

**OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION**

MEMORANDUM

August 26, 2019

TO: Phillip Fielder, P.E., Chief Engineer

THROUGH: Rick Groshong, Compliance and Enforcement Manager

THROUGH: Phil Martin, P.E., Engineering Manager, Existing Source Permit Section

THROUGH: Ryan Buntyn, P.E., Existing Source Permits Section

FROM: Jian Yue, P.E., New Source Permits Section

SUBJECT: Evaluation of Permit Application No. **2013-0193-C (M-1)**
Holcim (US) Inc.
Holcim Ada Portland Cement Production Plant (SIC 3241)
Facility ID: 826
Section 32, T4N, R6E, Pontotoc County
Latitude: 34.767°, Longitude: -96.699°
14500 County Road 1550, Ada, OK 74820

SECTION I. INTRODUCTION

Holcim has requested a modification to its current construction permit (Construction Permit No. 98-087-C (M-7) issued on October 16, 2014), which authorized exchanging the two existing wet kiln lines with one semi-wet single-stage preheater/precalciner kiln line for the Ada Portland Cement Production Plant (SIC 3241).

The semi-wet single-stage preheater/precalciner process uses thermal energy more efficiently and decreases energy usage and emissions per unit of production. This change did not affect processing equipment in the quarry. All crushing, raw grinding, feed systems, storage systems and dispatch systems continue to be utilized. Add-on control technologies (i.e., in-line low NO_x calciner, low NO_x burner, activated carbon injection (ACI), and selective non-catalytic reduction (SNCR) for NO_x) were incorporated into the process to further reduce emissions. However, SNCR may not be needed in some operational scenarios to meet emission limit. Holcim will demonstrate continuous compliance with the NO_x emission limit via CEMs with or without the operation of SNCR. A fabric filter baghouse replaced the electrostatic precipitators (ESPs) for point source PM emissions control, and the new baghouse is used to control emissions from the clinker cooler and alkali bypass as well as the kiln. A full complement of continuous monitoring devices (i.e., NO_x, SO₂, CO, CO₂, PM, Hg, and HCl) were installed on the system as well.

With this modification application, Holcim is requesting the following changes from the issued construction permit:

- EUG 1:
 - Add a temporary tire chip pile at the quarry. The piles will serve as overflow storage location for approximately one year. Holcim estimates that the total amount of tire chip material stored and hauled during this temporary time will be 6,000 tons. The tire chip pile itself will have negligible emissions. Associated emissions would come from the haul roads for transporting the chips in and out of the quarry, which has been estimated to be 0.27 TPY of PM_{2.5} and 2.69 TPY of PM₁₀.
- EUG 4:
 - Add emission units V83-HP1, V83-SC1, and V83-BC2 that comprise a conveyor belt system that will allow the facility to feed mill scale into the tower instead of into the raw mill (the current setup);
 - Add emission units V83-UL1 and V83-WF1 that comprise a conveyor system that feeds tire chips directly into the tower. These tire chips were previously fed mid-kiln.
 - Add emission unit V83-BCA, a conveyor belt that will transport both the tire chips and raw mill to the tower.
- EUG 5, 463-KL1:
 - Modify the kiln’s condensable PM emission limit based on stack test data rather than AP-42 factors;
 - Modify the kiln’s filterable PM emission limit as allowed by NSPS subpart F and NESHAP subpart LLL to use Equation 2 from 40 CFR 63.1343(b)(2).
- EUG 6:
 - Add emission unit 473-BF2, the Cooler #3 Nuisance Dust Collector Transfer.
 - Add emission unit 473-GQ1, clinker cooler #3 transfer, with potential emissions of 1.88 TPY of PM/PM₁₀ and 1.5 TPY PM_{2.5}.
- EUG 9B:
 - Update the rating of 46A-1G1 (kiln diesel-fired emergency generator) from 350 kW to 402 kW.
 - Add 46A-1G2, a 1,100-hp Mitsubishi S12A2-PTS emergency diesel generator that was manufactured in 2002.
- Remove the following ancillary particulate matter sources that, as built, the facility no longer needs or that have combined with other sources that fully account for all emissions.

| EUGs | EU | Description |
|-------|---------|---|
| EUG 3 | L91-SC2 | Screw conveyor #2 (Line 1) |
| EUG 6 | 42A-3B2 | Insufflation Dust Bin |
| | 491-BC2 | Clinker Reversing Belt (West) Transfers 1 - 4 |
| | 491-CV1 | Clinker Cooler #1 Drag Transfers 1 and 2 |
| | 491-FVA | Double Tip Valve #1 Cooler Exhaust K1 |
| | 491-FVB | Double Tip Valve #2 Cooler Exhaust K1 |
| | 491-FVC | Double Tip Valve #3 Cooler Exhaust K1 |
| | 491-FVD | Double Tip Valve #4 Cooler Exhaust K1 |
| | 491-FVE | Double Tip Valve #5 Cooler Exhaust K1 |
| | 491-FVF | Double Tip Valve #6 Cooler Exhaust K1 |
| | 491-FVG | Double Tip Valve #7 Cooler Exhaust K1 |
| | 491-FVH | Double Tip Valve #8 Cooler Exhaust K1 |
| | 491-FVI | Double Tip Valve #9 Cooler Exhaust K1 |
| | 491-FVJ | Double Tip Valve #10 Cooler Exhaust K1 |

| EUGs | EU | Description |
|--------|---------|---|
| | 491-FVK | Double Tip Valve #11 Cooler Exhaust K1 |
| | 491-FVL | Double Tip Valve #12 Cooler Exhaust K1 |
| | 491-FVM | Double Tip Valve #13 Cooler Exhaust K1 |
| | 491-FVN | Double Tip Valve #14 Cooler Exhaust K1 |
| | 491-FVO | Double Tip Valve #15 Cooler Exhaust K1 |
| | 491-FVP | Double Tip Valve #16 Cooler Exhaust K1 |
| | 491-SC1 | Clinker Cooler #1 Heat Exchanger Screw |
| | 492-BC1 | Clinker Incline Belt (South) |
| | 492-BC2 | Clinker Reversing Belt (East) Transfers 1 - 4 |
| | 492-CV1 | Clinker Cooler #2 Drag Transfers 1 and 2 |
| | 492-FVA | Double Tip Valve #1 Cooler Exhaust K2 |
| | 492-FVB | Double Tip Valve #2 Cooler Exhaust K2 |
| | 492-FVC | Double Tip Valve #3 Cooler Exhaust K2 |
| | 492-FVD | Double Tip Valve #4 Cooler Exhaust K2 |
| | 492-FVE | Double Tip Valve #5 Cooler Exhaust K2 |
| | 492-FVF | Double Tip Valve #6 Cooler Exhaust K2 |
| | 492-FVG | Double Tip Valve #7 Cooler Exhaust K2 |
| | 492-FVH | Double Tip Valve #8 Cooler Exhaust K2 |
| | 492-FVI | Double Tip Valve #9 Cooler Exhaust K2 |
| | 492-FVJ | Double Tip Valve #10 Cooler Exhaust K2 |
| | 492-FVK | Double Tip Valve #11 Cooler Exhaust K2 |
| | 492-FVL | Double Tip Valve #12 Cooler Exhaust K2 |
| | 492-FVM | Double Tip Valve #13 Cooler Exhaust K2 |
| | 492-FVN | Double Tip Valve #14 Cooler Exhaust K2 |
| | 492-FVO | Double Tip Valve #15 Cooler Exhaust K2 |
| | 492-FVP | Double Tip Valve #16 Cooler Exhaust K2 |
| | 492-SC1 | Clinker Cooler #2 Heat Exchanger Screw |
| | 49A-BC1 | Clinker Extension Belt #5 Transfer 1 |
| | 49A-BC1 | Clinker Extension Belt #5 Transfer 2 |
| | 49A-BC2 | Clinker Extension Belt #2 Transfer 1 |
| | 49A-BC2 | Clinker Extension Belt #2 Transfer 2 |
| | 49A-BC3 | Clinker Extension Belt #6 |
| | 49A-BC4 | Clinker Extension Belt #3 |
| | 49A-BF2 | D-4 Dust Collector |
| | 49A-BF3 | D-3 Dust Collector |
| | 49A-SC2 | D-4 Dust Collector Screw |
| | 49A-SC3 | D-3 Dust Collector Screw |
| EUG 7 | 561-SR2 | Separator #2 Transfers 1- 3 |
| | 562-SR2 | Separator #4 Transfers 1 - 3 |
| | 592-AS1 | Airslide From Sep #3 To Cooler #3 |
| | 592-AS2 | Airslide From Sep #4 To Cooler #4 |
| | 592-AS3 | Airslide From #3 Cooler To FK Pump |
| | 592-AS4 | Airslide From #4 Cooler To FK Pump |
| | 592-CQ1 | Cement Cooler #3 |
| | 592-CQ2 | Cement Cooler #4 |
| EUG 10 | F21-FT4 | Diesel (for auxiliary drive)-Inside 5.5' X 19' room beneath Kilns |
| | V11-TK1 | Liquid AFR - Between Kiln Building and Bulk Silos |
| | W01-TK2 | KDT (CKD Slurry Additive)-SW Side of CKD Dust Bin |

This facility is currently operating under Permit No. 2013-0193-TVR issued on September 14, 2016.

SECTION II. PSD APPLICABILITY ANALYSIS

The proposed changes need to be combined with the kiln project to determine if it is a major modification under PSD. Per OAC 252:100-8-31, major modification means any physical change in or change in the method of operation of a major stationary source that would result in a significant emissions increase of a regulated NSR pollutant and a significant net emission increase of the pollutant from the major stationary source. First step is to determine if the project results in a significant emission increase after considering all emission increases and decreases resulted from the project.

a. Project Emission Increases

The first step is to determine if the project results in a significant emission increase. Project emission increases include emission increases from new and modified sources and associated emission increases from existing and unmodified sources. Emission increases from new and modified sources are the same as potential emissions of these sources since baseline emissions from these sources are zero. The kiln project increased kiln clinker production, therefore, all applicable existing sources have associated emission increases due to the production increase. Holcim selected January 2007 - December 2008 as the baseline period. Since the production increase rate is 38.99% (potential production of 693,500 metric tons/year versus baseline production of 498,972 metric tons/year), associated emission increases from all affected sources except for fugitive emissions from haul roads are calculated as a 38.99% increase from baseline emissions. Associated emissions created by transporting the tire chips are based on 6,000 tons/year, 12 tons per load, 500 loads to move per year, and equations in AP-42 (11/06), Chapter 13.2.2-4. A few emission sources are seldom used and were not represented in the 2007 and 2008 Emission Inventories. The associated increases from these sources are conservatively set equal to their potential emissions.

(1). Kiln Emissions

In the previous construction permit, the kiln's condensable PM/PM₁₀ emissions were based on AP-42 emission factors and filterable PM/PM₁₀ emissions were based on NSPS Subpart F 60.62(a)(1)(ii): 0.02 lb/ton of clinker. However, Holcim conducted stack testing in April 2017 and has obtained site specific data for condensable PM/PM₁₀ emission factor. Also, NSPS Subpart F 60.62(b)(2) stated that "If the kiln and clinker cooler exhaust are combined for energy efficiency purposes and sent to a single control device, the appropriate kiln PM limit may be adjusted using the procedures in §63.1343(b) of this chapter." The alternative PM emission limit for commingled sources are determined by Equation 2:

$$PM_{alt} = (0.0020 \times 1.65)(Q_k + Q_c + Q_{ab} + Q_{cm}) / 7000$$

Where:

PM_{alt} = Alternative PM emission limit for commingled sources.

0.002 = The PM exhaust concentration (gr/dscf) equivalent to 0.020 lb per ton clinker where clinker cooler and kiln exhaust gas are not combined.

1.65 = The conversion factor of ton feed per ton clinker.

Q_k = The exhaust flow of the kiln (dscf/ton feed).

Q_c = The exhaust flow of the clinker cooler (dscf/ton feed).

Q_{ab} = The exhaust flow of the alkali bypass (dscf/ton feed).

Q_{cm} = The exhaust flow of the coal mill (dscf/ton feed).

7000 = The conversion factor for gr per lb.

Holcim calculated PM_{alt} based on average of actual hourly total exhaust flow recorded for one year from May 10, 2017 to May 10, 2018. The following table lists modified PM/PM₁₀ and PM_{2.5} emissions from the new kiln based on maximum clinker production capacity of 764,453 TPY, stack test conducted in April 2017, and Equation 2 in NESHAP Subpart LLL. Emissions from previous construction permit based on NSPS Subpart F standard and AP-42 factors are also listed as comparison.

| EUG | Emission Point ID | Pollutants | Proposed in This Permit | | From Previous Construction Permit | |
|-----|-------------------|---------------------------|-------------------------|-----------|-----------------------------------|-----------|
| | | | Emission Factor | Emissions | Emission Factor | Emissions |
| | | | lb/ton-Clinker | TPY | lb/ton-Clinker | TPY |
| 5 | 463-KL1 | PM _{filterable} | 0.11 ^a | 42.04 | 0.02 ^c | 7.64 |
| | | PM _{condensable} | 0.206 ^b | 78.74 | 0.0027 ^d | 1.04 |
| | | Total PM/PM ₁₀ | 0.316 | 120.78 | 0.023 | 8.68 |
| | | Total PM _{2.5} | 0.314 | 120.02 | 0.022 | 8.41 |

^aAlternative PM emission limit for commingled sources based on Equation 2 in NESHAP Subpart LLL, based on actual flow data recorded between 5/10/2017 and 5/10/2018.

^bObtained from stack test conducted in April 2017.

^cEmission standard from NSPS Subpart F 60.62(a)(1)(ii).

^dAP-42 (1/95), Table 11.6-2.

(2) Other New Source Emissions

PM Sources

| EUG | EU ID# | EU Name |
|-----|---------|---|
| 1 | - | Temporary Tire Chip Pile |
| 4 | V83-HP1 | Mill Scale Hopper & Weigh Feeder |
| | V83-SC1 | Mill Scale Screw Conveyor |
| | V83-BC2 | Mill Scale Belt Conveyor |
| | V83-UL1 | Tire Chip Unloader |
| | V83-WF1 | Tire Chip Weigh Belt Feeder |
| | V83-BCA | Belt Conveyor |
| 6 | 473-GQ1 | Clinker Cooler #3 Transfer Equipped with a Dust Collector |
| 6 | 473-BF2 | Cooler #3 Nuisance Dust Collector Transfer |
| | 493-BF1 | Nuisance Clinker Transport Dust Collector |
| 3 | L93-BF1 | Nuisance Fine Coal Storage Bin Dust Collector |
| 5 | 423-BF2 | Nuisance Filter Dust Collector |

| EUG | EU ID# | Process Rate | PM/PM ₁₀ | | PM _{2.5} | |
|------------------------|---------|----------------|---------------------|---------------|-------------------|--------------|
| | | | Emission Factor | Emissions | Emission Factor | Emissions |
| | | | lb/ton | TPY | lb/ton | TPY |
| 1 | - | - | - | 2.69 | - | 0.27 |
| 4 | V83-HP1 | 1.00 | 0.003 | 0.013 | 0.0024 | 0.011 |
| | V83-SC1 | 1.00 | 0.003 | 0.013 | 0.0024 | 0.011 |
| | V83-BC2 | 1.00 | 0.003 | 0.013 | 0.0024 | 0.011 |
| | V83-UL1 | 6.50 | - | 0 | - | 0 |
| | V83-WF1 | 6.50 | - | 0 | - | 0 |
| | V83-BCA | 10.00 | 0.003 | 0.131 | 0.0024 | 0.105 |
| 6 | 473-GQ1 | 5000 cf/min | 0.01 gr/cf | 1.877 | 0.008 gr/cf | 1.502 |
| 6 | 473-BF2 | 4015 cf/min | 0.01 gr/cf | 1.51 | 0.008 gr/cf | 1.21 |
| 6 | 493-BF1 | 5000 cf/min | 0.01 gr/cf | 1.877 | 0.008 gr/cf | 1.502 |
| 3 | L93-BF1 | 5000 cf/min | 0.01 gr/cf | 1.877 | 0.008 gr/cf | 1.502 |
| 5 | 423-BF2 | 5000 cf/min | 0.01 gr/cf | 1.877 | 0.008 gr/cf | 1.502 |
| Total Emissions | | | | 11.878 | | 7.626 |

Diesel Fired Emergency Generators

| Pollutants | Kiln Generator Emission Increases | New Emergency Generator | Total |
|------------------|-----------------------------------|-------------------------|-------|
| | TPY | TPY | TPY |
| NO _x | 0.54 | 3.58 | 4.12 |
| CO | 0.12 | 1.51 | 1.63 |
| VOC | 0.04 | 0.19 | 0.23 |
| SO ₂ | 0.24 | 1.11 | 1.35 |
| PM ₁₀ | - | 0.19 | 0.19 |

| Pollutants | Kiln Project Potential Emissions | New Source Potential Emissions | Associated Emission Increases* | Project Emission Increases |
|-------------------|----------------------------------|--------------------------------|--------------------------------|----------------------------|
| | TPY | TPY | TPY | TPY |
| CO | 1,528.91 | 1.63 | - | 1,530.54 |
| NOx | 573.34 | 4.12 | - | 577.46 |
| SO ₂ | 152.89 | 1.35 | - | 154.24 |
| PM | 120.78 | 9.38 | 44.05 | 174.21 |
| PM ₁₀ | 120.78 | 9.38 | 44.05 | 174.21 |
| PM _{2.5} | 120.02 | 7.55 | 34.09 | 161.66 |
| Pb | 0.02 | - | - | 0.02 |
| VOC | 282.36 | 0.23 | - | 282.59 |

*Include 0.27 TPY PM_{2.5} and 2.69 PM₁₀ from hauling tire chips.

| Pollutants | Project Emission Increases |
|-------------------|----------------------------|
| | TPY |
| CO | 1,530.54 |
| NOx | 577.46 |
| SO ₂ | 154.24 |
| PM | 174.21 |
| PM ₁₀ | 174.21 |
| PM _{2.5} | 161.66 |
| Pb | 0.02 |
| VOC | 282.59 |

b. Project Emission Decreases

In the original kiln project, baseline emissions from the existing kiln system and the six dust collectors removed are emission decreases. The following table summarizes PM/PM₁₀/PM_{2.5} emission decreases (The removal of the sources listed in the INTRODUCTION SECTION qualify as contemporaneous creditable decreases; however, for convenience the decreases are not considered here).

| Emission Point ID | EU Name | Emission Decreases* | |
|-------------------|---|---------------------------|-------------------------|
| | | PM/PM ₁₀ (tpy) | PM _{2.5} (tpy) |
| 461-KL1 | Kiln #1 | -174.120 | -163.503 |
| 462-KL1 | Kiln #2 | | |
| 471-GQ1 | Clinker Cooler #1 | -4.276 | -2.251 |
| 472-GQ1 | Clinker Cooler #2 | -12.150 | -6.395 |
| 472-GQ1 | Clinker Cooler #2 Transfer (Group 3 CSTP) | -3.094 | -2.475 |
| 491-BF1 | Cooler #1 Nuisance Dust Collector Transfer (Group 3 CSTP) | -0.825 | -0.660 |
| 492-BF1 | Cooler #2 Nuisance Dust Collector Trans. (Group 3 CSTP) | -0.825 | -0.660 |
| 49A-BF1 | D-11 Dust Collector | -0.852 | -0.682 |
| 51A-BC2/51A-BF1 | Clk. Recl. Belt Transfers 1 and 2 and Dust Collector (Group 3 CSTP) | -0.027 | -0.021 |
| 59A-BF5 | D-16 Dust Collector | -0.008 | -0.006 |
| Total | | -196.177 | -176.653 |

*Emissions are based on 2007-2008 baseline years.

The following table summarizes other emission decreases resulting from removal of the existing kilns.

| Pollutants | Emission Decreases from Removal of Existing Kilns |
|-----------------|---|
| | TPY |
| CO | -1867.46 |
| NO _x | -1162.02 |
| SO ₂ | -2648.26 |
| Pb | -0.02 |
| VOC | -379.46 |

| Pollutants | Project Emission Increases | Project Emission Decreases | Net Project Emission Increases | PSD Significance Level | Netting Required? |
|-------------------|----------------------------|----------------------------|--------------------------------|------------------------|-------------------|
| | TPY | TPY | TPY | TPY | |
| CO | 1,530.54 | -1867.46 | -336.92 | 100 | No |
| No _x | 577.46 | -1162.02 | -584.56 | 40 | No |
| SO ₂ | 154.24 | -2648.26 | -2,494.02 | 40 | No |
| PM | 174.21 | -196.18 | -121.99 | 25 | No |
| PM ₁₀ | 174.21 | -196.18 | -121.99 | 15 | No |
| PM _{2.5} | 161.66 | -176.65 | -14.99 | 10 | No |
| Pb | 0.02 | -0.02 | 0 | 0.6 | No |
| VOC | 282.59 | -379.46 | -96.87 | 40 | No |

There are no pollutants with a net project emission increases exceeding a PSD significance level, therefore, no PSD netting is required.

All physical changes incorporated in this permit do not involve any modification to existing sources, therefore, no NSPS modification or NESHAP modification is triggered.

SECTION III. FACILITY DESCRIPTION

The plant contains one (1) semi-wet single-stage preheater/precalciner kiln line, 12 feet in diameter by 177 feet in length, with a nominal clinker production capacity of 2,200 TPD and a true capacity of 764,453 TPY.

The facility also operates process units which conduct the following operations:

- Mining and transport of raw materials (limestone and shale);
- Raw material crushing, screening, and transport operations;
- Coal crushing, transport, and storage;
- Raw material preparation, transport, and storage;
- Clinker cooling, transport, and storage;
- Finish milling resulting in production of cement;
- Product transport, storage, loading, and shipping.

Holcim Ada's cement manufacturing process begins with mining (i.e., drilling and blasting) of raw materials: calcium carbonate (limestone) and argillaceous materials (shale) from the quarry. The raw materials are then loaded into trucks which haul the materials to be unloaded at the primary crusher. The materials then travel by conveyor to the secondary crusher where they are discharged onto an overland conveyor belt system.

The conveying system transports the raw material to the raw material storage silos. It is then fed into the raw mills. Water is added to the materials, which are then ground into slurry. Additional raw materials, such as sand, spent catalyst, mill scale, etc. may be added to the mix to adjust the chemistry of the slurry to meet quality standards.

The slurry is pumped from the raw mills to the kiln feed storage tanks. The kiln feed is pumped to the kiln system, where it undergoes physical and chemical changes during the heating process to form hydraulic calcium silicates found in clinker. Heat for the kiln is provided by natural gas, coal, tire-derived fuel (TDF), liquid fuels (i.e., non-hazardous used oil and bio-diesel) and/or other approved alternative non-hazardous fuels. The kiln exhaust is vented through a baghouse. Cement kiln dust (CKD) collected by the baghouse is transported to a waste dust bin, insufflation bin, or shipping silos. The kiln is also equipped with selective non-catalytic reduction (SNCR).

The clinker is discharged from the kiln into the clinker cooler and then transported to clinker storage silos. The clinker cooler exhausts to the same baghouse as the kiln. From the clinker storage silos, the clinker is conveyed to the finish mills to be finely ground. Gypsum and additional materials are ground with the clinker. The cement is transported from the finish mill to the shipping silos or packing silos for distribution by truck, rail, or bagged product. Dust

collectors are in place to collect and recover product and also control emissions from the bagging. Dust collectors in the shipping area are used to convey product to and between silos and to the truck and rail loading areas.

Coal, TDF, and other solid fuels are received by truck or rail. Rail cars are unloaded with a shaker apparatus, if necessary, to remove the materials from the cars. The coal is stored outside and transferred to the coal silo and then conveyed to coal mills for grinding into a fine powder prior to injection into the kiln or precalciner.

Conveyor system transfer points (*i.e.*, Affected Sources subject to the Portland Cement MACT) are specified, where applicable, in the following equipment listing. As conveyor system transfer points are subject to varying monitoring requirements depending on whether they are totally enclosed, partially enclosed, etc., they have been grouped into the following three categories:

| | |
|----------|---|
| Group 1: | Totally enclosed conveying system transfer points (enclosed on all sides, top and bottom); |
| Group 2: | Partially enclosed or unenclosed conveying system transfer points (have at least one side, top or bottom that is open); and |
| Group 3: | Partially enclosed or totally enclosed conveying system transfer points directed to an air pollution control device (APCD). |

At Holcim’s Ada Plant, the majority of the conveyor system transfer points are located within the main production building. Thus, any emissions from these units are fugitive in nature and is almost entirely enclosed in the building.

Plant operations are 24 hrs/day, 7 days/week, and 52 weeks/yr (8,760 hrs/yr).

The applicant has identified each emission unit according to the 2009 Emissions Inventory Turnaround Document and assigned each emission unit a specific designation within one of ten Emission Unit Groups.

SECTION IV. EQUIPMENT

| EUG 1 – Fugitives | |
|--------------------------|--------------------------------|
| Emission Unit | EU Name/Model |
| N/A | Truck Traffic on Paved Roads |
| N/A | Truck Traffic on Unpaved Roads |
| N/A | Storage Piles |

| EUG 2 – Primary Crusher, Secondary Crusher, Screening, Material Transfer | | | |
|---|----------------------|----------------------------------|--------------------------|
| Emission Unit | EU Name/Model | Capacity* (Tons/Hour) | Construction Date |
| 21A-IM1 | Primary Crusher | 1000 | Pre-1971 |
| 21A-AF1 | Primary Apron Feeder | 1250 | Pre-1971 |
| 21A-SX1 | Dribble Conveyor | 1000 | Pre-1971 |

| EUG 2 – Primary Crusher, Secondary Crusher, Screening, Material Transfer | | | |
|---|-----------------------------|----------------------------------|--------------------------|
| Emission Unit | EU Name/Model | Capacity* (Tons/Hour) | Construction Date |
| 21A-HP1 | Primary Crusher Hopper | 1250 | Pre-1971 |
| 21A-BC1 | Primary Belt | 1250 | Pre-1971 |
| 211-IM1 212-IM1 | Secondary Crushers | 675 (each) | Pre-1971 |
| 211-BC2 | #1 Recirculating Belt | 675 | Pre-1971 |
| 211-BC1 | #1 Screen Feed Belt | 1300 | Pre-1971 |
| 212-BC1 | #2 Screen Feed Belt | 1300 | Pre-1971 |
| 212-BC3 | #2 Recirculating Belt | 675 | Pre-1971 |
| 211-VS1 211-VS2 212-VS1 212-VS2 | Secondary Crusher Screening | 1250 (total) | Pre-1971 |
| 211-BC3 | #1 Screen Discharge Belt | 625 | Pre-1971 |
| 212-BC2 | #2 Screen Discharge Belt | 625 | Pre-1971 |
| 291-BC8 | Secondary Belt to Surge Bin | 1250 | Pre-1971 |
| 291-3B1 | Surge Bin | 1250 | Pre-1971 |
| 291-AF1 | Quarry Apron Feeder | 1000 | Pre-1971 |
| 291-BC1 | Flight 1 Drop | 1000 | Pre-1971 |
| 291-BC2 | Flight 2 Drop | 1000 | Pre-1971 |
| 291-BC3 | Flight 3 Drop | 1000 | Pre-1971 |
| 291-BC4 | Flight 4 Drop | 1000 | Pre-1971 |
| 291-BC5 | Flight 5 Drop | 1000 | Pre-1971 |
| 291-BC6 | Flight 6 Drop | 1000 | Pre-1971 |
| 291-BC7 | Flight 7 Drop | 1000 | Pre-1971 |
| 291-ST1 | Radial Stacker | 1100 | Pre-1971 |
| 291-BC9 | Raw Incline Belt | 1100 | Pre-1971 |
| 211-BF1 | Secondary Dust Collector | 20,000 acfm | Pre-1971 |
| 212-BF1 | Secondary Dust Collector | 20,000 acfm | Pre-1971 |

Equipment is not subject to Subpart OOO (40 CFR § 60.670) as the same was not constructed, reconstructed or modified after August 31, 1983.

* Capacities listed are individual, nominal capacity unless otherwise specified.

| EUG 3 – Coal Unloading, Processing and Transfer | | | |
|--|--|----------------------------------|--------------------------|
| Emission Unit | EU Name/Model**** | Capacity* (Tons/Hour) | Construction Date |
| L11-VD1 | Coal Shaker** | 330 | 1975 |
| L31-RC1 | Coal Crusher** | 330 | 1975 |
| L31-VD1 L31-VD2 | Coal Crusher Material Transfers** | 165 (each) | 1975 |
| L61-RM1/ L61-BF1 | Coal Mill #1**/ Coal Mill 1 Baghouse, with Explosion Vents** | 16 | 1975/ Baghouse in 2006 |

| EUG 3 – Coal Unloading, Processing and Transfer | | | |
|--|--|----------------------------------|------------------------------|
| Emission Unit | EU Name/Model***** | Capacity* (Tons/Hour) | Construction Date |
| L62-RM1/ L62-BF1 | Coal Mill #2**/ Coal Mill 2 Baghouse, with Explosion Vents** | 16 | 1975/ Baghouse in 2006 |
| L11-HP1 L11-HP2 | Coal Unloading Hoppers** | 165 (each) | 1975 |
| L11-VF1 | West Vibrating Feeder** | 165 | 1975 |
| L11-VF2 | East Vibrating Feeder** | 165 | 1976 |
| L11-BC1 | Coal Unloading Belt** | 330 | 1976 |
| L01-MI1 | Coal/Coke Blender** | 330 | 2000 |
| L31-SG1 L31-SG2 | Coal Slide Gates** | 165 (each) | 1975 |
| L31-BC1 | Coal Tunnel Belt** | 330 | 1975 |
| L31-RC1 | Crusher Roller** | 330 | 1975 |
| L31-BC2 | Conveyor Belt** | 330 | 1975 |
| L31-3B1 | Coal Bin** | 660 | 1975 |
| L61-WF1 L62-WF1 | Feed O Weights** | 16 (each) | 1975 |
| L61-SC1 L62-SC1 | Screw Conveyors** | 16 (each) | 1975 |
| 483-PF1 | Rotary Schenck Feeder (Kiln) (Group 1 CSTP)*** | 16 | 2006 |
| 453-PF1 | Rotary Schenck Feeder (Kiln) (Group 1 CSTP)*** | 16 | 2006 |
| L91-BI1 | Pulverized Solid Fuel Bin (Line 1)*** | 25 | 2006 |
| L92-BI1 | Pulverized Solid Fuel Bin (Line 2) *** | 25 | 2006 |
| L93-BF1 | Nuisance Fine Coal Storage Bin Dust Collector** | 22 | TBD |
| L91-SC1 | Screw Conveyor (Line 1) (Group 1)*** | 16 | 2006 |
| L92-SC1 | Screw Conveyor (Line 2) (Group 1)*** | 16 | 2006 |
| L61-RF1 | Baghouse Rotary Airlock-IDF | 20 | 2006 |
| L62-RF1 | Baghouse Rotary Airlock-IDF | 20 | 2006 |
| 481-PF1 | Rotary Schenck Feeders (Group 1) | 16 | 2006 |
| 482-PF1 | Rotary Schenck Feeders (Group 1) | 16 | 2006 |

* Capacities listed are individual, nominal capacity.

** Identified units are “affected facilities” subject to NSPS Subpart Y (40 CFR § 60.250).

*** Identified units are “affected sources” subject to both NSPS Subpart Y and NESHAP Subpart LLL (40 CFR § 63.1340(b)(7)). Pursuant to § 63.1356, CSTP used to convey coal from the coal mill to the kilns will comply with the more stringent PM limits of NESHAP, Subpart LLL.

**** The EU Name/Model descriptions are the descriptions in use at the facility. However, it is understood that other materials may be processed by the equipment. For example, the coal shaker may process both coal and petroleum coke.

| EUG 4 – Raw Mill Silos, Bucket Elevators and Interstices | | | |
|---|---|------------------------------|--------------------------|
| Emission Unit | EU Name/Model | Capacity* (Tons/Hour) | Construction Date |
| K1A-BE1 | Additive System Bucket Elevator | 100 | Pre-1971 |
| K1A-3S1 | S-2 Interstice (Storage Bin) (Group 3) | 100 | Pre-1971 |
| K1A-3S1 | S-2 Interstice Transfer 1 (Group 2 CSTP) | 25 | Pre-1971 |
| K1A-3S1 | S-2 Interstice Transfer 2 (Group 2 CSTP) | 25 | Pre-1971 |
| X11-3S2 | Mill Scale Interstice (Storage Bin) (Group 3) | 15 | Pre-1971 |
| X11-3S2 | Mill Scale Interstice Transfer (GROUP 2 CSTP) | 15 | Pre-1971 |
| X11-3S4 | I-2 Interstice (Storage Bin) Group 3 | 15 | Pre-1971 |
| X11-3S4 | I-2 Interstice Transfer (Group 2 CSTP) | 15 | Pre-1971 |
| 291-3S1 | L-1 Silo (Storage Bin) Group 3 | 100 | Pre-1971 |
| 291-3S1 | L-1 Silo Transfer (Group 2 CSTP) | 100 | Pre-1971 |
| 291-3S2 | L-2 Silo (Storage Bin) Group 3 | 100 | Pre-1971 |
| 291-3S2 | L-2 Silo Transfer (Group 2 CSTP) | 100 | Pre-1971 |
| 291-3S3 | L-3 Silo (Storage Bin) Group 3 | 100 | Pre-1971 |
| 291-3S3 | L-3 Silo Transfer (Group 2 CSTP) | 100 | Pre-1971 |
| 331-BC1 | Raw Mill #1 Feedbelt Transfer 1 (Group 2 CSTP) | 200 | Pre-1971 |
| 331-BC1 | Raw Mill #1 Feedbelt Transfer 2 (Group 2 CSTP) | 200 | Pre-1971 |
| 331-BF1 | D-7a Dust Collector Transfer ** | 100 | 1993 |
| 331-BF2 | D-7b Dust Collector Transfer (L1 Food-O-Weight transfer to 331-BC1 Feed Belt) (Group 3)** | 100 | 1993 |
| 331-BF3 | D-7c Dust Collector Transfer (L2 Feed-O-Weight transfer to 331-BC1 Feed Belt)** | 100 | 1993 |
| 331-WF1 | L-1 Feed O Weight (Group 2 CSTP) | 100 | Pre-1971 |
| 331-WF2 | L-2 Feed O Weight (Group 2 CSTP) | 100 | Pre-1971 |
| 331-WF3 | L-3 Feed O Weight (Group 2 CSTP) | 100 | Pre-1971 |
| 331-WF4 | Raw Mill #1 S1 FOW (Group 2 CSTP) | 15 | Pre-1971 |
| 331-WF5 | Raw Mill #1 I1 FOW (Group 2 CSTP) | 15 | Pre-1971 |
| 361-BM1 | Raw Mill #1 (Raw Mill) | 120 | Pre-1971 |
| 291-3S4 | L-4 Silo (Storage Bin) Group 3 | 100 | Pre-1971 |
| 291-3S4 | L-4 Silo Transfer (Group 2 CSTP) | 100 | Pre-1971 |
| 291-3S5 | L-5 Silo (Storage Bin) Group 3 | 100 | Pre-1971 |
| 291-3S5 | L-5 Silo Transfer (Group 2 CSTP) | 100 | Pre-1971 |
| 291-3S6 | L-6 Silo (Storage Bin) Group 3 | 100 | Pre-1971 |
| 291-3S6 | L-6 Silo Transfer (Group 2 CSTP) | 100 | Pre-1971 |
| 332-BC1 | Raw Mill #2 Feedbelt Transfer 1 (Group 2 CSTP) | 200 | Pre-1971 |
| 332-BC1 | Raw Mill #2 Feedbelt Transfer 2 (was Raw Mill #2 Feedbelt) | 200 | Pre-1971 |
| 332-BC2 | #2 Raw Mill crossover feed belt | 200 | 2000 |

| EUG 4 – Raw Mill Silos, Bucket Elevators and Interstices | | | |
|---|---|------------------------------|--------------------------|
| Emission Unit | EU Name/Model | Capacity* (Tons/Hour) | Construction Date |
| | (Group 2 CSTP)** | | |
| 332-BF1 | D-8a Dust Collector (L4 Feed-O-Weight transfer to 332-BC1 Feed Belt) ** | 100 | 1993 |
| 332-BF2 | D-8b Dust Collector (L4 Feed-O-Weight transfer to 332-BC1 Feed Belt)** | 100 | 1993 |
| 332-BF3 | D-8c Dust Collector (L4 Feed-O-Weight transfer to 332-BC1 Feed Belt)** | 100 | 1993 |
| 332-WF1 | L-4 Feed O Weight (Group 2 CSTP) | 100 | Pre-1971 |
| 332-WF2 | L-5 Feed O Weight (Group 2 CSTP) | 100 | Pre-1971 |
| 332-WF3 | L-6 Feed O Weight (Group 2 CSTP) | 100 | Pre-1971 |
| 332-WF4 | Raw Mill #2 S2 FOW (Group 2 CSTP) | 15 | Pre-1971 |
| 332-WF5 | Raw Mill #2 I2 FOW (Group 2 CSTP) | 15 | Pre-1971 |
| 362-BM1 | Raw Mill #2 (Raw Mill) | 180 | Pre-1971 |
| 291-BFC | D-1 Dust Collector | 100 | Pre-1971 |
| 291-BFD | D-2 Dust Collector | 100 | Pre-1971 |
| 291-BCA | Row Incline Extension Belt Group 3 | 1100 | Pre-1971 |
| 291-BCB | L-5 Extension Belt Group 3 | 1100 | Pre-1971 |
| 291-BCC | L-6 Extension Belt Group 3 | 1100 | Pre-1971 |
| 291-BCE | L-2 Extension Belt Group 3 | 1100 | Pre-1971 |
| 291-BCF | L-3 Extension Belt Group 3 | 1100 | Pre-1971 |
| KIA-AF1 | Additive Hopper Apron Feeder Group 2 | 100 | Pre-1971 |
| KIA-BC1 | Additive Incline Belt Group 3 | 100 | Pre-1971 |
| KIA-BC2 | Additive Incline Belt 1st Extension Belt Group 3 | 100 | Pre-1971 |
| KIA-BC4 | Additive Incline Belt (Group 3) | 100 | Pre-1971 |
| X11-BC3 | Sand Interstice Belt Group 3 | 100 | Pre-1971 |
| X11-BC5 | Mill Scale Interstice Belt Group 3 | 100 | Pre-1971 |
| K1A-HP1 | Additive Hopper Group 2 | 100 | Pre-1971 |
| V83-HP1 | Mill Scale Hopper & Weigh Feeder | 1.00 | 2017 |
| V83-SC1 | Mill Scale Screw Conveyor | 1.00 | 2017 |
| V83-BC2 | Mill Scale Belt Conveyor | 1.00 | 2017 |
| V83-UL1 | Tire Chip Unloader | 6.50 | 2017 |
| V83-WF1 | Tire Chip Weigh Belt Feeder | 6.50 | 2017 |
| V83-BCA | Belt Conveyor | 10.00 | 2017 |

**Identified units are subject to both NSPS Subpart F and NESHAP Subpart LLL. Pursuant to § 63.1356, If an affected facility subject to this subpart has a different emissions limit or requirement for the same pollutant under another regulation in title 40 of this chapter, the owner or operator of the affected facility must comply with the most stringent emissions limit or requirement and is exempt from the less stringent requirement. These units will comply with NESHAP Subpart LLL requirements which are more stringent.

* Capacities listed are either individual, nominal capacity or the capacity of the individual source as determined based on the nominal capacity of the associated inlet stream.

Note: Silos may contain various materials based on requirements for product quality control.

| EUG 5 – Kiln System | | | | |
|----------------------------|--|------------------|---------------|--------------------------|
| Emission Unit | EU Name/Model | Capacity* | | Construction Date |
| | | Tons/Hr** | MMBTUH | |
| 463-KL1 | Kiln System (W/Cooler & Alkali Bypass) | 156 | 500 | 2017 |
| 423-BF2 | Nuisance Filter Dust Collector | 8 | - | 2017 |

* Capacities listed are estimated nominal capacities.

** Inlet capacity – estimated nominal feed rate capacity (tons of dry solids per hour).

| EUG 6 – Clinker Cooler Systems – Coolers, Storage Silos, Interstices and Conveyors | | | |
|---|--|------------------------------|--------------------------|
| Emission Unit | EU Name/Model | Capacity* (Tons/Hour) | Construction Date |
| 49A-3S1 | C-1 Clinker Silo (Storage Bin) | 60 | Pre-1971 |
| 49A-3S2 | C-2 Clinker Silo (Storage Bin) | 60 | Pre-1971 |
| 49A-3S3 | C-3 Clinker Silo (Storage Bin) | 60 | Pre-1971 |
| 49A-3S4 | C-4 Clinker Silo (Storage Bin) | 60 | Pre-1971 |
| 49A-3S5 | C-5 Clinker Silo (Storage Bin) | 60 | Pre-1971 |
| 49A-3S6 | C-6 Clinker Silo (Storage Bin) | 60 | Pre-1971 |
| K1A-3S6 | CKD Interstice (Storage Bin) | 15 | Pre-1971 |
| K1A-BF3 | Grindout Bin dust collector Transfer (Group 3)** | 50 | 1992 |
| 49A-SC1 | D-11 Dust Collector Screw Transfer 1 (Group 2 CSTP) | 110 | Pre-1971 |
| 49A-SC1 | D-11 Dust Collector Screw Transfer 2 (Group 2 CSTP) | 110 | Pre-1971 |
| 49A-SQ1 | Spout Clinker Outside Chute C-3 (Group 3 CSTP)** | 110 | 1989 |
| 49A-SQ2 | Spout Clinker Outside Chute C-4 (Group 3 CSTP)** | 110 | 1989 |
| 49A-SQ3 | Spout Clinker Outside Chute C-6 (Group 3 CSTP)** | 110 | 1989 |
| 491-BC1 | Clinker Incline (North) (Group 2 CSTP) | 110 | Pre-1971 |
| 491-BE1 | Clinker Elevator (West) (Group 1 CSTP) | 110 | Pre-1971 |
| 491-VC1 | West NF Clinker Conveyor (Group 2 CSTP)** | 110 | 1984 |
| 473-GQ1 | Clinker Cooler #3 Transfer | 83 | 2017 |
| 493-BF1 | Nuisance Clinker Transport Dust Collector** | 138 | TBD |
| 42A-3B1 | Waste Dust Bin/Pug mill | 650 | Pre-1971 |
| 42A-BF1 | Waste Dust Bin/ Pug Mill Dust Collector | 650 | Pre-1971 |
| 42A-BF2 | Insufflation Dust Bin Dust Collector | 250 | Pre-1971 |
| 42A-BX1 | Dustless Unloader(group 2) | 150 | 1990 |
| 42A-3B1 | Waste Dust bin transfer to Truck Dry loading (Group 3)** | 100 | 2007 |
| Landfill Pug Screw Transfer | Dustless Unloader (Group2)** | 35 | 2013 |

| EUG 6 – Clinker Cooler Systems – Coolers, Storage Silos, Interstices and Conveyors | | | |
|---|--|------------------------------|--------------------------|
| Emission Unit | EU Name/Model | Capacity* (Tons/Hour) | Construction Date |
| Landfill Generator | Allis-Chalmers Diesel Generator | 88-hp | Pre 2006 |
| 491-BC2 | Clinker Reversing Belt (West) Trans. 1, 2, 3, 4 (Group 2 CSTP) | 110 ea | Pre-1971 |
| 491-BF1 | Cooler #1 Nuisance Dust Collector Transfer (Group 3) | 110 | 1984 |
| 492-BF1 | Cooler #2 Nuisance Dust Collector Trans. (Group 3 CSTP) | 110 | 1984 |
| 473-BF2 | Cooler #3 Nuisance Dust Collector Transfer | 4015 cf/min | 2017 |

**Identified units are subject to both NSPS Subpart F and NESHAP Subpart LLL. Pursuant to § 63.1356, If an affected facility subject to this subpart has a different emissions limit or requirement for the same pollutant under another regulation in title 40 of this chapter, the owner or operator of the affected facility must comply with the most stringent emissions limit or requirement and is exempt from the less stringent requirement. These units will comply with NESHAP Subpart LLL requirements which are more stringent.

* Capacities listed are individual, nominal capacity.

| EUG 7 – Finish Mills, Finish Mill Conveyors, Cement Elevators and Storage | | | |
|--|---|------------------------------|--------------------------|
| Emission Unit | EU Name/Model | Capacity* (Tons/Hour) | Construction Date |
| 49A-3S1 | C-1 Clinker Silo Transfer (Group 2 CSTP) | 60 | Pre-1971 |
| 49A-3S2 | C-2 Clinker Silo Transfer (Group 2 CSTP) | 60 | Pre-1971 |
| 49A-3S3 | C-3 Clinker Silo Transfer (Group 2 CSTP) | 60 | Pre-1971 |
| 49A-3S4 | C-4 Clinker Silo Transfer (Group 2 CSTP) | 60 | Pre-1971 |
| 49A-3S5 | C-5 Clinker Silo Transfer (Group 2 CSTP) | 60 | Pre-1971 |
| 49A-3S6 | C-6 Clinker Silo Transfer (Group 2 CSTP) | 60 | Pre-1971 |
| 51A-BC1 | Clk. Recl. Hopper Dust Collector Trans. (Group 3 CSTP) | 110 | Pre-1971 |
| 51A-HP1 | Clinker Reclaim Hopper (Group 3 CSTP)** | 110 | 1994 |
| 59A-3S1 | Silo Cement #21 through 33 (Storage Bin). Emissions are controlled by dust collectors 59A-BF1, 59A-BF2, 59A-BF3 | 225 | Pre-1971 |
| 59A-3S2 | | 225 | Pre-1971 |
| 59A-3S3 | | 225 | Pre-1971 |
| 59A-3S4 | | 225 | Pre-1971 |
| 59A-3S5 | | 225 | Pre-1971 |
| 59A-3S6 | | 225 | Pre-1971 |
| 59A-3S7 | | 225 | Pre-1971 |
| 59A-3S8 | | 225 | Pre-1971 |
| 59A-3S9 | | 225 | Pre-1971 |
| 59A-3SA | | 225 | Pre-1971 |
| 59A-3SB | | 225 | Pre-1971 |
| 59A-3SC | | 225 | Pre-1971 |
| 59A-3SD | | 225 | Pre-1971 |

| EUG 7 – Finish Mills, Finish Mill Conveyors, Cement Elevators and Storage | | | |
|--|---|------------------------------|---------------------------------|
| Emission Unit | EU Name/Model | Capacity* (Tons/Hour) | Construction Date |
| 59A-PP1 | Z-Flap FK-Pump Transfers 1 and 2 (Group 1 CSTP) | 150 | 1988 |
| 59A-PP2 | 250M FK-Pump Transfers 1 and 2 (Group 1 CSTP) | 150 | 1987 |
| 59A-SC1 | D-12 Dust Collector Screw (Group 3 CSTP) | 120 | Pre-1971 |
| 59A-SC2 | D-13 Dust Collector Screw (Group 3 CSTP) | 120 | Pre-1971 |
| 59B-3S1 | Silo Cement #1 through 18 (Storage Bin) emissions are controlled by dust collectors 59B-BF1, 59B-BF2, and 59B-BF3 | 75 | Pre-1971 |
| 59B-3S2 | | 75 | Pre-1971 |
| 59B-3S3 | | 75 | Pre-1971 |
| 59B-3S4 | | 75 | Pre-1971 |
| 59B-3S5 | | 75 | Pre-1971 |
| 59B-3S6 | | 75 | Pre-1971 |
| 59B-3S7 | | 75 | Pre-1971 |
| 59B-3S8 | | 75 | Pre-1971 |
| 59B-3S9 | | 75 | Pre-1971 |
| 59B-3SA | | 75 | Pre-1971 |
| 59B-3SB | | 75 | Pre-1971 |
| 59B-3SC | | 75 | Pre-1971 |
| 59B-3SD | | 75 | Pre-1971 |
| 59B-3SE | | 75 | Pre-1971 |
| 59B-3SF | | 75 | Pre-1971 |
| 59B-3SG | | 75 | Pre-1971 |
| 59B-3SH | | 75 | Pre-1971 |
| 59B-3SI | 75 | Pre-1971 | |
| 59B-BF3 | Dust Collector Silo 4 Transfer (Group 3 CSTP) | 100 | Pre-1971 |
| 59B-SC1 | D-18 Dust Collector Screw (Group 3 CSTP) | 100 | Pre-1971 |
| 59B-SC2 | D-17 Dust Collector Screw (Group 3 CSTP) | 100 | Pre-1971 |
| K1A-3S3 | MR-2 Interstice (Storage Bin) Group 3 | 10 | Pre-1971 |
| K1A-3S3 | K1A-3S3 Transfer 1 (Group 2 CSTP)** | 25 | 1990 |
| K1A-3S3 | K1A-3S3 Transfer 2 (Group 2 CSTP)** | 25 | 1990 |
| K1A-3S5 | G-1 Gypsum Silo Storage Bin and Transfers 1 and 2 (Group 1 CSTP) | 15 | Pre-1971 |
| K1A-3S6 | Grindout Interstice Transfer 1 (Group 1 CSTP) | 30 | 1992 |
| 531-WF5 | Mason Rock #1 FOW (Group 3 CSTP)** | 25 | Pre-1971 Modified in 1992 |
| 531-BC1 | FM #1 Feed Belt (Group 2 CSTP) | 110 | Pre-1971 |
| 531-BF1 | D9a Dust Collector Transfer (Group 3 CSTP)** | 60 | 1994 |
| 531-BF2 | D9b Dust Collector Transfer (Group 3 CSTP)** | 60 | 1994 |

| EUG 7 – Finish Mills, Finish Mill Conveyors, Cement Elevators and Storage | | | |
|--|--|------------------------------|----------------------------------|
| Emission Unit | EU Name/Model | Capacity* (Tons/Hour) | Construction Date |
| 531-BF3 | D9c Dust Collector Transfer (Group 3 CSTP)** | 60 | 1994 |
| 531-RF1 | Grindout Interstice Rotary Feeder #1 (Group 1 CSTP) | 30 | 1986 |
| 531-SC1 | FM #1 Grindout Screw (G-2) (Group 3 CSTP)** | 30 | Pre-1971 Modified in 1986 |
| 531-WF1 | C-1 Clinker FOW (Group 3 CSTP) | 60 | Pre-1971 |
| 531-WF2 | G-1 Gypsum FOW #1 FM (Group 3 CSTP) | 15 | Pre-1971 |
| 531-WF3 | C-2 Clinker FOW (Group 3 CSTP) | 60 | Pre-1971 |
| 531-WF4 | C-3 Clinker FOW (Group 3 CSTP) | 60 | Pre-1971 |
| 561-AS1 | FM #1 Mill Discharge Airslide (Group 3 CSTP) | 250 | Pre-1971 |
| 561-AS2 | FM #1 Long Airslide Transfers 1 and 2 (Group 1 CSTP) | 250 | Pre-1971 |
| 561-AS3 | FM #1 Splitter Airslide #2 (Group 3 CSTP) | 125 | Pre-1971 |
| 561-AS4 | FM #1 Splitter Airslide #1 (Group 3 CSTP) | 125 | Pre-1971 |
| 561-AS5 | FM #1 Reject #1 Airslide (Group 3 CSTP) | 125 | Pre-1971 |
| 561-AS6 | FM #1 Reject #2 Airslide (Group 3 CSTP) | 125 | Pre-1971 |
| 561-BE1 | FM #1 Elevator (Group 3 CSTP) | 250 | Pre-1971 |
| 561-BM1 | FM #1 (Finish Mill) and Transfer (Group 1 CSTP) | 60 | Pre-1971 |
| 561-SC1 | FM #1 Dust Collector Screw (Group 3 CSTP) | 110 | Pre-1971 |
| 561-SR1 | Separator #1 Transfers 1 through 3 (Group 1 CSTP) | 30 each | Pre-1971 |
| 591-AS1 | Airslide From Sep #1 To Cooler #1 (Group 1 CSTP) | 30 | Pre-1971 |
| 591-AS2 | Airslide From Sep #2 To Cooler #2 (Group 1 CSTP) | 30 | Pre-1971 |
| 591-AS3 | Airslide From #1 Cooler To FK Pump (Group 1 CSTP) | 30 | Pre-1971 |
| 591-AS4 | Airslide From #2 Cooler To FK Pump (Group 1 CSTP) | 30 | Pre-1971 |
| 591-AS5 | Airslide - #1 Seps To FK Pump Trans.1 (Group 1 CSTP) | 30 | Pre-1971 |
| 591-AS5 | Airslide - #1 Seps To FK Pump Trans.2 (Group 1 CSTP) | 30 | Pre-1971 |
| 591-CQ1 | Cement Cooler #1 (Group 1 CSTP) | 30 | Pre-1971 |
| 592-CQ2 | Cement Cooler #2 (Group 1 CSTP) | 30 | Pre-1971 |
| K1A-3S6 | Grindout Interstice Transfer 2 (Group 1 CSTP) | 30 | Pre-1971 Converted in 1986 |

| EUG 7 – Finish Mills, Finish Mill Conveyors, Cement Elevators and Storage | | | |
|--|--|------------------------------|------------------------------|
| Emission Unit | EU Name/Model | Capacity* (Tons/Hour) | Construction Date |
| 532-BC1 | FM #2 Feed Belt (Group 2 CSTP) | 110 | Pre-1971 |
| 532-BC2 | Belt Conveyor (Mas Rock) To FM #2 (Group 3 CSTP)** | 25 | Pre-1971 Modified in 1992 |
| 532-BF1 | D10c Dust Collector Transfer (Group 3 CSTP) | 60 | Pre-1971 |
| 532-BF2 | D10b Dust Collector Transfer (Group 3 CSTP) | 60 | Pre-1971 |
| 532-BF3 | D10a Dust Collector Transfer (Group 3 CSTP) | 60 | Pre-1971 |
| 532-RF1 | Grindout Interstice Rotary Feeder #2 (Group 1 CSTP) | 30 | 1986 |
| 532-SC1 | FM #2 Grindout Screw (G-2) (Group 3 CSTP) | 30 | Pre-1971 |
| 532-WF1 | Feed O Weight Mason Rock #2 (Group 2 CSTP) | 25 | Pre-1971 |
| 532-WF2 | C-4 Clinker FOW (Group 3 CSTP) | 60 | Pre-1971 |
| 532-WF3 | C-5 Clinker FOW (Group 3 CSTP) | 60 | Pre-1971 |
| 532-WF4 | G-1 Gypsum FOW #2 FM (Group 3 CSTP) | 15 | Pre-1971 |
| 532-WF5 | C-6 Clinker FOW (Group 3 CSTP) | 60 | Pre-1971 |
| 562-AS1 | FM #2 Mill Discharge Airslide (Group 3 CSTP) | 250 | Pre-1971 |
| 562-AS2 | FM #2 Long Airslide Transfers 1 and 2 (Group 1 CSTP) | 250 | Pre-1971 |
| 562-AS3 | FM #2 Splitter Airslide #4 (Group 3 CSTP) | 125 | Pre-1971 |
| 562-AS4 | FM #2 Splitter Airslide #3 (Group 3 CSTP) | 125 | Pre-1971 |
| 562-AS5 | FM #2 Reject #3 Airslide (Group 3 CSTP) | 125 | Pre-1971 |
| 562-AS6 | FM #2 Reject #4 Airslide (Group 3 CSTP) | 125 | Pre-1971 |
| 562-BE1 | FM #2 Elevator (Group 3 CSTP) | 250 | Pre-1971 |
| 562-SC1 | FM #2 Dust Collector Screw (Group 3 CSTP) | 110 | Pre-1971 |
| 562-BM1 | FM #2 (Finish Mill) and Transfer (Group 3 CSTP) | 60 | Pre-1971 |
| 56A-BI1 | Bin (Storage Bin)** | 50 | 1986 |
| 56A-BI1 | Bin Transfer (Group 1 CSTP) | 10 | 1995 |
| 592-AS5 | Airslide - #2 Seps To FK Pump Transfers 1 and 2 (Group 1 CSTP) | 30 each | Pre-1971 |
| 561-BF1 | FM #1 East Dust Collector** | 250 | 2007 |
| 562-BF2 | FM #2 West Dust Collector** | 250 | 2007 |
| 51A-BC2 | Clk. Recl. Belt Raw Incline Trans 1, 2 (Group 3 CSTP) | 110 ea | 1994 |

**Identified units are subject to both NSPS Subpart F and NESHAP Subpart LLL. Pursuant to § 63.1356, If an affected facility subject to this subpart has a different emissions limit or requirement for the same pollutant under another regulation in title 40 of this chapter, the owner or operator of the affected facility must comply with the most stringent emissions limit or requirement and is exempt from the less stringent requirement. These units will comply with NESHAP Subpart LLL requirements which are more stringent.

* Capacities listed are individual, nominal capacity.

| EUG 8 – Cement Packing, Dispatch, and Distribution System | | | |
|--|---|----------------------------------|--------------------------|
| Emission Unit | EU Name/Model | Capacity* (Tons/Hour) | Construction Date |
| 59A-3S1 | Silo Cement #21 Transfer (Group 3 CSTEP) | 200 | Pre-1971 |
| 59A-3S2 | Silo Cement #22 Transfer (Group 3 CSTEP) | 200 | Pre-1971 |
| 59A-3S3 | Silo Cement #23 Transfer (Group 3 CSTEP) | 200 | Pre-1971 |
| 59A-3S4 | Silo Cement #24 Transfer (Group 3 CSTEP) | 200 | Pre-1971 |
| 59A-3S5 | Silo Cement #25 Transfer (Group 3 CSTEP) | 200 | Pre-1971 |
| 59A-3S6 | Silo Cement #26 Transfer (Group 3 CSTEP) | 200 | Pre-1971 |
| 59A-3S7 | Silo Cement #27 Transfer (Group 3 CSTEP) | 200 | Pre-1971 |
| 59A-3S8 | Silo Cement #28 Transfer (Group 3 CSTEP) | 200 | Pre-1971 |
| 59A-3S9 | Silo Cement #29 Transfer (Group 3 CSTEP) | 200 | Pre-1971 |
| 59A-3SA | Silo Cement #30 Transfer (Group 3 CSTEP) | 200 | Pre-1971 |
| 59A-3SB | Silo Cement #31 Transfer (Group 3 CSTEP) | 200 | Pre-1971 |
| 59A-3SC | Silo Cement #32 Transfer (Group 3 CSTEP) | 200 | Pre-1971 |
| 59A-3SD | Silo Cement #33 Transfer (Group 3 CSTEP) | 200 | Pre-1971 |
| 59B-3S1 | Silo Cement #1 Transfers 1 and 2 (Group 1 CSTEP) | 40 each | Pre-1971 |
| 59B-3S2 | Silo Cement #2 Transfer (Group 1 CSTEP) | 40 | Pre-1971 |
| 59B-3S3 | Silo Cement #3 Transfer (Group 1 CSTEP) | 40 | Pre-1971 |
| 59B-3S4 | Silo Cement #4 Transfer (Group 1 CSTEP) | 40 | Pre-1971 |
| 59B-3S5 | Silo Cement #5 Transfers 1 and 2 (Group 1 CSTEP) | 40 each | Pre-1971 |
| 59B-3S6 | Silo Cement #6 Transfers 1 and 2 (Group 1 CSTEP) | 40 each | Pre-1971 |
| 59B-3S7 | Silo Cement #7 Transfers 1 and 2 (Group 1 CSTEP) | 40 each | Pre-1971 |
| 59B-3S8 | Silo Cement #8 Transfer (Group 1 CSTEP) | 40 | Pre-1971 |
| 59B-3S9 | Silo Cement #9 Transfers 1 and 2 | 40 each | Pre-1971 |

| EUG 8 – Cement Packing, Dispatch, and Distribution System | | | |
|--|---|----------------------------------|--------------------------|
| Emission Unit | EU Name/Model | Capacity* (Tons/Hour) | Construction Date |
| | (Group 1 CSTP) | | |
| 59B-3SA | Silo Cement #10 Transfers 1 and 2 (Group 1 CSTP) | 40 each | Pre-1971 |
| 59B-3SB | Silo Cement #11 Transfers 1 and 2 (Group 1 CSTP) | 40 each | Pre-1971/1995 |
| 59B-3SC | Silo Cement #12 Transfers 1 and 2 (Group 1 CSTP) | 40 each | Pre-1971 |
| 59B-3SD | Silo Cement #13 Transfers 1 and 2 (Group 1 CSTP) | 40 each | Pre-1971 |
| 59B-3SE | Silo Cement #14 Transfers 1 and 2 (Group 1 CSTP) | 40 each | Pre-1971 |
| 59B-3SF | Silo Cement #15 Transfer (Group 1 CSTP) | 40 | Pre-1971 |
| 59B-3SG | Silo Cement #16 Transfers 1 and 2 (Group 1 CSTP) | 40 each | Pre-1971 |
| 59B-3SH | Silo Cement #17 Transfers 1 and 2 (Group 1 CSTP) | 40 each | Pre-1971 |
| 59B-3SI | Silo Cement #18 Transfers 1 and 2 (Group 1 CSTP) | 40 each | Pre-1971 |
| 611-PP1 | Packhouse FK Pump Transfers 1 and 2 (Group 1 CSTP) | 47 each | Pre-1974 |
| 62A-WB1 | Track 3 loading (Group 2 CSTP)** | 200 | 1995 |
| 62A-WB2 | Track 2 loading (Group 2 CSTP)** | 200 | 1995 |
| 62A-WB3 | Track 1 loading (Group 2 CSTP)** | 200 | 1995 |
| 624-AS1 | Airslide from Silo 30 to Truck Loading Spout (Group 3 CSTP) | 188 | Pre-1971 |
| 624-AS2 | Airslide from Silo 32 to Truck Loading Spout (Group 3 CSTP) | 188 | Pre-1971 |
| 626-AS1 | Airslide from Silo 31 to truck/rail load out spout track 2 (Group 3 CSTP) | 188 | Pre-1971 |
| 626-AS2 | Airslide from Silo 33 to truck/rail load out spout track 2 (Group 3 CSTP) | 188 | Pre-1971 |
| 622-AS1 | Silo #24 Air Slide Conveyor to truck/rail load out spout track2 (Group 1)** | 188 | 2006 |
| 622-AS2 | Silo #26 Air Slide Conveyor to truck/rail load out spout track 2 (Group 1) | 188 | 2006 |
| 621-AS1 | Silo #21 Air Slide Conveyor to truck/rail load out spout track 3 (Group 1) | 188 | 2006 |
| 621-AS3 | Silo #23 Air Slide Conveyor to truck/rail load out spout track 3 | 188 | 2006 |

| EUG 8 – Cement Packing, Dispatch, and Distribution System | | | |
|--|--|----------------------------------|--------------------------|
| Emission Unit | EU Name/Model | Capacity* (Tons/Hour) | Construction Date |
| | (Group1) | | |
| 623-AS1 | Silo #27 Air Slide Conv. To truck load out track 1(Group 1) | 188 | 2006 |
| 623-AS2 | Silo #27 Air Slide Conv. To truck/rail load out spout track 1(Group 1) | 188 | 2006 |
| 623-LS1 | Bay #1 load out Spout(Group3)** | 200 | 2006 |
| 622-LS1 | Bay 2 load out Spout(Group 3)** | 200 | 2006 |
| 621-LS1 | Bay 3 load out Spout (Group 3)** | 200 | 2006 |
| 661-3B2 | Bin Type I Packing Transfers 1 and 2 (Group 3 CSTP)** | 100 each | 1992 |
| 661-BE2 | Elevator Packhouse North Type I (Group 1 CSTP) | 67 | Pre-1971 |
| 661-BE3 | Elevator Packhouse South Type I (Group 1 CSTP) | 67 | Pre-1971 |
| 661-BF3 | Dust Collector for Basement Screw SC-7 (Group 3 CSTP)** | 80 | 1992 |
| 661-SC1 | Screw Conv Silos 9 - 12 To Ph (Group 1 CSTP) | 110 | Pre-1971 |
| 661-SC2 | Screw Conv Silos 9 16-18 To Ph (Group 1 CSTP) | 110 | Pre-1971 |
| 661-SC3 | Screw Conv Silos 5-7 13 14 16-18 To Ph (Group 1 CSTP) | 110 | Pre-1971 |
| 661-SC4 | Screw Conv Silos 5-7 13 14 To Ph (Group 1 CSTP) | 110 | Pre-1971 |
| 661-SC5 | Screw Conv Silos 1 13 14 To Ph (Group 1 CSTP) | 110 | Pre-1971 |
| 661-SC6 | Screw Conv Silos 1 South To Ph (Group 1 CSTP) | 110 | Pre-1971 |
| 661-SC7 | Screw Conv Type-I To Pk Bin Elev Transfers 1 and 2 (Group 1 CSTP) | 110 each | Pre-1971 |
| 661-SC8 | Screw Conv Type-I To Pk Bin Elev Transfers 1 and 2 (Group 1 CSTP) | 67 each | Pre-1971 |
| 662-BE1 | Elevator South Masonry (Group 3 CSTP) | 67 | Pre-1971 |
| 662-BF3 | Dust Collector Masonry Packer Trans (Group 3 CSTP)** | 80 | 1992 |
| 662-SC1 | Mas. Elev. Dust coll. Screw (Group 3 CSTP) | 67 | Pre-1971 |
| 662-SC2 | Masonry Cleanup Screw (Group 3 CSTP) | 67 | Pre-1971 |
| 66A-SC1 | Screw Conv to 66A-VS1 (Group 3 CSTP)** | 67 | 2009 |

| EUG 8 – Cement Packing, Dispatch, and Distribution System | | | |
|--|---|----------------------------------|--------------------------|
| Emission Unit | EU Name/Model | Capacity* (Tons/Hour) | Construction Date |
| 662-SC9 | Screw Conv Silo 15 (Masonry) (Group 1 CSTP) | 67 | 1992 |
| 662-SCA | Screw Conv Silos 2 3 4 (Masonry) (Group 1 CSTP) | 67 | 1992 |
| 662-SCB | Screw Conv To Elevator (Masonry) (Group 1 CSTP) | 67 | 1992 |
| 662-SCD | Screw Conveyor Silo 8 (Masonry) (Group 1 CSTP) | 67 | 1992 |
| 66A-VS1 | Scalping Screen & Material Transfers 1 through 3(Group 3 CSTP)** | 67 each | 2009 |
| 671-FQ1 | Bag flattening belt(Group 2 CSTP)** | 67 | 2009 |
| 671-BW1 | Weigh Belt System (Group 2 CSTP)** | 67 | 2009 |
| 671-BC8 | Diverter Belt. (Group 2 CSTP)** | 67 | 2009 |
| 671-BCA | Line 1 Palletizer (Group 2 CSTP) | 67 | 2009 |
| 671-BCB | Line 1 Curve Belt (Group 2 CSTP)** | 67 | 2009 |
| 671-BCC | Line 1 Alignment Belt (Group 2 CSTP)** | 67 | 2009 |
| 671-BCD | Line 1 Bag Rotation Belt (Group 2 CSTP)** | 67 | 2009 |
| 66A-BCA | Line 2 Curve Belt (Group 2 CSTP)** | 67 | 2009 |
| 671-BCF | Line 2 Bag Alignment Belt** | 67 | 2009 |
| 671-BCG | Line 2 Bag Rotation Belt** | 67 | 2009 |
| 66A-SC2 | Screw Conv to Packing Bin 66A-3B3 (Group 3 CSTP)** | 67 | 2009 |
| 66A-SC3 | Screw Conv To Elevator (Spillage) (Group 3 CSTP) | 67 | 1992 |
| 662-3B1 | Packhouse Masonry Cement Storage Bin** | 30 | 1992 |
| 671-BT1 | Broken Bag Diverter Belt (Group 2 CSTP)** | 67 | 2009 |
| 66A-PM1 | Haver Sprout Packing Machine | 67 | 2009 |
| 621-BF1 | Bay Spout Dust Collector** | 200 | 2004 |
| 622-BF1 | Bay Spout Dust Collector** | 200 | 2004 |
| 623-BF1 | Bay Spout Dust Collector** | 200 | 2004 |
| 66A-3B3 | Packing Bin** | 67 | 2008 |
| 662-BF1 | D-19 Masonry Dust Collector | 50 | Pre-1971 |
| 661-BF2 | Haver Packing Dust Collector | 50 | Pre-1971 |
| 661-SCA | D-22 Packing Dust Collector Screw(Group 3 CSTP) | 50 | Pre-1971 |
| 661-AS1 | Airslide to Bin 661-3B2 (Group 1 CSTP) | 70 | 2009 |

| EUG 8 – Cement Packing, Dispatch, and Distribution System | | | |
|--|---|----------------------------------|--------------------------|
| Emission Unit | EU Name/Model | Capacity* (Tons/Hour) | Construction Date |
| 66A-SC4 | Spillage conveyor to 66A-SC5 (Group 3 CSTP)** | 67 | 2009 |
| 66A-SC5 | Collecting screw to 661-SC7(Group 3) | 67 | Pre-1971 |
| 671-BC1 | Power Roller Conveyor from Haver (Group 2)** | 67 | 2009 |
| 671-BC2 | Exit Conveyor from Haver Packing Machine (Group 2)** | 67 | 2009 |
| 671-BC3 | 1ST Curve Conveyor (Group 2)** | 67 | 2009 |
| 671-BC4 | Incline Conveyor (Group 2)** | 67 | 2009 |
| 671-BC5 | 2ND Curve Conveyor (Group 2)** | 67 | 2009 |
| 671-BC6 | Short Belt Conveyor (Group 2)** | 67 | 2009 |
| 671-BC7 | Short Belt Conveyor before Diverter Belt (Group 2)** | 67 | 2009 |
| 671-BCE | South Side Curve Conveyor to Palletizer (Group 2)** | 67 | 2009 |
| 671-BCF | West Side after Curve Conveyor (Group 2)** | 67 | 2009 |
| 671-BCG | West Side Bag Turner Conveyor (Group 2)** | 67 | 2009 |
| 671-RB1 | North Roller Conveyor (Group 2)** | 67 | 2009 |
| 671-RB2 | South Roller Conveyor (Group 2)** | 67 | 2009 |
| 671-RB3 | Full Pallet Roller Conveyors Staging (Group 1) | 67 | 2009 |
| 671-WR1 | Pallet Wrapper(Group 1) | 67 | 2009 |

**Identified units are subject to both NSPS Subpart F and NESHAP Subpart LLL. Pursuant to § 63.1356, If an affected facility subject to this subpart has a different emissions limit or requirement for the same pollutant under another regulation in title 40 of this chapter, the owner or operator of the affected facility must comply with the most stringent emissions limit or requirement and is exempt from the less stringent requirement. These units will comply with NESHAP Subpart LLL requirements which are more stringent.

* Capacities listed are individual, nominal capacity.

| EUG 9 – Insignificant Fuel-Burning Equipment | | | |
|---|----------------------------|--------------------------|--------------------------|
| Emission Unit | EU Name/Model | Capacity | Construction Date |
| N/A | Natural Gas Space Heaters* | 150,000 Btu/hr (each) | Pre-1971 |

*Estimated total of approximately 39 units throughout the facility.

| EUG 9B – Other Fuel-Burning Equipment | | | |
|--|---------------------------------|-----------------|--------------------------|
| Emission Unit | EU Name/Model | Capacity | Construction Date |
| 46A-1G1 | Emergency Diesel Generator-Kiln | 402 kW | 2006 |
| 46A-1G2 | Emergency Diesel Generator | 1,100-hp | 2017 |

| EUG 10 – Miscellaneous Insignificant Activities | | | |
|--|--|-----------------|--------------------------|
| Emission Units | EU Name/Model | Capacity | Construction Date |
| F21-FT1 | Unleaded Gasoline-Outside - Purchasing Office | 1,200 gal. | 1971 |
| F21-FT2 | On Road Diesel-Outside - Purchasing Office | 550 gal. | Pre-1971 |
| F21-FT3 | Off Road Diesel-Outside - Purchasing Office | 3000 gal. | 1971 |
| I11-TK2 | Used oil-Inside Garage Building | 600 gal. | -- |
| I11-TK1 | 30 wt. oil-Inside Garage Building | 300 gal. | -- |
| 480-TK2 | Used oil-Beneath Kilns | 600 gal. | -- |
| 53A-3B4 | TDA Finish Mill Grinding Aid-South of Mill Bdg. | 10,575 gal | 2006 |
| 53A-3B3 | Grinding Aid (HEA 2GL)-South of Mill Building | 6,628 gal. | Unknown |
| 53A-3B2 | Masonry additive (65AE)-Inside South End of Mill Building | 7,713 gal. | Unknown |
| G01-3I1 | Lube-Underneath Kilns | 160 gal. | -- |
| G01-3I1 | Lube-Underneath Kilns | 160 gal. | -- |
| G01-3I1 | Lube-Underneath Kilns | 160 gal. | -- |
| G01-3I1 | Lube-Underneath Kilns | 160 gal. | -- |
| G01-3I1 | Lube-Underneath Kilns | 115 gal. | -- |
| I21-FT1 | Off Road Diesel-Outside Near Quarry Office | 5,000 gal. | Pre-1971 |
| I21-FT2 | Off Road Diesel-Outside Near Quarry Office | 5,000 gal. | Pre-1971 |
| I21-FT3 | Unleaded Gasoline-Outside Near Quarry Office | 1,000 gal. | 1974 |
| I21-TK1 | 30 wt. Oil-Outside near Quarry Office | 1,000 gal. | -- |
| I21-TK2 | Used Oil-Outside near Quarry Office | 300 gal. | -- |
| Rock Blasting | Rock Blasting | <5 TPY | N/A |
| Truck Loading | Truck Loading | <5 TPY | N/A |
| Truck Unloading | Truck Unloading | <5 TPY | N/A |

SECTION V. ESTIMATED EMISSIONS

Particulate matter (PM) emission estimates reflect the worst-case potential emissions assuming operation at nominal throughput capacity and 8,760 hour/yr operation. Emissions of particulate matter are based on the emission factors listed in the following table.

ESTIMATED PM EMISSIONS BY EMISSION UNIT (EXCLUDING KILNS)

Group 1 Units (those that are completely enclosed) are included in this table but do not have emissions shown since they will not have PM emissions.

| EUG # | Emission Unit | Process Description | Process Rate (ton/hr) | Emission Factor (lb/ton) | Emission Factor Reference | Estimated PM/PM ₁₀ (lb/hr) | Estimated PM/PM ₁₀ (TPY) | Calculated PM Allowable (lb/hr)* |
|-------|---------------|------------------------------------|-----------------------|--------------------------|---------------------------|---------------------------------------|-------------------------------------|----------------------------------|
| 1 | Paved Roads | Truck Traffic on Paved Roads | 18,463 (miles/yr) | 0.689 (lb/VMT) | Note 1 | 1.5 | 6.4 | N/A |
| 1 | Unpaved Roads | Truck Traffic on Unpaved Roads | 33,000 (miles/yr) | 4.515 (lb/VMT) | Note 2 | 17.0 | 74.5 | N/A |
| 1 | Storage Piles | Storage Piles | 8,818.5 | 4.07 (lb/acre/day) | Multiple | 4.1 | 17.9 | N/A |
| 2 | 21A-IM1 | Primary Crusher | 1000 | 0.0054 | Note 3 | 5.4 | 23.7 | 77.6 |
| 2 | 21A-HP1 | Primary Crusher Hopper | 1250 | 0.003 | Note 4 | 3.8 | 16.6 | 80.5 |
| 2 | 21A-AF1 | Primary Apron Feeder | 1250 | 0.003 | Note 4 | 3.8 | 16.6 | 80.5 |
| 2 | 211-IM1 | Secondary Crushers (each) | 675 | 0.0054 | Note 3 | 3.6 | 15.8 | 72.6 |
| 2 | 212-IM1 | | 675 | 0.0054 | Note 3 | 3.6 | 15.8 | 72.6 |
| 2 | 211-VS1 | Secondary Crusher Screening (each) | 337.5 | 0.025 | Note 5 | 8.4 | 36.8 | 64.3 |
| 2 | 211-VS2 | | 337.5 | 0.025 | Note 5 | 8.4 | 36.8 | 64.3 |
| 2 | 212-VS1 | | 337.5 | 0.025 | Note 5 | 8.4 | 36.8 | 64.3 |
| 2 | 212-VS2 | | 337.5 | 0.025 | Note 5 | 8.4 | 36.8 | 64.3 |
| 2 | 291-3B1 | Surge Bin | 1250 | 0.0054 | Note 3 | 6.8 | 29.8 | 80.5 |
| 2 | 291-BC1 | Flight 1-7 Drops (each) | 1000 | 0.003 | Note 4 | 3.0 | 13.1 | 77.6 |
| 2 | 291-BC2 | | 1000 | 0.003 | Note 4 | 3.0 | 13.1 | 77.6 |
| 2 | 291-BC3 | | 1000 | 0.003 | Note 4 | 3.0 | 13.1 | 77.6 |
| 2 | 291-BC4 | | 1000 | 0.003 | Note 4 | 3.0 | 13.1 | 77.6 |
| 2 | 291-BC5 | | 1000 | 0.003 | Note 4 | 3.0 | 13.1 | 77.6 |
| 2 | 291-BC6 | | 1000 | 0.003 | Note 4 | 3.0 | 13.1 | 77.6 |

| EUG # | Emission Unit | Process Description | Process Rate (ton/hr) | Emission Factor (lb/ton) | Emission Factor Reference | Estimated PM/PM ₁₀ (lb/hr) | Estimated PM/PM ₁₀ (TPY) | Calculated PM Allowable (lb/hr)* |
|-------|-----------------|--|-----------------------|--------------------------|---------------------------|---------------------------------------|-------------------------------------|----------------------------------|
| 2 | 291-BC7 | | 1000 | 0.003 | Note 4 | 3.0 | 13.1 | 77.6 |
| 2 | 291 STI | Radial Stacker | 1100 | 0.00474 | Note 6 | 5.2 | 22.8 | 78.8 |
| 2 | 21A-BC1 | Primary Belt | 1250 | 0.003 | Note 4 | 3.8 | 16.6 | 80.5 |
| 2 | 211-BC2 | #1 Recirculating Belt | 675 | 0.003 | Note 4 | 2.0 | 8.8 | 72.6 |
| 2 | 211-BC3 | #1 Screen Discharge Belt | 625 | 0.003 | Note 4 | 1.9 | 8.3 | 71.7 |
| 2 | 291-BC8 | Secondary Belt to Surge Bin | 1250 | 0.003 | Note 4 | 3.8 | 16.6 | 80.5 |
| 2 | 212-BC1 | #2 Screen Feed Belt | 1300 | 0.003 | Note 4 | 3.9 | 17.1 | 81.0 |
| 2 | 212-BC3 | #2 Recirculating Belt | 675 | 0.003 | Note 4 | 2.0 | 8.8 | 72.6 |
| 2 | 212-BC2 | #2 Screen Discharge Belt | 625 | 0.003 | Note 4 | 1.9 | 8.3 | 71.7 |
| 2 | 291-AF1 | Quarry Apron Feeder | 1000 | 0.003 | Note 4 | 3.0 | 13.1 | 77.6 |
| 2 | 291-BC9 | Raw Incline Belt | 1100 | 0.003 | Note 4 | 3.3 | 14.5 | 78.8 |
| 2 | 21A-SX1 | Dribble Conveyor | 1000 | 0.003 | Note 4 | 3.0 | 13.1 | 77.6 |
| 2 | 211-BC1 | #1 Screen Feed Belt | 1300 | 0.003 | Note 4 | 0.00 | 0.00 | 81.0 |
| 2 | 211-BF1 | Secondary Dust Collector | 20,000 acfm | 0.03 gr/acf | Note 13 | 5.14 | 22.53 | |
| 2 | 212-BF1 | Secondary Dust Collector | 20,000 acfm | 0.03 gr/acf | Note 13 | 5.14 | 22.53 | |
| 3 | L11-VD1 | Coal/Coke Car Shaker | 330 | 0.003 | Note 4 | 1.0 | 4.4 | 64.1 |
| 3 | L31-RC1 | Coal/Coke Crushers | 330 | 0.04 | Note 7 | 13.2 | 57.8 | 64.1 |
| 3 | L31-VD1 | Coal/Coke Crusher Material | 165 | 0.003 | Note 4 | 0.5 | 2.2 | 56.4 |
| 3 | L31-VD2 | Transfers (each) | 165 | 0.003 | Note 4 | 0.5 | 2.2 | 56.4 |
| 3 | L61-RM1/L61-BF1 | Coal/Coke Mill #1 / Coal/Coke Mill 1 Baghouse with explosion vents | 16 | 0.003 | Note 4 | 0.1 | 0.2 | 26.3 |
| 3 | L62-RM1/L62-BF1 | Coal/Coke Mill #2 / Coal/Coke Mill 2 Baghouse with Explosion Vents | 16 | 0.003 | Note 4 | 0.1 | 0.2 | 26.3 |
| 3 | L11-HP1 | Coal/Coke Unloading Hoppers | 165 | 0.003 | Note 4 | 0.5 | 2.2 | 56.4 |
| 3 | L11-HP2 | (each) | 165 | 0.003 | Note 4 | 0.5 | 2.2 | 56.4 |
| 3 | L11-VF1 | West Vibrating Feeder | 165 | 0.003 | Note 4 | 0.5 | 2.2 | 56.4 |
| 3 | L11-VF2 | East Vibrating Feeder | 165 | 0.003 | Note 4 | 0.5 | 2.2 | 56.4 |
| 3 | L11-BC1 | Coal/Coke Unloading Belt | 330 | 0.00453 | Note 8 | 1.5 | 6.6 | 64.1 |
| 3 | L01-MI1 | Coal/Coke Blender | 330 | 0.003 | Note 4 | 1.0 | 4.4 | 64.1 |
| 3 | L31-SG1 | Coal/Coke Slide Gates (each) | 165 | 0.003 | Note 4 | 0.5 | 2.2 | 56.4 |
| 3 | L31-SG2 | | 165 | 0.003 | Note 4 | 0.5 | 2.2 | 56.4 |
| 3 | L31-BC1 | Coal/Coke Tunnel Belt | 330 | 0.003 | Note 4 | 1.0 | 4.4 | 64.1 |

| EUG # | Emission Unit | Process Description | Process Rate (ton/hr) | Emission Factor (lb/ton) | Emission Factor Reference | Estimated PM/PM ₁₀ (lb/hr) | Estimated PM/PM ₁₀ (TPY) | Calculated PM Allowable (lb/hr)* |
|-------|---------------|---|-----------------------|--------------------------|---------------------------|---------------------------------------|-------------------------------------|----------------------------------|
| 3 | L31-RC1 | Crusher Roller | 330 | 0.003 | Note 4 | 1.0 | 4.4 | 64.1 |
| 3 | L31-BC2 | Conveyor Belt | 330 | 0.003 | Note 4 | 1.0 | 4.4 | 64.1 |
| 3 | L31-3B1 | Coal/Coke Bin | 660 | 0.003 | Note 4 | 2.0 | 8.8 | 72.3 |
| 3 | L61-WF1 | Feed O Weights (each) | 16 | 0.003 | Note 4 | 0.05 | 0.22 | 26.3 |
| 3 | L62-WF1 | | 16 | 0.003 | Note 4 | 0.05 | 0.22 | 26.3 |
| 3 | L61-SC1 | Screw Conveyors (each) | 16 | 0.003 | Note 4 | 0.05 | 0.22 | 26.3 |
| 3 | L62-SC1 | | 16 | 0.003 | Note 4 | 0.05 | 0.22 | 26.3 |
| 3 | L91-BI1 | Pulverized Solid Fuel Bins | 25 | 0.003 | Note 4 | 0.1 | 0.4 | 35.4 |
| 3 | L92-BI1 | (Line 1 & 2) (each) | 25 | 0.003 | Note 4 | 0.1 | 0.4 | 35.4 |
| 3 | L93-BF1 | Nuisance Fine Coal Storage Bin Dust Collector | 22 TPH/ 5,000 acfm | 0.01 gr/dscf | NSPS Standard | 0.43 | 1.88 | 32.46 |
| 3 | L91-SC1 | Screw Conveyors (Lines 1 & 2) (Group 1 CSTP) (each) | 16 | -- | -- | | | |
| 3 | L92-SC1 | | 16 | -- | -- | | | |
| 3 | L61-RF1 | Baghouse Rotary Airlock-IDF | 20 | 0.003 | Note 4 | 0.1 | 0.4 | 30.5 |
| 3 | L62-RF1 | Baghouse Rotary Airlock-IDF | 20 | 0.003 | Note 4 | 0.1 | 0.4 | 30.5 |
| 3 | 481-PF1 | Rotary Schenck Feeders (Group 1) | 16 | -- | -- | | | |
| 3 | 482-PF1 | Rotary Schenck Feeders (Group 1) | 16 | -- | -- | | | |
| 4 | K1A-BE1 | Additive System Bucket Elevator | 100 | 0.003 | Note 4 | 0.3 | 1.3 | 51.3 |
| 4 | K1A-3S1 | S-2 Interstice (Group 3 CSTP) | 100 | 0.003 | Note 4 | 0.3 | 1.3 | 51.3 |
| 4 | K1A-3S1 | S-2 Interstice Transfer 1 (Group 2 CSTP) | 25 | 0.003 | Note 4 | 0.1 | 0.4 | 35.4 |
| 4 | K1A-3S1 | S-2 Interstice Transfer 2 (Group 2 CSTP) | 25 | 0.003 | Note 4 | 0.1 | 0.4 | 35.4 |
| 4 | X11-3S2 | Millscale Interstice (Storage Bin) (Group 3 CSTP) | 15 | 0.003 | Note 4 | 0.05 | 0.22 | 25.2 |
| 4 | X11-3S2 | Millscale Interstice (Transfer) (Group 2 CSTP) | 15 | 0.003 | Note 4 | 0.05 | 0.22 | 25.2 |
| 4 | X11-3S4 | I-2 CKD Interstice (Storage Bin) (Group 3 CSTP) | 15 | 0.003 | Note 4 | 0.05 | 0.22 | 25.2 |
| 4 | X11-3S4 | 1-2 CKD Interstice Transfer (Group 2 CSTP) | 15 | 0.003 | Note 4 | 0.05 | 0.22 | 25.2 |

| EUG # | Emission Unit | Process Description | Process Rate (ton/hr) | Emission Factor (lb/ton) | Emission Factor Reference | Estimated PM/PM ₁₀ (lb/hr) | Estimated PM/PM ₁₀ (TPY) | Calculated PM Allowable (lb/hr)* |
|-------|---------------|--|---|--------------------------|---------------------------|---------------------------------------|-------------------------------------|----------------------------------|
| 4 | 291-3S1 | L-1 Silo (Storage Bin) (Group 3 CSTP) | 100 | 0.003 | Note 4 | 0.3 | 1.3 | 51.3 |
| 4 | 291-3S1 | L-1 Silo Transfer (Group 2 CSTP) | 100 | 0.003 | Note 4 | 0.3 | 1.3 | 51.3 |
| 4 | 291-3S2 | L-2 Silo (Storage Bin) (Group 3 CSTP) | 100 | 0.003 | Note 4 | 0.3 | 1.3 | 51.3 |
| 4 | 291-3S2 | L-2 Silo Transfer (Group 2 CSTP) | 100 | 0.003 | Note 4 | 0.3 | 1.3 | 51.3 |
| 4 | 291-3S3 | L-3 Silo (Storage Bin) (Group 3 CSTP) | 100 | 0.003 | Note 4 | 0.3 | 1.3 | 51.3 |
| 4 | 291-3S3 | L-3 Silo Transfer (Group 2 CSTP) (each) | 100 | 0.003 | Note 4 | 0.3 | 1.3 | 51.3 |
| 4 | 331-BC1 | Raw Mill #1 Feedbelt Transfer 1 (Group 2) | 200 | 0.003 | Note 4 | 0.6 | 2.6 | 58.5 |
| 4 | 331-BC1 | Raw Mill #1 Feedbelt Transfer 2 (Group 2) | 200 | 0.003 | Note 4 | 0.6 | 2.6 | 58.5 |
| 4 | 331-BF1 | Feed Belt Dust Collector Transfer (L1 Feed-0-Weight transfer to 331-BC1 Feed Belt) D-7a, b, c (each) (Group 3) | 100 | 0.0031 | Note 9 | 0.3 | 1.3 | 51.3 |
| 4 | 331-BF2 | | 100 | 0.0031 | Note 9 | 0.3 | 1.3 | 51.3 |
| 4 | 331-BF3 | | 100 | 0.0031 | Note 9 | 0.3 | 1.3 | 51.3 |
| 4 | 331-WF1 | | 100 | 0.0031 | Note 9 | 0.3 | 1.3 | 51.3 |
| 4 | 331-WF2 | L-1, L-2, & L-3 Feed O Weights (each) (Group 2) | 100 | 0.0031 | Note 9 | 0.3 | 1.3 | 51.3 |
| 4 | 331-WF3 | | 100 | 0.0031 | Note 9 | 0.3 | 1.3 | 51.3 |
| 4 | 331-WF4 | | Raw Mill #1 S1 & I1 FOWs (each) (Group 2) | 15 | 0.0031 | Note 9 | 0.05 | 0.22 |
| 4 | 331-WF5 | 15 | | 0.0031 | Note 9 | 0.05 | 0.22 | 25.2 |
| 4 | 361-BM1 | Raw Mill #1 | 120 | 0.012 | Note 10 | 1.4 | 6.1 | 53.1 |
| 4 | 291-3S4 | L-4 Silo (Storage Bin) (Group 3 CSTP) | 100 | 0.003 | Note 4 | 0.3 | 1.3 | 51.3 |
| 4 | 291-3S4 | L-4 Silo Transfer (Group 2 CSTP) | 100 | 0.003 | Note 4 | 0.3 | 1.3 | 51.3 |
| 4 | 291-3S5 | L-5 Silo (Storage Bin) (Group 3 CSTP) | 100 | 0.003 | Note 4 | 0.3 | 1.3 | 51.3 |
| 4 | 291-3S5 | L-5 Silo Transfer (Group 2 CSTP) | 100 | 0.003 | Note 4 | 0.3 | 1.3 | 51.3 |

| EUG # | Emission Unit | Process Description | Process Rate (ton/hr) | Emission Factor (lb/ton) | Emission Factor Reference | Estimated PM/PM ₁₀ (lb/hr) | Estimated PM/PM ₁₀ (TPY) | Calculated PM Allowable (lb/hr)* | |
|-------|---------------|--|--|--------------------------|---------------------------|---------------------------------------|-------------------------------------|----------------------------------|------|
| | | CSTP) | | | | | | | |
| 4 | 291-3S6 | L-6 Silo (Storage Bin) (Group 3 CSTP) | 100 | 0.003 | Note 4 | 0.3 | 1.3 | 51.3 | |
| 4 | 291-3S6 | L-6 Silo Transfer (Group 2 CSTP) | 100 | 0.003 | Note 4 | 0.3 | 1.3 | 51.3 | |
| 4 | 332-BC1 | Raw Mill #2 Feedbelt Transfer #1 (Group 2) | 200 | 0.003 | Note 4 | 0.6 | 2.6 | 58.5 | |
| 4 | 332-BC1 | Raw Mill #2 Feedbelt Transfer 2 (was Raw Mill #2 Feedbelt) | 200 | 0.003 | Note 4 | 0.6 | 2.6 | 58.5 | |
| 4 | 332-BC2 | #2 Raw Mill Crossover feed belt (Group 2) | 200 | 0.003 | Note 4 | 0.6 | 2.6 | 58.5 | |
| 4 | 332-BF1 | Feed Belt Dust Collectors D-8a, b, c (each) (L4 Feed-0-Weight transfer to 332-BC1 Feed Belt) | 100 | 0.0031 | Note 9 | 0.3 | 1.3 | 51.3 | |
| 4 | 332-BF2 | | 100 | 0.0031 | Note 9 | 0.3 | 1.3 | 51.3 | |
| 4 | 332-BF3 | | 100 | 0.0031 | Note 9 | 0.3 | 1.3 | 51.3 | |
| 4 | 332-WF1 | | 100 | 0.0031 | Note 9 | 0.3 | 1.3 | 51.3 | |
| 4 | 332-WF2 | | L-4, L-5 & L-6 Feed O Weights (each) (Group 2) | 100 | 0.0031 | Note 9 | 0.3 | 1.3 | 51.3 |
| 4 | 332-WF3 | | | 100 | 0.0031 | Note 9 | 0.3 | 1.3 | 51.3 |
| 4 | 332-WF4 | Raw Mill #2 S2 & I2 FOWs (each) (Group 2) | 15 | 0.0031 | Note 9 | 0.05 | 0.22 | 25.2 | |
| 4 | 332-WF5 | | 15 | 0.0031 | Note 9 | 0.05 | 0.22 | 25.2 | |
| 4 | 362-BM1 | Raw Mill #2 (Group 2) | 180 | 0.012 | Note 11 | 2.2 | 9.6 | 57.4 | |
| 4 | 291-BFC | D-1 Dust Collector | 100 | 0.0031 | Note 9 | 0.3 | 1.3 | 51.3 | |
| 4 | 291-BFD | D-2 Dust Collector | 100 | 0.0031 | Note 9 | 0.3 | 1.3 | 51.3 | |
| 4 | 291-BCA | Row Incline Extension Belt (Group 3 CSTP) | 1100 | 0.003 | Note 4 | 3.3 | 14.5 | 78.8 | |
| 4 | 291-BCB | L-5 Extension Belt (Group 3 CSTP) | 1100 | 0.003 | Note 4 | 3.3 | 14.5 | 78.8 | |
| 4 | 291-BCC | L-6 Extension Belt (Group 3 CSTP) | 1100 | 0.003 | Note 4 | 3.3 | 14.5 | 78.8 | |
| 4 | 291-BCE | L-2 Extension Belt (Group 3 CSTP) | 1100 | 0.003 | Note 4 | 3.3 | 14.5 | 78.8 | |
| 4 | 291-BCF | L-3 Extension Belt (Group 3 CSTP) | 1100 | 0.003 | Note 4 | 3.3 | 14.5 | 78.8 | |
| 4 | KIA-AF1 | Additive Hopper Apron Feeder (Group 2 CSTP) | 100 | 0.003 | Note 4 | 0.3 | 1.3 | 51.3 | |

| EUG # | Emission Unit | Process Description | Process Rate (ton/hr) | Emission Factor (lb/ton) | Emission Factor Reference | Estimated PM/PM ₁₀ (lb/hr) | Estimated PM/PM ₁₀ (TPY) | Calculated PM Allowable (lb/hr)* |
|-------|---------------|---|-----------------------|--------------------------|---------------------------|---------------------------------------|-------------------------------------|----------------------------------|
| 4 | KIA-BC1 | Additive Incline Belt (Group 3 CSTP) | 100 | 0.003 | Note 4 | 0.3 | 1.3 | 51.3 |
| 4 | KIA-BC2 | Additive Incline Belt 1st Extension Belt (Group 3 CSTP) | 100 | 0.00014 | Note 12 | 0.01 | 0.04 | 51.3 |
| 4 | KIA-BC4 | Additive Incline Belt (Group 3 CSTP) | 100 | 0.003 | Note 4 | 0.3 | 1.3 | 51.3 |
| 4 | K1A-HP1 | Additive Hopper | 100 | 0.003 | Note 4 | 0.3 | 1.3 | 51.3 |
| 4 | V83-HP1 | Mill Scale Hopper & Weigh Feeder | 1 | 0.003 | Note 4 | 0.003 | 0.013 | 4.10 |
| 4 | V83-SC1 | Mill Scale Screw Conveyor | 1 | 0.003 | Note 4 | 0.003 | 0.013 | 4.10 |
| 4 | V83-BC2 | Mill Scale Belt Conveyor | 1 | 0.003 | Note 4 | 0.003 | 0.013 | 4.10 |
| 4 | V83-UL1 | Tire Chip Unloader | 6.5 | - | | - | - | 14.33 |
| 4 | V83-WF1 | Tire Chip Weigh Belt Feeder | 6.5 | - | | - | - | 14.33 |
| 4 | V83-BCA | Belt Conveyor | 10 | 0.003 | Note 4 | 0.03 | 0.131 | 19.2 |
| 5 | 423-BF2 | Nuisance Filter Dust Collector | 8 TPH /5,000 acfm | 0.01gr/dscf | Note 13 | 0.43 | 1.88 | 16.5 |
| 6 | 49A-3S1 | C-1 Clinker Silo (Storage Bin) | 60 | 0.0099 | Note 14 | 0.6 | 2.6 | 46.3 |
| 6 | 49A-3S2 | C-2 Clinker Silo (Storage Bin) | 60 | 0.0099 | Note 14 | 0.6 | 2.6 | 46.3 |
| 6 | 49A-3S3 | C-3 Clinker Silo (Storage Bin) | 60 | 0.0099 | Note 14 | 0.6 | 2.6 | 46.3 |
| 6 | 49A-3S4 | C-4 Clinker Silo (Storage Bin) | 60 | 0.0099 | Note 14 | 0.6 | 2.6 | 46.3 |
| 6 | 49A-3S5 | C-5 Clinker Silo (Storage Bin) | 60 | 0.0099 | Note 14 | 0.6 | 2.6 | 46.3 |
| 6 | 49A-3S6 | C-6 Clinker Silo (Storage Bin) | 60 | 0.0099 | Note 14 | 0.6 | 2.6 | 46.3 |
| 6 | KIA-3S6 | CKD Interstice (Storage Bin) | 15 | 0.0099 | Note 14 | 0.1 | 0.4 | 25.2 |
| 6 | KIA-BF3 | Grindout Dust Bin Collector Transfer (Group 3) | 50 | 0.003 | Note 4 | 0.20 | 0.88 | 44.6 |
| 6 | 49A-SC1 | D-11 Dust Collector Screw Transfer 1 (Group 2 CSTP) | 110 | 0.003 | Note 4 | 0.3 | 1.3 | 52.2 |
| 6 | 49A-SC1 | D-11 Dust Collector Screw Transfer 2 (Group 2 CSTP) | 110 | 0.003 | Note 4 | 0.3 | 1.3 | 52.2 |
| 6 | 49A-SQ1 | Spout Clinker Outside Chute C-3 (Group 3 CSTP) | 110 | 0.003 | Note 4 | 0.3 | 1.3 | 52.2 |
| 6 | 49A-SQ2 | Spout Clinker Outside Chute C-4 (Group 3 CSTP) | 110 | 0.003 | Note 4 | 0.3 | 1.3 | 52.2 |
| 6 | 49A-SQ3 | Spout Clinker Outside Chute C-6 (Group 3 CSTP) | 110 | 0.003 | Note 4 | 0.3 | 1.3 | 52.2 |

| EUG # | Emission Unit | Process Description | Process Rate (ton/hr) | Emission Factor (lb/ton) | Emission Factor Reference | Estimated PM/PM ₁₀ (lb/hr) | Estimated PM/PM ₁₀ (TPY) | Calculated PM Allowable (lb/hr)* |
|-------|-----------------------------|---|------------------------|--------------------------|---------------------------|---------------------------------------|-------------------------------------|----------------------------------|
| 6 | 491-BC1 | Clinker Incline (North) (Group 2 CSTP) | 110 | 0.003 | Note 4 | 0.3 | 1.3 | 52.2 |
| 6 | 491-BE1 | Clinker Elevator (West) (Group 1 CSTP) | 110 | -- | -- | | | |
| 6 | 491-VC1 | West NF Clinker Conveyor (Group 2 CSTP) | 110 | 0.003 | Note 4 | 0.3 | 1.3 | 52.2 |
| 6 | 473-GQ1 | Clinker Cooler #3 Transfer | 5,000cf/min | 0.01 gr/cf | Note 13 | 0.43 | 1.877 | |
| 6 | 493-BF1 | Nuisance Clinker Transport Dust Collector | 138 TPH/ 5,000 acfm | 0.01 gr/dscf | Note 13 | 0.43 | 1.88 | 52.89 |
| 6 | 42A-BX1 | Dustless Unloader (Group 2) | 35 | 0.003 | Note 4 | 0.11 | 0.46 | 41.3 |
| 6 | 42A-3B1 | Waste Dust Bin | 650 | 0.003 | Note 4 | 2.0 | 8.8 | 72.1 |
| 6 | 42A-BF1 | Waste Dust Bin Dust Collector (Group 3) | 650 | 0.003 | Note 4 | 2.0 | 8.8 | 72.1 |
| 6 | 42A-BF2 | Insufflation Dust Bin Dust Collector | 250 | 0.003 | Note 4 | 0.8 | 3.5 | 61.0 |
| 6 | Landfill Pug Screw Transfer | Dustless Unloader (Group 2) | 35 | 0.003 | Note 4 | 0.11 | 0.46 | 41.3 |
| 6 | 491-BC2 | Clinker Reversing Belt (West) Trans. 1,2,3,4 (Group 2 CSTP) | 110 ea | 0.0031 ea | | | | |
| 6 | 491-BF1 | Cooler #1 Nuisance Dust Collector Transfer (Group 3) | 110 | 0.003 | Note 4 | 0.3 | 1.3 | |
| 6 | 492-BF1 | Cooler #2 Nuisance Dust Collector Trans. (Group 3 CSTP) | 110 | 0.003 | Note 4 | 0.3 | 1.3 | |
| 6 | 473-BF2 | Cooler #3 Nuisance Dust Collector Transfer | 4015 cf/min | 0.01 gr/dscf | Note 13 | 0.35 | 1.51 | |
| 7 | 51A-BC2 | Clk. Recl. Belt Raw Incline Trans 1, 2 (Group 3 CSTP) | 110 ea | 0.003 ea | Note 4 | 0.3 ea | 1.3 ea | 51.7 ea |
| 7 | 51A-HP1 | Clinker Reclaim Hopper (Group 3 CSTP) (associated with Hopper Dust Collector) | 110 | 0.0031 | Note 9 | 0.3 | 1.3 | 52.2 |

| EUG # | Emission Unit | Process Description | Process Rate (ton/hr) | Emission Factor (lb/ton) | Emission Factor Reference | Estimated PM/PM ₁₀ (lb/hr) | Estimated PM/PM ₁₀ (TPY) | Calculated PM Allowable (lb/hr)* |
|-------|---------------|---|-----------------------|--------------------------|---------------------------|---------------------------------------|-------------------------------------|----------------------------------|
| | | 51A-BF1) | | | | | | |
| 7 | 59A-3S1 | Cement Silos #21 thru #33 (Storage Bins) (each) emissions are controlled by dust collectors 59A-BF1, 59A-BF2, 59A-BF3 | 225 | 0.00014 | Note 15 | 0.03 | 0.14 | 59.8 |
| 7 | 59A-3S2 | | 225 | 0.00014 | Note 15 | 0.03 | 0.14 | 59.8 |
| 7 | 59A-3S3 | | 225 | 0.00014 | Note 15 | 0.03 | 0.14 | 59.8 |
| 7 | 59A-3S4 | | 225 | 0.00014 | Note 15 | 0.03 | 0.14 | 59.8 |
| 7 | 59A-3S5 | | 225 | 0.00014 | Note 15 | 0.03 | 0.14 | 59.8 |
| 7 | 59A-3S6 | | 225 | 0.00014 | Note 15 | 0.03 | 0.14 | 59.8 |
| 7 | 59A-3S7 | | 225 | 0.00014 | Note 15 | 0.03 | 0.14 | 59.8 |
| 7 | 59A-3S8 | | 225 | 0.00014 | Note 15 | 0.03 | 0.14 | 59.8 |
| 7 | 59A-3S9 | | 225 | 0.00014 | Note 15 | 0.03 | 0.14 | 59.8 |
| 7 | 59A-3SA | | 225 | 0.00014 | Note 15 | 0.03 | 0.14 | 59.8 |
| 7 | 59A-3SB | | 225 | 0.00014 | Note 15 | 0.03 | 0.14 | 59.8 |
| 7 | 59A-3SC | | 225 | 0.00014 | Note 15 | 0.03 | 0.14 | 59.8 |
| 7 | 59A-3SD | | 225 | 0.00014 | Note 15 | 0.03 | 0.14 | 59.8 |
| 7 | 59A-PP1 | Z-Flap FK-Pump Transfer 1 (Group 1 CSTEP) | 150 | -- | -- | | | |
| 7 | 59A-PP2 | 250M FK-Pump Transfers 1 (Group 1 CSTEP) | 150 | -- | -- | | | |
| 7 | 59A-SC1 | D-12 & D-13 Dust Collector Screws (Group 3 CSTEP) | 120 | 0.003 | Note 4 | 0.4 | 1.8 | 53.1 |
| 7 | 59A-SC2 | | 120 | 0.003 | Note 4 | 0.4 | 1.8 | 53.1 |
| 7 | 59B-3S1 | Cement Silos #1 thru #18 (Storage Bins) emissions are controlled by dust collectors 59B-BF1, 59B-BF2, and 59B-BF3 | 75 | 0.00014 | Note 15 | 0.01 | 0.05 | 48.4 |
| 7 | 59B-3S2 | | 75 | 0.00014 | Note 15 | 0.01 | 0.05 | 48.4 |
| 7 | 59B-3S3 | | 75 | 0.00014 | Note 15 | 0.01 | 0.05 | 48.4 |
| 7 | 59B-3S4 | | 75 | 0.00014 | Note 15 | 0.01 | 0.05 | 48.4 |
| 7 | 59B-3S5 | | 75 | 0.00014 | Note 15 | 0.01 | 0.05 | 48.4 |
| 7 | 59B-3S6 | | 75 | 0.00014 | Note 15 | 0.01 | 0.05 | 48.4 |
| 7 | 59B-3S7 | | 75 | 0.00014 | Note 15 | 0.01 | 0.05 | 48.4 |
| 7 | 59B-3S8 | | 75 | 0.00014 | Note 15 | 0.01 | 0.05 | 48.4 |
| 7 | 59B-3S9 | | 75 | 0.00014 | Note 15 | 0.01 | 0.05 | 48.4 |
| 7 | 59B-3SA | | 75 | 0.00014 | Note 15 | 0.01 | 0.05 | 48.4 |
| 7 | 59B-3SB | | 75 | 0.00014 | Note 15 | 0.01 | 0.05 | 48.4 |
| 7 | 59B-3SC | 75 | 0.00014 | Note 15 | 0.01 | 0.05 | 48.4 | |

| EUG # | Emission Unit | Process Description | Process Rate (ton/hr) | Emission Factor (lb/ton) | Emission Factor Reference | Estimated PM/PM ₁₀ (lb/hr) | Estimated PM/PM ₁₀ (TPY) | Calculated PM Allowable (lb/hr)* |
|-------|---------------|---|---|--------------------------|---------------------------|---------------------------------------|-------------------------------------|----------------------------------|
| 7 | 59B-3SD | | 75 | 0.00014 | Note 15 | 0.01 | 0.05 | 48.4 |
| 7 | 59B-3SE | | 75 | 0.00014 | Note 15 | 0.01 | 0.05 | 48.4 |
| 7 | 59B-3SF | | 75 | 0.00014 | Note 15 | 0.01 | 0.05 | 48.4 |
| 7 | 59B-3SG | | 75 | 0.00014 | Note 15 | 0.01 | 0.05 | 48.4 |
| 7 | 59B-3SH | | 75 | 0.00014 | Note 15 | 0.01 | 0.05 | 48.4 |
| 7 | 59B-3SI | | 75 | 0.00014 | Note 15 | 0.01 | 0.05 | 48.4 |
| 7 | 59B-SC1 | | D-18 Dust Collector Screws (Group 3 CSTP) | 100 | 0.003 | Note 4 | 0.3 | 1.3 |
| 7 | 59B-SC2 | D-17 Dust Collector Screws (Group 3 CSTP) | 100 | 0.003 | Note 4 | 0.3 | 1.3 | 51.3 |
| 7 | KIA-3S5 | G-1 Gypsum Silo (Storage Bin) (Group 1 CSTP) | 15 | -- | -- | | | |
| 7 | KIA-3S5 | G-1 Gypsum Silo Transfer 1 (Group 1 CSTP) | 15 | -- | -- | | | |
| 7 | KIA-3S5 | G-1 Gypsum Silo Transfer 2 (Group 1 CSTP) | 15 | -- | -- | | | |
| 7 | KIA-3S6 | Grindout Interstice Transfer 1 (Group 1 CSTP) | 30 | -- | -- | | | |
| 7 | KIA-3S6 | Grindout Interstice Transfer 2 (Group 1 CSTP) | 30 | 0.003 | Note 4 | | | |
| 7 | 531-WF5 | Masonry Rock #1 FOW (Group 3 CSTP) | 25 | 0.003 | Note 4 | 0.1 | 0.4 | 35.4 |
| 7 | 531-BC1 | FM #1 Feed Belt (Group 2, CSTP) | 110 | 0.003 | Note 4 | 0.33 | 1.45 | 52.2 |
| 7 | 531-BF1 | D9a, b, & c Dust Collectors | 60 | 0.003 | Note 4 | 0.2 | 0.9 | 46.3 |
| 7 | 531-BF2 | | 60 | 0.003 | Note 4 | 0.2 | 0.9 | 46.3 |
| 7 | 531-BF3 | | 60 | 0.003 | Note 4 | 0.2 | 0.9 | 46.3 |
| 7 | 531-RF1 | | Grindout Interstice Rotary Feeder #1 (Group 1 CSTP) | 30 | -- | -- | | |
| 7 | 531-SC1 | FM #1 Grindout Screw (G-2) (Group 3 CSTP) | 30 | 0.003 | Note 4 | 0.1 | 0.4 | 40.0 |
| 7 | 531-WF1 | C-1, C-2 & C-3 Clinker FOWs (Group 3 CSTP) | 60 | 0.003 | Note 4 | 0.2 | 0.9 | 46.3 |
| 7 | 531-WF3 | | 60 | 0.003 | Note 4 | 0.2 | 0.9 | 46.3 |
| 7 | 531-WF4 | | 60 | 0.003 | Note 4 | 0.2 | 0.9 | 46.3 |
| 7 | 531-WF4 | | 60 | 0.003 | Note 4 | 0.2 | 0.9 | 46.3 |

| EUG # | Emission Unit | Process Description | Process Rate (ton/hr) | Emission Factor (lb/ton) | Emission Factor Reference | Estimated PM/PM ₁₀ (lb/hr) | Estimated PM/PM ₁₀ (TPY) | Calculated PM Allowable (lb/hr)* |
|-------|---------------|--|-----------------------|--------------------------|---------------------------|---------------------------------------|-------------------------------------|----------------------------------|
| 7 | 531-WF2 | G-1 Gypsum FOW #1 FM (Group 3 CSTEP) | 15 | 0.003 | Note 4 | 0.05 | 0.22 | 25.2 |
| 7 | 561-AS1 | FM#1 Mill Discharge Airslide (Group 3 CSTEP) | 250 | 0.003 | Note 4 | 0.8 | 3.5 | 61.0 |
| 7 | 561-AS2 | FM#1 Long Airslide Transfer 1 (Group 1 SSTEP) | 250 | -- | -- | | | |
| 7 | 561-AS2 | FM#1 Long Airslide Transfer 2 (Group 1 SSTEP) | 250 | -- | -- | | | |
| 7 | 561-AS3 | FM #1 Splitter Airslide #2 (Group 3 CSTEP) | 125 | 0.003 | Note 4 | 0.4 | 1.8 | 53.5 |
| 7 | 561-AS4 | FM #1 Splitter Airslide #1 (Group 3 CSTEP) | 125 | 0.003 | Note 4 | 0.4 | 1.8 | 53.5 |
| 7 | 561-AS5 | FM #1 Reject Airslide #1 (Group 3 CSTEP) | 125 | 0.003 | Note 4 | 0.4 | 1.8 | 53.5 |
| 7 | 561-AS6 | FM #1 Reject Airslide #2 (Group 3 CSTEP) | 125 | 0.003 | Note 4 | 0.4 | 1.8 | 53.5 |
| 7 | 561-BE1 | FM #1 Elevator (Group 3 CSTEP) | 250 | 0.003 | Note 4 | 0.8 | 3.5 | 61.0 |
| 7 | 561-BM1 | FM #1 (Finish Mill) (Group 1 CSTEP) | 60 | -- | -- | | | |
| 7 | 561-BM1 | FM #1 Transfer (CSTEP) | 60 | 0.003 | Note 4 | 0.2 | 0.9 | 46.3 |
| 7 | 561-SC1 | FM #1 Dust Collector Screw (Group 3 CSTEP) | 110 | 0.003 | Note 4 | 0.3 | 1.3 | 52.2 |
| 7 | 561-SR1 | Separator #1 Transfer 1 (Group 1 CSTEP) | 30 | -- | -- | | | |
| 7 | 561-SR1 | Separator #1 Transfer 2 (Group 1 CSTEP) | 30 | -- | -- | | | |
| 7 | 561-SR1 | Separator #1 Transfer 3 (Group 1 CSTEP) | 30 | -- | -- | | | |
| 7 | 591-AS1 | Airslide from Sep 1 to Cooler 1 (Group 1 CSTEP) | 30 | -- | -- | | | |
| 7 | 591-AS2 | Airslide from Sep 2 to Cooler 2 (Group 1 CSTEP) | 30 | -- | -- | | | |
| 7 | 591-AS3 | Airslide from #1 Cooler to FK pump (Group 1 CSTEP) | 30 | -- | -- | | | |

| EUG # | Emission Unit | Process Description | Process Rate (ton/hr) | Emission Factor (lb/ton) | Emission Factor Reference | Estimated PM/PM ₁₀ (lb/hr) | Estimated PM/PM ₁₀ (TPY) | Calculated PM Allowable (lb/hr)* |
|-------|---------------|--|---|--------------------------|---------------------------|---------------------------------------|-------------------------------------|----------------------------------|
| 7 | 591-AS4 | Airslide from #2 Cooler to FK Pump (Group 1 CSTP) | 30 | -- | -- | | | |
| 7 | 591-AS5 | Airslide from #1 Sep to FK Pump Transfer 1 (Group 1 CSTP) | 30 | -- | -- | | | |
| 7 | 591-AS5 | Airslide from #1 Sep to FK Pump Transfer 2 (Group 1 CSTP) | 30 | -- | -- | | | |
| 7 | 591-CQ1 | Cement Cooler #1 (Group 1 CSTP) | 30 | -- | -- | | | |
| 7 | 592-CQ2 | Cement Cooler #2 (Group 1 CSTP) | 30 | -- | -- | | | |
| 7 | 532-BC1 | FM #2 Feed Belt (Group 2 CSTP) | 110 | 0.003 | Note 4 | 0.33 | 1.45 | 52.2 |
| 7 | 532-BC2 | Belt Conveyor (Masonry Rock) To FM #2 (Group 3 CSTP) | 25 | 0.003 | Note 4 | 0.1 | 0.4 | 35.4 |
| 7 | 532-BF1 | D10a, b & c Dust Collector Transfers | 60 | 0.003 | Note 4 | 0.2 | 0.9 | 46.3 |
| 7 | 532-BF2 | | 60 | 0.003 | Note 4 | 0.2 | 0.9 | 46.3 |
| 7 | 532-BF3 | | 60 | 0.003 | Note 4 | 0.2 | 0.9 | 46.3 |
| 7 | 532-RF1 | | Grindout Interstice Rotary Feeder #2 (Group 1 CSTP) | 30 | -- | -- | | |
| 7 | 532-SC1 | FM #2 Grindout Screw (G-2) (Group 3 CSTP) | 30 | 0.003 | Note 4 | 0.1 | 0.4 | 40.0 |
| 7 | 532-WF1 | Feed O Weight Mason Rock #2 (Group 2 CSTP) | 25 | -- | -- | | | 35.4 |
| 7 | 532-WF2 | C-4, C-5 & C-6 Clinker FOWs (associated with D10a, D10b, & D10c Dust Collectors 532-BF1, 532-BF2, & 532-BF3 (Group 3 CSTP) | 60 | 0.003 | | 0.2 | 0.9 | 46.3 |
| 7 | 532-WF3 | | 60 | 0.003 | Note 4 | 0.2 | 0.9 | 46.3 |
| 7 | 532-WF5 | | 60 | 0.003 | Note 4 | 0.2 | 0.9 | 46.3 |
| 7 | 532-WF4 | | G-1 Gypsum FOW #2 FM (Group 3 CSTP) | 15 | 0.003 | Note 4 | 0.05 | 0.22 |
| 7 | 562-AS1 | FM #2 Mill Discharge Airslide (Group 3 CSTP) | 250 | 0.003 | Note 4 | 0.8 | 3.5 | 61.0 |
| 7 | 562-AS2 | FM #2 Long Airslide Transfer | 250 | -- | -- | | | |

| EUG # | Emission Unit | Process Description | Process Rate (ton/hr) | Emission Factor (lb/ton) | Emission Factor Reference | Estimated PM/PM ₁₀ (lb/hr) | Estimated PM/PM ₁₀ (TPY) | Calculated PM Allowable (lb/hr)* |
|-------|---------------|---|-----------------------|--------------------------|---------------------------|---------------------------------------|-------------------------------------|----------------------------------|
| | | 1 (Group 1 CSTP) | | | | | | |
| 7 | 562-AS2 | FM #2 Long Airslide Transfer 2 (Group 1 CSTP) | 250 | -- | -- | | | |
| 7 | 562-AS3 | FM #2 Splitter Airslide #3 (Group 3 CSTP) | 125 | 0.003 | Note 4 | 0.4 | 1.8 | 53.5 |
| 7 | 562-AS4 | FM #2 Splitter Airslide #4 (Group 3 CSTP) | 125 | 0.003 | Note 4 | 0.4 | 1.8 | 53.5 |
| 7 | 562-AS5 | FM #2 Reject Airslide #3 (Group 3 CSTP) | 125 | 0.003 | Note 4 | 0.4 | 1.8 | 53.5 |
| 7 | 562-AS6 | FM #2 Reject Airslide #4 (Group 3 CSTP) | 125 | 0.003 | Note 4 | 0.4 | 1.8 | 53.5 |
| 7 | 562-BE1 | FM #2 Elevator (Group 3 CSTP) | 250 | 0.003 | Note 4 | 0.8 | 3.5 | 61.0 |
| 7 | 562-SC1 | FM #2 Dust Collector Screw (Group 3 CSTP) | 110 | 0.003 | Note 4 | 0.3 | 1.3 | 52.2 |
| 7 | 562-BM1 | FM #2 (Finish Mill) (Group 3 CSTP) | 60 | 0.028 | Note 16 | 1.7 | 7.4 | 46.3 |
| 7 | 562-BM1 | FM #2 Transfer (Group 3 CSTP) | 60 | 0.028 | Note 16 | 1.7 | 7.4 | 46.3 |
| 7 | 56A-BI1 | Bin (Group 1) | 50 | | | | | |
| 7 | 56A-BI1 | Bin Transfer & Screws (Group 1) | 10 | | | | | |
| 7 | 592-AS5 | Airslide from #2 sep to FK Pump transfer 1 (Group 1 CSTP) | 30 | -- | -- | | | |
| 7 | 592-AS5 | Airslide from #2 sep to FK Pump transfer 2 (Group 1 CSTP) | 30 | -- | -- | | | |
| 7 | 59B-BF3 | Dust Collector Silo 4 Transfer | 100 | 0.003 | Note 4 | 0.3 | 1.3 | 51.3 |
| 7 | 561-BF1 | FM #1 East Dust Collector | 250 | 0.00014 | Note 15 | 0.04 | 0.18 | 61.0 |
| 7 | 562-BF2 | FM #2 West Dust Collector | 250 | 0.00014 | Note 15 | 0.04 | 0.18 | 61.0 |
| 7 | K1A-3S3 | K1A-3S3 Transfer 1 (Group 2 CSTP) | 25 | 0.003 | Note 4 | 0.1 | 0.4 | 35.4 |

| EUG # | Emission Unit | Process Description | Process Rate (ton/hr) | Emission Factor (lb/ton) | Emission Factor Reference | Estimated PM/PM ₁₀ (lb/hr) | Estimated PM/PM ₁₀ (TPY) | Calculated PM Allowable (lb/hr)* | |
|-------|---------------|--|--|--------------------------|---------------------------|---------------------------------------|-------------------------------------|----------------------------------|------|
| 7 | K1A-3S3 | K1A-3S3 Transfer 2 (Group 2 CSTP) | 25 | 0.003 | Note 4 | 0.1 | 0.4 | 35.4 | |
| 7 | K1A-3S3 | MR-2 Interstice (Storage Bin) | 10 | 0.003 | Note 4 | 0.03 | 0.13 | 19.2 | |
| 7 | 51A-BC1 | Clk. Recl. Hopper Dust Collector Trans. (Group 3 CSTP) | 110 | 0.0031 | Note 9 | 0.33 | 1.45 | 52.2 | |
| 7 | 49A-3S1 | C-1 thru C-6 Clinker Silo Transfers (Group 2 CSTP) (each) | 60 | 0.0099 | Note 14 | 0.6 | 2.6 | 46.3 | |
| 7 | 49A-3S2 | C-1 thru C-6 Clinker Silo Transfers (Group 2 CSTP) (each) | 60 | 0.0099 | Note 14 | 0.6 | 2.6 | 46.3 | |
| 7 | 49A-3S3 | | 60 | 0.0099 | Note 14 | 0.6 | 2.6 | 46.3 | |
| 7 | 49A-3S4 | | 60 | 0.0099 | Note 14 | 0.6 | 2.6 | 46.3 | |
| 7 | 49A-3S5 | | 60 | 0.0099 | Note 14 | 0.6 | 2.6 | 46.3 | |
| 7 | 49A-3S6 | | 60 | 0.0099 | Note 14 | 0.6 | 2.6 | 46.3 | |
| 7 | 49A-3S6 | | Cement Silos #21 thru #33 Transfers (Group 3 CSTP) | 60 | 0.0099 | Note 14 | 0.6 | 2.6 | 46.3 |
| 8 | 59A-3S1 | Cement Silos #21 thru #33 Transfers (Group 3 CSTP) Silo Cement #1 Transfer 1 (Group 1 CSTP) | 200 | 0.00099 | Note 17 | 0.2 | 0.9 | 58.5 | |
| 8 | 59A-3S2 | | 200 | 0.00099 | Note 17 | 0.2 | 0.9 | 58.5 | |
| 8 | 59A-3S3 | | 200 | 0.00099 | Note 17 | 0.2 | 0.9 | 58.5 | |
| 8 | 59A-3S4 | | 200 | 0.00099 | Note 17 | 0.2 | 0.9 | 58.5 | |
| 8 | 59A-3S5 | | 200 | 0.00099 | Note 17 | 0.2 | 0.9 | 58.5 | |
| 8 | 59A-3S6 | | 200 | 0.00099 | Note 17 | 0.2 | 0.9 | 58.5 | |
| 8 | 59A-3S7 | | 200 | 0.00099 | Note 17 | 0.2 | 0.9 | 58.5 | |
| 8 | 59A-3S8 | | 200 | 0.00099 | Note 17 | 0.2 | 0.9 | 58.5 | |
| 8 | 59A-3S9 | | 200 | 0.00099 | Note 17 | 0.2 | 0.9 | 58.5 | |
| 8 | 59A-3SA | | 200 | 0.00099 | Note 17 | 0.2 | 0.9 | 58.5 | |
| 8 | 59A-3SB | | 200 | 0.00099 | Note 17 | 0.2 | 0.9 | 58.5 | |
| 8 | 59A-3SC | | 200 | 0.00099 | Note 17 | 0.2 | 0.9 | 58.5 | |
| 8 | 59A-3SD | | 200 | 0.00099 | Note 17 | 0.2 | 0.9 | 58.5 | |
| 8 | 59B-3S1 | | | 40 | -- | -- | | | 42.5 |
| 8 | 59B-3S1 | | Silo Cement #1 Transfer 2 (Group 1 CSTP) | 40 | -- | -- | | | |
| 8 | 59B-3S2 | | Silo Cement #2 Transfer (Group 1 CSTP) | 40 | -- | -- | | | |

| EUG # | Emission Unit | Process Description | Process Rate (ton/hr) | Emission Factor (lb/ton) | Emission Factor Reference | Estimated PM/PM ₁₀ (lb/hr) | Estimated PM/PM ₁₀ (TPY) | Calculated PM Allowable (lb/hr)* |
|-------|---------------|---|-----------------------|--------------------------|---------------------------|---------------------------------------|-------------------------------------|----------------------------------|
| 8 | 59B-3S3 | Silo Cement #3 Transfer (Group 1 CSTP) | 40 | -- | -- | | | |
| 8 | 59B-3S4 | Silo Cement #4 Transfer (Group 1 CSTP) | 40 | -- | -- | | | |
| 8 | 59B-3S5 | Silo Cement #5 Transfer 1 (Group 1 CSTP) | 40 | -- | -- | | | |
| 8 | 59B-3S5 | Silo Cement #5 Transfer 2 (Group 1 CSTP) | 40 | -- | -- | | | |
| 8 | 59B-3S6 | Silo Cement #6 Transfer 1 (Group 1 CSTP) | 40 | -- | -- | | | |
| 8 | 59B-3S6 | Silo Cement #6 Transfer 2 (Group 1 CSTP) | 40 | -- | -- | | | |
| 8 | 59B-3S7 | Silo Cement #7 Transfer 1 (Group 1 CSTP) | 40 | -- | -- | | | |
| 8 | 59B-3S7 | Silo Cement #7 Transfer 2 (Group 1 CSTP) | 40 | -- | -- | | | |
| 8 | 59B-3S8 | Silo Cement #8 Transfer (Group 1 CSTP) | 40 | -- | -- | | | |
| 8 | 59B-3S9 | Silo Cement #9 Transfer 1 (Group 1 CSTP) | 40 | -- | -- | | | |
| 8 | 59B-3S9 | Silo Cement #9 Transfer 2 (Group 1 CSTP) | 40 | -- | -- | | | |
| 8 | 59B-3SA | Silo Cement #10 Transfer 1 (Group 1 CSTP) | 40 | -- | -- | | | |
| 8 | 59B-3SA | Silo Cement #10 Transfer 2 (Group 1 CSTP) | 40 | -- | -- | | | |
| 8 | 59B-3SB | Silo Cement #11 Transfer 1 (Group 1 CSTP) | 40 | -- | -- | | | |
| 8 | 59B-3SB | Silo Cement #11 Transfer 2 (Group 1 CSTP) | 40 | -- | -- | | | |
| 8 | 59B-3SC | Silo Cement #12 Transfer 1 (Group 1 CSTP) | 40 | -- | -- | | | |
| 8 | 59B-3SC | Silo Cement #12 Transfer 2 (Group 1 CSTP) | 40 | -- | -- | | | |
| 8 | 59B-3SD | Silo Cement #13 Transfer 1 | 40 | -- | -- | | | |

| EUG # | Emission Unit | Process Description | Process Rate (ton/hr) | Emission Factor (lb/ton) | Emission Factor Reference | Estimated PM/PM ₁₀ (lb/hr) | Estimated PM/PM ₁₀ (TPY) | Calculated PM Allowable (lb/hr)* |
|-------|---------------|---|-----------------------|--------------------------|---------------------------|---------------------------------------|-------------------------------------|----------------------------------|
| | | (Group 1 CSTP) | | | | | | |
| 8 | 59B-3SD | Silo Cement #13 Transfer 2 (Group 1 CSTP) | 40 | -- | -- | | | |
| 8 | 59B-3SE | Silo Cement #14 Transfer 1 (Group 1 CSTP) | 40 | -- | -- | | | |
| 8 | 59B-3SE | Silo Cement #14 Transfer 2 (Group 1 CSTP) | 40 | -- | -- | | | |
| 8 | 59B-3SF | Silo Cement #15 Transfer (Group 1 CSTP) | 40 | -- | -- | | | |
| 8 | 59B-3SG | Silo Cement #16 Transfer 1 (Group 1 CSTP) | 40 | -- | -- | | | |
| 8 | 59B-3SG | Silo Cement #16 Transfer 2 (Group 1 CSTP) | 40 | -- | -- | | | |
| 8 | 59B-3SH | Silo Cement #17 Transfer 1 (Group 1 CSTP) | 40 | -- | -- | | | |
| 8 | 59B-3SH | Silo Cement #17 Transfer 2 (Group 1 CSTP) | 40 | -- | -- | | | |
| 8 | 59B-3SI | Silo Cement #18 Transfer 1 (Group 1 CSTP) | 40 | -- | -- | | | |
| 8 | 59B-3SI | Silo Cement #18 Transfer 2 (Group 1 CSTP) | 40 | -- | -- | | | |
| 8 | 611-PP1 | Packhouse FK Pump Transfer 1 (Group 1 CSTP) | 47 | -- | -- | | | |
| 8 | 611-PP1 | Packhouse FK Pump Transfer 2 (Group 1 CSTP) | 47 | -- | -- | | | |
| 8 | 624-AS1 | Airslide from silo 30 to Truck Loading Spout (Group 3 CSTP) | 188 | 0.00099 | | 0.2 | 0.9 | 57.8 |
| 8 | 624-AS2 | Airslide from silo 32 to Truck Loading Spout (Group 3 CSTP) | 188 | 0.00099 | Note 17 | 0.2 | 0.9 | 57.8 |
| 8 | 626-AS1 | Airslide from silo 31 to truck/rail load out spout track 2 (Group 3 CSTP) | 188 | 0.00099 | Note 17 | 0.2 | 0.9 | 57.8 |
| 8 | 626-AS2 | Airslide from silo 33 to truck/rail load out spout track 2 (Group 3 CSTP) | 188 | 0.00099 | Note 17 | 0.2 | 0.9 | 57.8 |

| EUG # | Emission Unit | Process Description | Process Rate (ton/hr) | Emission Factor (lb/ton) | Emission Factor Reference | Estimated PM/PM ₁₀ (lb/hr) | Estimated PM/PM ₁₀ (TPY) | Calculated PM Allowable (lb/hr)* |
|-------|---------------|---|-----------------------|--------------------------|---------------------------|---------------------------------------|-------------------------------------|----------------------------------|
| 8 | 622-AS1 | Silo #24 Air Slide Conveyor to truck/rail load out spout track2(Group 1) | 188 | -- | -- | | | |
| 8 | 622-AS2 | Silo #26 Air Slide Conveyor to truck/rail load out spout track 2(Group 1) | 188 | -- | -- | | | |
| 8 | 621-AS1 | Silo #21 Air Slide Conveyor to truck/rail load out spout track 3(Group 1) | 188 | -- | -- | | | |
| 8 | 621-AS3 | Silo #23 Air Slide Conveyor to truck/rail load out spout track 3(Group1) | 188 | | | 0.00 | 0.00 | |
| 8 | 623-AS1 | Silo #27 Air Slide Conv. To truck load out track 1(Group 1) | 188 | -- | -- | | | |
| 8 | 623-AS2 | Silo #27 Air Slide Conv. To truck/rail load out spout track 1(Group 1) | 188 | -- | -- | | | |
| 8 | 623-LS1 | Bay #1 load out Spout(Group3) | 200 | 0.003 | Note 4 | 0.6 | 2.6 | 58.5 |
| 8 | 622-LS1 | Bay 2 load out Spout(Group 3) | 200 | 0.003 | Note 4 | 0.6 | 2.6 | 58.5 |
| 8 | 621-LS1 | Bay 3 load out Spout (Group 3) | 200 | 0.003 | Note 4 | 0.6 | 2.6 | 58.5 |
| 8 | 661-3B2 | Bin Type I Packing Transfer 1 (Group 3 CSTP) | 100 | 0.003 | Note 4 | 0.3 | 1.3 | 51.3 |
| 8 | 661-3B2 | Bin Type I Packing Transfer 2 (Group 3 CSTP) | 100 | 0.003 | Note 4 | 0.3 | 1.3 | 51.3 |
| 8 | 661-BE2 | Elevator Packhouse North Type I (Group 1 CSTP) | 67 | -- | -- | | | |
| 8 | 661-BE3 | Elevator Packhouse South Type 1 (Group 1 CSTP) | 67 | -- | -- | | | |
| 8 | 661-BF3 | Dust Collector for Basement Screw SC-7 (Group 3 CSTP) | 80 | 0.003 | Note 4 | 0.2 | 0.9 | 49.1 |
| 8 | 661-SC1 | Screw Conv from Silos to Packhouse (Group 1 CSTP) | 110 | -- | -- | | | |
| 8 | 661-SC2 | Screw Conv from Silos to | 110 | 0.003 | Note 4 | 0.3 | 1.3 | |
| 8 | 661-SC3 | Packhouse (Group 1 CSTP) | 110 | 0.003 | Note 4 | 0.3 | 1.3 | |

| EUG # | Emission Unit | Process Description | Process Rate (ton/hr) | Emission Factor (lb/ton) | Emission Factor Reference | Estimated PM/PM ₁₀ (lb/hr) | Estimated PM/PM ₁₀ (TPY) | Calculated PM Allowable (lb/hr)* |
|-------|---------------|---|-----------------------|--------------------------|---------------------------|---------------------------------------|-------------------------------------|----------------------------------|
| 8 | 661-SC4 | Elevator South Masonry (Group 3 CSTP) | 110 | 0.003 | Note 4 | 0.3 | 1.3 | 52.2 |
| 8 | 661-SC5 | | 110 | 0.003 | Note 4 | 0.3 | 1.3 | 52.2 |
| 8 | 661-SC6 | | 110 | 0.003 | Note 4 | 0.3 | 1.3 | 52.2 |
| 8 | 661-SC7 | | 110 | 0.003 | Note 4 | 0.3 | 1.3 | 52.2 |
| 8 | 661-SC7 | | 110 | 0.003 | Note 4 | 0.3 | 1.3 | 52.2 |
| 8 | 661-SC8 | | 110 | 0.003 | Note 4 | 0.3 | 1.3 | 52.2 |
| 8 | 661-SC8 | | 110 | 0.003 | Note 4 | 0.3 | 1.3 | 52.2 |
| 8 | 662-BE1 | | | 67 | 0.003 | Note 4 | 0.2 | 0.9 |
| 8 | 662-SC1 | Mason Elev. Screw /D-19 Dust Collector (Group 3 CSTP) | 67 | 0.003 | Note 4 | 0.2 | 0.9 | 47.3 |
| 8 | 66A-SC1 | Screw Conv Screen to Masonry Pk Bin (Group 3 CSTP) | 67 | 0.003 | Note 4 | 0.2 | 0.9 | 47.3 |
| 8 | 662-SC9 | Screw Conveyor Silo 15 (Masonry) (Group 1 CSTP) | 67 | -- | -- | | | |
| 8 | 662-SCA | Screw Conveyor Silo 2, 3, 4 (Masonry) (Group 1 CSTP) | 67 | -- | -- | | | |
| 8 | 662-SCB | Screw Conveyor to Elevator (Masonry) (Group 1 CSTP) | 67 | -- | -- | | | |
| 8 | 662-SCD | Screw Conveyor Silo 8 (Masonry) (Group 1 CSTP) | 67 | -- | -- | | | |
| 8 | 66A-VS1 | Scalping Screen (Group 3 CSTP) | 67 | 0.003 | Note 4 | 0.2 | 0.9 | 47.3 |
| 8 | 66A-VS1 | Material Gate Transfer 1 (Group 3 CSTP) | 67 | 0.003 | Note 4 | 0.2 | 0.9 | 47.3 |
| 8 | 66A-VS1 | Material Gate Transfer 2 (Group 3 CSTP) | 67 | 0.003 | Note 4 | 0.2 | 0.9 | 47.3 |
| 8 | 66A-VS1 | Material Gate Transfer 3 (Group 3 CSTP) | 67 | 0.003 | Note 4 | 0.2 | 0.9 | 47.3 |
| 8 | 671-FO1 | Bag flattening belt (Group 1 CSTP) | 67 | -- | -- | | | |
| 8 | 671-BW1 | Weight Belt System (Group 2 CSTP) | 67 | 0.003 | Note 4 | 0.20 | 0.88 | 47.3 |
| 8 | 671-BC8 | Diverter Belt (Group 1 CSTP) | 67 | -- | -- | | | |
| 8 | 671-BCA | Palletizer Feed Belt (Group 1 | 67 | -- | -- | | | |

| EUG # | Emission Unit | Process Description | Process Rate (ton/hr) | Emission Factor (lb/ton) | Emission Factor Reference | Estimated PM/PM ₁₀ (lb/hr) | Estimated PM/PM ₁₀ (TPY) | Calculated PM Allowable (lb/hr)* |
|-------|---------------|--|-----------------------|--------------------------|---------------------------|---------------------------------------|-------------------------------------|----------------------------------|
| | | CSTP) | | | | | | |
| 8 | 671-BCB | Line 1 Curve Belt (Group 1 CSTP) | 67 | -- | -- | | | |
| 8 | 671-BCC | Line 1 Alignment Belt (Group 1 CSTP) | 67 | -- | -- | | | |
| 8 | 671-BCD | Line 1 Bag Rotation Belt Group 1 CSTP) | 67 | -- | -- | | | |
| 8 | 66A-BCA | Line 2 Curve Belt (Group 1 CSTP) | 67 | -- | -- | | | |
| 8 | 66A-SC2 | Screw Conv Masonry Spillage 66a-Sc3 (Group 3 CSTP) | 67 | 0.003 | Note 4 | 0.2 | 0.9 | 47.3 |
| 8 | 66A-SC3 | Screw Conv To Elevator (Spillage) (Group 3 CSTP) | 67 | 0.003 | Note 4 | 0.2 | 0.9 | 47.3 |
| 8 | 62A-WB1 | Track 3 loading (Group 2 CSTP) | 200 | 0.0015 | Note 4 | 0.3 | 1.3 | 58.5 |
| 8 | 62A-WB2 | Track 2 loading (Group 2 CSTP) | 200 | 0.0015 | Note 4 | 0.3 | 1.3 | 58.5 |
| 8 | 62A-WB3 | Track 1 loading (Group 2 CSTP) | 200 | 0.0015 | Note 4 | 0.3 | 1.3 | 58.5 |
| 8 | 671-BCF | Line 2 Bag Alignment Belt | 67 | 0.003 | Note 4 | 0.2 | 0.9 | 47.3 |
| 8 | 671-BCG | Line 2 Bag Rotation Belt | 67 | 0.003 | Note 4 | 0.2 | 0.9 | 47.3 |
| 8 | 662-3B1 | Packhouse Masonry Cement Storage Bin (Group 3) | 30 | 0.003 | Note 4 | 0.1 | 0.4 | 40.0 |
| 8 | 671-BTI | Broken Bag Diverter Belt (Group 2 CSTP) | 67 | 0.003 | Note 4 | 0.2 | 0.9 | 47.3 |
| 8 | 66A-PM1 | Haver Sprout Packing Machine (Group 3) | 67 | 0.00022 | Note 18 | 0.01 | 0.04 | 47.3 |
| 8 | 621-BF1 | Bay Spout Dust Collector | 200 | 0.003 | Note 4 | 0.6 | 2.6 | 58.5 |
| 8 | 622-BF1 | Bay Spout Dust Collector | 200 | 0.003 | Note 4 | 0.6 | 2.6 | 58.5 |
| 8 | 623-BF1 | Bay Spout Dust Collector | 200 | 0.003 | Note 4 | 0.6 | 2.6 | 58.5 |
| 8 | 66A-3B3 | Packing Bin | 67 | 0.0099 | Note 14 | 0.7 | 3.1 | 47.3 |
| 8 | 662-BF1 | D-19 Masonry Dust Collector | 50 | 0.00014 | Note 15 | 0.01 | 0.04 | 44.6 |
| 8 | 661-BF2 | Haver Packing Dust Collector (Group 3 CSTP) | 50 | 0.00014 | Note 15 | 0.01 | 0.04 | 44.6 |

| EUG # | Emission Unit | Process Description | Process Rate (ton/hr) | Emission Factor (lb/ton) | Emission Factor Reference | Estimated PM/PM ₁₀ (lb/hr) | Estimated PM/PM ₁₀ (TPY) | Calculated PM Allowable (lb/hr)* |
|-------|---------------|--|-----------------------|--------------------------|---------------------------|---------------------------------------|-------------------------------------|----------------------------------|
| 8 | 661-SCA | D-22 Packing Dust Collector Screw (Group 3 CSTP) | 50 | 0.00014 | Note 15 | 0.01 | 0.04 | 44.6 |
| 8 | 661-AS1 | Airslide to Bin 661-3B2 (Group 1 CSTP) | 70 | -- | -- | | | |
| 8 | 66A-SC4 | Spillage conveyor to 66A-SC5 (Goup 3 CSTP) | 67 | 0.003 | Note 4 | 0.2 | 0.9 | 47.3 |
| 8 | 66A-SC5 | Collecting Screw to 661-SC7 (Group 3) | 67 | 0.003 | Note 4 | 0.2 | 0.9 | 47.3 |
| 8 | 671-BC1 | Power Roller Conveyor From Havor (Group 2) | 67 | 0.003 | Note 4 | 0.2 | 0.9 | 47.3 |
| 8 | 671-BC2 | Exit Conveyor from Havor Packing Machine (Group 2) | 67 | 0.003 | Note 4 | 0.2 | 0.9 | 47.3 |
| 8 | 671-BC3 | 1st Curve Conveyor (Group 2) | 67 | 0.003 | Note 4 | 0.2 | 0.9 | 47.3 |
| 8 | 671-BC4 | Incline Conveyor (Group 2) | 67 | 0.003 | Note 4 | 0.2 | 0.9 | 47.3 |
| 8 | 671-BC5 | 2nd Curve Conveyor (Group 2) | 67 | 0.003 | Note 4 | 0.2 | 0.9 | 47.3 |
| 8 | 671-BC6 | Short Belt Conveyor (Group 2) | 67 | 0.003 | Note 4 | 0.2 | 0.9 | 47.3 |
| 8 | 671-BC7 | Short Belt Conveyor Before Diverter Belt (Group 2) | 67 | 0.003 | Note 4 | 0.2 | 0.9 | 47.3 |
| 8 | 671-BCE | South Side Curve Conveyor to Pallitizer (Group 2) | 67 | 0.003 | Note 4 | 0.2 | 0.9 | 47.3 |
| 8 | 671-BCF | West Side After Curve Conveyor (Group 2) | 67 | 0.003 | Note 4 | 0.2 | 0.9 | 47.3 |
| 8 | 671-BCG | West Side Bag Turner Conveyor (Group 2) | 67 | 0.003 | Note 4 | 0.2 | 0.9 | 47.3 |
| 8 | 671-RB1 | North Roller Conveyor (Group 2) | 67 | 0.003 | Note 4 | 0.2 | 0.9 | 47.3 |

Note 1: AP-42, Section 13.2.1, 5th edition, 12/03 (Paved Roads)

Note 2: AP-42, Section 13.2.2, 5th edition, 12/03 (Unpaved Roads)

Note 3: AP-42 Table 11.19.2-2, 8/04 (Tertiary Crushing)

Note 4: AP-42 Table 11.19-2, 8/04 (Conveyor Transfer Uncontrolled)

Note 5: AP-42 Table 11.19.2-2, 8/04 (Screening)

Note 6: 13.2.4, 11/06

Note 7: AP-42 Table 11.19.2-4, 9/04 (Grinding (dry) with Fabric Filter Control)

Note 8: AP-42, Section 13.2.4, Equation 1,11/06

Note 9: AP-42 Table 11.6-4, 1/95 (Raw Mill Feed with Fabric Filter)

Note 10: AP-42, Table 11.6-4, 1/95 (Raw Mill with filter)

Note 11: AP-42, Table 11.6-4, 1/95 (Raw Mill with filter)

Note 12: AP-42 Table 11.19.2-2, 8/04 (Conveyor Transfer Point - controlled)

Note 13: Engineering Design Specification

Note 14: AP-42 Table 11.19.2-4, 9/04 (Product Storage With Fabric Filter Control)

Note 15: AP-42 Table 11.19-2, 8/04 (Conveyor Transfer Point)

Note 16: AP-42 Table 11.6-4, 1/95 (Finish Grinding Mill Separator with Fabric Filter)

Note 17: AP-42 Table 11.12-2, 6/06 (Cement Unloading to Elevated Storage (pneumatic))

Note 18: AP-42 Table 11.6-4, 1/95 (Primary Limestone Screening with Fabric Filter)

* Note – The column titled “Calculated PM Allowable (lb/hr)” includes the allowable hourly emissions in accordance with equations from OAC 252:100-19 Appendix G.

ESTIMATED KILN AND OTHER FUEL BURNING EQUIPMENT EMISSIONS

Potential emissions from the proposed kiln and emissions units vented through the main kiln stack (i.e., the kiln, preheater/precalciner, alkali bypass, and clinker cooler) are estimated using emission factors and the maximum true clinker production capacity of the system of 764,453 TPY. The emission factors for NO_x and SO₂ are based on NSPS Subpart F standards. The emission factor for VOC is based on NESHAP Subpart LLL standard. The emission factors for CO and GHG (as CO₂e) are based on engineering design specifications for the proposed kiln system. The emission factor for lead (Pb) is an engineering estimate based on historical stack test results.

The NSPS Subpart F and NESHAP Subpart LLL PM standards are for the filterable PM only. Total PM emissions include the filterable and condensable PMs. The *filterable* PM/PM₁₀ emission factor is based on Equation 2 from 63.1343(b)(2). *Filterable* PM_{2.5} is estimated as a ratio applied to the *filterable* PM/PM₁₀ factor. The PM_{2.5}-to-PM ratio (i.e., 0.077 / 0.082) is from information published by the Portland Cement Association (PCA). An emission factor for condensable PM/PM₁₀/PM_{2.5} (all condensable particulate emissions are assumed to be PM_{2.5} or smaller) is estimated based on an April 2017 stack test (two times the maximum single run result). Total particulate emission factors are then calculated as the sum of filterable and condensable emissions factors.

| Pollutant | Emission Factor (lb/ton clinker) | Emission Factor Reference | Total Estimated Kiln Emissions | |
|--|----------------------------------|---|--------------------------------|----------|
| | | | lb/hr | TPY |
| PM/PM ₁₀ (Filterable) | 0.11 | Equation 2 from 63.1343(b)(2) using the average actual air flow rate and stone feed rate recorded from May 10 2017 to May 10, 2018. | 9.60 | 42.04 |
| PM/PM ₁₀ (Condensable) | 0.206 | April 2017 stack test (two times the maximum single run result) | 17.98 | 78.74 |
| PM/PM ₁₀ (Filterable + Condensable) | 0.316 | - | 27.58 | 120.78 |
| PM _{2.5} (Filterable + Condensable) | 0.314 | Information Published from PCA | 27.40 | 120.02 |
| NO _x | 1.5 | NSPS Subpart F Standards | 130.90 | 573.34 |
| SO ₂ | 0.4 | | 34.91 | 152.89 |
| CO | 4.0 | Engineering Design Specification | 349.07 | 1,528.91 |
| GHG as CO ₂ e | 1.01 ton/ton clinker | | 176,278 | 772,098 |

| Pollutant | Emission Factor (lb/ton clinker) | Emission Factor Reference | Total Estimated Kiln Emissions | |
|-----------------------------------|----------------------------------|---|--------------------------------|--------|
| | | | lb/hr | TPY |
| VOC | 24 ppmdv @ 7% O ₂ | NESHAP Subpart LLL Standard for THC | 64.47 | 282.36 |
| <i>Pb</i> | 5.23E-05 | Stack test in 5/2009 | 0.005 | 0.02 |
| <i>Arsenic</i> | 1.2E-05 | AP-42 | 0.002 | 0.005 |
| <i>Cadmium</i> | 2.2E-06 | AP-42 | 0.0003 | 0.0009 |
| <i>Chromium</i> | 1.4E-04 | AP-42 | 0.02 | 0.06 |
| <i>Mercury</i> | 21E-06 | NESHAP Subpart LLL Standard for Mercury | 0.002 | 0.008 |
| <i>Hydrogen chloride</i> | 3 ppmdv @ 7% O ₂ | NESHAP Subpart LLL Standard for HCl | 6.67 | 29.3 |
| <i>Manganese</i> | 8.6E-04 | AP-42 | 0.08 | 0.33 |
| <i>Benzene</i> | 1.6E-02 | AP-42 | 1.40 | 6.12 |
| <i>Selenium</i> | 0.00015 | AP-42, 5th Ed., 1/95, Table 11.6-9, Portland Cement Manufacturing | 0.01 | 0.06 |
| <i>Biphenyl</i> | 6.10E-06 | | 0.0005 | 0.003 |
| <i>Bis(2-ethylhexyl)phthalate</i> | 9.50E-05 | | 0.009 | 0.04 |
| <i>Carbon disulfide</i> | 0.00011 | | 0.009 | 0.04 |
| <i>Chlorobenzene</i> | 1.60E-05 | | 0.002 | 0.01 |
| <i>Ethylbenzene</i> | 1.90E-05 | | 0.002 | 0.01 |
| <i>Methyl ethyl ketone</i> | 3.00E-05 | | 0.002 | 0.01 |
| <i>Methylene chloride</i> | 0.00049 | | 0.04 | 0.19 |
| <i>Phenol</i> | 0.00011 | | 0.009 | 0.04 |
| <i>Styrene</i> | 1.50E-06 | | 0.0002 | 0.0009 |
| <i>Toluene</i> | 1.9E-04 | AP-42 | 0.02 | 0.08 |
| <i>Xylenes</i> | 1.3E-04 | AP-42 | 0.02 | 0.05 |

*VOC lb/hr value is for informational purposes only. Compliance is demonstrated for total OHAP rather than VOC. , Nm³ = Normal cubic meters, the kiln’s measured exhaust flow rate is 664,299 Nm³/hr, or 23,459,487 dscf/hr.

Note: maximum calculated HAP emissions are identified in the above table where HAPs are shown in italicized font.

The following table lists emissions from the two diesel generators on-site based on emission factors from AP-42 (10/96), Table 3.3-1.

| Pollutants | Kiln Generator | | New Emergency Generator | | Total | |
|-----------------|----------------|------|-------------------------|------|-------|------|
| | lb/hr | TPY | lb/hr | TPY | lb/hr | TPY |
| NO _x | 16.67 | 4.17 | 14.32 | 3.58 | 30.99 | 7.75 |
| CO | 3.60 | 0.90 | 6.04 | 1.51 | 9.64 | 2.41 |
| VOC | 1.33 | 0.34 | 0.76 | 0.19 | 2.09 | 0.53 |
| SO ₂ | 1.10 | 0.28 | 4.44 | 1.11 | 5.54 | 1.39 |

TOTAL FACILITY-WIDE ESTIMATED EMISSIONS

The following emission estimates are based on the above-referenced emission factors, test data, etc. and assume continuous operation (8,760 hours) per year.

| Emission Unit | Name | SO ₂ | | NO _x | | VOC | | CO | |
|-----------------------------|------------------------|-----------------|-----------------|-----------------|-----------------|---------------|----------------|----------------|------------------|
| | | lb/hr | TPY | lb/hr | TPY | lb/hr | TPY | lb/hr | TPY |
| -- | Non-Kiln Facility-Wide | 5.54 | 1.39 | 30.99 | 7.75 | 2.09 | 0.53 | 9.64 | 2.41 |
| 463-KL1 | Kiln | 34.91 | 152.89 | 130.90 | 573.34 | 64.46 | 282.36 | 349.07 | 1,528.91 |
| Total After Project | | 40.45 | 154.28 | 161.89 | 581.09 | 66.55 | 282.89 | 358.71 | 1,531.32 |
| Total Before Project | | 540.44 | 2,211.15 | 513.61 | 2,228.33 | 157.23 | 659.41 | 668.99 | 2,916.53 |
| Emission Changes | | -499.99 | -2056.87 | -351.72 | -1647.24 | -90.68 | -376.52 | -310.28 | -1,385.21 |

| Emission Unit | Name | PM | | PM ₁₀ | | PM _{2.5} | |
|-----------------------------|------------------------|----------------|----------------|------------------|-----------------|-------------------|-----------------|
| | | lb/hr | TPY | lb/hr | TPY | lb/hr | TPY |
| -- | Non-Kiln Facility-Wide | 252.88 | 1,107.05 | 250.65 | 1,097.27 | 198.81 | 870.34 |
| 463-KL1 | Kiln | 27.58 | 120.78 | 27.58 | 120.78 | 27.40 | 120.02 |
| Total After Project | | 280.46 | 1227.83 | 278.23 | 1,218.05 | 226.21 | 990.36 |
| Total Before Project | | 465.83 | 2039.23 | 463.60 | 2029.45 | 461.37 | 2019.72 |
| Emission Changes | | -185.37 | -811.40 | -185.37 | -811.40 | -235.16 | -1029.36 |

Note: Except for clinker storage pile, PM₁₀ emissions are assumed to equal PM emissions for purposes of determining potential to emit. For the kiln, the PM_{2.5}-to-PM ratio (i.e., 0.077 / 0.082) is from information published by the Portland Cement Association (PCA). For non-kiln sources, PM_{2.5} is assumed to be 80% of PM/PM₁₀

SECTION VI. INSIGNIFICANT ACTIVITIES

Insignificant activities identified, justified in the application and listed in OAC 252:100-8, Appendix I, are listed below. Record keeping for activities indicated with “*” will be established in the Specific Conditions of the Permit. Any activity to which a state or federal applicable requirement applies is not insignificant even if it is included on the list.

- Space heaters, boilers and emergency flares less than or equal to 5 MMBTUH heat input (commercial natural gas). The facility includes 39 space heaters (0.15 MMBTUH each) which are considered “trivial activities”.
- * Emissions from fuel storage/dispensing equipment operated solely for facility owned vehicles if fuel throughput is not more than 2,175 gallons/day, averaged over a 30-day period. The facility has equipment for dispensing gasoline and diesel.
- * Emissions from storage tanks constructed with a capacity less than 39,894 gallons which store VOC with a vapor pressure less than 1.5 psia at maximum storage pressure. Holcim maintains several diesel fuel and gear oil tanks which meet these criteria.
- * Activities having the potential to emit no more than 5 TPY (actual) of any criteria pollutant. Rock blasting, truck loading and truck unloading operations, and emissions from transporting tire chips in and out of the quarry meet this criterion.
- Cold degreasing operations utilizing solvents that are denser than air. These activities are conducted as a part of routine maintenance and are considered trivial activities, and recordkeeping will not be required in the Specific Conditions.
- Welding and soldering operations utilizing less than 100 pounds of solder and 53 tons per year of electrodes. These activities are conducted as a part of routine maintenance and are considered trivial activities and recordkeeping will not be required in the Specific Conditions.
- Exhaust systems for chemical, paint, and/or solvent storage rooms or cabinets, including hazardous waste satellite (accumulation) areas. The facility includes chemical/paint/solvent storage area(s).
- Hand wiping and spraying of solvents from containers with less than 1 liter capacity used for spot cleaning and/or degreasing in ozone attainment areas. These activities are conducted as a part of routine maintenance and are considered trivial activities, and recordkeeping will not be required in the Specific Conditions.

The facility contains several trivial activities which include, but are not limited to the following: Non-contact cooling tower, electrical transformers and substations which do not involve fuel-burning activities, unpaved roadways, maintenance, upkeep and replacement types of activities.

SECTION VII. OKLAHOMA AIR POLLUTION CONTROL RULES

OAC 252:100-1 (General Provisions) [Applicable]
Subchapter 1 includes definitions but there are no regulatory requirements.

OAC 252:100-2 (Incorporation by Reference) [Applicable]
This subchapter incorporates by reference applicable provisions of Title 40 of the Code of Federal Regulations. These requirements are addressed in the “Federal Regulations” section.

OAC 252:100-3 (Air Quality Standards and Increments) [Applicable]
Subchapter 3 enumerates the primary and secondary ambient air quality standards and the significant deterioration increments. At this time, all of Oklahoma is in “attainment” of these standards.

OAC 252:100-5 (Registration, Emissions Inventory and Annual Operating Fees) [Applicable]
Subchapter 5 requires sources of air contaminants to register with Air Quality, file emission inventories annually, and pay annual operating fees based upon total annual emissions of regulated pollutants. Emission inventories were submitted and fees paid for previous years as required.

OAC 252:100-8 (Permits for Part 70 Sources) [Applicable]
Part 5 includes the general administrative requirements for Part 70 permits. Any planned changes in the operation of the facility that result in emissions not authorized in the permit and that exceed the “Insignificant Activities” or “Trivial Activities” thresholds require prior notification to AQD and may require a permit modification. Insignificant activities refer to those individual emission units either listed in Appendix I or whose actual calendar year emissions do not exceed the following limits.

- 5 TPY of any one criteria pollutant
- 2 TPY of any one hazardous air pollutant (HAP) or 5 TPY of multiple HAPs or 20% of any threshold less than 10 TPY for a HAP that the EPA may establish by rule

Emission limitations and operational requirements necessary to assure compliance with all applicable requirements for all sources are taken from the operating permit application, or developed from the applicable requirements.

OAC 252:100-9 (Excess Emissions Reporting Requirements) [Applicable]
Except as provided in OAC 252:100-9-7(a)(1), the owner or operator of a source of excess emissions shall notify the Director as soon as possible but no later than 4:30 p.m. the following working day of the first occurrence of excess emissions in each excess emission event. No later than thirty (30) calendar days after the start of any excess emission event, the owner or operator of an air contaminant source from which excess emissions have occurred shall submit a report for each excess emission event describing the extent of the event and the actions taken by the owner or operator of the facility in response to this event. Request for mitigation, as described in OAC 252:100-9-8, shall be included in the excess emission event report. Additional reporting may be required in the case of ongoing emission events and in the case of excess emissions reporting required by 40 CFR Parts 60, 61, or 63.

OAC 252:100-13 (Open Burning) [Applicable]
Open burning of refuse and other combustible material is prohibited except as authorized in the specific examples and under the conditions listed in this subchapter.

OAC 252:100-19 (Particulate Matter (PM)) [Applicable]
Section 19-4 regulates emissions of PM from new and existing indirect-fired fuel-burning equipment, with emission limits based on maximum design heat input rating. Holcim fuel-burning equipment is all direct-fired so this section does not apply.

Section 19-10 limits particulate emissions from new and existing indirectly fired wood fuel-burning equipment. Holcim does not use indirectly fired wood fuel-burning equipment.

Section 19-12 limits particulate emissions from new and existing direct-fired fuel-burning units (and/or) emission points in an industrial process based on process weight rate, as specified in Appendix G. As shown in the table located in Section V (Estimated Emissions), all emission points are in compliance with Subchapter 19.

OAC 252:100-25 (Visible Emissions and Particulates)

[Applicable]

Section 25-3 requires that, subject to limited exceptions, no discharge of greater than 20% opacity is allowed except for short-term occurrences which consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed 60% opacity. This section also states that units subject to an opacity limit promulgated under section 111 of the Federal Clean Air Act are exempt from this section. The rest of the facility except the kiln is subject to the 10% opacity limit of NESHAP Subpart LLL, and is exempt from opacity requirements of this section. The new kiln is subject to both NSPS Subpart F and NESHAP Subpart LLL, however, both rules stated that opacity limit does not apply to any kiln subject to a PM limit that uses a PM continuous parametric monitoring system (CPMS). Therefore, the kiln is subject to opacity requirements of this section. Per 252:100-25-5(c)(1), continuous emission monitoring for opacity is not required for sources already subject to a new source performance standard promulgated in 40 CFR Part 60 pursuant to section 111 of the Clean Air Act, Holcim shall demonstrate compliance with opacity requirements of this section by conducting initial certified Method 9 test within 180 days of the kiln's initial start up.

OAC 252:100-29 (Fugitive Dust)

[Applicable]

No person shall cause or permit the discharge of any visible fugitive dust emissions beyond the property line on which the emissions originated in such a manner as to damage or to interfere with the use of adjacent properties, or cause air quality standards to be exceeded, or to interfere with the maintenance of air quality standards.

OAC 252:100-31 (Sulfur Compounds)

[Applicable]

Part 2 limits emissions of hydrogen sulfide (H₂S) from new and existing equipment, sources, or facilities. Emissions of H₂S shall not cause an ambient air concentration of H₂S greater than 0.2 ppm, on a 24 hour average, at standard conditions. The plant is not known to be a source of emissions of H₂S.

Part 5 limits sulfur dioxide emissions from new fuel-burning equipment (constructed after July 1, 1972). For gaseous fuels the limit is 0.2 lb/MMBTU heat input averaged over 3 hours. For liquid fuels the limit is 0.8 lb/MMBTU heat input over 3 hours. For solid fuels the limit is 1.2 lb/MMBTU heat input over 3 hours. For a combination fuels the limit is determined by proration using the formula in OAC 252:100-31-25(1)(D). The total heat input for the kiln system, including the preheater/precalciner, is 500 MMBTUH, which results in SO₂ emission rate of 0.699 lb/MMBTU. The kiln will be continuously monitored via a Continuous SO₂ Emissions Monitoring System (CEMS) and will operate within permit requirements for SO₂ emissions. The kiln will use only those alternative fuels authorized in the permit and that will meet applicable restrictions or prohibitions that exist in other provision of state or federal statutes or rules, e.g., OAC 252:100-8-32.1, 252:100-31-7, 252:100-42, and/or 40 CFR Part 60,61, and/or 63.

OAC 252:100-33 (Nitrogen Oxides)

[Applicable]

This subchapter limits new fuel-burning equipment built after July 1, 1977 with rated heat input greater than or equal to 50 MMBTU/hr and burns solid fossil fuel, gaseous fuel, or liquid fuel, or a combination thereof. For gas-fired equipment the limit is 0.20 lb/MMBTU heat input, over 3 hour average. For liquid-fired equipment the limit is 0.30 lb/MMBTU heat input, over three-hour average. For solid fossil fuel-burning the limit is 0.70 lb/MMBTU heat input, over three-hour average. For a combination fuels the limit is determined by proration using the formula in OAC 252:100-33- 2(a)(4). The total heat input for the kiln system, including the preheater/precalciner, is 500 MMBTUH, which results in NO_x emission rate of 0.262 lb/MMBTU. The kiln will be continuously monitored via a Continuous NO_x Emissions Monitoring System (CEMS) and will operate within permit requirements for NO_x emissions.

OAC 252:100-35 (Carbon Monoxide)

[Not Applicable]

This facility has none of the affected sources: gray iron cupola, blast furnace, basic oxygen furnace, petroleum catalytic reforming unit, or petroleum catalytic cracking unit.

OAC 252:100-37 (Volatile Organic Compounds)

[Parts 3 and 7 Applicable]

Part 3 requires storage tanks constructed after December 28, 1974, with a capacity of 400 gallons or more and storing a VOC with a vapor pressure greater than 1.5 psia to be equipped with a permanent submerged fill pipe or with an organic vapor recovery system. The two gasoline storage tanks are equipped with submerged fill systems.

Part 5 limits the VOC content of coating used in coating lines or operations. This facility will not normally conduct coating or painting operations except for routine maintenance of the facility and equipment, which is exempt.

Part 7 requires fuel-burning equipment to be operated and maintained so as to minimize emissions. Temperature and available air must be sufficient to provide essentially complete combustion. Holcim has ongoing maintenance scenarios to ensure essentially complete fuel combustion by all fuel-burning equipment.

OAC 252:100-39 (VOC in Nonattainment and Former Nonattainment Areas)

[Not Applicable]

This subchapter applies to facilities in Tulsa and Oklahoma Counties only. This facility is located in Pontotoc County, and is not subject.

OAC 252:100-42 (Toxic Air Contaminants (TAC))

[Applicable]

This subchapter regulates toxic air contaminants (TAC) that are emitted into the ambient air in areas of concern (AOC). Any work practice, material substitution, or control equipment required by the Department prior to June 11, 2004, to control a TAC, shall be retained unless a modification is approved by the Director. Since no Area of Concern (AOC) has been designated anywhere in the state, there are no specific requirements for this facility at this time.

OAC 252:100-43 (Testing, Monitoring, and Recordkeeping)

[Applicable]

This subchapter provides general requirements for testing, monitoring and recordkeeping and applies to any testing, monitoring or recordkeeping activity conducted at any stationary source. To determine compliance with emissions limitations or standards, the Air Quality Director may require the owner or operator of any source in the state of Oklahoma to install, maintain and operate monitoring equipment or to conduct tests, including stack tests, of the air contaminant

source. All required testing must be conducted by methods approved by the Air Quality Director and under the direction of qualified personnel. A notice-of-intent to test and a testing protocol shall be submitted to Air Quality at least 30 days prior to any EPA Reference Method stack tests. Emissions and other data required to demonstrate compliance with any federal or state emission limit or standard, or any requirement set forth in a valid permit shall be recorded, maintained, and submitted as required by this subchapter, an applicable rule, or permit requirement. Data from any required testing or monitoring not conducted in accordance with the provisions of this subchapter shall be considered invalid. Nothing shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

The following Oklahoma Air Quality Rules are not applicable to this facility:

| | | |
|----------------|---------------------------------|-----------------------------|
| OAC 252:100-7 | Minor Source Permitting | not type of emission unit |
| OAC 252:100-11 | Alternative Emissions Reduction | not requested |
| OAC 252:100-15 | Mobile Sources | not in source category |
| OAC 252:100-17 | Incinerators | not type of emission unit |
| OAC 252:100-23 | Cotton Gins | not type of emission unit |
| OAC 252:100-24 | Grain Elevators | not in source category |
| OAC 252:100-47 | Landfills | not type of source category |

SECTION VIII. FEDERAL REGULATIONS

PSD, 40 CFR Part 52

[Not Applicable At This Time]

PSD analysis is required when an existing major source increases emissions by significant amounts (after netting, etc.). The significant quantity (TPY) of emissions of each pollutant in question is shown in the following table.

| SO ₂ | NO _x | CO | VOC | PM/PM ₁₀ /PM _{2.5} | Sulfuric Acid Mist | Total Reduced S Compounds | H ₂ S | Fluorides | Lead |
|-----------------|-----------------|-----|-----|--|--------------------|---------------------------|------------------|-----------|------|
| 40 | 40 | 100 | 40 | 25/15/10 | 7 | 10 | 10 | 3 | 0.6 |

SECTION II concluded that the proposed project will not require PSD review.

NSPS, 40 CFR Part 60

[Subparts F and Y Applicable]

Subpart F, Portland Cement Plants. This subpart sets standards of performance for Portland Cement Plants built or modified after August 17, 1971. Affected facilities include kiln, clinker cooler, raw mill system, finish mill system, raw mill dryer, raw material storage, clinker storage, finished product storage, conveyor transfer points, bagging and bulk loading and unloading systems. The proposed kiln and the clinker cooler are subject to this subpart as new sources and shall comply with applicable requirements. The other affected sources subject to this subpart are also subject to NESHAP Subpart LLL. Pursuant to § 63.1356, if an affected facility subject to this subpart has a different emissions limit or requirement for the same pollutant under another regulation in title 40 of this chapter, the owner or operator of the affected facility must comply

with the most stringent emissions limit or requirement and is exempt from the less stringent requirement. These units will comply with NESHAP Subpart LLL requirements, which are more stringent.

Subpart Y, Coal Preparation Plants. This subpart applies to the following affected facilities in coal preparation plants which process more than 200 tons per day: thermal dryers, pneumatic coal-cleaning equipment (air tables), coal processing and conveying equipment (including breakers and crushers), coal storage systems, and coal transfer and loading systems that commence construction or modification after October 24, 1974. The coal crushing, transport, and storage operations at Holcim are subject to the limitations of this subpart. The permit will require compliance with the applicable requirements. Pursuant to 40 CFR § 63.1340(b)(7), CSTP used to convey coal from the coal mill to the kilns are also subject to NESHAP Subpart LLL. Pursuant to § 63.1356, if an affected facility subject to this subpart has a different emissions limit or requirement for the same pollutant under another regulation in title 40 of this chapter, the owner or operator of the affected facility must comply with the most stringent emissions limit or requirement and is exempt from the less stringent requirement. Since the PM limits of NESHAP, Subpart LLL are more stringent, these CSTP units are exempt from the less stringent PM limits of NSPS, Subpart Y.

Subpart OOO, Nonmetallic Mineral Processing Plants. This subpart applies to each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station constructed, reconstructed or modified after August 31, 1983. The primary crusher, secondary crusher, and material transfer operations at the quarry meet the definitions of nonmetallic mineral processing plants. However, all equipment at the quarry was constructed prior to 1983 and is not subject to this subpart. The other affected units at other processes are subject to NSPS Subpart F and are exempt from this subpart.

Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. This subpart affects stationary compression ignition (CI) internal combustion engines (ICE) based on power and displacement ratings, depending on date of construction, beginning with those constructed after July 11, 2005. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator. For owners and operators of non-fire pump engines, this subpart is applicable to those manufactured after April 1, 2006. The emergency diesel generator for the kiln (46A-1G1) was manufactured in January 2006, the emergency diesel generator (46A-1G2) was manufactured in 2002, and the diesel generator at the new pug mill was manufactured before 2006, and are not subject to this subpart.

NESHAP, 40 CFR Part 61

[Not Applicable]

There are no emissions of any of the regulated pollutants: arsenic, asbestos, benzene, beryllium, coke oven emissions, mercury, radionuclides, or vinyl chloride, except for trace amounts of benzene. Subpart J, Equipment Leaks of Benzene, concerns only process streams that contain more than 10% benzene by weight. Analysis of Oklahoma natural gas indicates a maximum benzene content of less than 1%.

NESHAP, 40 CFR Part 63

[Subparts LLL and ZZZZ Applicable]

Subpart LLL, Portland Cement Manufacturing Industry. This subpart applies to each kiln and in-line kiln/raw mill (except those burning hazardous waste and which are subject to CFR Part 63, Subpart EEE); clinker cooler; raw mill; finish mill; raw material dryer; raw material, clinker or

finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system at new and existing Portland cement plants which are either a major source or an area source. The facility is an existing major source of HAP emissions, whereby the above-listed affected sources are subject to the applicable provisions of this subpart. The kiln and clinker cooler shall be subject to new source standards under this subpart.

Subpart ZZZZ, Reciprocating Internal Combustion Engines (RICE). This subpart affects any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions.

A RICE > 500 hp located at a major source is new or reconstructed if construction or reconstruction commenced after December 19, 2002. The 1,100-hp diesel generator (46A-1G2) was originally constructed before December 19, 2002 and is an existing stationary emergency source at a major facility. As such, per 63.6590(b)(3), it is not subject to any substantive requirements. The emergency 402 kW diesel generator (46A-1G1) was constructed in 2006 and is a new stationary emergency source at a major facility. As such, per 63.6590(b)(1)(i), it is subject to only the initial notification requirements of 63.6645(f).

A RICE ≤ 500-hp located at a major source is new or reconstructed if construction or reconstruction commenced after June 12, 2006. The 88-hp diesel generator at the new pug mill was constructed before June 12, 2006 and is an existing stationary emergency source at a major facility. This generator shall comply with the following requirements:

| For each . . . | You must meet the following requirement, except during periods of startup . . . | During periods of startup you must . . . |
|---|---|---|
| 1. Emergency stationary CI RICE and black start stationary CI RICE ¹ | a. Change oil and filter every 500 hours of operation or annually, whichever comes first. ² b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. ³ | Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. ³ |
| 2. Non-Emergency, non-black start stationary CI RICE <100 HP | a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first. ² b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. ³ | |

CAM, 40 CFR Part 64

[Not Applicable]

This part applies to any pollutant-specific emission unit at a major source that is required to obtain an operating permit, for any application for an initial operating permit submitted after April 18, 1998, that addresses “large emissions units,” or any application that addresses “large emissions units” as a significant modification to an operating permit, or for any application for renewal of an operating permit, if it meets all of the following criteria.

- It is subject to an emission limit or standard for an applicable regulated air pollutant
- It uses a control device to achieve compliance with the applicable emission limit or standard
- It has potential emissions, prior to the control device, of the applicable regulated air pollutant of 100 TPY

Many sources at the Holcim facility are subject to Subpart LLL and will use bag filter controls for PM₁₀ emissions. The equipment is subject to several emission limitations including PM₁₀ as specified in OAC 252:100-19. The bagfilters will be utilized to achieve compliance with this PM₁₀ emission limit. Without controls, PM₁₀ emissions from several sources (including the kilns) are greater than major source levels. As such, these sources meet the applicability criteria of CAM. However, the rule exempts units subject to NSPS and NESHAP that were proposed after the 1990 amendments to the Act from CAM requirements. As 40 CFR Part 63, Subpart LLL was proposed after 1990, the sources subject to this subpart are exempted from CAM applicability.

Coal crushing operations at Holcim are subject to applicable limitations (OAC 252:100-19 and 40 CFR 60 Subpart Y) for which bag filters are used to comply. Uncontrolled emissions from the coal crushing operations could exceed 100 TPY. As such, these sources initially meet the applicability criteria of CAM. However, the bag filters are primarily utilized for product recovery (*i.e.*, coal). In accordance with EPA’s “Criteria for Determining Whether Equipment is Air Pollution Control Equipment or Process Equipment” dated November 27, 1995, the bag filters associated with the facility’s coal unloading, processing and transfer operations are properly classified as process equipment due to their primary function of product recovery and are not considered to be air pollution control equipment:

1. The primary purpose of the bag filters is the recovery of coal to reduce fuel costs.
2. Significant annual fuel cost savings result from the recovery of the coal.
3. Based on the significant fuel cost savings referenced above, installation of the bag filters is indicated even if no air quality regulations were in place.

As the bag filters are utilized for product recovery and are therefore classified as process equipment, CAM is determined not to be applicable to these units.

Chemical Accident Prevention Provisions, 40 CFR Part 68

[Not Applicable]

This facility does not process or store more than the threshold quantity of any regulated substance (Section 112r of the Clean Air Act 1990 Amendments). More information on this federal program is available on the web page: www.epa.gov/rmp.

Stratospheric Ozone Protection, 40 CFR Part 82 [Subpart A and F Applicable]
These standards require phase out of Class I & II substances, reductions of emissions of Class I & II substances to the lowest achievable level in all use sectors, and banning use of nonessential products containing ozone-depleting substances (Subparts A & C); control servicing of motor vehicle air conditioners (Subpart B); require Federal agencies to adopt procurement regulations which meet phase out requirements and which maximize the substitution of safe alternatives to Class I and Class II substances (Subpart D); require warning labels on products made with or containing Class I or II substances (Subpart E); maximize the use of recycling and recovery upon disposal (Subpart F); require producers to identify substitutes for ozone-depleting compounds under the Significant New Alternatives Program (Subpart G); and reduce the emissions of halons (Subpart H).

Subpart A identifies ozone-depleting substances and divides them into two classes. Class I controlled substances are divided into seven groups; the chemicals typically used by the manufacturing industry include carbon tetrachloride (Class I, Group IV) and methyl chloroform (Class I, Group V). A complete phase-out of production of Class I substances is required by January 1, 2000 (January 1, 2002, for methyl chloroform). Class II chemicals, which are hydrochlorofluorocarbons (HCFCs), are generally seen as interim substitutes for Class I CFCs. Class II substances consist of 33 HCFCs. A complete phase-out of Class II substances, scheduled in phases starting by 2002, is required by January 1, 2030.

This facility does not utilize any Class I & II substances.

Subpart F requires that any persons servicing, maintaining, or repairing appliances except for motor vehicle air conditioners; persons disposing of appliances, including motor vehicle air conditioners; refrigerant reclaimers, appliance owners, and manufacturers of appliances and recycling and recovery equipment comply with the standards for recycling and emissions reduction.

The Standard Conditions of the permit address the requirements specified at §82.156 for persons opening appliances for maintenance, service, repair, or disposal; §82.158 for equipment used during the maintenance, service, repair, or disposal of appliances; §82.161 for certification by an approved technician certification program of persons performing maintenance, service, repair, or disposal of appliances; §82.166 for recordkeeping; § 82.158 for leak repair requirements; and §82.166 for refrigerant purchase records for appliances normally containing 50 or more pounds of refrigerant.

SECTION VII. INSPECTION & COMPLIANCE STATUS

Tier Classification and Public Review

This application has been determined to be a Tier II based on the request for a significant modification to a construction permit for a Part 70 source. The permittee has submitted an affidavit that they are not seeking a permit for land use or for any operation upon land owned by others without their knowledge. The affidavit certifies that the applicant owns the real property.

The applicant will publish a “Notice of Filing a Tier II Application” and a “Notice of Draft Permit” in a newspaper for 30 days of public review. The draft permit is also available on the DEQ web at . The facility is not located within 50 miles of the border of the state of Oklahoma and any other state. Information on all permit actions is available for review by the public in the Air Quality section of the DEQ Web Page: www.deq.ok.gov.

EPA Review

The draft permit will be proposed to EPA for a 45-day concurrent review.

Fee Paid

Part 70 Construction Permit application fee is \$5,000. Applicant paid \$7,500. \$2,500 will be refunded to the applicant.

SECTION VIII. SUMMARY

The applicant has demonstrated the ability to achieve compliance with all applicable Air Quality Rules and Regulations. Ambient air quality standards are not threatened at this site. There is no other active Air Quality compliance or enforcement issues other than those noted above. Issuance of the construction permit is recommended, contingent on EPA review.

**PERMIT TO CONSTRUCT
AIR POLLUTION CONTROL FACILITY
SPECIFIC CONDITIONS**

Holcim (US) Inc.

Ada Portland Cement Production Facility

Permit No. 2013-0193-C (M-1)

The permittee is authorized to construct in conformity with the specifications submitted to Air Quality on March 13, 2017. The Evaluation Memorandum dated August 26, 2019 explains the derivation of applicable permit requirements and estimates of emissions; however, it does not contain limitations or permit requirements. Continuing operations under this permit constitute acceptance of, and consent to the conditions contained herein:

1. Points of emissions and emissions limitations for each point: [OAC 252:100-8-6(a)(1)]

EUG 1: Fugitives

| Emission Unit | Name | Construction Date |
|---------------|--------------------------------|-------------------|
| N/A | Truck Traffic on Paved Roads | Pre-1971 |
| N/A | Truck Traffic on Unpaved Roads | Pre-1971 |
| N/A | Storage Piles | Pre-1971 |
| N/A | Temporary Tire Chip Pile | 2018 |

- A. There are no emission limits applicable to these units.

EUG 2: Primary Crusher, Secondary Crusher, Screening, Material Transfer

This emission group consists of grandfathered sources which are limited to the existing equipment as is.

| Emission Unit | Name | Construction Date |
|--|------------------------------------|-------------------|
| 21A-IM1 | Primary Crusher | Pre-1971 |
| 21A-AF1 | Primary Apron Feeder | Pre-1971 |
| 21A-HP1 | Primary Crusher Hopper | Pre-1971 |
| 211-IM1 212-IM1 | Secondary Crushers (each) | Pre-1971 |
| 211-VS1 211-VS2 212-VS1 212-VS2 | Secondary Crusher Screening (each) | Pre-1971 |
| 291-3B1 | Surge Bin | Pre-1971 |

| Emission Unit | Name | Construction Date |
|---|-----------------------------|-------------------|
| 291-BC1 291-BC2 291-BC3 291-BC4 291-BC5 291-BC6 291-BC7 | Flight 1-7 Drops (each) | Pre-1971 |
| 291-ST1 | Radial Stacker | Pre-1971 |
| 21A-BC1 | Primary Belt | Pre-1971 |
| 211-BC2 | #1 Recirculating Belt | Pre-1971 |
| 211-BC3 | #1 Screen Discharge Belt | Pre-1971 |
| 291-BC8 | Secondary Belt to Surge Bin | Pre-1971 |
| 212-BC1 | #2 Screen Feed Belt | Pre-1971 |
| 212-BC3 | #2 Recirculating Belt | Pre-1971 |
| 212-BC2 | #2 Screen Discharge Belt | Pre-1971 |
| 291-AF1 | Quarry Apron Feeder | Pre-1971 |
| 291-BC9 | Raw Incline Belt | Pre-1971 |
| 21A-SX1 | Dribble Conveyor | Pre-1971 |
| 211-BC1 | #1 Screen Feed Belt | Pre-1971 |
| 211-BF1 | Secondary Dust Collector | Pre-1971 |
| 212-BF1 | Secondary Dust Collector | Pre-1971 |

EUG 3: Coal Unloading, Processing and Transfer

| Emission Unit | Name | Construction Date | PM/PM ₁₀ | | PM _{2.5} | |
|----------------------|---|-------------------|---------------------|------|-------------------|-------|
| | | | lb/hr | TPY | lb/hr | TPY |
| L11-VD1 | Coal/Coke Car Shaker | 1975 | 1.0 | 4.4 | 0.80 | 3.52 |
| L31-RC1 | Coal/Coke Crusher | 1975 | 13.2 | 57.8 | 10.56 | 46.24 |
| L31-VD1 L31-VD2 | Coal/Coke Crusher Material Transfers (each) | 1975 | 0.5 | 2.2 | 0.40 | 1.76 |
| L61-RM1 L62-RM1 | Coal Mill #1 (associated with baghouse L61-BF1) and Coal Mill #2 (associated with baghouse L62-BF1)(each) | 2006 | 0.1 | 0.2 | 0.04 | 0.16 |
| L11-HP1 L11-HP2 | Coal/Coke Unloading Hoppers (each) | 1975 | 0.5 | 2.2 | 0.40 | 1.76 |
| L11-VF1 | West Vibrating Feeder | 1975 | 0.5 | 2.2 | 0.40 | 1.76 |
| L11-VF2 | East Vibrating Feeder | 1976 | 0.5 | 2.2 | 0.40 | 1.76 |
| L11-BC1 | Coal/Coke Unloading Belt | 1976 | 1.5 | 6.6 | 1.21 | 5.28 |
| L01-MI1* | Coal/Coke Blender | 2000 | 1.0 | 4.4 | 0.80 | 3.52 |
| L31-SG1* L31-SG2* | Coal/Coke Slide Gates (each) | 1975 | 0.5 | 2.2 | 0.40 | 1.76 |
| L31-BC1* | Coal/Coke Tunnel Belt | 1975 | 1.0 | 4.4 | 0.80 | 3.52 |
| L31-RC1* | Crusher Roller | 1975 | 1.0 | 4.4 | 0.80 | 3.52 |
| L31-BC2* | Conveyor Belt | 1975 | 1.0 | 4.4 | 0.80 | 3.52 |
| L31-3B1* | Coal/Coke Bin | 1975 | 2.0 | 8.8 | 1.61 | 7.04 |

| Emission Unit | Name | Construction Date | PM/PM ₁₀ | | PM _{2.5} | |
|---------------|---|-------------------|---------------------|------|-------------------|------|
| | | | lb/hr | TPY | lb/hr | TPY |
| L61-WF1 | #2 coal mill weigh feeder belt | 1975 | 0.1 | 0.2 | 0.04 | 0.16 |
| L62-WF1 | # 1 coal mill weigh feeder belt | 1975 | 0.1 | 0.2 | 0.04 | 0.16 |
| L61-SC1 | #2 screw conveyor | 1975 | 0.1 | 0.2 | 0.04 | 0.16 |
| L62-SC1 | #1 screw conveyor | 1975 | 0.1 | 0.2 | 0.04 | 0.16 |
| L61-RF1 | Baghouse Rotary Airlock-IDF | 2006 | 0.1 | 0.4 | 0.07 | 0.32 |
| L62-RF1 | Baghouse Rotary Airlock-IDF | 2006 | 0.1 | 0.4 | 0.07 | 0.32 |
| L93-BF1 | Nuisance Fine Coal Storage Bin Dust Collector | 2017 | 0.43 | 1.88 | 0.34 | 1.50 |
| 481-PF1 | Rotary Schenck Feeders (Group 1) | 2006 | -- | -- | -- | -- |
| 482-PF1 | Rotary Schenck Feeders (Group 1) | 2006 | -- | -- | -- | -- |

*Equipped with dry fog dust suppression system.

A. The above emission units are “affected facilities” subject to Subpart Y and shall comply with all applicable requirements. [40 CFR § 60.250-60.258]

§60.250 Applicability and designation of affected facility.

§60.251 Definitions.

§60.252 Standards for thermal dryers.

§60.253 Standards for pneumatic coal-cleaning equipment.

§60.254 Standards for coal processing and conveying equipment, coal storage systems, transfer and loading systems, and open storage piles.

§60.255 Performance tests and other compliance requirements.

§60.256 Continuous monitoring requirements.

§60.257 Test methods and procedures.

§60.258 Reporting and recordkeeping

B. The following listed emission units are “affected sources” subject to both NSPS Subpart Y and NESHAP Subpart LLL and shall comply with the most stringent standards. These units shall comply with all applicable requirements including but not limited to the following:

1. Except as specified in 40 CFR § 63.6(h), the permittee shall not cause to be discharged from the above emission units any gases which exhibit opacity in excess of 10%.

[40 CFR §§ 63.1345 and 63.6(h)]

| Emission Unit | Name | Construction Date |
|--------------------|---|-------------------|
| 483-PF1 453-PF1 | Rotary Schenck Feeders (Kiln)(Group 1 CSTP) | 2006 |
| L91-BI1 L92-BI1 | Pulverized Solid Fuel Bins (Lines 1 and 2) | 2006 |
| L91-SC1 L92-SC1 | Screw conveyors (Lines 1 & 2) | 2006 |

These units are group 1 units which are totally enclosed conveying system transfer points (enclosed on all sides, top and bottom), no emissions are expected from these units.

C. Records of proper baghouse maintenance shall be maintained for L93-BF1. It is subject to both NSPS Subpart F and NESHAP Subpart LLL and shall comply with the most stringent standard including but not limited to the following:

1. Except as specified in 40 CFR § 63.6(h), the permittee shall not cause to be discharged from the above sources any gases which exhibit opacity in excess of 10%.

[40 CFR §§ 63.1345 and 63.6(h)]

EUG 4: Raw Mill Silos, Bucket Elevators and Interstices

Grandfathered Units

| Emission Unit | Name | Construction Date |
|-------------------------------|--|-------------------|
| K1A-BE1 | Additive System Bucket Elevator | Pre-1971 |
| K1A-3S1 | S-2 Sand Interstice (Storage Bin), S-2 Sand Interstice Transfer 1 (Group 2 CSTP), S-2 Sand Interstice Transfer 2 (Group 2 CSTP) (each) | Pre-1971 |
| X11-3S2 | Mill Scale Interstice (Storage Bin) Group 3 | Pre-1971 |
| X11-3S2 | Mill Scale Interstice Transfer (Group 2 CSTP) | Pre-1971 |
| X11-3S4 | I-2 CKD Interstice (Storage Bin) (Group 3 CSTP) & I-2 CKD Interstice Transfer (Group 2 CSTP) | Pre-1971 |
| 291-3S1 291-3S2 291-3S3 | L-1 Silo (Storage Bin) (Group 3 CSTP), L-1 Silo Transfer (Group 2 CSTP), L-2 Silo (Storage Bin) (Group 3 CSTP), L-2 Silo Transfer (Group 2 CSTP), L-3 Silo (Storage Bin) (Group 3 CSTP), & L-3 Silo Transfer (Group 2 CSTP) (each) | Pre-1971 |
| 331-BC1 | Raw Mill #1 Feedbelt Transfer 1 (Group 2 CSTP) & Raw Mill #1 Feedbelt Transfer 2 (Group 2 CSTP) (each) | Pre-1971 |
| 331-WF1 331-WF2 331-WF3 | L-1 Feed O Weight, L-2 Feed O Weight, & L-3 Feed O Weight (each) (All Group 2) | Pre-1971 |
| 331-WF4 331-WF5 | Raw Mill #1 S1 & I1 FOWs (each) (all Group 2) | Pre-1971 |
| 361-BM1 | Raw Mill #1 | Pre-1971 |
| 291-3S4 291-3S5 291-3S6 | L-4 Silo (Storage Bin) (Group 3 CSTP), L-4 Silo Transfer (Group 2 CSTP), L-5 Silo (Storage Bin) (Group 3 CSTP), L-5 Silo Transfer (Group 2 CSTP), L-6 Silo (Storage Bin) (Group 3), & L-6 Silo Transfer (Group 2 CSTP) (each) | Pre-1971 |
| 332-BC1 | Raw Mill #2 Feedbelt (Group 2 CSTP) | Pre-1971 |
| 332-WF1 332-WF2 332-WF3 | L-4, L-5, & L-6 Feed O Weights (Group 2 CSTP)(each) | Pre-1971 |

| Emission Unit | Name | Construction Date |
|--------------------|--|-------------------|
| 332-WF4 332-WF5 | Raw Mill #2 S2 & I2 FOWs (Group 2 CSTP) (each) | Pre-1971 |
| 362-BM1 | Raw Mill #2 | Pre-1971 |
| 291-BFC | D-1 Dust Collector | Pre-1971 |
| 291-BFD | D-2 Dust Collector | Pre-1971 |
| 291-BCA | Raw Incline Extension Belt Group 3 | Pre-1971 |
| 291-BCB | L-5 Extension Belt Group 3 | Pre-1971 |
| 291-BCC | L-6 Extension Belt Group 3 | Pre-1971 |
| 291-BCE | L-2 Extension Belt Group 3 | Pre-1971 |
| 291-BCF | L-3 Extension Belt Group 3 | Pre-1971 |
| K1A-AF1 | Additive Hopper Apron Feeder Group 2 | Pre-1971 |
| K1A-BC1 | Additive Incline Belt Group 3 | Pre-1971 |
| K1A-BC2 | Additive Incline Belt 1st Extension Belt Group 3 | Pre-1971 |
| K1A-BC4 | Additive Incline belt (Group 3) | Pre-1971 |
| X11-BC3 | Sand Interstice Belt Group 3 | Pre-1971 |
| X11-BC5 | Mill Scale Interstice Belt Group 3 | Pre-1971 |
| K1A-HP1 | Additive Hopper Group 2 | Pre-1971 |

- A. These grandfathered sources are limited to the existing equipment as is. These units are “affected sources” subject to Subpart LLL (40 CFR § 63.1340) and shall comply with all applicable requirements including but not limited to the following:
1. Except as specified in 40 CFR § 63.6(h), the permittee shall not cause to be discharged from the above sources any gases which exhibit opacity in excess of 10%.
[40 CFR §§ 63.1345 and 63.6(h)]

Non Grandfathered Units

| Emission Unit | Name | Construction Date | PM/PM ₁₀ | | PM _{2.5} | |
|-------------------------------|--|-------------------|---------------------|-----|-------------------|------|
| | | | lb/hr | TPY | lb/hr | TPY |
| 331-BF1 331-BF2 331-BF3 | Feed Belt Dust Collector Transfers (Group 3 CSTP), (each) (L1 Feed-O-Weight Transfer to 331-BC1 Feed Belt) | 1993 | 0.3 | 1.3 | 0.24 | 1.04 |
| 332-BC2 | #2 Raw Mill crossover feed belt (Group 2 CSTP) | 2000 | 0.6 | 2.6 | 0.47 | 2.08 |

| Emission Unit | Name | Construction Date | PM/PM ₁₀ | | PM _{2.5} | |
|-------------------------------|---|-------------------|---------------------|-------|-------------------|-------|
| | | | lb/hr | TPY | lb/hr | TPY |
| 332-BF1 332-BF2 332-BF3 | Feed Belt Dust Collector Transfers D-8a, b, c (Group 2 CSTEP) (each) (L4 Feed-O-Weight Transfer to 332-BC1 Feed Belt) | 1993 | 0.3 | 1.3 | 0.24 | 1.04 |
| V83-HP1 | Mill Scale Hopper & Weigh Feeder | 2017 | 0.003 | 0.013 | 0.002 | 0.011 |
| V83-SC1 | Mill Scale Screw Conveyor | 2017 | 0.003 | 0.013 | 0.002 | 0.011 |
| V83-BC2 | Mill Scale Belt Conveyor | 2017 | 0.003 | 0.013 | 0.002 | 0.011 |
| V83-UL1 | Tire Chip Unloader | 2017 | - | - | - | - |
| V83-WF1 | Tire Chip Weigh Belt Feeder | 2017 | - | - | - | - |
| V83-BCA | Belt Conveyor | 2017 | 0.03 | 0.131 | 0.024 | 0.105 |

- B. Compliance with the specified emission limitations shall be based emission factors derived from site specific testing data, and lastly AP-42 emission factors if no testing data available, in conjunction with the recorded actual annual throughputs..
- C. Raw silo dust collectors (291-BFC and 291-BFD) shall be equipped with a mechanism to activate the cleaning cycles for the dust collectors and permittee shall maintain records of proper baghouse maintenance.
- D. These emission units are subject to both NSPS Subpart F and NESHAP Subpart LLL and shall comply with the most stringent standard including but not limited to the following:
 1. Except as specified in 40 CFR § 63.6(h), the permittee shall not cause to be discharged from the above sources any gases which exhibit opacity in excess of 10%.
[40 CFR §§ 63.1345 and 63.6(h)]

EUG 5: Kiln System

| Emission Unit | Name | Control Device | Construction Date |
|---------------|--|----------------|-------------------|
| 463-KL1 | Kiln System (w/Cooler & Alkali Bypass) | Baghouse | 2017 |
| 423-BF2 | Nuisance Filter Dust Collector | Dust Collector | 2017 |

The kiln is subject to both NSPS Subpart F and NESHAP Subpart LLL and shall comply with the most stringent standards including but not limited to the following:

| Pollutant | lb/ton clinker* | 463-KL1 | | 423-BF2 | |
|--|-----------------|----------------------------|--------|---------|------|
| | | ppmvd at 7% O ₂ | TPY | lb/hr | TPY |
| PM/PM ₁₀ (Filterable) | 0.11 | - | 42.04 | - | - |
| PM/PM ₁₀ (Condensable) | 0.206 | - | 78.74 | - | - |
| PM/PM ₁₀ (Filterable + Condensable) | 0.316 | - | 120.78 | 0.43 | 1.88 |
| PM _{2.5} (Filterable + Condensable) | 0.314 | - | 120.02 | 0.34 | 1.50 |

| Pollutant | lb/ton clinker* | 463-KL1 | | 423-BF2 | |
|-----------------|-----------------|----------------------------|----------|---------|-----|
| | | ppmvd at 7% O ₂ | TPY | lb/hr | TPY |
| NO _x | 1.50 | - | 573.34 | - | - |
| CO | 4.0 | - | 1,528.91 | - | - |
| VOC (THC) | - | 24 | 282.36 | - | - |
| OHAP | - | 12 | | | |
| SO ₂ | 0.4 | - | 152.89 | - | - |
| Pb | 5.23E-05 | - | 0.02 | - | - |

*Based on 30-operating day rolling average for pollutants other than Pb, which is based on 3-hour average of stack test results.

Compliance may be demonstrated with the OHAP limit rather than the VOC (THC) limit.

A. Other Emissions and Opacity Limits

The permittee shall not cause to be discharged into the atmosphere from the kiln stack any gases which:

- 1) Exhibit opacity greater than 20%; [OAC 252:100-25]
- 2) Contain dioxins/furans in excess of:
 - a. 0.2 ng per dscm (8.7×10^{-11} gr per dscf) (TEQ) corrected to 7% oxygen; or
 - b. 0.40 ng per dscm (1.7×10^{-10} gr per dscf) (TEQ) corrected to 7% oxygen, when the average of the performance test run average temperature at the inlet to the PM control device is 204°C (400°F) or less. [40 CFR § 63.1343(b)]
- 3) Contain mercury in excess of 21 lb/MM tons; [40 CFR § 63.1343(b)]
- 4) Contain THC in excess of 24 ppmvd, measured as propane and corrected to 7% oxygen, OR total OHAP in excess of 12 ppmvd corrected to 7% oxygen (the permittee may choose either option); [40 CFR § 63.1343(b)]
- 5) Contain HCl in excess of 3 ppmvd corrected to 7% oxygen. [40 CFR § 63.1343(b)]

B. Operating Limits

The temperature of the gas at the inlet to the kiln PM control device (PMCD) shall not exceed the applicable temperature limit as determined and established in accordance with 40 CFR § 63.1349(b)(3)(iv). [40 CFR § 63.1346(b)]

C. Compliance Demonstration

- 1) Compliance with NO_x, CO, and SO₂ emission limits shall be demonstrated by their CEMS data. The SNCR shall be operated as needed to ensure compliance with NO_x emission limit. Owner or operator shall comply with all applicable monitoring requirements specified in NSPS Subpart F for NO_x and SO₂. [40 CFR §60.63(d)-(g)]
- 2) Compliance with VOC or OHAP emission limits shall be demonstrated using the THC CEMS data as a surrogate and shall comply with all applicable monitoring requirements set in NESHAP Subpart LLL. [40 CFR §63.1350(i) and (j)]

- 3) Permittee shall monitor clinker production rate continuously. [40 CFR §63.1350(d)]
- 4) Permittee shall monitor stack gas flow rate continuously. [40 CFR §63.1350(n)]
- 5) For Particulate Emission Limitations:
 - a. The owner or operator of a kiln subject to limitations on particulate matter emissions shall demonstrate initial compliance by conducting a performance test as specified in § 63.1349(b)(1)(i) through § 63.1349(b)(1)(iv). [40 CFR § 63.1349(b)(1)]
 - b. Permittee shall also monitor continuous performance through use of a PM continuous parametric monitoring system (PM CPMS). The PM CPMS shall be used to establish a site-specific operating limit corresponding to the results of the performance test demonstrating compliance with the PM limit. The performance test must be repeated annually and reassess and adjust the site-specific operating limit in accordance with the results of the performance test using the procedures in §63.1349(b)(1) (i) through (vi). Test must also be repeated if there is a change in the analytical range of the instrument, or if the instrument itself is replaced or any principle analytical component of the instrument that would alter the relationship of output signal to in-stack PM concentration. [40 CFR § 63.1350]
- 6) For D/F Emission Limitations:
 - a. The owner or operator of an affected source subject to limitations on D/F emissions shall demonstrate initial compliance with the D/F emission limit by conducting a performance test using Method 23 of appendix A-7 to part 60 of this chapter. Performance testing to determine compliance with dioxin/furan emission limitations shall be repeated every thirty (30) months. [40 CFR § 63.1349(b)(3) & (c)]
 - b. To demonstrate continuous compliance, the owner or operator must comply with all requirements in 40 CFR § 63.1350 (g). Specifically, the owner and operator must install, calibrate, maintain, and continuously operate a CMS to record the temperature of the exhaust gases from the kiln and alkali bypass, if applicable, at the inlet to, or upstream of, the kiln and/or alkali bypass PMCDs. Performance testing to determine compliance with dioxin/furan emission limitations shall be repeated every thirty (30) months. [40 CFR § 63.1350(g)]
- 7) For Opacity Limit
 - a. Conduct an initial certified Method 9 test within 180 days of the kiln's initial start up.
- 8) For THC or OHAP Limit

- a. The owner or operator must install, operate, and maintain a THC continuous emission monitoring system in accordance with Performance Specification 8A of appendix B to part 60 of this chapter and comply with all of the requirements for continuous monitoring systems found in the general provisions, subpart A of this part. The owner or operator must operate and maintain each CEMS according to the quality assurance requirements in Procedure 1 of appendix F in part 60 of this chapter. [40 CFR § 63.1350(i) or (j)]
 - b. If complying with the THC standard, use the THC CEMS to conduct the initial compliance test for the first 30 kiln operating days of kiln operation. [40 CFR § 63.1349b(4)]
 - c. If complying with the OHAP standard, demonstrate compliance using the performance test methods and procedures in §63.1349(b)(7). [40 CFR § 63.1349(b)(7)]
- 9) For Mercury Limit
- a. The owner or operator must install and operate a mercury continuous emissions monitoring system (Hg CEMS) in accordance with Performance Specification 12A (PS 12A) of appendix B to part 60 of this chapter or an integrated sorbent trap monitoring system in accordance with Performance Specification 12B (PS 12B) of appendix B to part 60 of this chapter. You must monitor mercury continuously according to paragraphs (k)(1) through (5) of this section. You must also develop an emissions monitoring plan in accordance with paragraphs (p)(1) through (4) of this section. [40 CFR § 63.1350(k)]
 - b. Use the Hg CEMS to conduct the initial compliance test for the first 30 kiln operating days of kiln operation. [40 CFR § 63.1349(b)(5)]
- 10) For HCL Limit
- a. The owner or operator must monitor HCl emissions continuously according to paragraph (l)(1) or (2) and paragraphs (m)(1) through (4) of this section. [40 CFR § 63.1350(l)]
 - b. Demonstrate compliance using the performance test methods and procedures in §63.1349(b)(6). [40 CFR § 63.1348(b)(8)]
- 11) Notwithstanding the performance testing timeframes specified above, the permittee shall repeat the performance testing pursuant to the following:
- a. If the permittee plans to undertake a change in operations that may adversely affect compliance with the specified D/F emission limitation, the permittee must conduct a performance test and establish new temperature limit(s) as specified in 40 CFR § 63.1349(b)(3).
 - b. If the permittee plans to undertake a change in operations that may adversely affect compliance with the specified PM emission limitations, the permittee shall conduct a performance test as specified in 40 CFR § 63.1349(b)(1).
 - c. In preparation for and while conducting a performance test required under Paragraph C(1) above, the permittee may operate under the planned operational change

conditions for a period not to exceed 360 hours provided the following conditions are met. The permittee shall submit to the DEQ temperature and other monitoring data that are recorded during the pretest operations.

- i) The permittee shall provide the DEQ written notice at least 60 days prior to undertaking an operational change that may adversely affect compliance with applicable requirements specified under 40 CFR Subpart LLL, or as soon as practicable where such 60 day advance notice is not feasible. The above notice shall include the following:
 - a) Description of the planned change;
 - b) Emission standards that may be affected by the change; and
 - c) Schedule for completing the required performance test, and when the planned operational change period would begin.
- ii) Performance test results must be documented in a test report according to 40 CFR § 63.1349(a).
- iii) The test plan must be made available to the DEQ prior to testing, if requested by the DEQ.
- iv) The performance test must be conducted, and it must be completed within 360 hours after the planned operational change period begins.

[40 CFR § 63.1349(d)]

D. Kiln Fuel Requirements

- 1) The following fuels may be burned in the kilns:
 - a. natural gas,
 - b. petroleum coke,
 - c. coal,
 - d. fuel oil, and
 - e. alternative non-hazardous materials (as identified below).
- 2) The sulfur content of those materials not previously utilized as fuels at the facility shall be determined and recorded.
- 3) The quantity of fuel fed to each kiln shall be recorded on a daily basis.
- 4) “Alternative non-hazardous materials” as defined herein include, but are not limited to the following:

| | | | |
|---------------|---|---|---|
| ▪ Grease | ▪ Pharmaceuticals (off-spec. and out-of-date) | ▪ Absorbents (natural & synthetic, booms and loose) | ▪ Carbon (printer toner & activated carbon) |
| ▪ Wood | ▪ Paper (waste & post-consumer) | ▪ Filter Media (natural & synthetic) | ▪ Plastic (waste & post consumer) |
| ▪ Waste Tires | ▪ Rubber (natural & synthetic) | ▪ Inks (water-based) | ▪ Agricultural Products & Vegetable Matter (not subject to putrification) |

| | | | |
|---|---|--|---|
| <ul style="list-style-type: none"> ▪ Oil | <ul style="list-style-type: none"> ▪ Waxes (waste & off-spec.) | <ul style="list-style-type: none"> ▪ Surfactants (waste & off-spec.) | <ul style="list-style-type: none"> ▪ Off-Spec., Spent or Waste Chemical Products & Fuels |
| <ul style="list-style-type: none"> ▪ Polymers & Resins | <ul style="list-style-type: none"> ▪ Textile Waste (rags, synthetic & natural) | <ul style="list-style-type: none"> ▪ Personal Protection Equipment (suits & gloves) | |

5) Alternative non-hazardous materials may be used as fuel in the kilns under the following conditions:

- a. Heat substitution provided by the material shall not exceed 50% of the total kiln heat requirement, calculated on an annual average;
- b. Material must have a heat input of at least 2,500 Btu/lb as generated and 5,000 Btu/lb as burned;
- c. Material must not be defined as a RCRA hazardous waste according to 40 CFR 261;
- d. Material must not be defined as a medical waste according to 40 CFR 259;
- e. Maximum chlorine content of the material shall not exceed 100 lb/hr;
- f. Combustion of the material shall not result in an increase of criteria pollutant emissions as compared to the combustion of equivalent amounts (heat input basis) of traditional fuels;
- g. With the exception of liquid fuels (which may be burned at all temperatures, including startup), the materials shall not be burned in the kiln(s) unless the kiln(s) are at normal operating temperature for producing clinker;
- h. Storage of the materials shall minimize fugitive emission in accordance with OAC 252:100-29-2(a);
- i. Handling and storage of the materials shall be conducted in accordance with all applicable DEQ Waste Management Division and Water Quality Division rules, regulations, and permit requirements;
- j. No RCRA regulated hazardous waste shall be accepted into the kiln(s).
- k. The following records shall be maintained on-site for a minimum of five (5) years after the date of recording and made available to regulatory personnel upon request:
 - i. Shipments of alternative non-hazardous materials received on-site (daily);
 - ii. Accounting of alternative non-hazardous materials fed to the kiln(s) by weight and specific type (monthly);
 - iii. Internal kiln(s) temperature (hourly during periods when alternative non-hazardous materials are being introduced into the kiln(s); and
 - iv. Evaluations performed pursuant to Conditions 5 (j).

E. The exiting kilns shall be permanently shutdown having zero emissions as part of this permitting action, prior to the release of any emissions from the new kiln.

EUG 6: Clinker Cooler Systems – Coolers, Storage Silos, Interstices and Conveyors

Grandfathered Units

| Emission Unit | Name | Construction Date |
|--|--|-------------------|
| 49A-3S1 49A-3S2 49A-3S3 49A-3S4 49A-3S5 49A-3S6 | C-1, C-2, C-3, C-4, C-5, & C-6 Clinker Silos (Storage Bins) (each) | Pre-1971 |
| K1A-3S6 | CKD Interstice (Storage Bin) | Pre-1971 |
| 49A-SC1 | D-11 Dust Collector Screw Transfer 1 & 2 (Group 2 CSTP) (each) | Pre-1971 |
| 491-BC1 | Clinker Incline (North) (Group 2 CSTP) | Pre-1971 |
| 491-BE1 | Clinker Elevator (West) (Group 1 CSTP) | Pre-1971 |
| 42A-3B1 | Waste Dust Bin | Pre-1971 |
| 42A-BF1 | Waste Dust Bin Dust Collector (Group 3) | Pre-1971 |
| 42A-BF2 | Insufflation Dust Bin Dust Collector | Pre-1971 |
| 491-BC2 | Clinker Reversing Belt (West) Trans. 1,2,3,4 (Group 2 CSTP) | Pre-1971 |
| | | |

- A. These grandfathered sources are limited to the existing equipment as is. These units are “affected sources” subject to Subpart LLL (40 CFR § 63.1340) and shall comply with all applicable requirements including but not limited to the following:
1. Except as specified in 40 CFR § 63.6(h), the permittee shall not cause to be discharged from the above sources any gases which exhibit opacity in excess of 10%. [40 CFR §§ 63.1345 and 63.6(h)]

Non Grandfathered Units

| Emission Unit | Name | Construction Date | PM/PM ₁₀ | | PM _{2.5} | |
|-----------------------------------|--|-------------------|---------------------|-------|-------------------|-------|
| | | | lb/hr | TPY | lb/hr | TPY |
| K1A-BF3 | Grindout Bin Dust Collector Transfer (Group 3) | 1992 | 44.6 | 195.4 | 35.7 | 156.3 |
| 49A-SQ1 49A-SQ2 49A-SQ3 | Spout Clinker Outside Chutes C-3, C-4, & C-6 (Group 3 CSTP) (each) | 1989 | 0.3 | 1.3 | 0.24 | 1.04 |
| 491-VC1 | West NF Clinker Conveyor (Group 2 CSTP) | 1984 | 0.3 | 1.3 | 0.24 | 1.04 |
| 473-GQ1 | Clinker Cooler #3 Transfer | 2017 | 0.43 | 1.877 | 0.34 | 1.502 |
| 42A-BX1 | Dustless Unloader (Group 2) | 1990 | 0.11 | 0.46 | 0.08 | 0.37 |
| Landfill Pug Screw Transfer | Dustless Unloader (Group 2) | 2013 | 0.11 | 0.46 | 0.08 | 0.37 |

| Emission Unit | Name | Construction Date | PM/PM ₁₀ | | PM _{2.5} | |
|---------------|---|-------------------|---------------------|-------|-------------------|-------|
| | | | lb/hr | TPY | lb/hr | TPY |
| K1A-BF3 | Grindout Bin Dust Collector Transfer (Group 3) | 1992 | 44.6 | 195.4 | 35.7 | 156.3 |
| 493-BF1 | Nuisance Clinker Transport Dust Collector | 2016 | 0.43 | 1.88 | 0.34 | 1.504 |
| 491-BF1 | Cooler #1 Nuisance Dust Collector Transfer (Group 3) | 1984 | 0.3 | 1.3 | 0.24 | 1.04 |
| 492-BF1 | Cooler #2 Nuisance Dust Collector Trans. (Group 3 CSTP) | 1984 | 0.3 | 1.3 | 0.24 | 1.04 |
| 473-BF2 | Cooler #3 Nuisance Dust Collector Transfer | 2017 | 0.35 | 1.51 | 0.28 | 1.21 |

- B. Except for 493-BF1, Compliance with the specified emission limitations shall be based on emission factors derived from site specific testing data, and lastly AP-42 emission factors if no testing data available, in conjunction with the recorded actual annual throughputs..
- C. Records of proper baghouse maintenance shall be maintained for 493-BF1 and 473-BF2, which shall be operated in accordance with manufacturer’s recommendations and within the recommended pressure differential range.
- D. These emission units are subject to both NSPS Subpart F and NESHAP Subpart LLL and shall comply with the most stringent standard including but not limited to the following:
 - 1. Except as specified in 40 CFR § 63.6(h), the permittee shall not cause to be discharged from the above sources any gases which exhibit opacity in excess of 10%.
[40 CFR §§ 63.1345 and 63.6(h)]

| Emission Unit | EU Name/Model | Horsepower | Construction Date |
|--------------------|---------------------------------|------------|-------------------|
| Landfill Generator | Allis-Chalmers Diesel Generator | 88 | Pre-2006 |

| Pollutants | Landfill Generator Emissions | |
|-----------------|------------------------------|-------|
| | lb/hr | TPY |
| NO _x | 2.45 | 10.74 |
| CO | 0.53 | 2.31 |
| VOC | 0.19 | 0.85 |
| SO ₂ | 0.16 | 0.71 |

EUG 7: Finish Mills, Finish Mill Conveyors, Cement Elevators and Storage

Grandfathered Units

| Emission Unit | Name | Construction Date |
|---|--|-------------------|
| 49A-3S1 49A-3S2 49A-3S3 49A-3S4 49A-3S5 49A-3S6 | C-1 thru C-6 Clinker Silo Transfers (Group 2 CSTP) (each) | Pre-1971 |
| 51A-BC1 | Clk. Recl. Hopper Dust Collector Trans. (Group 3 CSTP) | Pre-1971 |
| 59A-3S1 59A-3S2 59A-3S3 59A-3S4 59A-3S5 59A-3S6 59A-3S7 59A-3S8 59A-3S9 59A-3SA 59A-3SB 59A-3SC 59A-3SD | Silo Cement #21 thru #33 (Storage Bins) (each) emissions are controlled by dust collectors 59A-BF1, 59A-BF2, 59A-BF3 | Pre-1971 |
| 59A-SC1 / 59A-BF1 59A-SC2 / 59A-BF2 | D-12 & D-13 Dust Collector Screws (Group 3 CSTP) (each) | Pre-1971 |

| Emission Unit | Name | Construction Date |
|--|--|-------------------|
| 59B-3S1 59B-3S2 59B-3S3 59B-3S4 59B-3S5 59B-3S6 59B-3S7 59B-3S8 59B-3S9 59B-3SA 59B-3SB 59B-3SC 59B-3SD 59B-3SE 59B-3SF 59B-3SG 59B-3SH 59B-3SI | Silo Cement #1 thru #18 (Storage Bins) (each) emissions are controlled by dust collectors 59B-BF1, 59B-BF2, and 59B-BF3 | Pre-1971 |
| 59B-BF3 | Dust Collector Silo 4 Transfer (Group 3 CSTP) | Pre-1971 |
| 59B-SC1 / 59B-BF1 59B-SC2 / 59B-BF2 | D-18 & D-17 Dust Collector Screws (Group 3 CSTP) (each) | Pre-1971 |
| K1A-3S3 | MR-2 Interstice (Storage Bin), | Pre-1971 |
| 531-WF1 531-WF3 531-WF4 | C-1, C-2, & C-3 Clinker FOWs (associated with Emission Points D9a, D9b, & D9c Dust Collectors 531-BF1, 531-BF2, and 531- BF3)(Group 3 CSTP) (each) | Pre-1971 |
| 531-WF2 | G-1 Gypsum FOW #1 FM (Group 3 CSTP) | Pre-1971 |
| 561-AS1 | FM #1 Mill Discharge Airslide (Group 3 CSTP) | Pre-1971 |
| 561-AS3 561-AS4 | FM #1 Splitter Airslide #2 & #1 (Group 3 CSTP) (each) | Pre-1971 |
| 561-AS5 561-AS6 | FM #1 Reject #1 & #2 Airslides (Group 3 CSTP) (each) | Pre-1971 |
| 561-BE1 | FM #1 Elevator (Group 3 CSTP) | Pre-1971 |
| 561-SC1 | FM #1 Dust Collector Screw (Group 3 CSTP) | Pre-1971 |
| 532-BF1 532-BF2 532-BF3 | D10a, D10b, & D10c Dust Collector Transfers (Group 3 CSTP) (each) | Pre-1971 |

| Emission Unit | Name | Construction Date |
|-------------------------------|---|--------------------------|
| 532-SC1 | FM #2 Grindout Screw (G-2) (Group 3 CSTP) | Pre-1971 |
| 532-WF2 532-WF3 532-WF5 | C-4, C-5, & C-6 Clinker FOWs (associated with D10a, D10b, & D10c Dust Collectors 532-BF1, 532-BF2, and 532-BF3)(Group 3 CSTP) (each) | Pre-1971 |
| 532-WF4 | G-1 Gypsum FOW #2 FM (Group 3 CSTP) | Pre-1971 |
| 562-AS1 | FM #2 Mill Discharge Airslide (Group 3 CSTP) | Pre-1971 |
| 562-AS3 562-AS4 | FM #2 Splitter Airslide #3 & #4 (Group 3 CSTP) (each) | Pre-1971 |
| 562-AS5 562-AS6 | FM #2 Reject #3 & #4 Airslides (Group 3 CSTP) (each) | Pre-1971 |
| 562-BE1 | FM #2 Elevator (Group 3 CSTP) | Pre-1971 |
| 562-SC1 | FM #2 Dust Collector Screw (Group 3 CSTP) | Pre-1971 |
| 562-BM1 | FM #2 (Finish Mill) & FM #2 Transfer (Group 3 CSTP) (each) | Pre-1971 |
| K1A-3S5 | G-1 Gypsum Silo Storage Bin and Transfers 1 and 2 (Group 1 CSTP) | Pre-1971 |
| K1A-3S6 | Grindout Interstice Transfer 1 (Group 1 CSTP) | Pre-1971 |
| K1A-3S6 | Grindout Interstice Transfer 2 (Group 1 CSTP) | Pre-1971 |
| 531-BC1 | FM #1 Feed Belt (Group 2 CSTP) | Pre-1971 |
| 561-AS2 | FM #1 Long Airslide Transfers 1 and 2 (Group 1 CSTP) | Pre-1971 |
| 561-BM1 | FM #1 (Finish Mill) and Transfer (Group 1 CSTP) | Pre-1971 |
| 561-SR1 | Separator #1 Transfers 1 through 3 (Group 1 CSTP) | Pre-1971 |
| 591-AS1 | Airslide From Sep #1 To Cooler #1 (Group 1 CSTP) | Pre-1971 |
| 591-AS2 | Airslide From Sep #2 To Cooler #2 (Group 1 CSTP) | Pre-1971 |
| 591-AS3 | Airslide From #1 Cooler To FK Pump (Group 1 CSTP) | Pre-1971 |
| 591-AS4 | Airslide From #2 Cooler To FK Pump (Group 1 CSTP) | Pre-1971 |
| 591-AS5 | Airslide - #1 Seps To FK Pump Trans.1 (Group 1 CSTP) | Pre-1971 |
| 591-AS5 | Airslide - #1 Seps To FK Pump Trans.2 (Group 1 CSTP) | Pre-1971 |
| 591-CQ1 | Cement Cooler #1 (Group 1 CSTP) | Pre-1971 |
| 592-CQ2 | Cement Cooler #2 (Group 1 CSTP) | Pre-1971 |

| Emission Unit | Name | Construction Date |
|---------------|--|-------------------|
| 532-BC1 | FM #2 Feed Belt (Group 2 CSTP) | Pre-1971 |
| 562-AS2 | FM #2 Long Airslide Transfers 1 and 2 (Group 1 CSTP) | Pre-1971 |
| 592-AS5 | Airslide - #2 Seps To FK Pump Transfers 1 and 2 (Group 1 CSTP) | Pre-1971 |

- A. These grandfathered sources are limited to the existing equipment as is. These units are “affected sources” subject to Subpart LLL (40 CFR § 63.1340) and shall comply with all applicable requirements including but not limited to the following:
1. Except as specified in 40 CFR § 63.6(h), the permittee shall not cause to be discharged from the above sources any gases which exhibit opacity in excess of 10%. [40 CFR §§ 63.1345 and 63.6(h)]

Non Grandfathered Units

| Emission Unit | Name | Construction Date | PM/PM ₁₀ | | PM _{2.5} | |
|---------------|---|---------------------------|---------------------|-------|-------------------|-------|
| | | | lb/hr | TPY | | |
| 51A-BC2 | Clk. Recl. Belt Raw Incline Trans 1, 2 (Group 3 CSTP) | 1994 | 51.7 | 226.3 | 41.4 | 181.0 |
| 59A-PP1 | Z-Flap FK-Pump Transfers 1 and 2 (Group 1 CSTP) | 1988 | | | | |
| 59A-PP2 | 250M FK-Pump Transfers 1 and 2 (Group 1 CSTP) | 1987 | | | | |
| 531-RF1 | Grindout Interstice Rotary Feeder #1 (Group 1 CSTP) | 1986 | | | | |
| 532-RF1 | Grindout Interstice Rotary Feeder #2 (Group 1 CSTP) | 1986 | | | | |
| 56A-BI1 | Bin (Storage Bin) | 1986 | 44.6 | 195.4 | 35.7 | 156.4 |
| 56A-BI1 | Bin Transfer (Group 1 CSTP) | 1995 | | | | |
| K1A-3S3 | K1A-3S3 Transfer 1 and 2 (Group 2 CSTP) | 1990 | 0.1 | 0.4 | 0.07 | 0.32 |
| 531-WF5 | Mason Rock #1 FOW (Group 3 CSTP) | Pre-1971 Modified in 1992 | 0.1 | 0.4 | 0.07 | 0.32 |
| 531-SC1 | FM #1 Grindout Screw (G-2) (Group 3 CSTP) | Pre-1971 Modified in 1986 | 0.1 | 0.4 | 0.07 | 0.32 |
| 532-BC2 | Belt Conveyor (Mas Rock) To FM #2 (Group 3 CSTP) | Pre-1971 Modified in 1992 | 0.1 | 0.4 | 0.07 | 0.32 |
| 51A-HP1 | Clinker Reclaim Hopper (Group 3 CSTP) (associated with Hopper Dust Collector 51A-BF1) | 1994 | 0.3 | 1.3 | 0.24 | 1.04 |

| Emission Unit | Name | Construction Date | PM/PM ₁₀ | | PM _{2.5} | |
|-------------------------------|--|-------------------|---------------------|-------|-------------------|-------|
| | | | lb/hr | TPY | | |
| 51A-BC2 | Clk. Recl. Belt Raw Incline Trans 1, 2 (Group 3 CSTP) | 1994 | 51.7 | 226.3 | 41.4 | 181.0 |
| 59A-PP1 | Z-Flap FK-Pump Transfers 1 and 2 (Group 1 CSTP) | 1988 | | | | |
| 59A-PP2 | 250M FK-Pump Transfers 1 and 2 (Group 1 CSTP) | 1987 | | | | |
| 531-BF1 531-BF2 531-BF3 | D9a, D9b, & D9c Dust Collector Transfers (Group 3 CSTP) (each) | 1994 | 0.2 | 0.9 | 0.16 | 0.72 |
| 561-BF1 | FM #1 East Dust Collector | 2007 | 0.04 | 0.18 | 0.03 | 0.14 |
| 562-BF2 | FM #2 West Dust Collector | 2007 | 0.04 | 0.18 | 0.03 | 0.14 |

B. These emission units are subject to both NSPS Subpart F and NESHAP Subpart LLL and shall comply with the most stringent standard including but not limited to the following:

1. Except as specified in 40 CFR § 63.6(h), the permittee shall not cause to be discharged from the above sources any gases which exhibit opacity in excess of 10%.

[40 CFR §§ 63.1345 and 63.6(h)]

C. Compliance with the specified emission limitations shall be based emission factors derived from site specific testing data, and lastly AP-42 emission factors if no testing data available, in conjunction with the recorded actual annual throughputs.

EUG 8: Cement Packing, Dispatch and Distribution System

Grandfathered Units

| Emission Unit | EU Name/Model | Construction Date |
|---|--|-------------------|
| 59A-3S1 59A-3S2 59A-3S3 59A-3S4 59A-3S5 59A-3S6 59A-3S7 59A-3S8 59A-3S9 59A-3SA 59A-3SB 59A-3SC 59A-3SD | Silo Cement #21 thru #33 Transfers (Group 3 CSTP) (each) | Pre-1971 |
| 59B-3S1 | Silo Cement #1 Transfers 1 and 2 (Group 1 CSTP) | Pre-1971 |
| 59B-3S2 | Silo Cement #2 Transfer | Pre-1971 |

| Emission Unit | EU Name/Model | Construction Date |
|---------------|--|-------------------|
| | (Group 1 CSTP) | |
| 59B-3S3 | Silo Cement #3 Transfer (Group 1 CSTP) | Pre-1971 |
| 59B-3S4 | Silo Cement #4 Transfer (Group 1 CSTP) | Pre-1971 |
| 59B-3S5 | Silo Cement #5 Transfers 1 and 2 (Group 1 CSTP) | Pre-1971 |
| 59B-3S6 | Silo Cement #6 Transfers 1 and 2 (Group 1 CSTP) | Pre-1971 |
| 59B-3S7 | Silo Cement #7 Transfers 1 and 2 (Group 1 CSTP) | Pre-1971 |
| 59B-3S8 | Silo Cement #8 Transfer (Group 1 CSTP) | Pre-1971 |
| 59B-3S9 | Silo Cement #9 Transfers 1 and 2 (Group 1 CSTP) | Pre-1971 |
| 59B-3SA | Silo Cement #10 Transfers 1 and 2 (Group 1 CSTP) | Pre-1971 |
| 59B-3SB | Silo Cement #11 Transfers 1 and 2 (Group 1 CSTP) | Pre-1971/1995 |
| 59B-3SC | Silo Cement #12 Transfers 1 and 2 (Group 1 CSTP) | Pre-1971 |
| 59B-3SD | Silo Cement #13 Transfers 1 and 2 (Group 1 CSTP) | Pre-1971 |
| 59B-3SE | Silo Cement #14 Transfers 1 and 2 (Group 1 CSTP) | Pre-1971 |
| 59B-3SF | Silo Cement #15 Transfer (Group 1 CSTP) | Pre-1971 |
| 59B-3SG | Silo Cement #16 Transfers 1 and 2 (Group 1 CSTP) | Pre-1971 |
| 59B-3SH | Silo Cement #17 Transfers 1 and 2 (Group 1 CSTP) | Pre-1971 |
| 59B-3SI | Silo Cement #18 Transfers 1 and 2 (Group 1 CSTP) | Pre-1971 |
| 611-PP1 | Packhouse FK Pump Transfers 1 and 2 (Group 1 CSTP) | Pre-1974 |
| 624-AS1 | Airslide from Silo 30 to Truck Loading Spout (Group 3 CSTP) | Pre-1971 |
| 624-AS2 | Airslide from Silo 32 to Truck Loading Spout (Group 3 CSTP) | Pre-1971 |
| 626-AS1 | Airslide from Silo 31 to Truck/Rail Load Out Spout Track 2 (Group 3 CSTP) | Pre-1971 |

| Emission Unit | EU Name/Model | Construction Date |
|-------------------|--|-------------------|
| 626-AS2 | Airslide from Silo 33 to Truck/Rail Load Out Spout Track 2 (Group 3 CSTP) | Pre-1971 |
| 662-BE1 | Elevator South Masonry (Group 3 CSTP) | Pre-1971 |
| 662-SC1 / 662-BF1 | Mas. Elev. Screw / D-19 Dust coll.. Screw (Group 3 CSTP) | Pre-1971 |
| 66A-VS1 | Scalping Screen Screw (Group 2 CSTP) & Material Gate Trans 1, 2, & 3 (Group 3 CSTP) (each) | Pre-1971 |
| 671-BT1 | Broken Bag Diverter Belt (Group 2 CSTP) | Pre-1971 |
| 662-BF1 | D-19 Masonry Dust Collector | Pre-1971 |
| 661-BF2 | Haver Packing Dust Collector (Group 3 CSTP) | Pre-1971 |
| 661-SCA | D-22 Packing Dust Collector Screw (Group 3 CSTP) | Pre-1971 |
| 66A-SC5 | Collecting Screw to 661-SC7 (Group 3 CSTP) | Pre-1971 |
| 661-BE2 | Elevator Packhouse North Type I (Group 1 CSTP) | Pre-1971 |
| 661-BE3 | Elevator Packhouse South Type I (Group 1 CSTP) | Pre-1971 |
| 661-SC1 | Screw Conv Silos 9 - 12 To Ph (Group 1 CSTP) | Pre-1971 |
| 661-SC2 | Screw Conv Silos 9 16-18 To Ph (Group 1 CSTP) | Pre-1971 |
| 661-SC3 | Screw Conv Silos 5-7 13 14 16-18 To Ph (Group 1 CSTP) | Pre-1971 |
| 661-SC4 | Screw Conv Silos 5-7 13 14 To Ph (Group 1 CSTP) | Pre-1971 |
| 661-SC5 | Screw Conv Silos 1 13 14 To Ph (Group 1 CSTP) | Pre-1971 |
| 661-SC6 | Screw Conv Silos 1 South To Ph (Group 1 CSTP) | Pre-1971 |
| 661-SC7 | Screw Conv Type-I To Pk Bin Elev Transfers 1 and 2 (Group 1 CSTP) | Pre-1971 |
| 661-SC8 | Screw Conv Type-I To Pk Bin Elev Transfers 1 and 2 (Group 1 CSTP) | Pre-1971 |
| 662-SC2 | Masonry Cleanup Screw (Group 3 CSTP) | Pre-1971 |
| 611-PP1 | Packhouse FK Pump Transfers 1 and 2 (Group 1 CSTP) | Pre-1974 |

A. These grandfathered sources are limited to the existing equipment as is. These units are “affected sources” subject to Subpart LLL (40 CFR § 63.1340) and shall comply with all applicable requirements including but not limited to the following:

1. Except as specified in 40 CFR § 63.6(h), the permittee shall not cause to be discharged from the above sources any gases which exhibit opacity in excess of 10%. [40 CFR §§ 63.1345 and 63.6(h)]

Non Grandfathered Units

| Emission Unit | EU Name/Model | Construction Date | PM/PM ₁₀ | | PM _{2.5} | |
|---------------|--|-------------------|---------------------|-------|-------------------|-------|
| | | | lb/hr | TPY | lb/hr | TPY |
| 62A-WB1 | Track 3 loading (Group 2 CSTP) | 1995 | 03 | 1.3 | 0.24 | 1.04 |
| 62A-WB2 | Track 2 loading (Group 2 CSTP) | 1995 | 03 | 1.3 | 0.24 | 1.04 |
| 62A-WB3 | Track 1 loading (Group 2 CSTP) | 1995 | 03 | 1.3 | 0.24 | 1.04 |
| 622-AS1 | Silo #24 Air Slide Conveyor to truck/rail load out spout track2 (Group 1) | 2006 | | | | |
| 622-AS2 | Silo #26 Air Slide Conveyor to truck/rail load out spout track 2 (Group 1) | 2006 | | | | |
| 621-AS1 | Silo #21 Air Slide Conveyor to truck/rail load out spout track 3 (Group 1) | 2006 | | | | |
| 621-AS3 | Silo #23 Air Slide Conveyor to truck/rail load out spout track 3 (Group1) | 2006 | | | | |
| 623-AS1 | Silo #27 Air Slide Conv. To truck load out track 1(Group 1) | 2006 | | | | |
| 623-AS2 | Silo #27 Air Slide Conv. To truck/rail load out spout track 1(Group 1) | 2006 | | | | |
| 623-LS1 | Bay #1 load out Spout(Group3) | 2006 | 0.6 | 2.6 | 0.47 | 2.08 |
| 622-LS1 | Bay 2 load out Spout(Group 3) | 2006 | 0.6 | 2.6 | 0.47 | 2.08 |
| 621-LS1 | Bay 3 load out Spout (Group 3) | 2006 | 0.6 | 2.6 | 0.47 | 2.08 |
| 661-3B2 | Bin Type I Packing Transfers 1 and 2 (Group 3 CSTP) | 1992 | 0.3 | 1.3 | 0.24 | 1.04 |
| 661-BF3 | Dust Collector for Basement Screw SC-7 (Group 3 CSTP) | 1992 | 0.2 | 0.9 | 0.16 | 0.72 |
| 662-BF3 | Dust Collector Masonry Packer Trans (Group 3 CSTP) | 1992 | 0.2 | 0.9 | 0.16 | 0.72 |
| 66A-SC1 | Screw Conv to 66A-VS1 (Group 3 CSTP) | 2009 | 47.3 | 207.2 | 37.8 | 165.7 |
| 662-SC9 | Screw Conv Silo 15 (Masonry) (Group 1 CSTP) | 1992 | | | | |
| 662-SCA | Screw Conv Silos 2 3 4 (Masonry) (Group 1 CSTP) | 1992 | | | | |
| 662-SCB | Screw Conv To Elevator (Masonry) (Group 1 CSTP) | 1992 | | | | |
| 662-SCD | Screw Conveyor Silo 8 (Masonry) (Group 1 CSTP) | 1992 | | | | |
| 671-FQ1 | Bag flattening belt(Group 2 CSTP) | 2009 | 47.3 | 207.2 | 37.8 | 165.7 |
| 671-BW1 | Weigh Belt System (Group 2 CSTP) | 2009 | 0.2 | 0.9 | 0.16 | 0.72 |
| 671-BC8 | Diverter Belt. (Group 2 CSTP) | 2009 | 47.3 | 207.2 | 37.8 | 165.7 |
| 671-BCA | Line 1 Palletizer (Group 2 CSTP) | 2009 | 47.3 | 207.2 | 37.8 | 165.7 |
| 671-BCB | Line 1 Curve Belt (Group 2 CSTP) | 2009 | 47.3 | 207.2 | 37.8 | 165.7 |
| 671-BCC | Line 1 Alignment Belt | 2009 | 47.3 | 207.2 | 37.8 | 165.7 |

| Emission Unit | EU Name/Model | Construction Date | PM/PM ₁₀ | | PM _{2.5} | |
|---------------|--|-------------------|---------------------|-------|-------------------|-------|
| | | | lb/hr | TPY | lb/hr | TPY |
| | (Group 2 CSTP) | | | | | |
| 671-BCD | Line 1 Bag Rotation Belt (Group 2 CSTP) | 2009 | 47.3 | 207.2 | 37.8 | 165.7 |
| 66A-BCA | Line 2 Curve Belt (Group 2 CSTP) | 2009 | 47.3 | 207.2 | 37.8 | 165.7 |
| 671-BCF | Line 2 Bag Alignment Belt | 2009 | 0.2 | 0.9 | 0.16 | 0.72 |
| 671-BCG | Line 2 Bag Rotation Belt | 2009 | 0.2 | 0.9 | 0.16 | 0.72 |
| 66A-SC2 | Screw Conv to Packing Bin 66A-3B3 (Group 3 CSTP) | 2009 | 0.2 | 0.9 | 0.16 | 0.72 |
| 66A-SC3 | Screw Conv To Elevator (Spillage) (Group 3 CSTP) | 1992 | 5.1 | 23.7 | 4.32 | 18.96 |
| 662-3B1 | Packhouse Masonry Cement Storage Bin | 1992 | 0.1 | 0.4 | 0.07 | 0.32 |
| 66A-PM1 | Haver Sprout Packing Machine | 2009 | 0.01 | 0.04 | 0.01 | 0.032 |
| 621-BF1 | Bay Spout Dust Collector | 2004 | 0.6 | 2.6 | 0.47 | 2.08 |
| 622-BF1 | Bay Spout Dust Collector | 2004 | | | | |
| 623-BF1 | Bay Spout Dust Collector | 2004 | | | | |
| 66A-3B3 | Packing Bin | 2008 | 0.7 | 3.1 | 0.57 | 2.48 |
| 661-AS1 | Airslide to Bin 661-3B2 (Group 1 CSTP) | 2009 | | | | |
| 66A-SC4 | Spillage conveyor to 66A-SC5 (Group 3 CSTP) | 2009 | 0.2 | 0.9 | 0.16 | 0.72 |
| 671-BC1 | Power Roller Conveyor from Haver (Group 2) | 2009 | 0.2 | 0.9 | 0.16 | 0.72 |
| 671-BC2 | Exit Conveyor from Haver Packing Machine (Group 2) | 2009 | 0.2 | 0.9 | 0.16 | 0.72 |
| 671-BC3 | 1ST Curve Conveyor (Group 2) | 2009 | 0.2 | 0.9 | 0.16 | 0.72 |
| 671-BC4 | Incline Conveyor (Group 2) | 2009 | 0.2 | 0.9 | 0.16 | 0.72 |
| 671-BC5 | 2ND Curve Conveyor (Group 2) | 2009 | 0.2 | 0.9 | 0.16 | 0.72 |
| 671-BC6 | Short Belt Conveyor (Group 2) | 2009 | 0.2 | 0.9 | 0.16 | 0.72 |
| 671-BC7 | Short Belt Conveyor before Diverter Belt (Group 2) | 2009 | 0.2 | 0.9 | 0.16 | 0.72 |
| 671-BCE | South Side Curve Conveyor to Palletizer (Group 2) | 2009 | 0.2 | 0.9 | 0.16 | 0.72 |
| 671-BCF | West Side after Curve Conveyor (Group 2) | 2009 | 0.2 | 0.9 | 0.16 | 0.72 |
| 671-BCG | West Side Bag Turner Conveyor (Group 2) | 2009 | 0.2 | 0.9 | 0.16 | 0.72 |
| 671-RB1 | North Roller Conveyor (Group 2) | 2009 | 0.2 | 0.9 | 0.16 | 0.72 |
| 671-RB2 | South Roller Conveyor (Group 2) | 2009 | | | | |
| 671-RB3 | Full Pallet Roller Conveyors Staging (Group 1) | 2009 | | | | |
| 671-WR1 | Pallet Wrapper(Group 1) | 2009 | | | | |
| 66A-VS1 | Scalping Screen & Material Transfers 1 through 3(Group 3 CSTP) | 2009 | | | | |
| 671-BT1 | Broken Bag Diverter Belt (Group 2 CSTP) | 2009 | | | | |

- B. These emission units are subject to both NSPS Subpart F and NESHAP Subpart LLL and shall comply with the most stringent standard including but not limited to the following:
 - 1. Except as specified in 40 CFR § 63.6(h), the permittee shall not cause to be discharged from the above sources any gases which exhibit opacity in excess of 10%.
[40 CFR §§ 63.1345 and 63.6(h)]
- C. Compliance with the specified emission limitations shall be based emission factors derived from site specific testing data, and lastly AP-42 emission factors if no testing data available, in conjunction with the recorded actual annual throughputs..

EUG 9B – Other Fuel-Burning Equipment

| Emission Unit | EU Name/Model | Capacity | Construction Date |
|---------------|----------------------------|----------|-------------------|
| 46A-1G1 | Emergency Diesel Generator | 402 kW | 2006 |
| 46A-1G2 | Emergency Diesel Generator | 1,100 hp | 2017 |

These emission units are limited to operate 500 hours/year.

| Pollutants | Emissions from 46A-1G1 | | Emissions from New Emergency Generator | |
|-----------------|------------------------|------|--|------|
| | lb/hr | TPY | lb/hr | TPY |
| NOx | 16.67 | 4.17 | 14.32 | 3.58 |
| CO | 3.60 | 0.90 | 6.04 | 1.51 |
| VOC | 1.33 | 0.34 | 0.76 | 0.19 |
| SO ₂ | 1.10 | 0.28 | 4.44 | 1.11 |

- 2. The permittee shall be authorized to operate the facility continuously (24 hours per day, every day of the year). [OAC 252:100-8-6(a)]
- 3. The permittee shall comply with all applicable requirements of NSPS Subpart F for each affected source located in EUG 5, EUG 6 (non-grandfathered), EUG 7 (non-grandfathered), and EUG 8 (non-grandfathered). The following lists general requirements besides those listed in Specific Condition #1 for individual affected sources. [40 CFR § 60.60 to 60.66]
 - §60.60 Applicability and designation of affected facility
 - §60.61 Definitions
 - §60.62 Standards
 - §60.63 Monitoring of operations
 - §60.64 Test methods and procedures
 - §60.65 Recordkeeping and reporting requirements
 - §60.66 Delegation of authority
- 4. The permittee shall comply with all applicable requirements of the National Emission Standards for Hazardous Air Pollutant Emissions: Portland Cement Manufacturing Industry, NESHAP Subpart LLL, for each affected source located at the Portland Cement Plant. The

following lists general requirements besides those listed in Specific Condition #1 for individual affected sources. [40 CFR §§ 63.1340 to 63.1359]

General

§63.1340 What parts of my plant does this subpart cover?

§63.1341 Definitions.

Emission Standards and Operating Limits

§63.1342 Standards: General.

§63.1343 What standards apply to my kilns, clinker coolers, raw material dryers, and open clinker storage piles?

§63.1344 Affirmative defense for violation of emission standards during malfunction.

§63.1345 Emissions limits for affected sources other than kilns; clinker coolers; new and reconstructed raw material dryers.

§63.1346 Operating limits for kilns.

§63.1347 Operation and maintenance plan requirements.

§63.1348 Compliance requirements.

Monitoring and Compliance Provisions

§63.1349 Performance testing requirements.

§63.1350 Monitoring requirements.

§63.1351 Compliance dates.

§63.1352 Additional test methods.

Notification, Reporting and Recordkeeping

§63.1353 Notification requirements.

§63.1354 Reporting requirements.

§63.1355 Recordkeeping requirements.

Other

§63.1356 Sources with multiple emissions limit or monitoring requirements.

§63.1357 Temporary, conditioned exemption from particulate matter and opacity standards.

§63.1358 Implementation and enforcement.

5. The three diesel generators (46A-1G1, 46A-1G2, and the landfill generator) are subject to NESHAP, 40 CFR Part 63, Subpart ZZZZ, and shall comply with all applicable requirements, including, but not limited to, the following no later than October 19, 2013.

[40 CFR 63.6580 through 63.6675]

What This Subpart Covers

§ 63.6580 What is the purpose of subpart ZZZZ?

§ 63.6585 Am I subject to this subpart?

§ 63.6590 What parts of my plant does this subpart cover?

§ 63.6595 When do I have to comply with this subpart?

Emission and Operating Limitations

§ 63.6603 What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

§ 63.6603 What emission limitations and operating limitations must I meet if I own or operate an existing stationary CI RICE located at an area source of HAP emissions?

General Compliance Requirements

§ 63.6605 What are my general requirements for complying with this subpart?

Testing and Initial Compliance Requirements

§ 63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?

§ 63.6615 When must I conduct subsequent performance tests?

§ 63.6620 What performance tests and other procedures must I use?

§ 63.6625 What are my monitoring, installation, operation, and maintenance requirements?

§ 63.6630 How do I demonstrate initial compliance with the emission limitations and operating limitations?

Continuous Compliance Requirements

§ 63.6635 How do I monitor and collect data to demonstrate continuous compliance?

§ 63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?

Notifications, Reports, and Records

§ 63.6645 What notifications must I submit and when?

§ 63.6650 What reports must I submit and when?

§ 63.6655 What records must I keep?

§ 63.6660 In what form and how long must I keep my records?

Other Requirements and Information

§ 63.6665 What parts of the General Provisions apply to me?

§ 63.6670 Who implements and enforces this subpart?

§ 63.6675 What definitions apply to this subpart?

6. The permittee shall take reasonable precautions, including but not limited to those specified in OAC 252:100-29-3(1) through (6), to minimize or prevent fugitive dust from becoming air borne and resulting in air pollution. In addition, the permittee is required by Consent Order No. 05-335 to comply with the following: [OAC 252:100-29-2(a) & (b)]
 - A. Utilize a heavy-duty industrial vacuum loader truck as a reasonable precaution to minimize or prevent fugitive dust in the plant area from becoming airborne and resulting in air pollution.
 - B. Utilize an irrigation system to wet unpaved roads at the facility as a reasonable precaution to minimize or prevent fugitive dust on the applicable unpaved roads from becoming airborne.

7. The following records shall be maintained on-site for a minimum of five years after the date of recording and made available to regulatory personnel upon request: [OAC 252:8-6(a)(3)(b)]
 - A. Records as required by NESHAP Subpart LLL.
 - B. Log of opacity observations which exceed normal parameters and corrective actions.
 - C. NO_x, CO, SO₂, THC, and Mercury CEMS data and/or fuel records sufficient to demonstrate compliance with emission limitations applicable to the Kilns.
 - D. Records of throughputs (monthly and 12-month rolling total).
 - E. Records as required by NSPS Subpart F
 - F. Records as required by NSPS Subpart Y.

- G. Records as required by NESHAP Subpart ZZZZ.
8. Notwithstanding the issuance date of the original Title V permit (September 4, 2008), there is hereby established an alternative date of January 31st for Annual Compliance Certification submittal purposes. Pursuant to such alternative date, the permittee shall submit to the Air Quality Division of DEQ, with a copy to the US EPA, Region 6, a certification of compliance with the terms and conditions of this permit no later than 30 days after January 31st of each year. [OAC 252:100-8-6(c)(5)(a) & (d)]
9. No later than 30 days after each six (6) month period, after the alternative date of January 31st, the permittee shall submit to AQD a report of the results of any required monitoring. All instances of deviations from permit requirements since the previous report shall be clearly identified in the report. Permittee shall assure that no semi-annual report is filed longer than 6 months. [OAC 252:100-8-6 (a)(3)(C)(i) and (ii)]
10. The Permit Shield (Standard Conditions, Section VI) is extended to the following requirements that have been determined to be inapplicable to this facility:
- | | |
|-------------------|---------------------------------|
| A. OAC 252:100-7 | Minor Source Permitting |
| B. OAC 252:100-11 | Alternative Emissions Reduction |
| C. OAC 252:100-15 | Mobile Sources |
| D. OAC 252:100-17 | Incinerators |
| E. OAC 252:100-23 | Cotton Gins |
| F. OAC 252:100-24 | Grain Elevators |
| H. OAC 252:100-35 | Control of Emissions of CO |
| I. OAC 252:100-39 | Non-attainment Areas |
| J. OAC 252:100-47 | Landfills |
- [OAC 252:100-8-6(d)(2)]
11. The following records shall be maintained on-site to verify Insignificant Activities. All such records shall be made available to regulatory personnel upon request. These records shall be maintained for a period of at least five years after the time they are made. No recordkeeping is required for those operations which qualify as Trivial Activities.
- A. Throughput of gasoline storage/dispensing equipment (monthly average).
- B. Throughput of limestone at the blasting and truck loading (unloading) areas. [OAC 252:100-8-6(a)(3)(B)]
12. When monitoring results and/or periodic testing shows emissions in excess/violation of the established emission limits in the Specific Conditions, the owner or operator shall comply with the provisions for excess emissions in Subchapter 9. The above reporting shall not be applicable to emission events and/or episodes which are specifically exempted from compliance pursuant to the underlying applicable requirement (*e.g.*, NSPS, NESHAP, MACT, etc.). [OAC 252:100-9]
13. The permittee shall apply for a modification to its operating permit in effect within 180 days of commencement of operations of the proposed project. The application shall include the following information:

- a. Initial stack test results in accordance with NSPS Subpart F and NESHAP Subpart LLL requirements.
- b. Compliance demonstration and monitoring methodology for HCL.

DRAFT/PROPOSED



PART 70 PERMIT

AIR QUALITY DIVISION
STATE OF OKLAHOMA
DEPARTMENT OF ENVIRONMENTAL QUALITY
707 N. ROBINSON, SUITE 4100
P.O. BOX 1677
OKLAHOMA CITY, OKLAHOMA 73101-1677

Permit No. 2013-0193-C (M-1)

Holcim (US) Inc.,

having complied with the requirements of the law, is hereby granted permission to construct the Ada Portland Cement Production Plant located at Sec. 32-T4N-R6E, Pontotoc County, Oklahoma, subject to standard conditions dated June 21, 2016 and specific conditions, both attached.

This permit shall expire five (5) years from the date Permit No. 2013-0193-TVR was issued (September 14, 2016), except as authorized under Section VIII of the Standard Conditions.

Phillip Fielder, P.E.
Chief Engineer

Date

Holcim (US) Inc.
Attn: Mr. Mike Langan, Plant Manager
14500 County Road 1550
Ada, OK 74820

Re: **Construction Permit No. 2013-0193-C (M-1)**
Holcim Ada Portland Cement Production Plant
Facility ID: 826
Section 32, T4N, R6E
Pontotoc County, OK

Dear Mr. Langan:

Air Quality Division has completed the initial review of your permit application referenced above. This application has been determined to be a **Tier II**. In accordance with 27A O.S. § 2-14-301 & 302 and OAC 252:4-7-13(c) the application and enclosed draft permit are now ready for public review. The requirements for public review include the following steps which you must accomplish:

1. Publish at least one legal notice (one day) of a “Notice of Filing a Tier II Application” and a “Notice of Tier II Draft Permit” in at least one newspaper of general circulation within the county where the facility is located. (Instruction enclosed)
2. Provide for public review (for a period of 30 days following the date of the newspaper announcement) a copy of this draft permit and a copy of the application at a convenient location (preferably a public location) within the county of the facility.
3. Send to AQD a copy of the proof of publication notice from Item #1 above together with any additional comments or requested changes which you may have on the draft permit.

Thank you for your cooperation. If you have any questions, please refer to the permit number above and contact me at (405) 702-4100 or the permit writer, Jian Yue, at (405) 702-4205.

Sincerely,

Phillip Fielder, P.E., Chief Engineer
AIR QUALITY DIVISION
Enclosures

Holcim (US) Inc.
Attn: Mr. Mike Langan, Plant Manager
14500 County Road 1550
Ada, OK 74820

Re: **Operating Permit No. 2013-0193-C (M-1)**
Holcim Ada Portland Cement Production Plant (Facility ID: 826)
Section 32, T4N, R6E
Pontotoc County, OK

Dear Mr. Langan:

Enclosed is the permit authorizing construction of the referenced facility. Please note that this permit is issued subject to certain standard and specific conditions, which are attached. These conditions must be carefully followed since they define the limits of the permit and will be confirmed by periodic inspections.

Also note that you are required to annually submit an emissions inventory for this facility. An emissions inventory must be completed on approved AQD forms and submitted (hardcopy or electronically) by April 1st of every year. Any questions concerning the form or submittal process should be referred to the Emissions Inventory Staff at 405-702-4100.

Thank you for your cooperation in this matter. If we may be of further service, please contact me at (405) 702-4205.

Sincerely,

Jian Yue, P.E.
New Source Permits Section
AIR QUALITY DIVISION
Enclosure