22.
 - ii. If no visible emissions are observed in 6 consecutive monthly tests for any affected source, the Permittee may decrease the frequency of testing from monthly to semiannually for that affected source. If visible emissions are observed during any semi-annual test, the Permittee shall resume the monthly testing of that affected source and maintain that schedule until no visible emissions are observed in 6 consecutive monthly tests.

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- iii. 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 6 consecutive monthly tests.
 - iv. If visible emissions are observed during any Method 22 test, the Permittee shall conduct a 6-minute test of opacity using Method 9 within 1 hour of any observation of visible emissions.
 - v. The requirement to conduct Method 22 visible emissions monitoring under this condition shall not apply to any totally enclosed conveying system transfer point, regardless of the location of the transfer point. "Totally enclosed conveying system transfer point" shall mean a conveying system transfer point that is enclosed on all sides, top, and bottom. 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 may opt to conduct a Method 22 visible emissions monitoring test according to the requirements of paragraphs d.(i) through (iv) of this condition for each such conveying system transfer point, or for the building itself, according to paragraph d(vii) of this condition.
 - vii. If visible emissions from a building are monitored, the requirements of paragraphs d(i) through (iv) of this condition 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 1 minute. The test shall be conducted under normal operating conditions.

Failure to comply with any provision of the operations and maintenance plan developed in accordance with this condition shall be a violation of the standard.

5.2.2 The Permittee shall monitor opacity at each point/stack where emissions are vented from the in-line kiln/raw mill and clinker cooler subject to the emission limits in Condition 3.3.4 as below:

[40 CFR 63.1350(c) and (d)]

- a. Except as provided in paragraph c. of this condition, install, calibrate, maintain, and continuously operate a COM at the outlet of the PM control device to continuously monitor the opacity, except as provided in paragraph b. The COM shall be installed, maintained, calibrated, and operated as required by 40 CFR Part 63, Subpart A and according to PS-1 of Appendix B to 40 CFR Part 60.

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- b. When the baghouse(s) involved has multiple stacks, or exhausts through a monovent, or the use of a COM in accordance with the installation specifications of PS-1 of Appendix B to 40 CFR Part 60 is not feasible, the Permittee may, in lieu of using COM, monitor and record each 6-minute block average opacity of the visible emissions from the sources using Method 9 for at least 30 minutes each day.
- c. To remain in compliance, the opacity shall be maintained such that the 6-minute average opacity for any 6-minute block period does not exceed 10%. If the average opacity for any 6-minute block period exceeds 10%, this shall constitute a violation of the standard.

5.2.3 The Permittee shall monitor opacity by conducting daily visual emissions observations of the mill sweep and air separator PM control device of the raw mill or finish mill using Method 22. The Method 22 test shall be conducted while the affected source is operating at the representative performance conditions and last 6 minutes. If visible emissions are observed during any test, the Permittee shall:
[40 CFR 63.1350(e)]

- a. Initiate, within 1 hour, the corrective actions specified in the site specific operating and maintenance plan developed according to Conditions 5.2.1a and 5.2.1b; 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 on each stack from which visible emissions were observed during the previous test. If visible emissions are observed during the followup test from any stack from which visible emissions were observed during the previous test, conduct a 30-minute visual opacity test on that specific stack using Method 9.

5.2.4 The Permittee shall monitor D/F emissions in accordance with paragraphs a through e of this condition.
[40 CFR 63.1350(f)]

- a. Install, calibrate, maintain, and continuously operate a continuous monitoring device to record the temperature of the exhaust gases from the in-line kiln/raw mill at the inlet to, or upstream of the baghouse(s) serving the in-line kiln/raw mill.
 - i. The recorder response range shall include zero and 1.5 times either of the average temperatures established according to the requirements in Condition 4.2.5d; and
 - ii. The reference method shall be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Division.
- b. Calculate the 3-hour/180-minute rolling average temperature as the average of 180 successive 1-minute average temperatures.

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- c. Periods of time when 1-minute averages are not available shall be ignored when calculating the 3-hour/180-minute rolling averages. When 1-minute averages become available, the first 1-minute average is added to the previous 179 values to calculate the 3-hour/180-minute rolling average.
 - d. When the operating status of the in-line kiln/raw mill is changed from off to on, or from on to off, the calculation of the 3-hour/180-minute rolling average temperature shall begin anew, without considering previous recordings.
 - e. The calibration of all thermocouples and other temperature sensors shall be verified at least once every 3 months.
- 5.2.5 The Permittee shall comply with the monitoring requirements of this condition to demonstrate continuous compliance with the applicable THC emission standard:
[40 CFR 63.1350(h)(1) and (4)]
- a. Install, operate and maintain a THC CEM according to Performance Specification 8A of Appendix B to 40 CFR Part 60, and comply with all the requirements for CEM found in 40 CFR Part 63, Subpart A.
 - b. Calculate hourly rolling averages according to section 4.9 of Performance Specification 8A. Any hourly average THC concentration in any gas discharged from the main exhaust stack of the in-line kiln/raw mill (Stack No. ST35) that exceeds the applicable THC emission limit in Condition 3.3.4, reported in ppmv expressed as propane, corrected to 7% oxygen and on a dry basis, is a violation of that THC standard.
- 5.2.6 The Permittee shall inspect the components of the combustion system of the in-line kiln/raw mill at least once per year.
[40 CFR 63.1350(i)]
- 5.2.7 The Permittee shall monitor opacity for any affected source subject to the opacity limit in Condition 3.3.6 according to the operation and maintenance plan developed according to Condition 5.2.1.
[40 CFR 63.1350(j)]
- 5.2.8 The Permittee shall install, calibrate, maintain and operate a PM CEM to measure the PM emissions from an affected source subject to the PM emission limit in Condition 3.3.4a once the requirements for the installation, calibration, maintenance, operation and performance of the PM CEM are promulgated by EPA.
[40 CFR 63.1350(k)]

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5.2.9 The requirements under Condition 5.2.3 to conduct daily Method 22 testing shall not apply to any specific raw mill or finish mill equipped with a COM or bag leak detection system (BLDS). If the Permittee chooses to install a COM in lieu of conducting the daily Method 22 visual emissions testing, then the COM shall be installed at the outlet of the PM control device of the raw mill or finish mill. The COM shall be installed, maintained, calibrated, and operated as required by 40 CFR Part 63, Subpart A and according to PS-1 of Appendix B to 40 CFR Part 60. To remain in compliance, the opacity shall be maintained such that the 6-minute average opacity for any 6-minute block period does not exceed 10%. If the average opacity for any 6-minute block period exceeds 10%, this shall constitute a violation of the standard. If the Permittee chooses to install a BLDS in lieu of conducting the daily visual emissions testing required in Condition 5.2.3, the following requirements apply to each BLDS:
[40 CFR 63.1350(m)]

- a. The BLDS shall be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 mg/acm (0.0044 gr./acf) 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 mg/acm (0.0044 gr./acf) or less.
- b. The sensor on the BLDS shall provide output of relative PM emissions.
- c. The BLDS shall have an alarm that will activate automatically when it detects a significant increase in relative PM emissions greater than a preset level.
- d. The presence of an alarm condition should be clearly apparent to facility operating personnel.
- e. For a positive-pressure baghouse, each compartment or cell shall have a BLDS. For a negative pressure or induced-air baghouse, the BLDS shall be installed downstream of the filter bag. If multiple BLDS are required (for either type of baghouse), the BLDS may share the system instrumentation and alarm.
- f. All BLDS shall be installed, operated, adjusted, and maintained according to manufacturer's written specifications and recommendations. It is recommended that where appropriate, the standard operating procedures manual for each BLDS include concepts from EPA's "*Fabric Filter Bag Leak Detection Guidance*" (EPA-454/R-98-015, September 1997).
- g. 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.

- h. After initial adjustment, the range, averaging period, alarm set points, or alarm delay time may not be adjusted except as specified in the operations and maintenance plan required by paragraph a. In no event may the range be increased by more than 100% or decreased by more than 50% over an one calendar year period unless a responsible official as defined in 40 CFR 63.2 certifies in writing to the Division that the fabric filter has been inspected and found to be in good operating condition.
- i. The Permittee shall maintain and operate the baghouse such that the BLDS alarm is not activated and alarm condition does not exist for more than 5% of the total operating time in a 6-month block period. Each time the alarm activates, alarm time will be counted as the actual amount of time taken by the Permittee to initiate corrective actions. If inspection of the baghouse demonstrates that no corrective actions are necessary, no alarm time will be counted. 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.

40 CFR Part 60, Subpart IIII Monitoring Requirements

- 5.2.10 The 750 kW emergency stationary diesel generator/engine shall be equipped with a non-resettable hour meter to track the number of hours operated during any type of operation and during each calendar month. The Permittee shall record the time of operation of each generator and engine and the reason the generator or engine was in operation during that time.
[40 CFR 60.4209(c), 60.4214(b)]

PSD/BACT & SIP Monitoring Requirements

[40CFR 52.21 and 391-3-1-.02(6)(b)(1)]

- 5.2.11 The following monitoring requirements/conditions for PM, THC and visible emissions under the NESHAP MACT standard 40 CFR Part 63, Subpart LLL have been deemed to be adequate for the monitoring of the same emissions from the same sources subject also to the Hg, PM, THC and/or visible emissions limits under PSD/BACT rules. No additional monitoring is required provide that the relevant monitoring data can be processed appropriately to demonstrate compliance with the pertinent PSD/BACT emission limits. The Permittee shall notify the Division within one working day of discovering emissions in excess of any pertinent BACT limit/standard.
- a. Condition 5.2.2 for using COM to monitor the visible emissions from the in-line kiln/raw mill vent(s)/stack(s) equipped with COM per §63.1350(c) of 40 CFR Part 63, Subpart LLL.
- b. Condition 5.2.3 for daily visual emission observation of the mill sweep and air separate PM control device(s) using Method 22, per §63.1350(e) of 40 CFR Part 63, Subpart LLL.

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- c. Condition 5.2.5 for using THC CEM to monitor the THC/VOC emissions from the in-line kiln/raw vent(s)/stack(s), per §§63.1350(h)(1) and (4) of 40 CFR Part 63, Subpart LLL.
- d. Condition 5.2.8 for using PM CEM to the PM emissions from the in-line kiln/raw vent(s)/stack(s), per §63.1350(k) of 40 CFR Part 63, Subpart LLL.
- e. Condition 5.2.9 if applicable for using COM or BLDS per §63.1350(m) of 40 CFR Part 63, Subpart LLL.

5.2.12 The Permittee shall perform a daily check of visible emissions (VE) on baghouses listed in Section 3.1 of this permit except those covered by the monitoring requirements in Conditions 5.2.11a and e. The Permittee shall retain a daily VE check log suitable for inspection or submittal. The visual check of VE shall be conducted at least once for each day or portion of each day of operation and shall be conducted using the following procedure:

- a. Determine in accordance with the procedures specified in paragraph d. of this condition, if VE are present at the discharge point to the atmosphere from such vent(s)/stack(s) aforementioned, and record the result(s) in daily VE check log. For any sources(s) that exhibits VE, the Permittee shall comply with paragraph b.
- b. For each source determined to be emitting visible emissions, the Permittee shall determine whether the emissions equal or exceed the opacity action level using the procedure specified in paragraph d of this condition, except that the person performing the determination shall have received additional training acceptable to the Division to recognize the appropriate opacity level and the determination shall cover a period of 3 minutes. The opacity action level is greater than 0% for all the baghouses involved. The results shall be recorded in the daily (VE) log. For sources that exhibit visible emissions of greater than or equal to the opacity action level, the Permittee shall comply with paragraph c of this condition.
- c. For each source that requires action in accordance with paragraph a. or b., the Permittee shall determine the cause of the visible emissions and correct the problem in the most expedient manner possible. The Permittee shall note the cause of the visible emissions, the pressure drop of the baghouse(s) involved, any other pertinent operating parameters, and the corrective action taken in the maintenance log.
- d. The person performing the determination shall stand at a distance, of at least 15 feet, which is sufficient to provide a clear view of the plume against a contrasting background with the sun in the 140° sector at his or her back. Consistent with this requirement, the determination shall be made from a position such that the line of vision is approximately perpendicular to the plume direction. Only one plume shall be in the line of sight at any time when multiple stacks/vents are in proximity to each other.

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- 5.2.13 Once each day or portion of each day of operation, the Permittee shall inspect all emission points from the emission units listed in Table 3.1 for which no air pollution control device (APCD) is utilized. Boilers, wet processes, stationary engines, and emission units monitored with COM are exempt from this condition. The inspection shall be conducted by performing a walk through of the facility and noting the occurrence of the following in a daily (VE) log:
- a. Any visible emissions. The visible emission check may be performed on the building containing the emission unit or directly on the emission unit.
 - b. Any mechanical failure or malfunction that results in increased air emissions. For each emission point noted with visible emissions, mechanical problems or malfunctions, the Permittee shall take corrective action in the most expedient manner possible and re-inspect the unit within 24 hours to verify that no visible emissions exist.
- 5.2.14 The permittee shall install, calibrate, maintain, and operate CEM to continuously monitor and record the indicated pollutants discharged from the in-line kiln/raw mill according to manufacturer's specifications and/or the requirements under pertinent EPA or state rules, and in a manner sufficient to demonstrate continuous compliance with the applicable emission standards in this permit. Each CEM shall also meet performance specifications of the Division's monitoring requirements if applicable. The Permittee shall notify the Division within one working day of discovering emissions in excess of a CEM emission standard over a specified averaging period.
- a. **CO:** 30-day rolling arithmetic average of all valid hourly averages collected during the last 30 operating days. The CO CEM shall meet the requirements of Performance Specification 4 or 4A in Appendix B of 40 CFR 60. The required RATA tests shall be performed using EPA Method 10 in Appendix A of 40 CFR 60. Quality assurance procedures shall conform to the requirements of Appendix F in 40 CFR 60.
 - b. **NO_x:** 30-day rolling arithmetic average of all valid hourly averages collected during the last 30 operating days. The NO_x CEM shall meet the requirements of Performance Specification 2 or 2A in Appendix B of 40 CFR 60. The required RATA tests shall be performed using EPA Method 7E in Appendix A of 40 CFR 60. Quality assurance procedures shall conform to the requirements of Appendix F in 40 CFR 60.
 - c. **SO₂:** 30-day rolling arithmetic average of all valid hourly averages collected during the last 30 operating days. The SO₂ CEM shall meet the requirements of Performance Specification 2 in Appendix B of 40 CFR 60. The required RATA tests shall be performed using EPA Method 6C in Appendix A of 40 CFR 60. Quality assurance procedures shall conform to the requirements of Appendix F in 40 CFR 60.

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- d. **THC:** 30-day rolling arithmetic average of all valid hourly averages collected during the last 30 operating days. The THC CEM shall meet the requirements of Performance Specification 2 in Appendix F of 40 CFR 60. The valid 1-hour arithmetic averages shall be the THC monitoring data obtained in accordance with Condition 5.2.5.

The operation of the each CEM shall meet the following requirements:

Sample Frequency: Each CEM shall be designed and operated to sample, analyze, and record data evenly spaced over each hour of operation at a minimum of one measurement per minute. All valid measurements collected during an hour shall be used to calculate an 1-hour block average that begins at the top of each hour. Each 1-hour block average shall be computed using at least one data point in each 15-minute quadrant of an hour, where the affected process unit/affected source combusting fuel (or producing clinker) during that quadrant of an hour. Notwithstanding this requirement, an 1-hour average shall be computed from at least two data points separated by a minimum of 15 minutes. If less than two of such data points are available, there is insufficient data and the 1-hour block average is not valid. Hours during which there is no kiln feed and no fuel fired are not valid hours. The CEM shall express emissions in units of “pounds per ton of clinker produced” and “pounds per hour”. THC emissions data shall also be expressed as “ppmvd (as propane) @ 7% oxygen”.

Monitor Availability: Monitor availability for each CEM shall be 95% or greater in any calendar quarter, and be reported in the quarterly report in Condition 6.1.4. In the event 95% availability is not achieved, the Permittee shall provide the Division with a report identifying the problems in achieving the 95% availability and a plan of corrective actions to be taken to achieve the 95% availability. The Permittee shall implement the reported corrective actions within the next calendar quarter. Failure to take corrective actions or continued failure to achieve the minimum monitor availability shall be violations of this permit, except as otherwise authorized by the Division.

Data Exclusion: Except for monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, each CEM shall monitor and record emissions during all operations including episodes of startups, shutdowns, and malfunctions.

- a. Excess emissions resulting from startup, shutdown, or malfunction of any source which occur though ordinary diligence is employed shall be allowed provided that: [391-3-1-.02(2)(a)7(i)]
- i. The best operational practices to minimize emissions are adhered to;
 - ii. All associated air pollution control equipment is operated in a manner consistent with good air pollution control practice for minimizing emissions; and
 - iii. The duration of excess emissions is minimized.

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- b. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction are prohibited and are violations of Chapter 391-3-1 of the Georgia Rules for Air Quality Control.
[391-3-1-.02(2)(a)7(ii)]
- c. The provisions of this condition and Georgia Rule 391-3-1-.02(2)(a)7 shall apply only to those sources which are not subject to any requirement under Georgia Rule 391-3-1-.02(8) – New Source Performance Standards or any requirement of 40 CFR, Part 60, as amended concerning New Source Performance Standards.
[391-3-1-.02(2)(a)7(iii)]

5.2.15 To support the CEM monitoring data, the Permittee shall install, calibrate, maintain, and operate devices/systems to continuously monitor and record the indicated parameters on the following equipment. Where such performance specification(s) exist, each system shall also meet the applicable performance specification(s) of the Division's monitoring requirements.

- a. The temperature of the exhaust air/flue gas stream at each location where CO, NO_x, SO₂ or THC emissions are monitored by respective CEM. The temperature continuous monitor shall be operated according to Condition 5.2.4.
- b. The oxygen content of the exhaust air/flue gas stream at each location where CO, NO_x, SO₂ or THC emissions are monitored by respective CEM.
- c. The flow rate of the exhaust air/flue gas stream at each location where CO, NO_x, SO₂ or THC emissions are monitored by respective CEM in accordance with Performance Specification No. PS-6 (Specifications and Test Procedures For Continuous Emission Rate Monitoring Systems in Stationary Sources) in Appendix B of 40 CFR 60.
- d. The pressure drop across each of the baghouse Nos. DC02, DE24, DC35, DC37 and/or DC38 that is not equipped with BLDS.
- e. The hourly usage rate of each fuel fired (1-hour block averages). Each monitoring system shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations.
- f. The hourly average rate of dry feed entering the kiln and clinker exiting from the clinker cooler.
- g. The hydrated lime injection rate (1-hour block average). The monitoring system shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations.

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- h. The ammonia injection rate of the SNCR system and the molar ratio of NH_3/NO_x (1-hour block average). The monitoring system shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations.
- i. The input/injection rate of fly ash to the kiln system (1-hour block average).
- 5.2.16 the Permittee shall perform quarterly accuracy determinations and daily calibration drift tests on the CO, NO_x , SO_2 and THC CEM, and the oxygen continuous monitor, according to Procedure 1 in Appendix F of 40 CFR Part 60.
- 5.2.17 The Permittee shall perform the following daily operation and maintenance checks on each dust suppression device specified in Conditions 3.2.8, 3.2.11, 3.2.12, and 3.2.13. The inspection shall be conducted at least once each day of operation. If a device is found to be operating improperly, or in a manner inconsistent with the following criteria, a description of the corrective actions taken shall be recorded in accordance with Condition 6.1.1 (a Checklist or other similar log may be used for this purpose).
[40 CFR 52.21]
- a. Visually inspect wet suppression/water-spray control systems to ensure that the designated nozzle water spray pattern is produced (i.e., a fine, conical mist).
- b. Check water-spray nozzles to ensure that they are properly directed.
- c. Check water spray nozzles to ensure none are clogged, and there is proper and adequate water flow sufficient to wet the surface area of the materials being processed.
- 5.2.18 The permittee shall develop and implement a Preventive Maintenance Program (PMP) for all baghouses to assure that the provisions of Condition 2.1.1 are met. The program shall be subject to review and, if necessary to assure compliance, modification by the Division and shall include the pressure drop ranges that indicate proper operation for each baghouse. At a minimum, the following operation and maintenance checks shall be made on at least a weekly basis, and a record of the findings and corrective actions taken shall be kept in a maintenance log:
- a. Record pressure across each baghouse and ensure that it is within the appropriate range (not applicable to the baghouses subject to Condition 3.2.5).
- b. For baghouses equipped with compressed air cleaning systems, check the system for proper operation. This may include checking for low pressure, leaks, proper lubrication, and proper operation of timer and valves.
- c. For baghouses equipped reverse air cleaning systems, check the system for proper operation. This may include checking damper, bypass, and isolation valves for proper operation.

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- d. For baghouses equipped with shaker cleaning systems, check the system for proper operation. This may include checking shaker mechanism for loose or worn bearings, drive components, mounting; proper operation of outlet/isolation valves; proper lubrication.

The Permittee shall install, calibrate, maintain, and operate monitoring devices for the measurement of the baghouse pressure drop/differential. Where such performance specification(s) exist, each pressure measuring device shall meet the applicable performance specification(s) of the Division's monitoring requirements.

PART 6.0 RECORD KEEPING, COMPLIANCE DEMONSTRATION AND REPORTING REQUIREMENTS

6.1 General Record Keeping and Reporting Requirements

6.1.1 Unless otherwise specified, all records required to be maintained by this Permit shall be recorded in a permanent form suitable for inspection and submission to the Division and to the EPA. The records shall be retained for at least five (5) years following the date of entry.

[391-3-1-.02(6)(b)1(i)]

6.1.2 In addition to any other reporting requirements of this Permit, the Permittee shall report to the Division in writing, within seven (7) days, any deviations from applicable requirements associated with any malfunction or breakdown of process, fuel burning, or emissions control equipment for a period of four hours or more which results in excessive emissions.

The Permittee shall submit a written report that shall contain the probable cause of the deviation(s), duration of the deviation(s), and any corrective actions or preventive measures taken.

[391-3-1-.02(6)(b)1(iv)]

6.1.3 The Permittee shall submit written reports of any failure to meet an applicable emission limitation or standard contained in this permit and/or any failure to comply with or complete a work practice standard or requirement contained in this permit which are not otherwise reported in accordance with Conditions 6.1.4 or 6.1.2. Such failures shall be determined through observation, data from any monitoring protocol, or by any other monitoring which is required by this permit. The reports shall cover each semiannual period ending June 30 and December 31 of each year, shall be postmarked by the 30th day following the end of each reporting period, July 30 and January 30, respectively, and shall contain the probable cause of the failure(s), duration of the failure(s), and any corrective actions or preventive measures taken.

[40 CFR 52.21 – PSD/NSR]

6.1.4 The Permittee shall submit a written report containing any excess emissions, exceedances, and/or excursions as described in this permit and any monitor malfunctions for each quarterly period ending March 31, June 30, September 30, and December 31 of each year. All reports shall be postmarked by the 30th day following the end of each reporting period, April 30, July 30, October 30, and January 30, respectively. In the event that there have not been any excess emissions, exceedances, excursions or malfunctions during a reporting period, the report should so state. Otherwise, the contents of each report shall be as specified by the Division's Procedures for Testing and Monitoring Sources of Air Pollutants and shall contain the following:

[391-3-1-.02(6)(b), NSPS, MACT, and BACT/NSR]

- a. A summary report of excess emissions, exceedances and excursions, and monitor downtime, in accordance with Section 1.5(c) and (d) of the above referenced document, including any failure to follow required work practice procedures.

- b. Total process operating time during each reporting period.
- c. The magnitude of all excess emissions, exceedances and excursions computed in accordance with the applicable definitions as determined by the Director, and any conversion factors used, and the date and time of the commencement and completion of each time period of occurrence.
- d. Specific identification of each period of such excess emissions, exceedances, and excursions that occur during startups, shutdowns, or malfunctions of the affected facility. Include the nature and cause of any malfunction (if known), the corrective action taken or preventive measures adopted.
- e. The date and time identifying each period during which any required monitoring system or device was inoperative (including periods of malfunction) except for zero and span checks, and the nature of the repairs, adjustments, or replacement. When the monitoring system or device has not been inoperative, repaired, or adjusted, such information shall be stated in the report.
- f. Certification by a Responsible Official that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- 6.1.5 Where applicable, the Permittee shall keep the following records:
[391-3-1-.02(6)(b), NSPS, MACT, and BACT/NSR]
- a. The date, place, and time of sampling or measurement;
- b. The date(s) analyses were performed;
- c. The company or entity that performed the analyses;
- d. The analytical techniques or methods used;
- e. The results of such analyses; and
- f. The operating conditions as existing at the time of sampling or measurement.
- 6.1.6 The Permittee shall maintain files of all required measurements, including continuous monitoring systems, monitoring devices, and performance testing measurements; all continuous monitoring system or monitoring device calibration checks; and adjustments and maintenance performed on these systems or devices. These files shall be kept in a permanent form suitable for inspection and shall be maintained for a period of at least five (5) years following the date of such measurements, reports, maintenance and records.
[391-3-1-.02(6)(b), NSPS, MACT, and BACT/NSR]

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- 6.1.7 For the purpose of reporting excess emissions, exceedances or excursions in the report required in Condition 6.1.4, the following excess emissions, exceedances, and excursions shall be reported:

[391-3-1-.02(6)(b)1, 40 CFR Part 60, Subparts Y, OOO, IIII, 40 CFR Part 63, Subpart LLL, and 40 CFR 52.21]

- a. Excess emissions: (means for the purpose of this Condition and Condition 6.1.4, any condition that is detected by monitoring or record keeping which is specifically defined, or stated to be, excess emissions by an applicable requirement)
- i. The total continuous monitoring system downtime for any CEM, COM or continuous monitoring systems (CMS) for the reporting period is 10% or greater of the total operating time for the reporting period per 40 CFR 63.1354(b)(10).
- b. Exceedances: (means for the purpose of this Condition and Condition 6.1.4, any condition that is detected by monitoring or record keeping that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) do not meet the applicable emission limitation or standard consistent with the averaging period specified for averaging the results of the monitoring)
- i. Any 12-month rolling total of emissions of any of the pollutants listed below that exceeded its facility-wide BACT emission limit:

Pollutant	Facility-Wide Rolling 12-Month Limit, ton
CO	1588
NO _x	1,068
SO ₂	548
VOC/THC	274

- ii. Any 12-month rolling total of Hg emissions/Hg throughput that exceeded 118 pounds;
- iii. Each exceedance of any of the following process-specific BACT emission standards:

Pollutant	BACT Emission Standard for Main Kiln Exhaust Stack No. ST35		Averaging Time
	lb./ton of clinker	lb./hr.	
CO	2.90	362.5	30-day rolling CEM average
NO _x	1.95	243.8	30-day rolling CEM average
NO _x (During Initial Startup Period)	3.0	375.0	30-day rolling CEM average

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Pollutant	BACT Emission Standard for Main Kiln Exhaust Stack No. ST35		Averaging Time
	lb./ton of clinker	lb./hr.	
SO ₂	0.5	125.0	30-day rolling CEM average
VOC/THC	0.5	62.5	30-day rolling CEM average

- iv. Each exceedance of the following BACT visible emission limits:
- 10% opacity (6-minute block average) at any exhaust/stack/vent as monitored by COM or Method 9 as required by Condition 5.2.1, 5.2.2, 5.2.3 or 5.2.9.
- v. Each exceedance of the BACT following operating limits:
- 125 tons per hour of clinker (24-hour rolling average);
 - 1,095,000 tons of clinker during any period of 12 consecutive months;
 - Firing more than 2,000 gallons of the “on-specification” used oil during period of any 24 consecutive hours or 3,000,000 gallons during any 12 consecutive months; or
 - Firing any fuel(s) which is not authorized by Condition 3.2.3.
- vi. Each instance that any of the following Subpart LLL emission standards in Condition 3.3.4 was exceeded:
- D/F: 0.20 ng/dscm (8.7×10^{-11} gr/dscf) TEQ or 0.40 ng/dscm (17×10^{-11} gr/dscf) TEQ when the average of the performance test run average temperatures at the inlet to the PM control device serving the in-line kiln/raw mill is 204°C (400°F) or less (3-hour/180-minute rolling average);
 - Opacity: 10% from the main kiln stack No. ST35 or from the finish mill stack No. ST37 as indicated by COM (6-minute block average);
 - THC: 20 ppmdv as propane corrected to 7% oxygen on hourly average from the in-line kiln/raw mill (1 hour block average).
- vii. Any instant of firing the stationary emergency diesel generator subject to Condition 3.3.9 with diesel fuel that:
- Contains more than 0.05% sulfur by weight; contains either more than 35% by volume of aromatic content or has a cetane index of less than 40 on and after October 1, 2007; or

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- Contains more than 0.0015% sulfur by weight; contains either more than 35% by volume of aromatic content **or** has a cetane index of less than 40 on and after October 1, 2010;
- c. Excursions: (means for the purpose of this Condition and Condition 6.1.4, any departure from an indicator range or value established for monitoring consistent with any averaging period specified for averaging the results of the monitoring)
 - i. Each instance that a baghouse pressure drop reading falls below the level or drifts outside the range established during the most recent Division-approved performance testing per Condition 3.2.5.
 - ii. Each instance that the fly ash usage limitation/requirement of Condition 3.2.19 was not observed.
 - iii. Each instance of firing the inline kiln/raw mill system with any hazardous wastes prohibited by Condition 3.2.17.
 - iv. Each instance that any of the reasonable precautions to reduce fugitive emissions in Condition 3.4.1 was not observed.
 - v. Each instance that the inspection and/or filter replacement, as required by Condition 3.2.7, was not performed and/or recorded.
 - vi. Each instance that a fuel(s) other than those authorized by Condition 3.2.3 was used to fire the in-line kiln/raw mill or the air heater.
 - vii. Each instance that the quantities of a fuel(s) fired exceeded the applicable limit(s) in Condition 3.2.3.
 - viii. Each instance of not following the procedure in the SSM plan in Condition 3.2.14.
 - ix. For the baghouses subject to Condition 5.2.12, any two consecutive required daily determinations of visible emissions that require action in accordance with Condition 5.2.12a. or Condition 5.2.12b.
 - x. Any visible emissions or its cause(s) discovered during the walk through described in Condition 5.2.13 that are not eliminated or corrected within 24 hours of the first discovering the visible emissions or its cause(s).
 - xi. Any instance in which the visual inspection of VE required by Condition 5.2.12 was not performed.
 - xii. Each instance that the hourly cement kiln dust (CKD) recycle rate exceeded that specified in Condition 3.2.20 per Subpart LLL.

- xiii. Each instance that a 3-hour/180-minute rolling average of the temperature(s) at the inlet(s) of the baghouse(s) serving the in-line kiln/raw mill exceeded the maximum control device inlet gas temperature limits specified in Conditions 3.2.18 as established during the most recent Division-approved performance test;
- xiv. Each instance of failure to comply with any provision of the operations and maintenance plan developed in accordance with Condition 5.2.1 unless specified otherwise.
- xv. Each instance of failure to calibrate thermocouples, other temperature sensors, or CEM.

6.2 Specific Notification, Record Keeping, Compliance Demonstration & Report Requirements

40 CFR Part 63, Subpart LLL Record keeping, Compliance Demonstration and Report Requirements

- 6.2.1 The Permittee shall comply with all the applicable notification provisions under 40 CFR Part 63, Subpart A, as listed in Table 1 of 40 CFR Part 63, Subpart LLL.
[40 CFR 63.1353(a)]
- 6.2.2 The Permittee shall comply with the notification requirements in 40 CFR 63.9 as follows:
[40 CFR 63.1353(b)]
 - a. Initial notifications as required by 40 CFR 63.9(b) through (d).
 - b. Notification of performance tests, as required by 40 CFR 63.7 and 63.9(e).
 - c. Notification of opacity and visible emission observations required by Part 4.0 of this permit per 40 CFR 63.1349 according to 40 CFR 63.6(h)(5) and 63.9(f).
 - d. Notification, as required by 40 CFR 63.9(g), of the date that the CEM performance evaluation required by 40 CFR 63.8(e) is scheduled to begin.
 - e. Notification of compliance status, as required by 40 CFR 63.9(h).
- 6.2.3 The Permittee shall comply with all the applicable reporting provisions under 40 CFR Part 63, Subpart A, as listed in Table 1 of 40 CFR Part 63, Subpart LLL.
[40 CFR 63.1354(a)]
- 6.2.4 The Permittee shall comply with the reporting requirements specified in 40 CFR 63.10 as follows:
[40 CFR 63.1354(b)]
 - a. Report the results of performance tests as part of the notification of compliance status.

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- b. Report the opacity results from tests required by Part 4.0 of this permit per 40 CFR 63.1349.
 - c. Submit, as applicable, progress reports as a condition of receiving an extension of compliance under 40 CFR 63.6(i) by the dates specified in the written extension of compliance.
 - d. If actions taken during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's SSM plan specified Condition 3.2.14 according to 40 CFR 63.6(e)(3), state such information in a semiannual report. Reports shall only be required if a startup, shutdown, or malfunction occurred during the reporting period. The startup, shutdown, and malfunction report may be submitted simultaneously with the excess emissions and continuous monitoring system performance reports.
 - e. Any time an action taken during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures in the SSM plan, make an immediate report of the actions taken for that event within 2 working days, by telephone call or facsimile (FAX) transmission. The immediate report shall be followed by a letter, certified by the Permittee or other responsible official, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred.
 - f. Submit a written report of the results of the performance evaluation for the CEM required by 40 CFR 63.8(e). The Permittee shall submit the report simultaneously with the results of the performance test.
 - g. Report the results of the COM performance evaluation conducted under 40 CFR 63.8(e), when using the COM to determine opacity compliance during any performance test required under 40 CFR 63.7 and described in 40 CFR 63.6(d)(6).
 - h. Submit an excess emissions and CEM performance report for any event when the CEM data indicate the source involved is not in compliance with the applicable emission limitation or operating parameter limit.
 - i. Submit a semiannual summary report which contains the information specified in 40 CFR 63.10(e)(3)(vi). In addition, the summary report shall include:
 - i. All exceedences of maximum control device inlet gas temperature limits specified in Conditions 3.2.18 per 40 CFR 63.1344(a) and (b);
 - ii All failures to calibrate thermocouples and other temperature sensors as required by Condition 5.2.4 per 40 CFR 63.1350(f)(7);

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- iii. The results of any combustion system component inspections conducted within the reporting period as required by Condition 5.2.6 per 40 CFR 63.1350(i).
- iv. All failures to comply with any provision of the operation and maintenance plan developed in accordance with Condition 5.2.1 per 40 CFR 63.1350(a).
- j. If the total downtime for any CEM or any COM for the reporting period is 10% or greater of the total operating time for the reporting period, submit an excess emissions and continuous monitoring system performance report along with the summary report.

6.2.5 The Permittee shall record files of all information (including all reports and notifications) required by this condition in a form suitable and readily available for inspection and review as required by 40 CFR 63.10(b)(1). The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche.
[40 CFR 63.1355]

- a. Records for each affected source as required by 40 CFR 63.10(b)(2) and (b)(3);
- b. All documentation supporting initial notifications and notifications of compliance status under 40 CFR 63.9;
- c. All records of applicability determination, including supporting analyses;
- d. If granted a waiver under 40 CFR 63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements;
- e. All CEMS records as required by 40 CFR 63.10(c);
- f. Annual records of the amount of CKD removed from the kiln system and either disposed of as solid waste or otherwise recycled for a beneficial use outside of the kiln system;
- g. Records of the amount of CKD recycled on an hourly basis; and
- h. Records of all fly ash supplier certifications as required by Condition 6.2.6 per 40 CFR 63.1350(o).

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- 6.2.6 When complying with the requirements in Condition 3.2.19, the Permittee shall obtain a certification from the supplier for each shipment of fly ash received to demonstrate that the fly ash was not derived from a source in which the use of activated carbon or any other sorbent is a method of mercury emissions control. The certification shall include the name of the supplier and a signed statement from the supplier confirming that the fly ash was not derived from a source in which the use of activated carbon or any other sorbent is a method of mercury emission control.
[40 CFR 63.1350(o)]
- 6.2.7 If the Permittee opts to use a fly ash derived from a source in which the use of activated carbon, or any other sorbent, is for mercury emissions control and to demonstrate that the use of this fly ash does not increase mercury emissions, the Permittee shall obtain daily fly ash samples, composites monthly, and analyze the samples for mercury.
[40 CFR 63.1350(p)]

40 CFR Part 60, Subpart OOO Record keeping, Compliance Demonstration and Report Requirements

- 6.2.8 The Permittee shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the applicable standards in Condition 3.3.7 per 40 CFR 60.672, including reports of opacity observations made using Method 9 or Method 22 to demonstrate compliance with Condition 3.3.7.
[40 CFR 60.676(f)]
- 6.2.9 The Permittee shall submit to the Division a written notification of the actual date of initial startup of each affected facility, or a single notification of startup for a combination of affected facilities in a production line that begin actual initial startup on the same day. The notification shall be postmarked within 15 days after such date and shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available.
[40 CFR 60.676(i) and (l)(1)]

40 CFR Part 60, Subpart IIII Record keeping, Compliance Demonstration and Report Requirements

- 6.2.10 The Permittee shall maintain monthly operating records of the 750 kW emergency stationary diesel generator/engine, including operating hours and reasons of the operation, i.e., emergency power generation and/or fire distinguishing, readiness testing and/or maintenance check. These records shall be kept available for inspection or submittal for five (5) years from the date of record.
[40 CFR 60.4214(b) & 391-3-1-.02(2)(mmm)4.(i)]

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- 6.2.11 The Permittee shall use monthly operating time records required by Condition 6.2.10 to calculate monthly the 12 month rolling total of the maintenance check and readiness testing time for the engine specified in Condition 6.2.10 for each 12-consecutive month period. All the calculations shall be kept as part of the records required in Condition 6.2.10. The Permittee shall notify the Division in writing if any of the 12 month rolling total of maintenance check and readiness testing time exceeds 100 hours. This notification shall be postmarked by the fifteenth day of the following month and shall include an explanation of how the Permittee intends to attain future compliance with Condition 3.2.23.
[40 CFR 60.4211(e)]
- 6.2.12 The Permittee shall demonstrate compliance with the applicable emission limits in Condition 3.3.8 by purchasing a 750 kW stationary diesel engine/generator that is certified to the applicable 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 manufacturer's specifications.
[40 CFR 60.4211(c)]
- 6.2.13 The Permittee shall keep records verifying that each shipment of diesel fuel received for firing the 750 kW emergency stationary diesel generator/engine complies with the applicable requirements in Condition 3.3.9. Verification shall consist of either the fuel oil receipts and/or fuel supplier certifications or results of analyses of the fuel oils conducted by methods of sampling and analysis which have been specified or approved by the EPA or the Division. These records shall be kept available for inspection or submittal for 5 years from the date of record.
[40 CFR 60.4207)]
- 6.2.14 The Permittee shall comply with all the applicable requirements of the General Provisions of 40 CFR Part 63 as listed in Table 8 to 40 CFR Part 60, Subpart IIII.
[40 CFR 60.4218]
- 6.2.15 The Permittee shall furnish the Division written notification of the date of the initial startup of the 750 kW emergency stationary diesel engine within 15th days after such date.
[391-3-1-.03(2)(c)]

PSD/BACT and/or SIP Record Keeping, Compliance Demonstration and Repor Requirements

- 6.2.16 To demonstrate compliance with the limitations specified in this permit, the Permittee shall maintain the following records on site:
- For each 1-hour block of operation, continuously monitor and record the dry (preheater/precalciner) feed input rate, clinker production rate, fuel firing rate, heat input rate (as determined by the representative heating value of each fuel and the hourly fuel firing rate), and NH₃/NO_x molar ratio or ammonia injection rate. Records shall also document the dry (preheater/precalciner) feed rate and clinker production rates for each 24-hour rolling period and 12-month rolling period.

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- b. For each fuel delivery, maintain records of the quantity of the fuel delivered and a representative analysis of the fuel. Such records shall include the higher and lower heating value, proximate analysis, and ultimate analyses.
- c. Maintain records demonstrating compliance with the mercury throughput limit in Condition 2.2.6, as required in Condition 6.2.19.
- d. Maintain the following records for each equipment malfunction resulting in excluded monitoring data: date and time of event, duration of event, suspected cause of event, and any corrective actions taken. All records shall be made available to the Division upon request.

- 6.2.17 The Permittee shall use the appropriate data in Conditions 5.2.14, 5.2.15 and 6.2.16 to calculate respectively the monthly total emissions of CO, NO_x, SO₂ and THC/VOC for each calendar month. The Permittee shall notify the Division in writing if any monthly total emissions exceed the corresponding notification level listed below (1/12 of the annual emission limits in Conditions 2.2.1, 2.2.2, 2.2.3, or 2.2.4 during any calendar month. This notification shall be postmarked by the 15th day of the following month and shall include an explanation of how the Permittee intends to maintain compliance with the emission limit involved.

Table 6.2.17-1: Emission Notification Level

Pollutant	Emission Notification Rate, ton/month
CO	132.3
NO _x	89
SO ₂	45.7
VOC/THC	22.8

- 6.2.18 The Permittee shall use the monthly emissions data in Condition 6.2.17 to demonstrate compliance with the applicable BACT emission limits in Conditions 2.2.1, 2.2.2, 2.2.3 and 2.2.4 respectively. The Permittee shall notify the Division in writing if any 12-month rolling total emissions exceed the corresponding annual emission limit in Condition 2.2.1, 2.2.2, 2.2.3 or 2.2.4. This notification shall be postmarked by the fifteenth day of the following month and shall include an explanation of how the Permittee intends to attain future compliance with the annual emission limit involved.
- 6.2.19 The Permittee shall demonstrate compliance with the mercury throughput limitation in Condition 2.2.6 by material balance and maintaining records of the monthly and rolling 12-month total mercury throughput as below:
- a. Collect samples of the raw mill feed, fly ash and fuels used each day. A single composite daily sample shall be made from all samples collected for each material and fuel during a day. A monthly composite sample shall be made from each of the daily composite samples.

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- b. Determine the representative mercury concentration for the month from the monthly composite samples using EPA or ASTM methods such as EPA Method 7471A (Mercury in Solid or Semisolid Waste). No other methods may be used unless prior written approval is received from the Division. For samples with levels below the detection limit, the Permittee shall report the detection limit as the corresponding level.
 - c. Calculate the monthly total mercury throughput rate (pounds per month), i.e., the product of the mercury concentration from the monthly composite sample and the corresponding monthly processing rate. For each month, the mass of mercury introduced into the in-line kiln/raw mill (pounds per month) shall be the sum of the monthly mercury throughput rates for the raw mill feed, fly ash and fuel.
 - d. calculate the 12-month rolling total mercury throughput rate (pounds of mercury per consecutive/rolling 12-months) as the sum of the current monthly total mercury throughput and the monthly total mercury throughputs of preceding 11 months.

The Permittee shall notify the Division in writing if the 12-month rolling total of mercury emissions exceeded 118 pounds. This notification shall be postmarked by 15th day of the following month and shall include an explanation of how the Permittee intends to attain future compliance with the annual mercury emission limit in Condition 2.2.6.

- 6.2.20 The Permittee shall maintain daily records of water truck usage, if applicable, to demonstrate compliance with Conditions 3.2.12. The records shall be kept in accordance with Condition 6.1.1, and shall include a minimum of the following data:
- a. The hours that each section is open for vehicle traffic.
 - b. The section of road watered.
 - c. The date and time of each water spray application.
 - d. The total volume in gallons of water applied during each application.
 - e. Ambient conditions (dry, wet, precipitation, hot, windy, etc.)
- 6.2.21 The Permittee shall submit to the Division a semiannual report (or as a part of the quarterly report in Condition 6.1.4), within 30 days following the end of each such period (July 30 and January 30), regarding the fuel oil(s) fired in the air heater, and the on-specification used fuel oil(s) fired in the inline-kiln/raw mill (preheater/precalciner, calciner and/kiln) during the reporting period. The report shall contain:
[391-3-1-.02(2)(6)(b)1]
- a. Calendar dates in the report period.
 - b. The fuel oil supplier certifications for each batch of the fuel oil shipment received during the reporting period.

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- c. Analyses of each batch of “on-specification” used oil fuels received or generated during the reporting period showing that the fuel oils are in compliance with the specifications of Condition 3.2.3f.
 - d. A certified statement, signed by an official of the company, affirming that the records of fuel oil supplier certifications and analyses of “on-specification” used oil fuels, submitted in accordance with subparagraph b of this condition, represent all of the fuel oil and the “on-specification” used oil fuels fired during the quarterly period.
 - e. The hourly and 12-month rolling totals of the “on-specification” used oil fuels burned during the reporting period.
- 6.2.22 The Permittee shall include the following information in the quarterly report required in Condition 6.1.4:
- a. The results of any combustion system inspection conducted within the reporting period as required by Condition 5.2.1c.
 - b. The daily total of CO, NO_x, SO₂ and THC/VOC emissions (in tons) for each working day during the reporting period.
 - c. The monthly total of CO, NO_x, SO₂ and THC/VOC emissions (in tons) for each calendar month during the reporting period.
 - d. The 12-month rolling total of CO, NO_x, SO₂ and THC/VOC emissions (in tons) for each period of 12-consecutive months during the reporting period.
 - e. Monthly usage rate (in tons) and 12-month rolling total of coal and/or other non-hazardous solids/fuels (in tons) for each period of 12-consecutive months during the reporting period.
 - f. Daily total input of dry feed (in tons) into the kiln and clinker output from the kiln (in tons) for each working day during the reporting period.
 - g. Monthly total input of dry feed input into the kiln (in tons) for each calendar month, and 12-month rolling total input of dry feed into the kiln (in tons) for each period of 12-consecutive months during the reporting period.
 - h. Monthly total output of clinker output from the kiln (in tons) for each calendar month, and 12-month rolling total output of clinker from the kiln (in tons) for each period of 12-consecutive months during the reporting period.
- 6.2.23 The Permittee shall furnish the Division written notification of the date of the initial startup of this Portland cement manufacturing plant (including the on-site quarry operation) within 15th days after such date.

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ATTACHMENT A

AIRC	Aerometric Information Retrieval System
APCD	Air Pollution Control Device
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
BTU	British Thermal Unit
CAAA	Clean Air Act Amendments
CEM	Continuous Emission Monitor
CERMS	Continuous Emission Rate Monitoring System
CFR	Code of Federal Regulations
CMS	Continuous Monitoring System(s)
CO	Carbon Monoxide
COM	Continuous Opacity Monitor
dscf/dscm	Dry Standard Cubic Foot / Dry Standard Cubic Meter
EPA	United States Environmental Protection Agency
EPCRA	Emergency Planning and Community Right to Know Act
gr	Grain(s)
GPM (gpm)	Gallons per minute
H ₂ O (H ₂ O)	Water
HAP	Hazardous Air Pollutant
HCFC	Hydro-chloro-fluorocarbon
MACT	Maximum Achievable Control Technology
MMBtu	Million British Thermal Units
MMBtu/hr	Million British Thermal Units per hour
MVAC	Motor Vehicle Air Conditioner
MW	Megawatt
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO _x (NO _x)	Nitrogen Oxides
NSPS	New Source Performance Standards
OCGA	Official Code of Georgia Annotated

[illegible]

None	N/A
