DRAFT/PROPOSED

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

MEMORANDUM **July 22, 2016**

TO: Phillip Fielder, P.E., Permits and Engineering Group Manager

THROUGH: Rich Groshong, Compliance and Enforcement Manager

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

THROUGH: Peer Review

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

SUBJECT: Evaluation of Permit Application **No. 98-087-C (M-9)**
Holcim (US) Inc.
Holcim Ada Portland Cement Production Plant (SIC 3241)
Facility ID: 826
Section 32, T4N, R6E, Pontotoc County
Latitude: 34.767^{o}, Longitude: -96.699^{o}
14500 County Road 1550, Ada, OK 74820

SECTION I. INTRODUCTION

Holcim has requested a permit modification to construct a new open clinker storage pile at the Ada Portland Cement Production Plant (SIC 3241). This facility is currently operating under Permit No. 98-087-TV(M-1) issued on January 13, 2011. Holcim is constructing the new clinker storage pile to provide operational flexibility for variable market conditions. The proposed project will include a half enclosed clinker storage pile and four transfer points. Holcim will transfer clinker directly from the existing half enclosed silo to the proposed storage pile via a dump truck, and then from the new storage pile to an existing reclaim hopper via a loader.

SECTION II. PSD Applicability

The Holcim facility is an existing PSD source. The proposed modification qualifies as a physical change. Project emission increases were calculated based on the "potential-to-baseline actual" test. This modification involves only new emission units and baseline actual emissions are equal to zero. This project will not debottleneck any upstream or downstream emission units, thus no associated emission increases are expected.

Potential Emissions from New Clinker Storage Pile

Potential emissions from the new storage pile are based on the designed pile size of 50,000 ft^2 and emission factor derived from Equation 7-9 in the US EPA, 1989, Air/Superfund National Technical Guidance Study Series; Volume III-Estimation of Air Emissions from Cleanup Activities at superfund Sites, Interim Final Report EPA-450/1-89-003, January:

TSP (lb/acre of surface * year)=1.7 * (s/1.5) * (365*(365-p)/235) * (f/15) * (1-m)

Where:

s = 3.9%, silt content of material based on AP-42 (11/06), Table 13.2.4-1
p = 106, number of days per year with at least 0.01 inch of precipitation
f = 15.349, percentage of time the unobstructed wind speed is greater than 12 mph at the mean pile height
m = 50%, moisture/enclosure control efficiency, which is determined to be 50% based on conservative engineering estimate for a half enclosure.

PM emissions are speciated based on AP-42 Ch. 13.2.5. The particle size multipliers used are 0.5 for PM10 and 0.075 for PM2.5.

Potential Emissions from Transfer Points

Potential emissions from the four new transfer points are based on throughput of 22,500 tons per year and emission factor derived from Equation (1) in AP-42 (11/06), 13.2.4.3:

$E= k*0.0032 * (U/5)^{1.3}/(M/2)^{1.4}$

Where:

E = Emission factor
k = 0.74, particle size multiplier for particle size < 30 µm, 0.35 for PM_{10}, and 0.053 for $PM_{2.5}$
M = 0.04%, material moisture content (%). Based on value sampled on July 6, 2015, clinker moisture content was 0.08%. Holcim is using 0.04% in this project to account for worst scenario for emissions.
U = 7.03 mph, average wind speed at Ada Municipal Airport based on 5 year wind data (2011-2015),excluding March, April, and May. The five year wind data indicate that March, April, and May are the months with highest wind speed and Holcim will not make any material transfers to and from the new storage piles during these three months.

Potential Emissions from Unpaved Roads

Unpaved roads emissions are based on AP-42 (11/06), Section 13.2.2-4, Equation 1a:

$$E = k(0.0032) \times \frac{(U/5)^{1.3}}{(M/2)^{1.4}}$$

Where (based on AP-42 (11/06), Table 13.2.2-2)
E=lb/VMT(vehicle mile traveled), emission factor
k=4.9 for PM, 1.5 for PM_{10}, and 0.15 for $PM_{2.5}$
a=0.7 for PM, 0.9 for PM_{10}, and 2.5 for $PM_{2.5}$
b=0.45
s= 10%, silt content
W=35 tons, mean vehicle weight

The following table lists estimated traveled distance.

Haul Type	Tons/Trip	Miles/Roundtrip	Miles/Year
Unpaved Road- Dump Truck to Storage Pile	17	0.34	450.00
Unpaved Road- Loader to Reclaim Hopper	7	0.22	707.14

Total Potential Emissions from Project

Emission Points	Size/ Throughput /Distance	Emission Factor $PM/PM_{10}/PM_{2.5}$	Control Efficiency[1]	Controlled Emissions (TPY)		
				PM	**PM_{10}**	**$PM_{2.5}$**
New Storage Pile	50,000 ft^2	2.49/1.245/0.187 lb/acre/day	50%	0.522	0.261	0.039
To dump truck from existing pile	22,500 TPY	0.882/0.417/0.063 lb/ton	50%	4.961	2.346	0.355
From dump truck to new storage pile	22,500 TPY	0.882/0.417/0.063 lb/ton	50%	4.961	2.346	0.355
From new storage pile to loader	22,500 TPY	0.882/0.417/0.063 lb/ton	50%	4.961	2.346	0.355
From loader to reclaim hopper	22,500 TPY	0.882/0.417/0.063 lb/ton	90% Capture 90% Control	1.885	0.891	0.135
Unpaved Road-Dump Truck to Storage Pile	450 Miles/yr	6.514/3.846/0.385 lb/VMT	50%	1.466	0.865	0.087
Unpaved Road-Loader to Reclaim Hopper	707.14 Miles/yr	6.514/3.846/0.385 lb/VMT	50%	2.303	2.225	0.222
Total				**21.059**	**11.28**	**1.548**
PSD Significance Levels				**25**	**15**	**10**
Subject to PSD Review				**No**	**No**	**No**

[1] Control efficiencies were based on a conservative engineering estimate. The TCEQ Technical Guidance for Rock Crushing Plants (Table 7) shows partial enclosure control efficiency for a screen or crusher at 85%, and "wet material" at 50%. 50% was chosen for the storage pile as a conservative estimate. The existing baghouse on the reclaim hopper utilizes an AP-42 factor for AEI purposes, but a control efficiency of 90% was chosen for these calculations as it resulted in a higher estimate of emissions. The estimate of capture percentage makes emission calculation more conservative. The unpaved roads are controlled via water truck and sprinkler system.

The project does not trigger PSD review. However, since Holcim will limit the throughput of each transfer point to 22,500 TPY so that $PM/PM_{2.5}/PM_{10}$ emission increases from this project are below PSD significance levels, therefore, a Tier II construction permit is required.

SECTION III. FACILITY DESCRIPTION

The plant is a "wet process" cement manufacturing facility, in that the raw materials are ground into a slurry before they are fed to the kiln. This results in the elimination of emissions in the raw grinding area. However, it also results in considerable water being driven off, visible as a steam plume in cold weather when discharged through the main stack of the plant as the raw material is dried and clinkered in the kilns.

The present cement manufacturing facility consists of two rotary kilns 12 feet in diameter by 450 feet in length, each of which has an estimated nominal feed rate capacity of 85 tons per hour (TPH) and 2,040 tons per day (TPD) of raw materials on a dry basis (Note: All reference to "tons" is based on U.S. short tons). Assuming a raw material to clinker conversion ratio of approximately 1.85 to 2.2 tons of kiln feed to 1 ton of clinker produced, each kiln has an estimated nominal clinker production capacity of 46 TPH and 1,104 TPD. Therefore, the facility has a nominal capacity (both kilns) of approximately 2,208 tons of clinker production per day. 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 for use as kiln feed. The kiln feed is pumped to the two kilns, where it undergoes physical and chemical changes during the heating process to form hydraulic calcium silicates found in clinker. Heat for the kilns is provided by natural gas, coal, petroleum coke, tire-derived fuel (TDF), liquid fuels (*i.e.*, nonhazardous used oil and bio-diesel) and/or other approved alternative non-hazardous fuels. The two kiln exhausts are vented through electrostatic precipitators to a common stack. Each clinker cooler (one for each kiln) is controlled by a baghouse and vented independently. The clinker is discharged from the kilns into clinker cooler systems and transported to clinker storage silos.

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, petroleum coke, TDF, whole tires 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 or petroleum coke 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. Cement kiln dust, a by-product of the process, is collected by the electrostatic precipitators and transported to a waste dust bin, insufflation bin, or shipping silos.

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 eleven 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
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

EUG 2 – Primary Crusher, Secondary Crusher, Screening, Material Transfer			
Emission Unit	**EU Name/Model**	**Capacity* (Tons/Hour)**	**Construction Date**
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

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
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

EUG 3 – Coal Unloading, Processing and Transfer			
Emission Unit	**EU Name/Model******	**Capacity* (Tons/Hour)**	**Construction Date**
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
481-PF1	Rotary Schenck Feeder (Kiln 1) (Group 1 CSTP)***	16	2006
482-PF1	Rotary Schenck Feeder (Kiln 2) (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
L91-SC1	Screw Conveyor (Line 1) (Group 1)***	16	2006
L92-SC1	Screw Conveyor (Line 2) (Group 1)***	16	2006
L91-SC2	Screw conveyor#2 (line1)(Group1)	16	2009
L61-RF1	Baghouse Rotary Airlock-IDF	20	2006
L62-RF1	Baghouse Rotary Airlock-IDF	20	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

EUG 4 – Raw Mill Silos, Bucket Elevators and Interstices			
Emission Unit	**EU Name/Model**	**Capacity* (Tons/Hour)**	**Construction Date**
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)	200	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-BC2	#2 Raw Mill crossover feed belt (Group 2 CSTP)**	200	2000
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

EUG 4 – Raw Mill Silos, Bucket Elevators and Interstices			
Emission Unit	**EU Name/Model**	**Capacity* (Tons/Hour)**	**Construction Date**
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)	250	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
K1A-AF1	Additive Hopper Apron Feeder Group 2	100	Pre-1971
K1A-BC1	Additive Incline Belt Group 3	100	Pre-1971
K1A-BC2	Additive Incline Belt 1st Extension Belt Group 3	100	Pre-1971
K1A-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
KIA-HP1	Additive Hopper Group 2	100	Pre-1971

**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 – Rotary Kiln System				
		Capacity*		
Emission Unit	**EU Name/Model**	**Tons/Hr****	**MMBTUH**	**Construction Date**
461-KL1	Kiln #1	85	300	Pre-1971
462-KL1	Kiln #2	85	300	Pre-1971

Each of the kilns is an "affected source" subject to Subpart LLL (40 CFR § 63.1340).

* Capacities listed are individual, 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

EUG 6 – Clinker Cooler Systems – Coolers, Storage Silos, Interstices and Conveyors			
Emission Unit	**EU Name/Model**	**Capacity* (Tons/Hour)**	**Construction Date**
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
KIA-3S6	CKD Interstice (Storage Bin)	15	Pre-1971
K1A-BF3	Grindout Bin dust collector Transfer (Group 3)**	50	1992
49A-BC1	Clinker Extension Belt #5 Transfer 1 (Group 3 CSTP)	110	Pre-1971
49A-BC1	Clinker Extension Belt #5 Transfer 2 (Group 3 CSTP)	110	Pre-1971
49A-BC2	Clinker Extension Belt #2 Transfer 1 (Group 3 CSTP)	110	Pre-1971
49A-BC2	Clinker Extension Belt #2 Transfer 2 (Group 3 CSTP)	110	Pre-1971
49A-BC3	Clinker Extension Belt #6 (Group 3 CSTP)	110	Pre-1971
49A-BC4	Clinker Extension Belt #3 (Group 3 CSTP)	110	Pre-1971
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-SC2	D-4 Dust Collector Screw (Group 3 CSTP)	110	Pre-1971
49A-SC3	D-3 Dust Collector Screw (Group 3 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
471-BFA	Cooler 1 Baghouse–Compartments 1 - 4 W/Flap Valve (Group3 CSTP)	110	1984
471-GQ1	Clinker Cooler #1**	110	1984
471-GQ1	Clinker Cooler #1 Transfer (Group 3 CSTP)**	110	1984
491-BC1	Clinker Incline (North) (Group 2 CSTP)	110	Pre-1971
491-BC2	Clinker Reversing Belt (West) Transfers 1 through 4 (Group 2 CSTP)	110	Pre-1971
491-BE1	Clinker Elevator (West) (Group 1 CSTP)	110	Pre-1971
491-BF1	Cooler #1 Nuisance Dust Collector Transfer (Group 1 CSTP)	110	1984

EUG 6 – Clinker Cooler Systems – Coolers, Storage Silos, Interstices and Conveyors			
Emission Unit	**EU Name/Model**	**Capacity* (Tons/Hour)**	**Construction Date**
491-CV1	Clinker Cooler #1 Drag Transfers 1 and 2 (Group 3 CSTP)**	110	1984
491-FVA	Double Tip Valve #1 Cooler Exhaust K1 (Group 1 CSTP)	10	1984
491-FVB	Double Tip Valve #2 Cooler Exhaust K1 (Group 1 CSTP)	10	1984
491-FVC	Double Tip Valve #3 Cooler Exhaust K1 (Group 1 CSTP)	10	1984
491-FVD	Double Tip Valve #4 Cooler Exhaust K1 (Group 1 CSTP)	10	1984
491-FVE	Double Tip Valve #5 Cooler Exhaust K1 (Group 1 CSTP)	10	1984
491-FVF	Double Tip Valve #6 Cooler Exhaust K1 (Group 1 CSTP)	10	1984
491-FVG	Double Tip Valve #7 Cooler Exhaust K1 (Group 1 CSTP)	10	1984
491-FVH	Double Tip Valve #8 Cooler Exhaust K1 (Group 1 CSTP)	10	1984
491-FVI	Double Tip Valve #9 Cooler Exhaust K1 (Group 1 CSTP)	10	1984
491-FVJ	Double Tip Valve #10 Cooler Exhaust K1 (Group 1 CSTP)	10	1984
491-FVK	Double Tip Valve #11 Cooler Exhaust K1 (Group 1 CSTP)	10	1984
491-FVL	Double Tip Valve #12 Cooler Exhaust K1 (Group 1 CSTP)	10	1984
491-FVM	Double Tip Valve #13 Cooler Exhaust K1 (Group 1 CSTP)	10	1984
491-FVN	Double Tip Valve #14 Cooler Exhaust K1 (Group 1 CSTP)	10	1984
491-FVO	Double Tip Valve #15 Cooler Exhaust K1 (Group 1 CSTP)	10	1984
491-FVP	Double Tip Valve #16 Cooler Exhaust K1 (Group 1 CSTP)	10	1984
491-SC1	Clinker Cooler #1 Heat Exchanger Screw (Group 1 CSTP)	110	1984
491-VC1	West NF Clinker Conveyor (Group 2 CSTP)**	110	1984
472-BFA	Cooler 2 Baghouse-Compartments 1 through 4	110	1984
472-GQ1	Clinker Cooler #2	110	1984
472-GQ1	Clinker Cooler #2 Transfer (Group 3 CSTP)**	110	1984
492-BC1	Clinker Incline Belt (South) (Group 2 CSTP)**	110	Pre-1971
492-BC2	Clinker Reversing Belt (East) Transfers 1	110	Pre-1971

EUG 6 – Clinker Cooler Systems – Coolers, Storage Silos, Interstices and Conveyors			
Emission Unit	**EU Name/Model**	**Capacity* (Tons/Hour)**	**Construction Date**
	through 4 (Group 3 CSTP)		
492-BE1	Clinker Elevator (East) (Group 3 CSTP)	110	Pre-1971
492-BF1	Cooler #2 Nuisance Dust Collector Trans. (Group 3 CSTP)	110	1984
492-CV1	Clinker Cooler #2 Drag Transfers 1 and 2 (Group 3 CSTP)**	110	1984
492-FVA	Double Tip Valve #1 Cooler Exhaust K2 (Group 1 CSTP)	10	1984
492-FVB	Double Tip Valve #2 Cooler Exhaust K2 (Group 1 CSTP)	10	1984
492-FVC	Double Tip Valve #3 Cooler Exhaust K2 (Group 1 CSTP)	10	1984
492-FVD	Double Tip Valve #4 Cooler Exhaust K2 (Group 1 CSTP)	10	1984
492-FVE	Double Tip Valve #5 Cooler Exhaust K2 (Group 1 CSTP)	10	1984
492-FVF	Double Tip Valve #6 Cooler Exhaust K2 (Group 1 CSTP)	10	1984
492-FVG	Double Tip Valve #7 Cooler Exhaust K2 (Group 1 CSTP)	10	1984
492-FVH	Double Tip Valve #8 Cooler Exhaust K2 (Group 1 CSTP)	10	1984
492-FVI	Double Tip Valve #9 Cooler Exhaust K2 (Group 1 CSTP)	10	1984
492-FVJ	Double Tip Valve #10 Cooler Exhaust K2 (Group 1 CSTP)	10	1984
492-FVK	Double Tip Valve #11 Cooler Exhaust K2 (Group 1 CSTP)	10	1984
492-FVL	Double Tip Valve #12 Cooler Exhaust K2 (Group 1 CSTP)	10	1984
492-FVM	Double Tip Valve #13 Cooler Exhaust K2 (Group 1 CSTP)	10	1984
492-FVN	Double Tip Valve #14 Cooler Exhaust K2 (Group 1 CSTP)	10	1984
492-FVO	Double Tip Valve #15 Cooler Exhaust K2 (Group 1 CSTP)	10	1984
492-FVP	Double Tip Valve #16 Cooler Exhaust K2 (Group 1 CSTP)	10	1984
492-SC1	Clinker Cooler #2 Heat Exchanger Screw (Group 1 CSTP)	110	1984
492-VC1	East NF Clinker Conveyor (Group 2 CSTP)	110	Pre-1971
49A-BF2	D-4 Dust Collector	110	Pre-1971

EUG 6 – Clinker Cooler Systems – Coolers, Storage Silos, Interstices and Conveyors			
Emission Unit	**EU Name/Model**	**Capacity* (Tons/Hour)**	**Construction Date**
49A-BF3	D-3 Dust Collector	110	Pre-1971
49A-BF1	D-11 Dust Collector	110	Pre-1971
42A-3B1	Waste Dust Bin/Pug mill	650	Pre-1971
42A-BF1	Waste Dust Bin/ Pug Mill Dust Collector	650	Pre-1971
42A-3B2	Insufflation Dust Bin	250	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
Landfill Generator	Allis-Chalmers Diesel Generator	88-hp	Pre 2006

**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-HP1	Clinker Reclaim Hopper (Group 3 CSTP)**	110	1994
51A-BF1	Clk. Recl. Dust Collector Transfer (Group 3 CSTP)	110 each	Pre-1971
59A-3S1	Silo Cement #21 through 33 (Storage Bin). Emissions are controlled by dust collectors 59A-BF1, 59A-BF2, 59A-BF3, 59A-BF5	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

EUG 7 – Finish Mills, Finish Mill Conveyors, Cement Elevators and Storage			
Emission Unit	**EU Name/Model**	**Capacity* (Tons/Hour)**	**Construction Date**
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
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		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	Silo Cement #1 through 18 (Storage Bin) emissions are controlled by dust collectors 59B-BF1, 59B-BF2, and 59B-BF3	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
KIA-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

EUG 7 – Finish Mills, Finish Mill Conveyors, Cement Elevators and Storage			
Emission Unit	**EU Name/Model**	**Capacity* (Tons/Hour)**	**Construction Date**
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
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	2013
561-SR2	Separator #2 Transfers 1 through 3 (Group 1 CSTP)	30 each	2014
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

EUG 7 – Finish Mills, Finish Mill Conveyors, Cement Elevators and Storage			
Emission Unit	**EU Name/Model**	**Capacity* (Tons/Hour)**	**Construction Date**
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
591-CQ2	Cement Cooler #2 (Group 1 CSTP)	30	Pre-1971
KIA-3S6	Grindout Interstice Transfer 2 (Group 1 CSTP)	30	Pre-1971 Converted in 1986
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-AS1	Airslide From Sep #3 To Cooler #3 (Group 1 CSTP)	30	Pre-1971
592-AS2	Airslide From Sep #4 To Cooler #4 (Group 1 CSTP)	30	Pre-1971
592-AS3	Airslide From #3 Cooler To FK Pump	30	Pre-1971

EUG 7 – Finish Mills, Finish Mill Conveyors, Cement Elevators and Storage			
Emission Unit	**EU Name/Model**	**Capacity* (Tons/Hour)**	**Construction Date**
	(Group 1 CSTP)		
592-AS4	Airslide From #4 Cooler To FK Pump (Group 1 CSTP)	30	Pre-1971
592-AS5	Airslide - #2 Seps To FK Pump Transfers1 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
	Open Clinker Storage Pile	50,000 ft^2	TBD
	Transfer Point to Dump Truck from Existing Silo	22,500 TPY	TBD
	Transfer Point from Dump Truck to Storage Pile	22,500 TPY	TBD
	Transfer Point from Storage Pile to Loader	22,500 TPY	TBD
	Transfer Point from Loader to Existing Reclaim Hopper	22,500 TPY	TBD

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* 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 CSTP)	200	Pre-1971
59A-3S2	Silo Cement #22 Transfer (Group 3 CSTP)	200	Pre-1971
59A-3S3	Silo Cement #23 Transfer (Group 3 CSTP)	200	Pre-1971
59A-3S4	Silo Cement #24 Transfer (Group 3 CSTP)	200	Pre-1971
59A-3S5	Silo Cement #25 Transfer (Group 3 CSTP)	200	Pre-1971
59A-3S6	Silo Cement #26 Transfer (Group 3 CSTP)	200	Pre-1971
59A-3S7	Silo Cement #27 Transfer (Group 3 CSTP)	200	Pre-1971
59A-3S8	Silo Cement #28 Transfer (Group 3 CSTP)	200	Pre-1971
59A-3S9	Silo Cement #29 Transfer	200	Pre-1971

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

EUG 8 – Cement Packing, Dispatch, and Distribution System			
Emission Unit	**EU Name/Model**	**Capacity* (Tons/Hour)**	**Construction Date**
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 (Group1)	188	2006
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	110	Pre-1971

EUG 8 – Cement Packing, Dispatch, and Distribution System			
Emission Unit	**EU Name/Model**	**Capacity* (Tons/Hour)**	**Construction Date**
	(Group 1 CSTP)		
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
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	67	2009

EUG 8 – Cement Packing, Dispatch, and Distribution System			
Emission Unit	**EU Name/Model**	**Capacity* (Tons/Hour)**	**Construction Date**
	(Group 2 CSTP)**		
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
EU-P-10	Packhouse Train Loading	30	Pre-1971
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
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	67	2009

EUG 8 – Cement Packing, Dispatch, and Distribution System			
Emission Unit	**EU Name/Model**	**Capacity* (Tons/Hour)**	**Construction Date**
	(Group 2)**		
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

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* 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	350 KW	2006

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.	--
F21-FT4	Diesel (for auxiliary drive)-Inside 5.5’ X 19’ room beneath Kilns	240 gal.	Pre-1971
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

EUG 10 – Miscellaneous Insignificant Activities			
Emission Units	**EU Name/Model**	**Capacity**	**Construction Date**
53A-3B2	Masonry additive (65AE)-Inside South End of Mill Building	7,713 gal.	Unknown
V11-TK1	Liquid AFR - Between Kiln Building and Bulk Silos	16,800 gal.	2005
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
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 Transfers (each)	165	0.003	Note 4	0.5	2.2	56.4
3	L31-VD2		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 (each)	165	0.003	Note 4	0.5	2.2	56.4
3	L11-HP2		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
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

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	L31-3B1	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	481-PF1	Rotary Schenck Feeders (Kiln 1 & 2) (Group 1 CSTP) (each)	16	--	--			26.3
3	482-PF1		16	0.003	Note 4	0.05	0.22	26.3
3	L91-BI1	Pulverized Solid Fuel Bins (Line 1 & 2) (each)	25	0.003	Note 4	0.1	0.4	35.4
3	L92-BI1		25	0.003	Note 4	0.1	0.4	35.4
3	L91-SC1	Screw Conveyors (Lines 1 & 2) (Group 1 CSTP) (each)	16	--	--			26.3
3	L92-SC1		16	--	--			26.3
3	L91-SC2	Screw conveyor#2(line1)(Group1)	16	--	--			26.3
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
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
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	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	291-3S2	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	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-WF2		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	25.2
4	331-WF5		15	0.0031	Note 9	0.05	0.22	25.2
4	361-BM1	Raw Mill #1	200	0.012	Note 10	2.4	10.5	58.5
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
4	291-3S6	L-6 Silo (Storage Bin) (Group 3	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 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-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	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-WF2		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)	250	0.012	Note 11	3.0	13.1	61.0
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	K1A-AF1	Additive Hopper Apron Feeder (Group 2 CSTP)	100	0.003	Note 4	0.3	1.3	51.3
4	K1A-BC1	Additive Incline Belt (Group 3 CSTP)	100	0.003	Note 4	0.3	1.3	51.3
4	K1A-BC2	Additive iIncline Belt 1st Extension Belt (Group 3 CSTP)	100	0.00014	Note 12	0.01	0.04	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	K1A-BC4	Additive Incline Belt (Group 3 CSTP)	100	0.003	Note 4	0.3	1.3	51.3
4	K1A-BC3	Mill Scale Interstice Belt (Group 3 CSTP)	100	0.00014	Note 12	0.01	0.04	51.3
4	KIA-BC5	CKD Interstice Belt (Group 3 CSTP)	100	0.00014	Note 12	0.01	0.04	51.3
4	KIA-HP1	Additive Hopper	100	0.003	Note 4	0.3	1.3	51.3
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	K1A-3S6	CKD Interstice (Storage Bin)	15	0.0099	Note 14	0.1	0.4	25.2
6	K1A-BF3	Grindout Dust Bin Collector Transfer (Group 3)	50	0.003	Note 4	0.20	0.88	44.6
6	49A-BC1	Clinker Extension Belt #5 Transfer 1 (Group 3 CSTP)	110	0.003	Note 4	0.3	1.3	52.2
6	49A-BC1	Clinker Extension Belt #5 Transfer 2 (Group 3 CSTP)	110	0.003	Note 4	0.3	1.3	52.2
6	49A-BC2	Clinker Extension Belt #2 Transfer 1 (Group 3 CSTP)	110	0.003	Note 4	0.3	1.3	52.2
6	49A-BC2	Clinker Extension Belt #2 Transfer 2 (Group 3 CSTP)	110	0.003	Note 4	0.3	1.3	52.2
6	49A-BC3	Clinker Extension Belt #6 (Group 3 CSTP)	110	0.003	Note 4	0.3	1.3	52.2
6	49A-BC4	Clinker Extension Belt #3 (Group 3 CSTP) (each)	110	0.003	Note 4	0.3	1.3	52.2
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-SC2	D-4 Dust Collector Screw (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	49A-SC3	D-3 Dust Collector Screw (Group 3 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
6	471-BFA	Cooler 1 Baghouse – Comps 1 thru 4 W/Flap Valves (Group 3 CSTP)	110	0.13	Note 19	14.3	62.6	52.2
6	471-BFA		110	0.13		14.3	62.6	52.2
6	471-BFA		110	0.13		14.3	62.6	52.2
6	471-BFA		110	0.13		14.3	62.6	52.2
6	471-GQ1	Clinker Cooler #1 (Group 3 CSTP)	110	0.077	Stack Test plus Safety Factor	8.5	37.2	52.2
6	471-GQ1	Clinker Cooler #1 Transfer (Group 3 CSTP)	110	0.077	Note 4	0.3	1.3	52.2
6	491-BC1	Clinker Incline (North) (Group 2 CSTP)	110	0.003	Note 4	0.3	1.3	52.2
6	491-BC2	Clinker Reversing Belt (West) Transfer 1 (Group 2 CSTP)	110	0.0031	Note 9	0.3	1.3	52.2
6	491-BC2	Clinker Reversing Belt (West) Transfer 2 (Group 2 CSTP)	110	0.0031	Note 9	0.3	1.3	52.2
6	491-BC2	Clinker Reversing Belt (West) Transfer 3 (Group 2 CSTP)	110	0.0031	Note 9	0.3	1.3	52.2
6	491-BC2	Clinker Reversing Belt (West) Transfer 4 (Group 2 CSTP)	110	0.0031	Note 9	0.3	1.3	52.2
6	491-BE1	Clinker Elevator (West) (Group 1 CSTP)	110	--	--			52.2
6	491-BF1	Cooler #1 Nuisance Dust Collector Transfer (Group 1 CSTP)	110	--	--			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-CV1	Clinker Cooler #1 Drag Transfer 1 (associated with Cooler #1 Nuisance Dust Collector) (Group 3 CSTP)	110	0.003	Note 4	0.3	1.3	52.2
6	491-CV1	Clinker Cooler #1 Drag Transfer 2 (associated with Cooler #1 Nuisance Dust Collector) (Group 3 CSTP)	110	0.003	Note 4	0.3	1.3	52.2
6	491-FVA through FVP	Double Tip Valve #1 Cooler Exhaust K1 (Group 1 CSTP)	10	--	--			19.2
6	491-SC1	Clinker Cooler #1 Heat Exchanger Screw (Group 1 CSTP)	110	--	--			52.2
6	491-VC1	West NF Clinker Conveyor (Group 2 CSTP)	110	0.003	Note 4	0.3	1.3	52.2
6	472-BFA	Cooler 2 Baghouse - Comps 1 thru 4 W/Flap Valves (Group 3 CSTP)	110	0.13	Note 19	14.3	62.6	52.2
6	472-BFA		110	0.13		14.3	62.6	52.2
6	472-BFA		110	0.13		14.3	62.6	52.2
6	472-BFA		110	0.13		14.3	62.6	52.2
6	472-GQ1	Clinker Cooler #2 (Group 3 CSTP)	110	0.077	Stack Test plus Safety Factor	8.5	37.2	52.2
6	472-GQ1	Clinker Cooler #2 Transfer (Group 3 CSTP)	110	0.003	Note 4	0.3	1.3	52.2
6	492-BC1	Clinker Incline Belt (South) (Group 2 CSTP)	110	0.003	Note 4	0.3	1.3	52.2
6	492-BC2	Clinker Reversing Belt (East) Transfer 1 (Group 2 CSTP)	110	0.0015	Note 15	0.2	0.9	52.2
6	492-BC2	Clinker Reversing Belt (East) Transfer 2 (Group 2 CSTP)	110	0.0015	Note 15	0.2	0.9	52.2
6	492-BC2	Clinker Reversing Belt (East) Transfer 3 (Group 2 CSTP)	110	0.0015	Note 15	0.2	0.9	52.2
6	492-BC2	Clinker Reversing Belt (East) Transfer 4 (Group 2 CSTP)	110	0.0015	Note 15	0.2	0.9	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	492-BE1	Clinker Elevator (East) (Group 3 CSTP)	110	0.003	Note 4	0.3	1.3	52.2
6	492-CV1	Clinker Cooler #2 Drag Transfer 1 (associated with 492-BF1, Cooler #2 Nuisance Dust Collector Transfer) (Group 3 CSTP)	110	0.003	Note 4	0.3	1.3	52.2
6	492-CV1	Clinker Cooler #2 Drag Transfer 2 (associated with 492-BF1, Cooler #2 Nuisance Dust Collector Transfer) (Group 3 CSTP)	110	0.003	Note 4	0.3	1.3	52.2
6	492-SC1	Clinker Cooler #2 Heat Exchanger Screw (Group 1 CSTP)	110	--	--			52.2
6	492-VC1	East NF Clinker Conveyor (Group 2 CSTP)	110	0.003	Note 4	0.3	1.3	52.2
6	49A-BF2	D-4 Dust Collector	110	0.0031	Note 9	0.3	1.3	52.2
6	49A-BF3	D-3 Dust Collector	110	0.0031	Note 9	0.3	1.3	52.2
6	49A-BF1	D-11 Dust Collector	110	0.0031	Note 9	0.3	1.3	52.2
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-3B2	Insufflation Dust Bin	250	0.003	Note 4	0.8	3.5	61.0
6	42A-BF2	Insufflation Dust Bin Dust Collector	250	0.003	Note 4	0.8	3.5	61.0
7	51A-BF1	Clinker Reclaim Belt Dust Collector Transfer (Group 3 CSTP)	110	0.003	Note 4	0.3	1.3	52.2
6	Landfill Pug Screw Transfer	Dustless Unloader (Group 2)	35	0.003	Note 4	0.11	0.46	41.3

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	51A-HP1	Clinker Reclaim Hopper (Group 3 CSTP) (associated with Hopper Dust Collector 51A-BF1)	110	0.0031	Note 9	0.3	1.3	52.2
7	59A-3S1	Cement Silos #21 thru #33 (Storage Bins) (each) emissions are controlled by dust collectors 59A-BF1, 59A-BF2, 59A-BF3, 59A-BF5	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 CSTP)	150	--	--			55.4
7	59A-PP2	250M FK-Pump Transfers 1 (Group 1 CSTP)	150	--	--			55.4
7	59A-SC1	D-12 & D-13 Dust Collector Screws (Group 3 CSTP)	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

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-3SC		75	0.00014	Note 15	0.01	0.05	48.4
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	51.3
7	59B-SC2	D-17 Dust Collector Screws (Group 3 CSTP)	100	0.003	Note 4	0.3	1.3	51.3
7	K1A-3S5	G-1 Gypsum Silo (Storage Bin) (Group 1 CSTP)	15	--	--			25.2
7	K1A-3S5	G-1 Gypsum Silo Transfer 1 (Group 1 CSTP)	15	--	--			25.2
7	K1A-3S5	G-1 Gypsum Silo Transfer 2 (Group 1 CSTP)	15	--	--			25.2
7	K1A-3S6	Grindout Interstice Transfer 1 (Group 1 CSTP)	30	--	--			40.0
7	K1A-3S6	Grindout Interstice Transfer 2 (Group 1 CSTP)	30	0.003	Note 4			40.0
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 1, CSTP)	110	--	--			52.2
7	531-BF1		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	D9a, b, & c Dust Collectors	60	0.003	Note 4	0.2	0.9	46.3
7	531-RF1	Grindout Interstice Rotary Feeder #1 (Group 1 CSTP)	30	--	--			40.0
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	60	0.003	Note 4	0.2	0.9	46.3
7	531-WF3	(Group 3 CSTP)	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-WF4		60	0.003	Note 4	0.2	0.9	46.3
7	531-WF2	G-1 Gypsum FOW #1 FM (Group 3 CSTP)	15	0.003	Note 4	0.05	0.22	25.2
7	561-AS1	FM#1 Mill Discharge Airslide (Group 3 CSTP)	250	0.003	Note 4	0.8	3.5	61.0
7	561-AS2	FM#1 Long Airslide Transfer 1 (Group 1 SCTP)	250	--	--			61.0
7	561-AS2	FM#1 Long Airslide Transfer 2 (Group 1 SCTP)	250	--	--			61.0
7	561-AS3	FM #1 Splitter Airslide #2 (Group 3 CSTP)	125	0.003	Note 4	0.4	1.8	53.5
7	561-AS4	FM #1 Splitter Airslide #1 (Group 3 CSTP)	125	0.003	Note 4	0.4	1.8	53.5
7	561-AS5	FM #1 Reject Airslide #1 (Group 3 CSTP)	125	0.003	Note 4	0.4	1.8	53.5
7	561-AS6	FM #1 Reject Airslide #2 (Group 3 CSTP)	125	0.003	Note 4	0.4	1.8	53.5
7	561-BE1	FM #1 Elevator (Group 3 CSTP)	250	0.003	Note 4	0.8	3.5	61.0
7	561-BM1	FM #1 (Finish Mill) (Group 1 CSTP)	60	--	--			46.3
7	561-BM1	FM #1 Transfer (CSTP)	60	0.003	Note 4	0.2	0.9	46.3
7	561-SC1	FM #1 Dust Collector Screw (Group 3 CSTP)	110	0.003	Note 4	0.3	1.3	52.2
7	561-SR1	Separator #1 Transfer 1 (Group 1 CSTP)	30	--	--			40.0
7	561-SR1	Separator #1 Transfer 2 (Group 1 CSTP)	30	--	--			40.0
7	561-SR1	Separator #1 Transfer 3 (Group 1 CSTP)	30	--	--			40.0
7	561-SR2	Separator #2 Transfer 1 (Group 1 CSTP)	30	--	--			40.0
7	561-SR2	Separator #2 Transfer 2 (Group 1 CSTP)	30	--	--			40.0

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	561-SR2	Separator #2 Transfer 3 (Group 1 CSTP)	30	--	--			40.0
7	591-AS1	Airslide from Sep 1 to Cooler 1 (Group 1 CSTP)	30	--	--			40.0
7	591-AS2	Airslide from Sep 2 to Cooler 2 (Group 1 CSTP)	30	--	--			40.0
7	591-AS3	Airslide from #1 Cooler to FK pump (Group 1 CSTP)	30	--	--			40.0
7	591-AS4	Airslide from #2 Cooler to FK Pump (Group 1 CSTP)	30	--	--			40.0
7	591-AS5	Airslide from #1 Sep to FK Pump Transfer 1 (Group 1 CSTP)	30	--	--			40.0
7	591-AS5	Airslide from #1 Sep to FK Pump Transfer 2 (Group 1 CSTP)	30	--	--			40.0
7	591-CQ1	Cement Cooler #1 (Group 1 CSTP)	30	--	--			40.0
7	591-CQ2	Cement Cooler #2 (Group 1 CSTP)	30	--	--			40.0
7	532-BC1	FM #2 Feed Belt (Group 1 CSTP)	110	--	--			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	--	--			40.0
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 1 CSTP)	25	--	--			35.4
7	532-WF2	C-4, C-5 & C-6 Clinker FOWs	60	0.003		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	532-WF3	(associated with D10a, D10b, & D10c Dust Collectors 532-BF1, 532-BF2, &532-BF3 (Group 3 CSTP)	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	25.2
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 1 (Group 1 CSTP)	250	--	--			61.0
7	562-AS2	FM #2 Long Airslide Transfer 2 (Group 1 CSTP)	250	--	--			61.0
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	0.003	Note 4			44.6
7	56A-BI1	Bin Transfer & Screws (Group 1)	10	0.003	Note 4			19.2
7	592-AS1	Airslide from Sep #3 to Cooler #3 (Group 1 CSTP)	30	--	--			40.0
7	592-AS2	Airslide from Sep #4 to Cooler #4 (Group 1 CSTP)	30	--	--			40.0

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	592-AS3	Airslide from #3 cooler to FK pump (Group 1 CSTP)	30	--	--			40.0
7	592-AS4	Airslide from #4 cooler to FK pump (Group 1 CSTP)	30	--	--			40.0
7	592-AS5	Airslide from #2 sep to FK Pump transfer 1 (Group 1 CSTP)	30	--	--			40.0
7	592-AS5	Airslide from #2 sep to FK Pump transfer 2 (Group 1 CSTP)	30	--	--			40.0
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	KIA-3S3 Transfer 1 (Group 2 CSTP)	25	0.003	Note 4	0.1	0.4	35.4
7	K1A-3S3	KIA-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	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) Cement Silos #21 thru #33 Transfers (Group 3 CSTP)	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
8	59A-3S1		200	0.00099	Note 17	0.2	0.9	58.5
8	59A-3S2	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-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

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	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	--	--			42.5
8	59B-3S2	Silo Cement #2 Transfer (Group 1 CSTP)	40	--	--			42.5
8	59B-3S3	Silo Cement #3 Transfer (Group 1 CSTP)	40	--	--			42.5
8	59B-3S4	Silo Cement #4 Transfer (Group 1 CSTP)	40	--	--			42.5
8	59B-3S5	Silo Cement #5 Transfer 1 (Group 1 CSTP)	40	--	--			42.5
8	59B-3S5	Silo Cement #5 Transfer 2 (Group 1 CSTP)	40	--	--			42.5
8	59B-3S6	Silo Cement #6 Transfer 1 (Group 1 CSTP)	40	--	--			42.5
8	59B-3S6	Silo Cement #6 Transfer 2 (Group 1 CSTP)	40	--	--			42.5
8	59B-3S7	Silo Cement #7 Transfer 1 (Group 1 CSTP)	40	--	--			42.5
8	59B-3S7	Silo Cement #7 Transfer 2 (Group 1 CSTP)	40	--	--			42.5
8	59B-3S8	Silo Cement #8 Transfer (Group 1 CSTP)	40	--	--			42.5
8	59B-3S9	Silo Cement #9 Transfer 1 (Group 1 CSTP)	40	--	--			42.5
8	59B-3S9	Silo Cement #9 Transfer 2 (Group 1 CSTP)	40	--	--			42.5
8	59B-3SA	Silo Cement #10 Transfer 1	40	--	--			42.5

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-3SA	Silo Cement #10 Transfer 2 (Group 1 CSTP)	40	--	--			42.5
8	59B-3SB	Silo Cement #11 Transfer 1(Group 1 CSTP)	40	--	--			42.5
8	59B-3SB	Silo Cement #11 Transfer 2 (Group 1 CSTP)	40	--	--			42.5
8	59B-3SC	Silo Cement #12 Transfer 1 (Group 1 CSTP)	40	--	--			42.5
8	59B-3SC	Silo Cement #12 Transfer 2 (Group 1 CSTP)	40	--	--			42.5
8	59B-3SD	Silo Cement #13 Transfer 1 (Group 1 CSTP)	40	--	--			42.5
8	59B-3SD	Silo Cement #13 Transfer 2 (Group 1 CSTP)	40	--	--			42.5
8	59B-3SE	Silo Cement #14 Transfer 1 (Group 1 CSTP)	40	--	--			42.5
8	59B-3SE	Silo Cement #14 Transfer 2 (Group 1 CSTP)	40	--	--			42.5
8	59B-3SF	Silo Cement #15 Transfer (Group 1 CSTP)	40	--	--			42.5
8	59B-3SG	Silo Cement #16 Transfer 1 (Group 1 CSTP)	40	--	--			42.5
8	59B-3SG	Silo Cement #16 Transfer 2 (Group 1 CSTP)	40	--	--			42.5
8	59B-3SH	Silo Cement #17 Transfer 1 (Group 1 CSTP)	40	--	--			42.5
8	59B-3SH	Silo Cement #17Transfer 2 (Group 1 CSTP)	40	--	--			42.5
8	59B-3SI	Silo Cement #18 Transfer 1 (Group 1 CSTP)	40	--	--			42.5
8	59B-3SI	Silo Cement #18 Transfer 2 (Group 1 CSTP)	40	--	--			42.5
8	611-PP1	Packhouse FK Pump Transfer 1 (Group 1 CSTP)	47	--	--			44.0

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	611-PP1	Packhouse FK Pump Transfer 2 (Group 1 CSTP)	47	--	--			44.0
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
8	622-AS1	Silo #24 Air Slide Conveyor to truck/rail load out spout track2(Group 1)	188	--	--			57.8
8	622-AS2	Silo #26 Air Slide Conveyor to truck/rail load out spout track 2(Group 1)	188	--	--			57.8
8	621-AS1	Silo #21 Air Slide Conveyor to truck/rail load out spout track 3(Group 1)	188	--	--			57.8
8	621-AS3	Silo #23 Air Slide Conveyor to truck/rail load out spout track 3(Group1)	188			0.00	0.00	57.8
8	623-AS1	Silo #27 Air Slide Conv. To truck load out track 1(Group 1)	188	--	--			57.8
8	623-AS2	Silo #27 Air Slide Conv. To truck/rail load out spout track 1(Group 1)	188	--	--			57.8
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	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)*
		(Group 3 CSTP)						
8	661-BE2	Elevator Packhouse North Type I (Group 1 CSTP)	67	--	--			47.3
8	661-BE3	Elevator Packhouse South Type 1 (Group 1 CSTP)	67	--	--			47.3
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	--	--			52.2
8	661-SC2	Screw Conv from Silos to Packhouse (Group 1 CSTP) Elevator South Masonry (Group 3 CSTP)	110	0.003	Note 4	0.3	1.3	52.2
8	661-SC3		110	0.003	Note 4	0.3	1.3	52.2
8	661-SC4		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	47.3
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	--	--			47.3
8	662-SCA	Screw Conveyor Silo 2, 3, 4 (Masonry) (Group 1 CSTP)	67	--	--			47.3
8	662-SCB	Screw Conveyor to Elevator (Masonry) (Group 1 CSTP)	67	--	--			47.3
8	662-SCD	Screw Conveyor Silo 8 (Masonry) (Group 1 CSTP)	67	--	--			47.3
8	66A-VS1	Scalping Screen (Group 3 CSTP)	67	0.003	Note 4	0.2	0.9	47.3

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	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-FQ1	Bag flattening belt (Group 1 CSTP)	67	--	--			47.3
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	--	--			47.3
8	671-BCA	Palletizer Feed Belt (Group 1 CSTP)	67	--	--			47.3
8	671-BCB	Line 1 Curve Belt (Group 1 CSTP)	67	--	--			47.3
8	671-BCC	Line 1 Alignment Belt (Group 1 CSTP)	67	--	--			47.3
8	671-BCD	Line 1 Bag Rotation Belt Group 1 CSTP)	67	--	--			47.3
8	66A-BCA	Line 2 Curve Belt (Group 1 CSTP)	67	--	--			47.3
8	66A-SC2	Screw Conv Masonry Spillage 66a-Sc3 (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

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	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
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	--	--			47.8
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

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	671-RB1	North Roller Conveyor (Group 2)	67	0.003	Note 4	0.2	0.9	47.3
Total Emissions						**387.82**	**1697.57**	

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 19: AP-42 Table 11.6-2, 1/95 (Clinker Cooler with 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.

The following table lists emissions from the proposed open clinker storage pile project:

Emission Points	Size/ Throughput /Distance	Emission Factor $PM/PM_{10}/PM_{2.5}$	Control Efficiency[1]	Controlled Emissions (TPY)		
				PM	PM_{10}	$PM_{2.5}$
New Storage Pile	50,000 ft^2	2.49/1.245/0.187 lb/acre/day	50%	0.522	0.261	0.039
To dump truck from existing pile	22,500 TPY	0.882/0.417/0.063 lb/ton	50%	4.961	2.346	0.355
From dump truck to new storage pile	22,500 TPY	0.882/0.417/0.063 lb/ton	50%	4.961	2.346	0.355
From new storage pile to loader	22,500 TPY	0.882/0.417/0.063 lb/ton	50%	4.961	2.346	0.355
From loader to reclaim hopper	22,500 TPY	0.882/0.417/0.063 lb/ton	90% Capture 90% Control	1.885	0.891	0.135
Unpaved Road-Dump Truck to Storage Pile	450 Miles/yr	6.514/3.846/0.385 lb/VMT	50%	1.466	0.865	0.087
Unpaved Road-Loader to Reclaim Hopper	707.14 Miles/yr	6.514/3.846/0.385 lb/VMT	50%	2.303	2.225	0.222
Total				**21.059**	**11.28**	**1.548**

ESTIMATED KILN AND OTHER FUEL BURNING EQUIPMENT EMISSIONS

The Holcim facility also emits regulated pollutants other than particulate matter. Emissions from the kilns (461-KL1 and 462-KL1) are estimated based upon the following data (each kiln is assumed to have an estimated nominal feed rate capacity of 85 TPH and clinker capacity of 46 TPH).

Pollutant	Emission Factor (lb/ton clinker)	Emission Factor Reference	Total Estimated Kiln Emissions	
			lb/hr	TPY
PM/PM_{10} (Filterable + Condensible)	0.825	5/2009 Stack Test 2009 CEMS	75.9	332
NOx	5.5		506	2220E+03
CO	7.23	2009 CEMS	665	2910
VOC	1.63		150	657
SO_2	5.87		540	2370
Pb	5.23E-05	5/2009 Stack Test	0.005	0.02
Arsenic	2.49E-06	5/2009 Stack Test	0.00	0.00

Pollutant	Emission Factor (lb/ton clinker)	Emission Factor Reference	Total Estimated Kiln Emissions	
			lb/hr	TPY
Antimony	9.0E-06	5/2009 Stack Test	0.00	0.00
Cadmium	4.46E-06	5/2009 Stack Test	0.00	0.00
Chromium	1.28E-03	5/2009 Stack Test	0.11	0.49
Cobalt	1.26E-05	5/2009 Stack Test	0.00	0.00
Mercury	2.15E-05	5/2009 Stack Test	0.002	0.01
Hydrogen chloride	7.0E-02	2009 CEMS	6.11	26.76
Manganese	2.26E-04	5/2009 Stack Test	0.02	0.09
Benzene	5.93E-02	5/2009 Stack Test	5.18	22.67
Selenium	0.00015	AP-42, 5th Ed., 1/95, Table 11.6-9, Portland Cement Manufacturing	0.01	0.06
Biphenyl	6.10E-06		0.00	0.00
Bis(2-ethylhexyl)phthalate	9.50E-05		0.009	0.04
Carbon disulfide	0.00011		0.009	0.04
Chlorobenzene	1.60E-05		0.002	0.01
Ethylbenzene	1.90E-05		0.002	0.01
Methyl ethyl keytone	3.00E-05		0.002	0.01
Methylene chloride	0.00049		0.04	0.19
Phenol	0.00011		0.009	0.04
Styrene	1.50E-06		0.00	0.00
Toluene	1.95E-02	5/2009 Stack Test	1.70	7.45
Xylenes	4.07E-02	5/2009 Stack Test	3.55	15.56

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	Emissions from Landfill Generator		Emissions from Kiln Generator		Total	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
NOx	2.45	10.74	14.51	3.63	7.61	12.03
CO	0.53	2.31	3.13	0.78	3.79	3.13
VOC	0.19	0.85	1.16	0.29	7.23	2.61
SO_2	0.16	0.71	0.96	0.24	0.44	0.78

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	0.44	0.78	7.61	12.03	7.23	2.61	3.79	3.13
461-KL1 462-KL1	Kiln #1 & Kiln #2 (common stack)	540.0	2365.4	506.0	2216.3	150.0	656.8	665.2	2913.4
Total		**540.44**	**2366.18**	**513.61**	**2228.33**	**157.23**	**659.41**	**668.99**	**2916.53**

Emission Unit	Name	PM		PM_{10}		$PM_{2.5}$	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
--	Existing Non-Kiln Facility-Wide	385.12	1685.77	385.12	1685.77	385.12	1685.77
-	Proposed Clinker Storage Pile Project	4.81	21.059	2.58	11.28	0.35	1.548
461-KL1 462-KL1	Kiln #1 & Kiln #2 (common stack)	75.9	332.4	75.9	332.4	75.9	332.4
Total		**465.83**	**2039.229**	**463.6**	**2029.45**	**461.37**	**2019.718**

Note: Except for the proposed Clinker Storage Pile Project, $PM_{2.5}$ and PM_{10} emissions are assumed to equal PM emissions for purposes of determining potential to emit.

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 numerous space heaters (150,000 MMBTUH) 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 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 affirmative defense, 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 III (Estimated Emissions), all emission points are in compliance with Subchapter 19.

OAC 252:100-25 (Visible Emissions and Particulates) [Applicable]
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. Several emission units at the facility are subject to NSPS and/or MACT requirements which contain opacity limits that are more restrictive than Subchapter 25. The opacity of emissions from Kiln#1 and Kiln#2 are controlled by electrostatic precipitators and are continuously monitored via a Continuous Opacity Monitoring System (COMS). As indicated by past COMS data and as previously demonstrated to the AQD, incidences of excess opacity associated with the kilns are subject to a technological limitation and are reported to the AQD on a quarterly basis. The finish mills, silos, and conveyors are subject to MACT Subpart LLL, which requires a 10% limit, and are exempt from opacity requirements of Subchapter 25, OAC 252:100-25-3(a).

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 (H_2S) from new and existing equipment, sources, or facilities. Emissions of H_2S shall not cause an ambient air concentration of H_2S 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 H_2S.
Part 5 limits sulfur dioxide emissions from new petroleum or natural gas process equipment (constructed after July 1, 1972). For liquid fuels, the limit is 0.8 lb/MMBTU heat input. This is equivalent to approximately 0.8% by weight sulfur in the fuel. The permit requires the use of No. 2 diesel for all new fuel-burning equipment to ensure compliance with Subchapter 31. The kilns pre-dated this rule and are not subject to limits for gas, liquid or solid fuels.

OAC 252:100-33 (Nitrogen Oxides) [Not Applicable]
The subchapter applies to fuel-burning equipment constructed or modified after February 14, 1972. The kilns pre-dated this rule and are not subject to this subchapter.

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]
The facility is an existing PSD source, any future emission increases must be evaluated for PSD if they exceed a significance level listed below.

SO_2	NO_x	CO	VOC	$PM/PM_{10}/PM_{2.5}$	Sulfuric Acid Mist	Total Reduced S Compounds	H_2S	Fluorides	Lead
40	40	100	40	25/15/10	7	10	10	3	0.6

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 open clinker storage pile and associated transfer points are subject to this subpart and shall comply with the 10% opacity requirement.
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.

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 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 first affected source subject to this subpart is the raw material storage silos. The permit will require compliance with all applicable requirements of Subpart LLL.

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 June 12, 2006. The emergency 350 kW diesel generator (46A-1G1) and the 88-hp diesel generator at the new pug mill were both constructed before June 12, 2006 and are existing stationary emergency sources at a major facility. These generators 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	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

	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]	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 PM_{10} emissions. The equipment is subject to several emission limitations including PM_{10} as specified in OAC 252:100-19. The bagfilters will be utilized to achieve compliance with this PM_{10} emission limit. Without controls, PM_{10} 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 (estimated to be approximately $337,000 per year based on maximum permitted emission rates, 4,220 tons of coal recovered annually, and $80/ton cost of coal). The current estimated cost associated with a baghouse is approximately $3 to $5 per standard cubic foot of air flow. Assuming an air flow of 25,000 dscf/min, the estimated cost of a baghouse would range from $75,000 to $125,000. As indicated above, the estimated annual fuel savings exceed this cost.
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/ceppo*.

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 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 publisha "Notice of Filing a Tier II Application" and a "Notice of Draft Permit" in a local newspaper for a 30 day public review. In addition, a copy of the draft permit will be available at the AQD office in Oklahoma City, and on the Air Quality section of the DEQ web page at *www.deq.state.ok.us*.

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

Fee Paid

Part 70 Construction Permit modification application fee of $5,000.

SECTION VIII. SUMMARY

The applicant has demonstrated the ability to comply with the requirements of the applicable Air Quality rules and regulations. Ambient air quality standards are not threatened at this site. There are no active Air Quality compliance and enforcement issues concerning this facility. Issuance of the construction permit is recommended, contingent on public and EPA review.

PERMIT TO CONSTRUCT
AIR POLLUTION CONTROL FACILITY
SPECIFIC CONDITIONS

Holcim (US) Inc.
Ada Portland Cement Production Facility **Permit No. 98-087-C (M-9)**

The permittee is authorized to construct in conformity with the specifications submitted to Air Quality on June 1, 2016. The Evaluation Memorandum dated July 22, 2016 explains the derivation of applicable permit requirements and estimates of emissions; however, it does not contain limitations or permit requirements. Commencing construction and 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

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
291-BC1 291-BC2 291-BC3 291-BC4 291-BC5 291-BC6 291-BC7	Flight 1-7 Drops (each)	Pre-1971

Emission Unit	Name	Construction Date
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

EUG 3: Coal Unloading, Processing and Transfer

Emission Unit	Name	Construction Date	$PM/PM_{10}/PM_{2.5}$	
			lb/hr	TPY
L11-VD1	Coal/Coke Car Shaker	1975	1.0	4.4
L31-RC1	Coal/Coke Crusher	1975	13.2	57.8
L31-VD1 L31-VD2	Coal/Coke Crusher Material Transfers (each)	1975	0.5	2.2
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
L11-HP1 L11-HP2	Coal/Coke Unloading Hoppers (each)	1975	0.5	2.2
L11-VF1	West Vibrating Feeder	1975	0.5	2.2
L11-VF2	East Vibrating Feeder	1976	0.5	2.2
L11-BC1	Coal/Coke Unloading Belt	1976	1.5	6.6
L01-MI1*	Coal/Coke Blender	2000	1.0	4.4
L31-SG1* L31-SG2*	Coal/Coke Slide Gates (each)	1975	0.5	2.2
L31-BC1*	Coal/Coke Tunnel Belt	1975	1.0	4.4
L31-RC1*	Crusher Roller	1975	1.0	4.4
L31-BC2*	Conveyor Belt	1975	1.0	4.4
L31-3B1*	Coal/Coke Bin	1975	2.0	8.8
L61-WF1	#2 coal mill weigh feeder belt	1975	0.1	0.2
L62-WF1	# 1 coal mill weigh feeder belt	1975	0.1	0.2
L61-SC1	#2 screw conveyor	1975	0.1	0.2
L62-SC1	#1 screw conveyor	1975	0.1	0.2
L61-RF1	Baghouse Rotary Airlock-IDF	2006	0.1	0.4
L62-RF1	Baghouse Rotary Airlock-IDF	2006	0.1	0.4

*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. The compliance requirements listed in B. through E. below are inclusive of the applicable Subpart Y requirements. [40 CFR § 60.250]

B. Except as specified in 40 CFR § 60.11(c), the permittee shall not cause to be discharged from the above "affected facilities" subject to Subpart Y any gases which exhibit 20 percent opacity or greater. [40 CFR § 60.252(c)]

C. Compliance with the specified emission limitations shall be based on the use of AP-42 emission factors and the process rates referenced in the Permit Memorandum, as well as the facility's annual emission inventory. Records of proper baghouse maintenance for L61-RF1 and L62-RF1 shall also be maintained for compliance demonstration. Baghouses L61-BF1 and L62-BF1 shall be operated within the manufacturer recommended pressure differential range which shall be monitored in the control room.

D. The permittee shall maintain records of the occurrence and duration of any startup, shut-down or malfunction in the operation of the above emission units. [40 CFR § 60.7(b)]

E. The permittee shall maintain records of the occurrence and duration of any malfunction of any air pollution control equipment associated with such emission units through the use of the DCS system. [40 CFR § 60.7(b)]

F. The permittee shall maintain a file of all measurements and required information recorded regarding the above emission units in a permanent file suitable for inspection, with such measurements/information to be retained for at least two years following the date of recording. Requirements under Supbart Y for these affected units includes the items listed in C, D, and E as shown above. [40 CFR § 60.7(f)]

G. 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
481-PF1 482-PF1	Rotary Schenck Feeders (Kiln 1 & 2)(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 group1 units which are totally enclosed conveying system transfer points (enclosed on all sides, top and bottom), no emissions are expected from these units.

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
K1A-3S3	MR-2 Interstice (Storage Bin)	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
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

Emission Unit	Name	Construction Date
291-BFD	D-2 Dust Collector	Pre-1971
291-BCA	Row 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
K1A-BC3	Mill Scale Interstice Belt Group 3	Pre-1971
KIA-BC5	Interstice Belt Group 3	Pre-1971
KIA-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
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
332-BC2	#2 Raw Mill crossover feed belt (Group 2 CSTP)	2000	0.6	2.6
332-BF1 332-BF2 332-BF3	Feed Belt Dust Collector Transfers D-8a, b, c (Group 2 CSTP) (each) (L4 Feed-O-Weight Transfer to 332-BC1 Feed Belt)	1993	0.3	1.3

B. Compliance with the specified emission limitations shall be based on the use of AP-42 emission factors and the process rates referenced in the Permit Memorandum, along with the annual emissions inventory.

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: Rotary Kiln System

Emission Unit	Name	Control Device	Construction Date
461-KL1	Kiln #1	ESP	Pre-1971
462-KL1	Kiln #2	ESP	Pre-1971

A. Emission Standards

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

1) Exhibit opacity greater than 20%;
2) Contain PM in excess of 0.15 kg per Mg (0.3 lb per ton) of feed (dry basis) to the kiln;
3) Contain dioxins/furans in excess of:
   a. 0.20 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)]
4) Limit SO_2 emissions pursuant to one of the following standards:
   a. SO_2 emissions shall not exceed 2,200 lb/hr with compliance based on a calendar month average and demonstrated using SO_2 CEMS data.
   b. Alternatively, the permittee may limit the cumulative total sulfur content of fuel(s) (as burned in the Kilns) to 3.0 weight percent sulfur or less with compliance based on a calendar month average and demonstrated using records of the sulfur content (weight percent) and quantity of fuel(s) burned.
   c. If compliance is demonstrated using SO_2 CEMS data pursuant to Paragraph 4(a) above, the following shall apply:
      1. The CEMS shall be operated and data recorded during all periods of operation of the kilns, including periods of startup, shutdown, and malfunction, except for CEMS breakdowns, repairs, calibration checks, and zero and span adjustments.
      2. Regarding missing data for a period of twenty-four (24) hours or less, the permittee may substitute the average of the hourly SO_2 concentrations recorded by the CEMS for the hour before and the hour after the missing data period.
      3. For missing data regarding a period of greater than twenty-four (24) hours, the permittee may substitute either of the following:
         a) The 90th percentile hourly SO_2 concentration recorded by the CEMS during the previous 720 CEM operating hours (exclusive of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments), or
         b) The maximum potential SO_2 concentration as defined and determined pursuant to Section 2.1.1.1 of Appendix A of 40 CFR Part 75.

[OAC 252:100-31]

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 § 63.1344(b)]

C. Performance Testing Requirements

1) 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. Performance testing to demonstrate compliance with PM emission limitations (exclusive of opacity) shall be repeated every five (5) years. [40 CFR § 63.1349(c)]

2) 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 to part 60 of this chapter.

[40 CFR § 63.1349(b)(3)]

b. Performance testing to determine compliance with dioxin/furan emission limitations shall be repeated every thirty (30) months. [40 CFR § 63.1349(e)]

3) For Opacity Limits

The opacity exhibited during the period of the Method 5 performance tests required by § 63.149(b)(1)(i) shall be determined through the use of a continuous opacity monitor (COM). [40 CFR § 63.1349(b)(1)(v)]

4) 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, <u>or</u> 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. Monitoring Requirements

1) The permittee shall install, calibrate, maintain, and continuously operate a continuous opacity monitor (COM) located at the outlet of the PM control device to continuously monitor the opacity. The COM shall be installed maintained, calibrated, and operated as required by subpart A, general provisions of this part, and according to PS-1 of appendix B to part 60 of this chapter. [40 CFR § 63.1350(c)(1)]

2) The permittee shall monitor Dioxins/Furans (D/F) as follows:

a. The permittee shall install, calibrate, maintain, and continuously operate a continuous monitor to record the temperature of the exhaust gases from the kiln, in-line kiln/raw mill and alkali bypass, if applicable, at the inlet to, or upstream of, PM control devices. The recorder response range shall include zero and 1.5 times either of the average temperatures established during the performance test. The reference method shall be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the DEQ.

b. The permittee shall monitor and continuously record the temperature of the exhaust gases from the kiln, in-line kiln/raw mill and alkali bypass, if applicable, at the inlet to the PM control device.

c. The three hour rolling average temperature shall be calculated as the average of 180 successive one-minute average temperatures.

d. Periods of time when one-minute averages are not available shall be ignored when calculating three-hour rolling averages. When one-minute averages become available, the first one-minute average is added to the previous 179 values to calculate the three-hour rolling average.

e. The calibration of all thermocouples and other temperature sensors shall be verified at least once every three months. [40 CFR § 63.1350(f)]

f. The permittee shall conduct an inspection of the components of the combustion system of each kiln or in-line kiln/raw mill at least once annually, based on the date of the last inspection. [40 CFR § 63.1350(i)]

3) The owner or operator of an affected source subject to a particulate matter standard under § 63.1343 shall install, calibrate, maintain and operate a particulate matter continuous

emission monitoring system (PM CEMS) to measure the particulate matter discharged to the atmosphere. The compliance deadline for installing the PM CEMS and all requirements relating to performance of the PM CEMS and implementation of the PM CEMS requirement is deferred pending further rulemaking. [40 CFR § 63.1350(k)]

E. 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)
▪ Oil	▪ Waxes (waste & off-spec.)	▪ Surfactants (waste & off-spec.)	▪ Off-Spec., Spent or Waste Chemical Products & Fuels
▪ Polymers & Resins	▪ Textile Waste (rags, synthetic & natural)	▪ Personal Protection Equipment (suits & gloves)	

5) Alternative non-hazardous materials (not listed in the above table) 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, with the exception of whole tires at mid-kiln which are limited to 35% 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. Material must be introduced at the portion of the kilns from where whole tires are injected to the location where fuels are burned;

g. Materials of comparable size to whole tires may be utilized only after a demonstration to the AQD that complete combustion will be achieved;

h. 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;

i. 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 and the electrostatic precipitators (ESPs) are properly operating;

j. Storage of the materials shall minimize fugitive emission in accordance with OAC 252:100-29-2(a);

k. 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;

l. Prior to use in the kiln(s), each type of alternative non-hazardous fuel shall be evaluated for compliance with OAC 252:100-41-43(a)(5) by sampling, laboratory analysis, and/or engineering judgment. Any sampling and laboratory analysis shall be conducted in accordance with Test Methods for the Evaluation of Solid Waste, SW-846, published by the U.S. EPA Office of Solid Waste, ASTM Physical/Chemical Methods, or other methods approved by EPA or ODEQ. No RCRA regulated hazardous waste shall be accepted into the kiln(s).

m. 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 (l).

F. The indirect firing system which helps ensure Kiln stability shall be operated.

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
49A-BC1 49A-BC1 49A-BC2 49A-BC2 49A-BC3 49A-BC4	Clinker Extension Belt #5 Transfer 1 & 2, Clinker Extension Belt #2 Transfer 1 & 2, Clinker Extension Belt #6, & Clinker Extension Belt #3 (Group 3 CSTP) (each)	Pre-1971
49A-SC1	D-11 Dust Collector Screw Transfer 1 & 2 (Group 2 CSTP) (each)	Pre-1971
49A-SC2	D-4 Dust Collector Screw (Group 3 CSTP)	Pre-1971
49A-SC3	D-3 Dust Collector Screw (Group 3 CSTP)	Pre-1971
491-BC1	Clinker Incline (North) (Group 2 CSTP)	Pre-1971
491-BC2	Clinker Reversing Belt (West) Transfer 1, 2, 3, & 4 (Group 2 CSTP) (each)	Pre-1971
492-BC2	Clinker Reversing Belt (East) Transfers 1, 2, & 3 (Group 2 CSTP) Clinker Reversing Belt (East) Transfer 4 (Group 2 CSTP)	1984 Pre-1971
492-BE1	Clinker Elevator (East) (Group 3 CSTP)	Pre-1971
492-VC1	East NF Clinker Conveyor (Group 2 CSTP)	Pre-1971
42A-3B1	Waste Dust Bin	Pre-1971
42A-BF1	Waste Dust Bin Dust Collector (Group 3)	Pre-1971
42A-3B2	Insufflation Dust Bin	Pre-1971
42A-BF2	Insufflation Dust Bin Dust Collector	Pre-1971
49A-BF2	D-4 Dust Collector	Pre-1971
49A-BF3	D-3 Dust Collector	Pre-1971
49A-BF1	D-11 Dust Collector	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
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
471-BFA	Cooler 1 Baghouse– Compartments 1, 2, 3, & 4 W/Flap Valve (Group 3 CSTP) (each)	1984	14.3	62.6
471-GQ1	Clinker Cooler #1	1984	8.5	37.2
471-GQ1	Clinker Cooler #1 Transfer (Group 3 CSTP)	1984	0.3	1.3
491-CV1	Clinker Cooler #1 Drag Transfer 1 & 2 (associated with Cooler Nuisance Dust Collector) (Group 3 CSTP) (each)	1984	0.3	1.3
491-VC1	West NF Clinker Conveyor (Group 2 CSTP)	1984	0.3	1.3
472-BFA	Cooler 2 Baghouse - Compartments 1, 2, 3, & 4 W/Flap Valve (Group 3 CSTP) (each)	1984	14.3	62.6
472-GQ1	Clinker Cooler #2	1984	8.5	37.2
472-GQ1	Clinker Cooler #2 Transfer (Group 3 CSTP)	1984	0.3	1.3
492-BC1	Clinker Incline Belt (South) (Group 2 CSTP)	1984	0.3	1.3
492-CV1	Clinker Cooler #2 Drag Transfers 1 & 2 (associated with Cooler Nuisance Dust Collector Transfer) (Group 3 CSTP) (each)	1984	0.3	1.3
42A-BX1	Dustless Unloader (Group 2)	1990	0.11	0.46
Landfill Pug Screw Transfer	Dustless Unloader (Group 2)	2013	0.11	0.46

B. Compliance with the specified emission limitations shall be based on the use of AP-42 emission factors and the process rates referenced in the Permit Memorandum, along with the annual emissions inventory.

C. 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
NOx	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
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, 59A-BF5	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

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
K1A-3S3	K1A-3S3 Transfer 1 and 2 (Group 2 CSTP)	1990	0.1	0.4
531-WF5	Mason Rock #1 FOW (Group 3 CSTP)	Pre-1971 Modified in 1992	0.1	0.4
531-SC1	FM #1 Grindout Screw (G-2) (Group 3 CSTP)	Pre-1971 Modified in 1986	0.1	0.4
532-BC2	Belt Conveyor (Mas Rock) To FM #2 (Group 3 CSTP)	Pre-1971 Modified in 1992	0.1	0.4
51A-HP1	Clinker Reclaim Hopper (Group 3 CSTP) (associated with Hopper	1994	0.3	1.3

Emission Unit	Name	Construction Date	$PM/PM_{10}/PM_{2.5}$	
			lb/hr	TPY
	Dust Collector 51A-BF1)			
531-BF1 531-BF2 531-BF3	D9a, D9b, & D9c Dust Collector Transfers (Group 3 CSTP) (each)	1994	0.2	0.9
561-BF1	FM #1 East Dust Collector	2007	0.04	0.18
562-BF2	FM #2 West Dust Collector	2007	0.04	0.18

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 on the use of AP-42 emission factors and the process rates referenced in the Permit Memorandum, records of proper baghouse maintenance, along with the annual emissions inventory.

<u>Proposed Open Clinker Storage Pile Project</u>

Emission Points	Emissions (TPY)		
	PM	PM_{10}	$PM_{2.5}$
New Storage Pile	0.522	0.261	0.039
To dump truck from existing pile	4.961	2.346	0.355
From dump truck to new storage pile	4.961	2.346	0.355
From new storage pile to loader	4.961	2.346	0.355
From loader to reclaim hopper	1.885	0.891	0.135
Unpaved Road-Dump Truck to Storage Pile	1.466	0.865	0.087
Unpaved Road-Loader to Reclaim Hopper	2.303	2.225	0.222

D. The annual throughput of the new open clinker storage pile and each associated transfer point shall not exceed 22,500 TPY based on 12-month rolling average.

E. Permittee shall not transfer any material to and from the new open clinker storage pile during the months of March, April, and May of each year.

F. Permittee shall maintain a log to record material transfers to and from the pile on a daily basis.

G. Material transfers from existing storage pile to the dump truck, from the dump truck to the new pile, and from the new pile to the loader shall be inside the half enclosure.

H. Unpaved roads shall be controlled by water truck and sprinkler system.

I. Emissions points listed in the above table 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 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
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	Pre-1971

Emission Unit	EU Name/Model	Construction Date
	Out Spout Track 2 (Group 3 CSTP)	
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 Packin gDust Collector Screw (Group 3 CSTP)	Pre-1971
66A-SC5	Collecting Screw to 661-SC7 (Group 3 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	EU Name/Model	Construction Date	$PM/PM_{10}/PM_{2.5}$	
			lb/hr	TPY
621-BF1 622-BF1 623-BF1	Bay Spout Dust Collectors (each)	2004	0.6	2.6
623-LS1	Bay #1 Load Out Spout (Group 3)	2006	0.6	2.6
622-LS1	Bay #2 Load Out Spout (Group 3)	2006	0.6	2.6
621-LS1	Bay #3 Load Out Spout (Group 3)	2006	0.6	2.6
62A-WB1	Track 3 loading (Group 2 CSTP)	1995	0.3	1.3
62A-WB2	Track 2 loading (Group 2 CSTP)	1995	0.3	1.3
62A-WB3	Track 1 loading (Group 2 CSTP)	1995	0.3	1.3
661-3B2	Bin Type I Packing Transfers 1 & 2 (Group 3 CSTP) (each)	1992	0.3	1.3
661-BF3	Dust Collector for Basement Screw SC-7 (Group 3 CSTP)	1992	0.2	0.9

Emission Unit	EU Name/Model	Construction Date	$PM/PM_{10}/PM_{2.5}$	
			lb/hr	TPY
671-BW1	Weight Belt System (Group 2 CSTP)	2009	0.2	0.9
662-3B1	Packhouse Cement Masonry Storage Bin (Group 3 CSTP) (each)	1992	0.1	0.4
66A-SC2	Screw Conv Masonry Spillage-66a-Sc3 (Group 3 CSTP)	2009	0.2	0.9
662-3B1	Packhouse masonry Cement Storage Bin	1992	0.1	0.4
66A-PM1	Haver Sprout Packing Machine (Group 3 CSTP)	2009	0.01	0.04
66A-3B3	Packing Bin	2008	0.7	3.1
671-BCF	Line 2 Bag Alignment Belt	2009	0.2	0.9
671-BCG	Line 2 Bag Rotation Belt	2009	0.2	0.9
66A-SC4	Spillage conveyor to 66A-SC5 (Goup 3 CSTP)	2009	0.2	0.9
671-BC1	Power Roller Conveyor From Havor (Group 2)	2009	0.2	0.9
671-BC2	Exit Conveyor from Havor Packing Machine (Group 2)	2009	0.2	0.9
671-BC3	1st Curve Conveyor (Group 2)	2009	0.2	0.9
671-BC4	Incline Conveyor (Group 2)	2009	0.2	0.9
671-BC5	2nd Curve Conveyor (Group 2)	2009	0.2	0.9
671-BC6	Short Belt Conveyor (Group 2)	2009	0.2	0.9
671-BC7	Short Belt Conveyor Before Diverter Belt (Group 2)	2009	0.2	0.9
671-BCE	South Side Curve Conveyor to Pallitizer (Group 2)	2009	0.2	0.9
671-BCF	West Side After Curve Conveyor (Group 2)	2009	0.2	0.9
671-BCG	West Side Bag Turner Conveyor (Group 2)	2009	0.2	0.9
671-RB1	North Roller Conveyor (Group 2)	2009	0.2	0.9

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 on the use of AP-42 emission factors and the process rates referenced in the Permit Memorandum, along with the annual emissions inventory.

EUG 9B – Other Fuel-Burning Equipment

Emission Unit	EU Name/Model	Capacity	Construction Date
46A-1G1	Emergency Diesel Generator	350 KW	2006

This emission unit is limited to operate 500 hours/year.

Pollutants	Emissions from 46A-1G1	
	lb/hr	TPY
NOx	14.51	3.63
CO	3.13	0.78
VOC	1.16	0.29
SO_2	0.96	0.24

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 be in compliance 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]

   A. The facility shall comply with the general provisions of 40 CFR Part 63, Subpart A as indicated in Table 1 of Subpart LLL. [§ 63.1342(a)]

   B. <u>Performance Testing Requirements.</u> [§ 63.1349]

      (1) Performance testing to demonstrate compliance with opacity requirement specified in Subpart LLL shall be repeated every five (5) years from the date of the initial compliance test unless a waiver of such performance tests has been granted by DEQ pursuant to 40 CFR § 63.7(l). In conducting such tests, the permittee shall comply with applicable provisions of 40 CFR § 63.7.
      [40 CFR §§ 63.1349(c) and 63.7]

   C. <u>Monitoring Requirements</u>. [§ 63.1350]

      1) The permittee shall prepare a written operations and maintenance plan (OMP) covering affected sources subject to 40 CFR Part 63, Subpart LLL, which shall include the information specified in 40 CFR § 63.1350(a). A copy of the plan shall be maintained on site and available upon request. The requirement to conduct Method 22 visible emissions monitoring does not apply to any totally enclosed conveyor system transfer point if the same are operated and maintained as total enclosures in accordance with the OMP. For conveyor system transfer points located in a building, the permittee may conduct a Method 22 visible emissions test for each conveyor system transfer point located in the building **<u>or</u>** for the building itself.
      [40 CFR § 63.1350(f)]

2) The permittee shall develop and implement a written startup, shutdown and malfunction plan (SSMP) in compliance with 40 CFR § 63.6(e)(3) covering identified affected sources subject to 40 CFR Part 63, Subpart LLL. The SSMP shall be kept on record and made available for inspection upon request by DEQ for the life of the sources or until such sources are no longer subject to 40 CFR Part 63.

[40 CFR § 63.6(e)(3)]

D. Notification Requirements. [§ 63.1353]

1) Notification of performance tests as required by 40 CFR §§ 63.7 and 63.9(e);

2) Notification of opacity and visible emission observations required by 40 CFR § 63.1349 in accordance with 40 CFR §§ 63.6(h)(5) and 63.9(f);

3) Notification of compliance status as required by 40 CFR § 63.9(h); and

4) Notification, as required by § 63.9(g), of the date that the PM CEMS performance evaluation required by 40 CFR § 63.8(e) is scheduled to begin.

[40 CFR §63.1353(b)]

E. Reporting Requirements. [§ 63.1354]

1) As required by 40 CFR § 63.10(d)(2), report the results of performance tests as part of the notification of compliance status;

2) As required by 40 CFR § 63.10(d)(3), report the opacity results from tests required by 40 CFR § 63.1349;

3) As required by 40 CFR § 63.10(d)(4), and if a progress report is required as receiving an extension of compliance under 40 CFR § 63.6(i), submit reports by the dates specified in the written extension of compliance;

4) As required by 40 CFR § 63.10(d)(5), if actions taken during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the SSMP, such information shall be stated in a semi-annual report, which is required only if a startup, shutdown or malfunction occurred during the reporting period.

5) If actions taken during a startup, shutdown or malfunction (including actions taken to correct a malfunction) are inconsistent with the SSMP, the permittee shall make an immediate report of the actions taken for that event within two (2) working days by the telephone or facsimile to the DEQ. The immediate report shall be followed by a letter, certified by the owner or operator or other responsible official, which contains the following:

   a. Explanation of the circumstances of the event;

   b. Reasons for not following the SSMP; and

   c. Whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred.

6) The permittee shall submit a summary report semiannually which contains that information specified in 40 CFR § 63.10(e)(3)(iv), as well as that applicable information specified in 40 CFR § 63.1354(b)(9).

7) As required by 40 CFR § 63.10(e)(2), the permittee shall submit a written report of the results of the performance evaluation for the continuous monitoring system required by 40 CFR § 63.8(e). The report shall be submitted simultaneously with the results of the performance test.

8) As required by 40 CFR § 63.10(e)(2), the permittee of an affected source using a COMS to determine opacity compliance during any performance test required under 40 CFR § 63.7 and described in § 63.6(d)(6) shall report the results of the COMS performance evaluation conducted under §63.8(e).

9) As required by 40 CFR § 63.10(e)(3), the permittee of an affected source equipped with a CEMS shall submit an excess emissions and CMS performance report for any event when the CMS data indicate the source is not in compliance with the applicable emission limitation or operating parameter limit.

10) If the downtime for any CEMS or CMS for the reporting period is 10% or greater of the total operating time for the reporting period, the permittee shall submit an excess emissions and CMS performance report along with the summary report.

[40 CFR § 63.1354(b)]

11) The permittee shall maintain files of all information required by 40 CFR § 63.1355 and 40 CFR §§ 63.10(b)(2) and (b)(3) for each kiln recorded in a form suitable and readily available for inspection and review as required by 40 CFR § 63.10(b)(1) for at least five (5) years following the date of recording. At a minimum, the most recent two (2) years of data shall be retained on site.

[40 CFR §§ 63.1355(a)&(b) and 63.10(b)(1),(2)&(3)]

G. <u>Recordkeeping Requirements</u>. [§ 63.1355]

The permittee shall maintain files of all information required by 40 CFR § 63.1355 for each affected source subject to 40 CFR Part 63, Subpart LLL recorded in a form suitable and readily available for inspection and review as required by 40 CFR § 63.10(b)(1) for at least five (5) years following the date of recording. At a minimum, the most recent two (2) years of data shall be retained on site.

[40 CFR §§ 63.1355(a)&(b) and 63.10(b)(1),(2)&(3)]

1) Occurrence and duration of each startup, shutdown when the startup/shutdown causes an exceedance of an applicable emission limitation or emission standard

2) Occurrence and duration of each malfunction of operation of the required air pollution control and monitoring equipment

3) All required maintenance performed on the air pollution control and monitoring equipment

4) Actions taken during startup/shutdown when not consistent with SSMP.

5) Actions taken during malfunction when not consistent with SSMP.

6) Information/checklist to demonstrate that actions taken during startup/shutdown/malfunction are consistent with the SSMP.

7) Each period when the CMS is malfunctioning or inoperative

8) Measurements to demonstrate compliance with relevant standards.
9) Automated CEMs records as specified in 63.10(b)(2)(vii)(A)
10) All results of performance tests
11) All results of CMS performance evaluations
12) All results of opacity and visible emission observations
13) All measurements as needed to determine the conditions of the performance tests and evaluations
14) All CMS calibration checks
15) All adjustments and maintenance performed on the CMS
16) Any information related to recordkeeping or reporting waivers
17) All information related to alternative RATA procedures
18) All documentation of initial notifications and notifications of compliance status.
19) All records of applicability determinations.
20) All required CMS measurements (including data recorded during CMS breakdowns and out of control periods.
21) Specific information (date and time) of each excess emission and parameter monitoring exceedance that occurred during SSM.
22) Specific information (date and time) of each excess emission and parameter monitoring exceedance that occurred during periods other than SSM.
23) Nature and cause of any malfunction (if known)
24) Corrective actions taken or preventive measures adopted.
25) Nature of repairs and adjustments to CMS that was inoperative or out of control.
26) Total process operating time
27) All procedures that are part of the quality control program for CMS under 63.8(d)
28) Annual records of amount of CKD removed from the kiln system and either disposed of as solid waste or otherwise recycled for a beneficial use outside of the kiln system
29) Records of the amount of CKD recycled on an hourly basis.
30) Records of all fly ash supplier certifications

4. The two diesel generators (46A-1G1 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]

<u>What This Subpart Covers</u>
§ 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?

5. 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.

6. 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. NOx, CO, SO_2, THC, and Mercury CEMS data and/or fuel records sufficient to demonstrate compliance with emission limitations applicable to the Kilns.

D. Records as required by NSPS Subpart Y.

E. Records as required by NESHAP Subpart ZZZZ.

7. No later than 30 days after each anniversary date of the issuance of the original Title V permit (September 4, 2008), the permittee shall submit to 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. [OAC 252:100-8-6(c)(5)(a) & (d)]

8. 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)]

9. 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)]

10. 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]

11**.** 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 NESHAP Subpart LLL requirements.
b. Compliance demonstration and monitoring methodology for HCL.

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. 98-087-C (M-9)

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 July 21, 2009 and specific conditions, both attached.

In the absence of construction commencement, this permit shall expire 18 months from the issuance date, except as authorized under Section VIII of the Standard Conditions.

Director, Air Quality Division **Date**

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

Re: **Construction Permit No. 98-087-C (M-9)**
Holcim Ada Portland Cement Production Plant
Section 32, T4N, R6E
Pontotoc County, OK

Dear Mr. Langan:

Enclosed is the permit authorizing construct 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.
Engineering Section
AIR QUALITY DIVISION
Enclosure

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

Re: **Construction Permit No. 98-087-C (M-9)**
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 "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., Permits and Engineering Group Manager
AIR QUALITY DIVISION
Enclosures