KEEP PERMIT AT SITE

CONTROL NO. B - 06302

State of Maryland

Lawrence J. Hogan, Jr.
Governor

Boyd K. Rutherford
Lieutenant Governor

Ben Grumbles
Secretary

DEPARTMENT OF THE ENVIRONMENT

Air and Radiation Administration
1800 Washington Boulevard, Suite 720
Baltimore, MD 21230

[ ] Construction Permit

[X] Part 70 Operating Permit

PERMIT NO. 24-043-0008

DATE ISSUED May 1, 2018

PERMIT FEE To be paid in accordance with COMAR 26.11.02.19B

EXPIRATION DATE April 30, 2023

LEGAL OWNER & ADDRESS
Holcim (USA), Inc.
1260 Security Road
Hagerstown, MD 21742
Attn: Ms. Victoria Mock
Area Manager, Environmental Affairs

SITE
Same

Washington County
AI#2255

SOURCE DESCRIPTION

One Cement Manufacturing Plant.

This source is subject to the conditions described on the attached pages.

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Program Manager

Director, Air & Radiation Administration

HOLCIM (US) INC.
1260 SECURITY ROAD
HAGERSTOWN, MARYLAND 21742
PART 70 OPERATING PERMIT NO. 24-043-0008

SECTION I SOURCE IDENTIFICATION

1. DESCRIPTION OF FACILITY

Holcim currently operates a plant in Hagerstown, Maryland that produces cement, masonry cement, and blended cement. The plant includes a limestone quarry, limestone crushing plant, a raw mill system, a cement kiln, a clinker cooler, a finish mill system, and a shipping operation. Although cement production at this location dates back to 1903, this facility has been in operation since 1971.

In 2014, Holcim received from the Department a Prevention of Significant (PSD) approval and a permit to construct to modernize the existing cement kiln configuration from a long-dry kiln into a more efficient, pre-heater/pre-calciner kiln. The modernization project includes the following modifications:

(1) Modification of the existing kiln to convert the kiln from a long-dry kiln to a pre-heater pre-calciner kiln with an in-line raw mill, in-line coal mill and an alkali bypass system;

(2) Installation of a new clinker cooler to accommodate the modified kiln. Exhaust gases from the clinker cooler vent to the new in-line raw mill and pre-heater pre-calciner kiln baghouse;

(3) Modification to the existing finish mill and conversion of the existing raw mill to a second finish mill to support the cement kiln changes; and

(4) More emission control devices being installed and operated including:

a. Bag filters capable of achieving better control for new emission units and some existing emission units;

b. A lime injection system for SOx emissions control; and

c. A selective non-catalytic reduction (SNCR) technology for NOx emissions control.

Resulting from 2016 modernization, the new kiln configuration is capable of producing 850,000 short tons of clinker per year.

The SIC code for a Portland cement manufacturing plant is 3241.

2. FACILITY INVENTORY LIST

Emission Units Summary:

Group1 – Fugitive Emissions from Quarry and Crushing Operation – Not Subject to MACT

Group2 – Point Sources Emissions from Quarry and Crushing Operation, and Wood Chip Storage Bin - Not Subject to MACT

Group 3 – Material Handling – Fugitive Sources – Not Subject to MACT Requirements

Group 4 – Material Handling – Fugitive Sources – Subject to MACT Requirements

Group 5 – Material Handling – Point Sources, including Entirely Enclosed Conveying System Transfer – Subject to MACT Requirements

Group 6 – Kiln, In-line Raw Mill, In-line Coal Mill, Clinker Cooler, and Alkali-bypass - Subject to MACT requirements

Group 7 – Finish Mill Systems – Subject to MACT Requirements

Group 8 – Miscellaneous Sources Venting or Enclosed Inside Building – Subject to MACT Requirements

Group 9 – Emergency Generator and Coal Mill Heater

Group	Emission Unit Number	MDE Registration Number	Emissions Unit Name	Emissions Unit Description	Installation Date
	Combustion Sources				
6	461-KL1	043-0008-6-0495	Main Kiln Stack (emissions from coal mill, in-line raw mill, kiln, and clinker cooler)	Point source – controlled by SNCR and baghouse 421-BF3	1970 and modernized in 2016
9	E31-EG1	043-0008-9-0218	Emergency Generator	Point source – uncontrolled	2016
9	L51-HG1	043-0008-6-0495	Coal Mill Heater	Point source - uncontrolled	1970
9	N/A	N/A	One 150 HP Emergency Generator (listed in insignificant activities)	Point Source - uncontrolled	2012
9	N/A	N/A	One 475 HP Quarry dewatering Pump (listed in insignificant activities)	Point Source - uncontrolled	2013
	Crushing Operations Registration Number 043-0008-6-0494				
1 & 2	211-BC2	043-0008-6-0494	Transfer from belt conveyor (211-BC2) to pan feeder (211-VF2) through hopper	Fugitive emissions controlled - Dust collector (211-BF1); Enclosed in Building	1970
1 & 2	211-BC3	043-0008-6-0494	Transfer from belt conveyor (211-BC3) to screen (211-VS1)	Fugitive emissions controlled - Dust collector (211-BF1); Enclosed in Building	1970

Group	Emission Unit Number	MDE Registration Number	Emissions Unit Name	Emissions Unit Description	Installation Date
1 & 2	211-BF1	043-0008-6-0494	Transfer from dust collector (211-BF1) to belt conveyor (291-BC1)	Fugitive emissions controlled - Dust collector (211-BF1); Enclosed in Building	1970
1 & 2	211-IM2	043-0008-6-0494	Transfer from crusher (211-IM2) to belt conveyor (291-BC1)	Fugitive emissions controlled - Dust collector (211-BF1); Enclosed in Building	1970
1 & 2	211-VF2	043-0008-6-0494	Transfer from pan feeder (211-VF2) to belt conveyor (211-BC3)	Fugitive emissions controlled - Dust collector (211-BF1); Enclosed in Building	1970
1 & 2	211-VS1	043-0008-6-0494	Screen	Fugitive emissions controlled - Dust collector (211-BF1); Enclosed in Building	1970
1 & 2	211-VS1	043-0008-6-0494	Transfer from screen (211-VS1) to belt conveyor (291-BC1)	Fugitive emissions controlled - Dust collector (211-BF1); Enclosed in Building	1970
1 & 2	291-BC1	043-0008-6-0494	Transfer from belt conveyor (291-BC1) to stacker conveyor (291-ST2)	Fugitive emissions controlled - Dust collector (211-BF1); Enclosed in Building	1999
1 & 2	291-BC1	043-0008-6-0494	Transfer from belt conveyor (291-BC1) to belt conveyor (291-BC2)	Fugitive emissions controlled - Dust collector (211-BF1); Enclosed in Building	1999
1	211-IM2	043-0008-6-0494	Secondary Crusher	Fugitive emissions controlled - Enclosed in building	1970
1	211-VS1	043-0008-6-0494	Transfer from screen (211-VS1) to crusher (211-IM2)	Fugitive emissions controlled - Enclosed in Building	1970
1	311-BF1	043-0008-6-0494	Transfer from dust collector (311-BF1) to belt conveyor (311-BC2)	Fugitive emissions controlled - Enclosed in Building	1970
1	291-3M1	043-0008-6-0494	Transfer from dome storage pile (291-3M1) to belt conveyor (311-BC1)	Fugitive emissions controlled - Enclosed Underground	1999
1	311-BC1	043-0008-6-0494	Transfer from belt conveyor (311-BC1) to belt conveyor (311-BC2)	Fugitive emissions controlled - Enclosed Underground	1970
1	311-HP1	043-0008-6-0494	Transfer from stone hopper (311-HP1) to belt conveyor (311-BC1) via vibratory feeder (311-VF1)	Fugitive emissions controlled - Enclosed Underground	1970
1	291-BC2	043-0008-6-0494	Transfer from belt conveyor (291-BC2) to stacker conveyor (291-ST1)	Fugitive emissions controlled - Enclosed in Q34 Dome	1999
1	291-ST1	043-0008-6-0494	Drop from stacker conveyor (291-ST1) to dome storage pile (291-3M1)	Fugitive emissions controlled - Enclosed in Q34 Dome	1999
1	211-IM1	043-0008-6-0494	Transfer from crusher (211-IM1) to conveyor (211-BC1)	Fugitive emissions controlled - Partially Enclosed	1970
1	Alumina Loader	043-0008-6-0494	Transfer from loader to Alumina storage bin (W01-HP1)	Fugitive emissions controlled - Partially Enclosed	1970
1	Iron Loader	043-0008-6-0494	Transfer from loader to iron storage bin (W01-HP2)	Fugitive emissions controlled - Partially Enclosed	1970
1	Sand Loader	043-0008-6-0494	Transfer from loader to sand storage bin (X01-HP1)	Fugitive emissions controlled - Partially Enclosed	1970
1	211-IM1	043-0008-6-0494	Primary Crusher	Fugitive emissions controlled - Wet Suppression	1970

Group	Emission Unit Number	MDE Registration Number	Emissions Unit Name	Emissions Unit Description	Installation Date
1	211-VF1	043-0008-6-0494	Transfer from loader to crusher (211-IM1) via vibratory feeder (211-VF1)	Fugitive emissions controlled - Wet Suppression	1970
1	211-BC1	043-0008-6-0494	Transfer from belt conveyor (211-BC1) to belt conveyor (211-BC4)	Fugitive emissions uncontrolled	1970
1	211-BC4	043-0008-6-0494	Transfer from belt conveyor (211-BC4) to belt conveyor (211-BC2)	Fugitive emissions uncontrolled	1970
1	291-ST2	043-0008-6-0494	Drop from stacker conveyor (291-ST2) to outside stone storage	Fugitive emissions uncontrolled	1999
1	Loader	043-0008-6-0494	Transfer from loader to stone hopper (311-HP1)	Fugitive emissions uncontrolled	1970
1	Outside Stone Storage	043-0008-6-0494	Transfer from outside stone storage pile to loader	Fugitive emissions uncontrolled	1970
1	Quarry Drilling	043-0008-6-0494	Drilling in Quarry	Fugitive emissions uncontrolled	1970
8	W01-AF1	043-0008-6-0494	Transfer from belt feeder (W01-AF1) to belt conveyor (X01-BC2)	Fugitive emissions controlled - Enclosed in Building	1970
8	W01-AF2	043-0008-6-0494	Transfer from belt feeder (W01-AF2) to belt conveyor (X01-BC1)	Fugitive emissions controlled - Enclosed in Building	1970
8	W01-HP1	043-0008-6-0494	Transfer from Alumina storage bin to belt feeder (W01-AF1)	Fugitive emissions controlled - Enclosed in Building	1970
8	W01-HP2	043-0008-6-0494	Transfer from iron storage bin (W01-HP2) to belt feeder (W01-AF2)	Fugitive emissions controlled - Enclosed in Building	1970
8	X01-AF1	043-0008-6-0494	Transfer from belt feeder (X01-AF1) to belt conveyor (X01-BC1)	Fugitive emissions controlled - Enclosed in Building	1970
8	X01-BC1	043-0008-6-0494	Transfer from belt conveyor (X01-BC1) to belt conveyor (X01-BC2)	Fugitive emissions controlled - Enclosed in Building	1970
8	X01-BC2	043-0008-6-0494	Transfer from belt conveyor (X01-BC2) to belt conveyor (311-BC2)	Fugitive emissions controlled - Enclosed in Building	1970
8	X01-BC3	043-0008-6-0494	Transfer from belt conveyor (X01-BC3) to belt conveyor (311-BC2)	Fugitive emissions controlled - Enclosed in Building	1970
8	X01-HP1	043-0008-6-0494	Transfer from sand storage bin (X01-HP1) to belt feeder (X01-AF1)	Fugitive emissions controlled - Enclosed in Building	1970
5 & 8	X01-BC2	043-0008-6-0494	Transfer from belt conveyor (X01-BC2) to crusher (X01-HC1)	Fugitive emissions controlled - Dust collector (311-BF1); Enclosed in Building	1970
5 & 8	X01-HC1	043-0008-6-0494	Transfer from crusher (X01-HC1) to belt conveyor (X01-BC3)	Fugitive emissions controlled - Dust collector (311-BF1); Enclosed in Building	1970
1 & 2	X01-HC1	043-0008-6-0494	Shale crusher	Fugitive emissions controlled - Dust collector (311-BF1); Enclosed in Building	1970

Group	Emission Unit Number	MDE Registration Number	Emissions Unit Name	Emissions Unit Description	Installation Date
	Raw Grinding Registration Number 043-0008-6-0495				
5 & 8	311-3B7	043-0008-6-0495	Transfer from limestone feed bin (311-3B7) to weigh belt feeder (331-WF5)	Fugitive emissions controlled - Dust collector (331-BF1); Enclosed in Building	2016
5 & 8	311-3B8	043-0008-6-0495	Transfer from shale feed bin (311-3B8) to weigh belt feeder (331-WF6)	Fugitive emissions controlled - Dust collector (331-BF1); Enclosed in Building	2016
5 & 8	331-WF5	043-0008-6-0495	Transfer from weigh belt feeder (331-WF5) to belt conveyor (331-BC2)	Fugitive emissions controlled - Dust collector (331-BF1); Enclosed in Building	2016
5 & 8	331-WF6	043-0008-6-0495	Transfer from weigh belt feeder (331-WF6) to belt conveyor (331-BC2)	Fugitive emissions controlled - Dust collector (331-BF1); Enclosed in Building	2016
5 & 8	331-BF1	043-0008-6-0495	Transfer from dust collector (331-BF1) to screw conveyor (331-SC1)	Fugitive emissions controlled - Dust collector (331-BF1); Enclosed in Building	2016
5 & 8	311-3B9	043-0008-6-0495	Transfer from sand feed bin (311-3B9) to weigh feeder (331-WF8)	Fugitive emissions controlled - Dust collector (331-BF2); Enclosed in Building	2016
5 & 8	311-3BA	043-0008-6-0495	Transfer from mill scale feed bin (311-3BA) to weigh belt feeder (331-WF7)	Fugitive emissions controlled - Dust collector (331-BF2); Enclosed in Building	2016
5 & 8	331-BF2	043-0008-6-0495	Transfer from dust collector (331-BF2) to screw conveyor (331-SC2)	Fugitive emissions controlled - Dust collector (331-BF2); Enclosed in Building	2016
5 & 8	331-WF7	043-0008-6-0495	Transfer from weigh belt feeder (331-WF7) to belt conveyor (331-BC2)	Fugitive emissions controlled - Dust collector (331-BF2); Enclosed in Building	2016
5 & 8	331-WF8	043-0008-6-0495	Transfer from weigh feeder (331-WF8) to belt conveyor (331-BC2)	Fugitive emissions controlled - Dust collector (331-BF2); Enclosed in Building	2016
5 & 8	331-BC2	043-0008-6-0495	Transfer from conveyor belt (331-BC2) to raw mill (361-RM1) via rotary feeder (361-RF1)	Fugitive emissions controlled - Dust collector (331-BF3); Enclosed in Building	2016
5 & 8	331-BF3	043-0008-6-0495	Transfer from dust collector (331-BF3) to belt conveyor (331-BC2)	Fugitive emissions controlled - Dust collector (331-BF3); Enclosed in Building	2016
5 & 8	361-BC1	043-0008-6-0495	Transfer from belt conveyor (361-BC1) to belt conveyor (331-BC2)	Fugitive emissions controlled - Dust collector (331-BF3); Enclosed in Building	2016
5 & 8	311-BC5	043-0008-6-0495	Transfer from belt conveyor (311-BC5) to shuttle belt conveyor (311-BC6)	Fugitive emissions controlled - Dust collector (311-BF4); Enclosed in Building	2016
5 & 8	311-BC5	043-0008-6-0495	Transfer from belt conveyor (311-BC5) to shale feed bin (311-3B8)	Fugitive emissions controlled - Dust collector (311-BF4); Enclosed in Building	2016
5 & 8	311-BC6	043-0008-6-0495	Transfer from shuttle belt conveyor (311-BC6) to feed bins (311-3B7, 311-3BA, 311-3B9)	Fugitive emissions controlled - Dust collector (311-BF4); Enclosed in Building	2016

Group	Emission Unit Number	MDE Registration Number	Emissions Unit Name	Emissions Unit Description	Installation Date
5 & 8	311-BF4	043-0008-6-0495	Transfer from dust collector (311-BF4) to pebbled limestone feed bin (311-3B7)	Fugitive emissions controlled - Dust collector (311-BF4); Enclosed in Building	2016
5 & 8	311-BF5	043-0008-6-0495	Transfer from dust collector (311-BF5) to sand feed bin (311-3BA)	Fugitive emissions controlled - Dust collector (311-BF5); Enclosed in Building	2016
5 & 8	331-BC2	043-0008-6-0495	Transfer from belt conveyor (331-BC2) to reject bin (361-3B1)	Fugitive emissions controlled - Dust collector (361-BF7); Enclosed in Building	2016
5 & 8	361-BF7	043-0008-6-0495	Transfer from dust collector (361-BF7) to reject bin (361-3B1)	Fugitive emissions controlled - Dust collector (361-BF7); Enclosed in Building	2016
5 & 8	361-BC3	043-0008-6-0495	Transfer from belt conveyor (361-BC3) to belt conveyor (361-BC1)	Fugitive emissions controlled - Dust collector (361-BF9); Enclosed in Building	2016
5 & 8	361-BF9	043-0008-6-0495	Transfer from dust collector (361-BF9) to belt conveyor (361-BC1)	Fugitive emissions controlled - Dust collector (361-BF9); Enclosed in Building	2016
4& 5	361-BC3	043-0008-6-0495	Transfer from belt conveyor (361-BC3) to pile	Fugitive emissions controlled - Dust collector (361-BF9); Partially Enclosed	2016
8	311-BC2	043-0008-6-0495	Transfer from belt conveyor (311-BC2) to belt conveyor (311-BC5)	Fugitive emissions controlled - Enclosed in Building	1970
8	331-SC1	043-0008-6-0495	Transfer from screw conveyor (331-SC1) to belt conveyor (331-BC2)	Fugitive emissions controlled - Enclosed in Building	1970
8	331-SC2	043-0008-6-0495	Transfer from screw conveyor (331-SC2) to belt conveyor (331-BC2)	Fugitive emissions controlled - Enclosed in Building	2016
8	361-3B1	043-0008-6-0495	Transfer from reject bin (361-3B1) to belt conveyor (361-BC3)	Fugitive emissions controlled - Enclosed in Building	2016
8	361-RM1	043-0008-6-0495	Transfer from raw mill (361-RM1) to vibration conveyor (361-VF1)	Fugitive emissions controlled - Enclosed in Building	2016
8	361-VF1	043-0008-6-0495	Transfer from vibration conveyor (361-VF1) to belt conveyor (361-BC1)	Fugitive emissions controlled - Enclosed in Building	2016
5	361-CN2/361-CN3	043-0008-6-0495	Transfer from cyclones (361-CN2 and 361-CN3) to airslide (391-AS2)	Fugitive emissions controlled - Dust collector (391-BF2); Entirely Enclosed	2016
5	391-AS2	043-0008-6-0495	Transfer from airslide (391-AS2) to hopper (391-HP1) via sample measuring unit (391-SM2)	Fugitive emissions controlled - Dust collector (391-BF2); Entirely Enclosed	2016
5	391-BF2	043-0008-6-0495	Transfer from dust collector (391-BF2) to hopper (391-HP1)	Fugitive emissions controlled - Dust collector (391-BF2); Entirely Enclosed	2016
5	421-SCJ	043-0008-6-0495	Transfer from screw conveyor (421-SCJ) to hopper (421-HP1) via sample measuring unit (421-SM1)	Fugitive emissions controlled - Dust Collector (421-BF3); Entirely Enclosed	2016

Group	Emission Unit Number	MDE Registration Number	Emissions Unit Name	Emissions Unit Description	Installation Date
	Kiln Feed Blending Registration Number 043-0008-6-0495				
5	391-BF1	043-0008-6-0495	Transfer from dust collector (391-BF1) to blending silo (391-3S1)	Fugitive emissions controlled - Dust collectors (391-BF1); Entirely Enclosed	1970
5	391-PP1	043-0008-6-0495	Transfer from pressure pump (391-PP1) to blending silo (391-3S2)	Fugitive emissions controlled - Dust collector (391-BF1); Entirely Enclosed	1970
5	391-PP1	043-0008-6-0495	Transfer from pressure pump (391-PP1) to blending silo (391-3S3)	Fugitive emissions controlled - Dust collector (391-BF1); Entirely Enclosed	1970
5	421-PP1	043-0008-6-0495	Transfer from pressure pump (421-PP1) to blending silo (391-3S1)	Fugitive emissions controlled - Dust collector (391-BF1); Entirely Enclosed	2016
5	421-PP1	043-0008-6-0495	Transfer from pressure pump (421-PP1) to blending silo (391-3S2)	Fugitive emissions controlled - Dust collector (391-BF1); Entirely Enclosed	2016
5	421-PP1	043-0008-6-0495	Transfer from pressure pump (421-PP1) to blending silo (391-3S3)	Fugitive emissions controlled - Dust collector (391-BF1); Entirely Enclosed	2016
5	431-PP1	043-0008-6-0495	Transfer from pressure pump (431-PP1) to blending silo (391-3S1)	Fugitive emissions controlled - Dust collector (391-BF1); Entirely Enclosed	1970
5	431-PP1	043-0008-6-0495	Transfer from pressure pump (431-PP1) to blending silo (391-3S2)	Fugitive emissions controlled - Dust collector (391-BF1); Entirely Enclosed	1970
5	431-PP1	043-0008-6-0495	Transfer from pressure pump (431-PP1) to blending silo (391-3S3)	Fugitive emissions controlled - Dust collector (391-BF1); Entirely Enclosed	1970
5	391-PP1	043-0008-6-0495	Transfer from pressure pump (391-PP1) to blending silo (391-3S1)	Fugitive emissions controlled - Dust collectors (391-BF1 and Blending Silo DC); Entirely Enclosed	1970
5 &8	Blending Silo DC	043-0008-6-0495	Transfer from blending silo DC to blending silo (391-3S1)	Fugitive emissions controlled - Dust collectors (391-BF1 and Blending Silo DC); Enclosed in Building	1970
5	411-AS3	043-0008-6-0495	Transfer from airslide (411-AS3) to Level Box	Fugitive emissions controlled - Dust collector (431-BF1); Entirely Enclosed	1976
5	411-AS4	043-0008-6-0495	Transfer from airslide (411-AS4) to Level Box	Fugitive emissions controlled - Dust collector (431-BF1); Entirely Enclosed	~~1976~~
5	431-BF1	043-0008-6-0495	Transfer from dust collector (431-BF1) to screw conveyor (431-SCX)	Fugitive emissions controlled - Dust Collector (431-BF1); Entirely Enclosed	1976
5	431-SCY	043-0008-6-0495	Transfer from screw conveyor (431-SCY) to hopper (431-HP1)	Fugitive emissions controlled - Dust collector (431-BF1); Entirely Enclosed	2016
5	P72-IJ2	043-0008-6-0495	Transfer from injector feeder (P72-IJ2) to Level Box	Fugitive emissions controlled - Dust Collector (431-BF1); Entirely Enclosed	2016
5	431-PP1	043-0008-6-0495	Transfer from pressure pump (431-PP1) to dust collector (431-BF4)	Fugitive emissions controlled - Dust Collector (431-BF4); Entirely Enclosed	1970

Group	Emission Unit Number	MDE Registration Number	Emissions Unit Name	Emissions Unit Description	Installation Date
5	P72-BF1	043-0008-6-0495	Transfer from dust collector (P72-BF1) to Lime Bin (P72-3B1)	Fugitive emissions controlled - Dust collector (P72-BF1); Entirely Enclosed	2016
4& 5	P72-3B1	043-0008-6-0495	Truck unload line to lime bin (P72-3B1)	Fugitive emissions controlled - Dust collector (P72-BF1)	2016
	Clinker Burning Registration Number 043-0008-6-0495				
5	461-KL1	043-0008-6-0495	Transfer from kiln (461-KL1) to clinker cooler (471-GQ2)	Fugitive emissions controlled - Dust Collector (471-BF1); Entirely Enclosed	2016
	Clinker Cooler Registration Number 043-0008-6-0495				
3	471-RC1	043-0008-6-0495	Clinker Crusher	Fugitive emissions controlled - Enclosed in Building	2016
5 & 8	471-RC1	043-0008-6-0495	Transfer from clinker crusher (471-RC1) to pan conveyor (491-AC1)	Fugitive emissions controlled - Dust Collector (491-BF7); Enclosed in Building	2016
5 & 8	491-BF7	043-0008-6-0495	Transfer from dust collector (491-BF7) to pan conveyor (491-AC1)	Fugitive emissions controlled - Dust Collector (491-BF7); Enclosed in Building	2016
5 & 8	491-AC1	043-0008-6-0495	Transfer from pan conveyor (491-AC1) to pan conveyor (491-AC2) via material sampler unit (491-SM1)	Fugitive emissions controlled - Dust Collector (491-BF8); Enclosed in Building	2016
5 & 8	491-BF8	043-0008-6-0495	Transfer from dust collector (491-BF8) to pan conveyor (491-AC2)	Fugitive emissions controlled - Dust Collector (491-BF8); Enclosed in Building	2016
	Clinker Handling Registration Numbers 043-0008-6-0496 and 0497				
4& 5	491-BC1	043-0008-6-0496 & 0497	Transfer from belt conveyor (491-BC1) to belt conveyor (511-BC1)	Fugitive emissions controlled - Dust collector (491-BF1); Partially Enclosed	1976
4 & 5	491-BF1	043-0008-6-0496 & 0497	Transfer from dust collector (491-BF1) to belt conveyor (491-BC2)	Fugitive emissions controlled - Dust collector (491-BF1); Partially Enclosed	1976
4& 5	511-BC3	043-0008-6-0496 & 0497	Transfer from belt conveyor (511-BC3) to belt conveyor (511-BC1)	Fugitive emissions controlled - Dust collector (491-BF1); Partially Enclosed	1976
5 & 8	491-AC2	043-0008-6-0496 & 0497	Transfer from pan conveyor (491-AC2) to belt conveyor (491-BC2)	Fugitive emissions controlled - Dust collector (491-BF1); Enclosed in Building	2016
5 & 8	491-AC2	043-0008-6-0496 & 0497	Transfer from pan conveyor (491-AC2) to Position No. 1 Silo (491-3S1)	Fugitive emissions controlled - Dust collector (491-BF1); Enclosed in Building	2016
5 & 8	491-BC2	043-0008-6-0496 & 0497	Transfer from pan conveyor (491-BC2) to clinker silos (491-3S1 thru -3S9 and 491-3SA)	Fugitive emissions controlled - Dust collector (491-BF2); Enclosed in Building	1976
5 & 8	491-BF2	043-0008-6-0496 & 0497	Transfer from dust collector (491-BF2) to clinker storage building (491-3M1) at position #10	Fugitive emissions controlled - Dust collector (491-BF2); Enclosed in Building	1976

Group	Emission Unit Number	MDE Registration Number	Emissions Unit Name	Emissions Unit Description	Installation Date
5 & 8	491-TR1	043-0008-6-0496 & 0497	Transfer from belt conveyor (491-BC2) to clinker storage building (491-3M1) via tripper (491-TR1) at 1 of 10 positions	Fugitive emissions controlled - Dust collector (491-BF2); Enclosed in Building	1976
5 & 8	491-BC3	043-0008-6-0496 & 0497	Transfer from belt conveyor (491-BC3) to clinker silo (491-3S1)	Fugitive emissions controlled - Dust collector (491-BF4); Enclosed in Building	1976
5 & 8	491-BF4	043-0008-6-0496 & 0497	Transfer from dust collector (491-BF4) to clinker silo (491-3S1) via rotary feeder (491-RF1)	Fugitive emissions controlled - Dust collector (491-BF4); Enclosed in Building	1976
5	491-BC2	043-0008-6-0496 & 0497	Transfer from belt conveyor (491-BC2) to bucket elevator (491-BE1)	Fugitive emissions controlled - Dust collector (491-BF4); Entirely Enclosed	1976
5	491-BE1	043-0008-6-0496 & 0497	Transfer from bucket elevator (491-BE1) to belt conveyor (491-BC3)	Fugitive emissions controlled - Dust collector (491-BF4); Entirely Enclosed	1976
5 & 8	511-BF1	043-0008-6-0496 & 0497	Transfer from dust collector (511-BF1) to belt conveyor (511-BC4) via rotary feeder (511-RF1)	Fugitive emissions controlled - Dust collector (511-BF1); Enclosed Underground	1976
5 & 8	491-3S1	043-0008-6-0496 & 0497	Transfer from clinker silo (491-3S1) to belt conveyor (511-BC4) via vibratory feeders (511-DFB, 511-DFC, and 511-DFD)	Fugitive emissions controlled - Dust collector (511-BF1); Enclosed Underground	1976
5 & 8	511-BC4	043-0008-6-0496 & 0497	Transfer from belt conveyor (511-BC4) to belt conveyor (511-BC3)	Fugitive emissions controlled - Dust collectors (511-BF1 and 511-BF2); Enclosed Underground	1976
5 & 8	K91-VF1	043-0008-6-0496 & 0497	Transfer from vibratory feeder (K91-VF1) to belt conveyor (511-BC4)	Fugitive emissions controlled - Dust collector (511-BF1); Enclosed Underground	1976
5 & 8	511-BF2	043-0008-6-0496 & 0497	Transfer from dust collector (511-BF2) to belt conveyor (511-BC3) via rotary feeder (511-RF2)	Fugitive emissions controlled - Duct collector (511-BF2); Enclosed Underground	1976
5 & 8	491-3M1	043-0008-6-0496 & 0497	Transfer from clinker storage building (491-3M1) to belt conveyor (511-BC3) via vibratory feeders (511-DFA through 511-DF1)	Fugitive emissions controlled - Dust collector (511-BF2); Enclosed Underground	1976
4& 5	511-BC1	043-0008-6-0496 & 0497	Transfer from belt conveyor (511-BC1) to belt conveyor (511-BC2)	Fugitive emissions controlled - Dust collector (511-BF4); Partially Enclosed	1976
4& 5	511-BF4	043-0008-6-0496 & 0497	Transfer from dust collector (511-BF4) to belt conveyor (511-BC2)	Fugitive emissions controlled - Dust collector (511-BF4); Partially Enclosed	1976
3	Loader	043-0008-6-0496 & 0497	Transfer from loader to vibratory feeder (K91-VF1)	Fugitive emissions uncontrolled	2016
2 & 3	Loader	043-0008-6-0496 & 0497	Transfer to loader from typical storage	Fugitive emissions controlled - Dust collector; Enclosed in building	2016

Group	Emission Unit Number	MDE Registration Number	Emissions Unit Name	Emissions Unit Description	Installation Date
2 & 3	Loader	043-0008-6-0496 & 0497	Transfer from loader to typical storage	Fugitive emissions controlled - Dust collector; Enclosed in building	2016
3	Loader	043-0008-6-0496 & 0497	Transfer from loader to storage pile	Fugitive emissions controlled - Moisture	2016
3	Loader	043-0008-6-0496 & 0497	Transfer from storage pile to loader	Fugitive emissions controlled - Moisture	2016
	Finish Grinding Registration Numbers 043-0008-6-0496 and 0497				
5 & 8	511-BC2	043-0008-6-0496 & 0497	Transfer from belt conveyor (511-BC2) to limestone bin (512-3B4) via tripper (511-TR1)	Fugitive emissions controlled - Dust collector (511-BF2); Enclosed in Building	1976
5 & 8	511-BC2	043-0008-6-0496 & 0497	Transfer from F43-1 belt conveyor (511-BC2) to gypsum bin (512-3B3) via F45 tripper (511-TR1)	Fugitive emissions controlled - Dust collector (511-BF2); Enclosed in Building	1976
5 & 8	511-BC2	043-0008-6-0496 & 0497	Transfer from belt conveyor (511-BC2) to clinker bin (512-3B2) via tripper (511-TR1)	Fugitive emissions controlled - Dust collector (511-BF2); Enclosed in Building	1976
5 & 8	511-BC2	043-0008-6-0496 & 0497	Transfer from belt conveyor (511-BC2) to clinker bin (512-3B1) via tripper (511-TR1)	Fugitive emissions controlled - Dust collector (511-BF2); Enclosed in Building	1976
5 & 8	511-BF2	043-0008-6-0496 & 0497	Transfer from baghouse (511-BF2) to limestone bin (512-3B4)	Fugitive emissions controlled - Dust collector (511-BF2); Enclosed in Building	1976
5 & 8	511-BC2	043-0008-6-0496 & 0497	Transfer from belt conveyor (511-BC2) to gypsum bin (K91-3B3) via tripper (511-TR1)	Fugitive emissions controlled - Dust collector (511-BF3); Enclosed in Building	1976
5 & 8	511-BC2	043-0008-6-0496 & 0497	Transfer from belt conveyor (511-BC2) to bin #1 clinker (511-3B2) via tripper (511-TR1)	Fugitive emissions controlled - Dust collector (511-BF3); Enclosed in Building	1976
5 & 8	511-BC2	043-0008-6-0496 & 0497	Transfer from belt conveyor (511-BC2) to bin #2 clinker (K91-3B1) via tripper (511-TR1)	Fugitive emissions controlled - Dust collector (511-BF3); Enclosed in Building	1976
5 & 8	511-BC2	043-0008-6-0496 & 0497	Transfer from belt conveyor (511-BC2) to gypsum bin (511-3B1) via tripper (511-TR1)	Fugitive emissions controlled - Dust collector (511-BF3); Enclosed in Building	1976
5 & 8	511-BF3	043-0008-6-0496 &0497	Transfer from dust collector (511-BF3) to bin #2 clinker (K91-3B1)	Fugitive emissions controlled - Dust collector (511-BF3); Enclosed in Building	1976
5 & 8	591-CN1	043-0008-6-0496 & 0497	Transfer from alleviator (591-CN1) to fringe bin (591-3B1)	Fugitive emissions controlled - Dust collector (511-BF3); Enclosed in Building	1976
5 & 8	531-BC1	043-0008-6-0496 & 0497	Transfer from belt conveyor (531-BC1) to finish mill (561-BM1)	Fugitive emissions controlled - Dust collector (561-BF1); Enclosed in Building	1976

Group	Emission Unit Number	MDE Registration Number	Emissions Unit Name	Emissions Unit Description	Installation Date
5 & 8	561-CN1	043-0008-6-0496 & 0497	Transfer from grit separator cyclone (561-CN1) to dust collector (561-BF1)	Fugitive emissions controlled - Dust collector (561-BF1); Enclosed in Building	1976
7	561-BM1	043-0008-6-0496 & 0497	Finish mill	Fugitive emissions controlled - Dust collector (561-BF1); Enclosed in Building	1976
5	561-AS2	043-0008-6-0496 & 0497	Transfer from airslide to separator (561-SR1)	Fugitive emissions controlled - Dust collector (561-BF2); Entirely Enclosed	1976
7	561-SR1	043-0008-6-0496 & 0497	Separator	Fugitive emissions controlled - Dust collector (561-BF2); Enclosed in Building	1976
5 &8	561-SR1	043-0008-6-0496 & 0497	Transfer from separator (561-SR1) to dust collector (561-BF2)	Fugitive emissions controlled - Dust collector (561-BF2); Enclosed in Building	1976
5	562-AS2	043-0008-6-0496 & 0497	Transfer from airslide (562-AS2) to air separator (562-SR1)	Fugitive emissions controlled - Dust collector (562-BF1); Entirely Enclosed	2016
5	562-AS3	043-0008-6-0496 & 0497	Transfer from airslide (562-AS3) to air separator (562-SR1)	Fugitive emissions controlled - Dust collector (562-BF1); Entirely Enclosed	2016
5	592-AS1	043-0008-6-0496 & 0497	Transfer from airslide (592-AS1) to cement cooler (592-CQ1)	Fugitive emissions controlled - Dust collector (562-BF1); Entirely Enclosed	2016
5	592-AS1	043-0008-6-0496 & 0497	Transfer from airslide (592-AS1) to pump (592-PP1)	Fugitive emissions controlled - Dust collector (562-BF1); Entirely Enclosed	2016
5	592-CQ1	043-0008-6-0496 & 0497	Transfer from cement cooler (592-CQ1) to pump (592-PP1)	Fugitive emissions controlled - Dust collector (562-BF1); Entirely Enclosed	2016
5	592-PP1	043-0008-6-0496 & 0497	Transfer from pump (592-PP1) to bulk silos via 592-DG1 and 592-DG2	Fugitive emissions controlled - Dust collector (562-BF1); Entirely Enclosed	2016
7	562-SR1	043-0008-6-0496 & 0497	Air separator	Fugitive emissions controlled - Dust collector (562-BF1); Enclosed in Building	2016
7	562-BM1	043-0008-6-0496 & 0497	Finish mill	Fugitive emissions controlled - Dust collector (562-BF2); Enclosed in Building	2016
5	562-AS5	043-0008-6-0496 & 0497	Transfer from airslide (562-AS5) to bucket elevator (562-BE1)	Fugitive emissions controlled - Dust collector (562-BF2); Entirely Enclosed	2016
5	562-BM1	043-0008-6-0496 & 0497	Transfer from finish mill (562-BM1) to airslide (562-AS5)	Fugitive emissions controlled - Dust collector (562-BF2); Entirely Enclosed	2016
5	562-CNA	043-0008-6-0496 & 0497	Transfer from primary collector (562-CNA) to bucket elevator (562-BE1)	Fugitive emissions controlled - Dust collector (562-BF2); Entirely Enclosed	2016
5	562-SR1	043-0008-6-0496 and 0497	Transfer from air separator (562-SR1) to airslide (592-AS1)	Fugitive emissions controlled - Dust collector (562-BF3); Entirely Enclosed	2016
5 & 8	562-SR1	043-0008-6-0496 & 0497	Transfer from air separator (562-SR1) to air slide (562-AS4)	Fugitive emissions controlled - Dust collector (562-BF3); Enclosed in Building	2016

Group	Emission Unit Number	MDE Registration Number	Emissions Unit Name	Emissions Unit Description	Installation Date
5 & 8	512-3B1	043-0008-6-0496 & 0497	Transfer from clinker bin (512-3B1) to weigh feeder (532-WF1)	Fugitive emissions controlled - Dust collector (562-BF3); Enclosed in Building	2016
5 & 8	512-3B2	043-0008-6-0496 & 0497	Transfer from clinker bin (512-3B2) to apron feeder (532-AF2)	Fugitive emissions controlled - Dust collector (562-BF3); Enclosed in Building	2016
5 & 8	532-AF2	043-0008-6-0496 & 0497	Transfer from apron feeder (532-AF2) to weigh feeder (532-WF2)	Fugitive emissions controlled - Dust collector (562-BF3); Enclosed in Building	2016
5 & 8	532-BC1	043-0008-6-0496 & 0497	Transfer from belt conveyor (532-BC1) to finish mill (562-BM1)	Fugitive emissions controlled - Dust collector (562-BF3); Enclosed in Building	2016
5 & 8	532-WF1	043-0008-6-0496 & 0497	Transfer from weigh feeder (532-WF1) to weigh feeder (532-WF2)	Fugitive emissions controlled - Dust collector (562-BF3); Enclosed in Building	2016
5 & 8	532-WF2	043-0008-6-0496 & 0497	Transfer from weigh feeder (532-WF2) to belt conveyor (532-BC1)	Fugitive emissions controlled - Dust collector (562-BF3); Enclosed in Building	2016
5 & 8	532-WF3	043-0008-6-0496 & 0497	Transfer from weigh feeder (532-WF3) to belt conveyor (532-BC1)	Fugitive emissions controlled - Dust collector (562-BF3); Enclosed in Building	2016
5 & 8	532-WF4	043-0008-6-0496 & 0497	Transfer from weigh feeder (532-WF4) to belt conveyor (532-BC1)	Fugitive emissions controlled - Dust collector (562-BF3); Enclosed in Building	2016
5 & 8	531-WF1	043-0008-6-0496 & 0497	Transfer from weigh feeder (531-WF1) to belt conveyor (531-BC1)	Fugitive emissions controlled - To Be routed to Existing DC; Enclosed in Building	1976
5 & 8	531-WF2	043-0008-6-0496 & 0497	Transfer from weigh feeder (531-WF2) to belt conveyor (531-BC1)	Fugitive emissions controlled - To Be routed to Existing DC; Enclosed in Building	1976
5 & 8	531-WF3	043-0008-6-0496 & 0497	Transfer from weigh feeder (531-WF3) to belt conveyor (531-BC1)	Fugitive emissions controlled - To Be routed to Existing DC; Enclosed in Building	1976
5 & 8	531-WF4	043-0008-6-0496 & 0497	Transfer from weigh feeder (531-WF4) to belt conveyor (531-BC1)	Fugitive emissions controlled - To Be routed to Existing DC; Enclosed in Building	1976
5 & 8	531-WF5	043-0008-6-0496 & 0497	Transfer from weigh feeder (531-WF5) to belt conveyor (531-BC1)	Fugitive emissions controlled - To Be routed to Existing DC; Enclosed in Building	1976
5 & 8	K91-3B1	043-0008-6-0496 & 0497	Transfer from bin #2 clinker (K91-3B1) to weigh feeder (531-WF3)	Fugitive emissions controlled - To Be routed to Existing DC; Enclosed in Building	1976
5 & 8	K91-3B2	043-0008-6-0496 & 0497	Transfer from stone/slag bin (K91-3B2) to weigh feeder (531-WF1)	Fugitive emissions controlled - To Be routed to Existing DC; Enclosed in Building	1976
5 & 8	K91-3B3	043-0008-6-0496 & 0497	Transfer from gypsum bin (K91-3B3) to weigh feeder (531-WF5)	Fugitive emissions controlled - To Be routed to Existing DC; Enclosed in Building	1976
5 & 8	511-3B1	043-0008-6-0496 & 0497	Transfer from gypsum bin (511-3B1) to weigh feeder (531-WF4)	Fugitive emissions controlled - To Be routed to Existing DC; Enclosed in Building	1976
5 & 8	511-3B2	043-0008-6-0496 & 0497	Transfer from bin #1 clinker (511-3B2) to weigh feeder (531-WF2)	Fugitive emissions controlled - To Be routed to Existing DC; Enclosed in Building	1976

Group	Emission Unit Number	MDE Registration Number	Emissions Unit Name	Emissions Unit Description	Installation Date
8	512-3B3	043-0008-6-0496 & 0497	Transfer from gypsum bin (512-3B3) to weigh feeder (532-WF3)	Fugitive emissions controlled - Enclosed in Building	2016
8	512-3B4	043-0008-6-0496 & 0497	Transfer from limestone bin (512-3B4) to weigh feeder (532-WF4)	Fugitive emissions controlled - Enclosed in Building	2016
4	561-BL1	043-0008-6-0496 & 0497	Unload line from truck unload blower (561-BL1) to fringe bin (591-3B1)	Fugitive emissions controlled - Partially Enclosed	1976
	Bulk Silos Registration Numbers 043-0008-6-0496 and 0497				
5	591-PP1/591-PP2	043-0008-6-0496 & 0497	Transfer from F-K pumps (591-PP1 and 591-PP2) to bulk silos (silos #21-25, 31-34, and 41-45)	Fugitive emissions controlled - Dust collectors (591-BF1 and 591-BF3); Entirely Enclosed	1976
5 & 8	591-BF1	043-0008-6-0496 & 0497	Transfer from dust collector (591-BF1) to bulk silos (silos #21-25, 31-34, and 41-45)	Fugitive emissions controlled - Dust collectors (591-BF1 and 591-BF3); Enclosed in Building	1976
5 & 8	591-BF3	043-0008-6-0496 & 0497	Transfer from dust collector (591-BF3) to bulk silos (silos #21-25, 31-34, and 41-45)	Fugitive emissions controlled - Dust collectors (591-BF1 and 591-BF3); Enclosed in Building	1976
5	611-PP2/611-PP3	043-0008-6-0496 & 0497	Transfer from F-K pumps (611-PP2 and 611-PP3) to bulk silos (silos #21-25, 31-34, and 41-45)	Fugitive emissions controlled - Dust collectors (591-BF1 and 591-BF3); Entirely Enclosed	1976
5	621-ASD	043-0008-6-0496 & 0497	Transfer from airslide (621-ASD) to loading chute (621-TC2)	Fugitive emissions controlled - Dust collector (621-BF1); Entirely Enclosed	1976
5	621-ASE	043-0008-6-0496 & 0497	Transfer from airslide (621-ASE) to loading chute (621-TC2)	Fugitive emissions controlled - Dust collector (621-BF1); Entirely Enclosed	1976
5	621-BF1	043-0008-6-0496 & 0497	Transfer from dust collector (621-BF1) to loading chute (621-TC2) via airslide (621-AS2)	Fugitive emissions controlled - Dust collector (621-BF1); Entirely Enclosed	1976
4& 5	621-TC2	043-0008-6-0496 & 0497	Transfer from loading chute (621-TC2) to rail/truck	Fugitive emissions controlled - Dust collector (621-BF1); Partially Enclosed	1976
5 & 8	Silo #23	043-0008-6-0496 & 0497	Transfer from silo #23 to loading chute (621-TC2) via rotary valve (621-VA1)	Fugitive emissions controlled - Dust collector (621-BF1); Enclosed in Building	1976
5	621-AS7	043-0008-6-0496 & 0497	Transfer from airslide (621-AS7) to loading chute (621-TC1)	Fugitive emissions controlled - Dust collector (621-BF2); Entirely Enclosed	1976
5	621-AS8	043-0008-6-0496 & 0497	Transfer from airslide (621-AS8) to loading chute (621-TC1)	Fugitive emissions controlled - Dust collector (621-BF2); Entirely Enclosed	1976
5	621-BF2	043-0008-6-0496 & 0497	Transfer from dust collector (621-BF2) to loading chute (621-TC1) via airslide (621-AS1)	Fugitive emissions controlled - Dust collector (621-BF2); Entirely Enclosed	1976
4& 5	621-TC1	043-0008-6-0496 & 0497	Transfer from loading chute (621-TC1) to rail/truck	Fugitive emissions controlled - Dust collector (621-BF2); Partially Enclosed	1976

Group	Emission Unit Number	MDE Registration Number	Emissions Unit Name	Emissions Unit Description	Installation Date
5 & 8	Silo #43	043-0008-6-0496 & 0497	Transfer from silo #43 to loading chute (621-TC1) via rotary valve (621-VA2)	Fugitive emissions controlled - Dust collector (621-BF2); Enclosed in Building	1976
	Coal Handling Registration Number 043-0008-6-0495				
8	451-3B1	043-0008-6-0495	Transfer from coal feed hopper (451-3B1) to weigh feeder (451-PF1)	Fugitive emissions controlled - Enclosed in Building	2016
8	451-PF1	043-0008-6-0495	Transfer from weigh feeder (451-PF1) to kiln (461-KL1)	Fugitive emissions controlled - Enclosed in Building	2016
8	481-3B1	043-0008-6-0495	Transfer from coal feed hopper (481-3B1) to weigh feeder (481-PF2)	Fugitive emissions controlled - Enclosed in Building	2016
8	481-PF2	043-0008-6-0495	Transfer from weigh feeder (481-P21) to kiln (461-KL1)	Fugitive emissions controlled - Enclosed in Building	2016
3	Coal Delivery	043-0008-6-0495	Drop from loader to storage pile	Fugitive emissions uncontrolled	1970
3	L31-HP2	043-0008-6-0495	Transfer from loader to coal storage bin (L31-HP2)	Fugitive emissions controlled - Partially Enclosed	1970
3	L31-HP2	043-0008-6-0495	Transfer from coal hopper (L31-HP2) to roller mill (L61-RM1)	Fugitive emissions controlled - Enclosed in Building	1970
6	L61-RM1	043-0008-6-0495	Coal Roller Mill	Fugitive emissions controlled - Enclosed in Building	2016
5 &8	L61-RM1	043-0008-6-0495	Transfer from coal mill (L61-RM1) to cyclone (L91-CN1)	Fugitive emissions controlled - Dust collector (L91-BF1); Enclosed in Building	2016
5	L91-3B1	043-0008-6-0495	Transfer from I-bin (L91-3B1) to hopper (L91-HP1) via rotary feeder (L91-RF3)	Fugitive emissions controlled - Dust Collector (L91-BF1); Entirely Enclosed	1970
5	L91-CN1	043-0008-6-0495	Transfer from cyclone (L91-CN1) to screw conveyor (L91-SC1)	Fugitive emissions controlled - Dust collector (L91-BF1); Entirely Enclosed	1970
5	L91-PP1	043-0008-6-0495	Transfer from pressure pump (L91-PP1) to coal storage (L91-3B2)	Fugitive emissions controlled - Dust Collector (L91-BF2); Entirely Enclosed	2016
3	Loader	043-0008-6-0495	Transfer from storage pile to loader	Fugitive emissions uncontrolled	1970
	Storage Piles				
3	Storage Pile	043-0008-6-0495	GAF Stockpile	Fugitive emissions controlled - Partially enclosed	1970
3	Storage Pile	043-0008-6-0495	Iron Ore Stockpile	Fugitive emissions controlled - Partially enclosed	1970
3	Storage Pile	043-0008-6-0495	Sand Stockpile	Fugitive emissions controlled - Partially enclosed	1970
3	Storage Pile	043-0008-6-0495	Outside Stone Storage	Fugitive emissions uncontrolled	1970
3	Storage Pile	043-0008-6-0495	Enclosed Stone Pile	Fugitive emissions controlled - Enclosed in dome	1970
3	Storage Pile	043-0008-6-0495	Reject Pile	Fugitive emissions controlled - Partially enclosed	2016
4	Storage Pile	043-0008-6-0495	CKD Pile	Fugitive emissions controlled - Dust Control Actions	1970
3	Storage Pile	043-0008-6-0495	Gypsum storage	Fugitive emissions controlled - Partially enclosed	1970

Group	Emission Unit Number	MDE Registration Number	Emissions Unit Name	Emissions Unit Description	Installation Date
3	Storage Pile	043-0008-6-0495	Emergency Coal Pile	Fugitive emissions uncontrolled	1970
3	Storage Pile	043-0008-6-0495	Coal storage	Fugitive emissions controlled - Partially enclosed	1970
4	Storage Pile	043-0008-9-0223	Clinker Pile 1	Fugitive emissions controlled - Partially enclosed	2016
4	Storage Pile	043-0008-9-0223	Clinker Pile 2	Fugitive emissions controlled - Partially enclosed	2016
4	Storage Pile	043-0008-9-0223	Clinker Pile 3	Fugitive emissions controlled - Partially enclosed	2016
	Dust Collectors (A dust collector is not an emission unit and all dust collectors are grouped into their associated emission units)				
N/A	4A1-BF1	043-0008-6-0495	Main Kiln Stack Baghouse	Point Source	2016
N/A	V14-BF1	043-0008-6-0495	Wood Chip Bin Dust Collector	Point Source	1999
N/A	311-BF4	043-0008-6-0495	Roller Mill Feed Bins Dust Collector	Point Source	2016
N/A	311-BF5	043-0008-6-0495	Roller Mill Feed Bins Dust Collector	Point Source	2016
N/A	331-BF1	043-0008-6-0495	Roller Mill Feed Dust Collector	Point Source	2016
N/A	331-BF2	043-0008-6-0495	Roller Mill Feed Dust Collector	Point Source	2016
N/A	331-BF3	043-0008-6-0495	Roller Mill Feed Dust Collector	Point Source	2016
N/A	361-BF7	043-0008-6-0495	Roller Mill Reject Bin Dust Collector	Point Source	2016
N/A	361-BF9	043-0008-6-0495	Roller Mill Outlet Dust Collector	Point Source	1970
N/A	391-BF1	043-0008-6-0495	Roller Mill/Blending Silos Dust Collector	Point Source	1970
N/A	391-BF2	043-0008-6-0495	Feed Hopper Dust Collector	Point Source	2016
N/A	431-BF1	043-0008-6-0495	Kiln Feed Dust Collector	Point Source	1970
N/A	431-BF4	043-0008-6-0495	Kiln Feed Dust Collector	Point Source	2016
N/A	491-BF6	043-0008-6-0496 & 0497	North Clinker Transfer Tower Dust Collector	Point Source	1976
N/A	491-BF7	043-0008-6-0495	Clinker cooler outlet Dust Collector	Point Source	2016
N/A	491-BF8	043-0008-6-0495	Clinker cooler outlet Dust Collector	Point Source	2016
N/A	4A1-BF1	043-0008-6-0495	CKD Loadout Dust Collector	Point Source	2016
N/A	562-BF1	043-0008-6-0496 & 0497	Converted Finish Mill Air Separator Dust Collector	Point Source	1976
N/A	562-BF2	043-0008-6-0496 & 0497	Converted Finish Mill Dust Collector	Point Source	2016
N/A	562-BF3	043-0008-6-0496 & 0497	Converted Finish Mill Outlet Dust Collector	Point Source	2016
N/A	Blending Silo DC	043-0008-6-0495	Blending silos Dust Collector	Point Source	1970

Group	Emission Unit Number	MDE Registration Number	Emissions Unit Name	Emissions Unit Description	Installation Date
N/A	621-BF1	043-0008-6-0496 & 0497	Bulk Silos Material Loadout Dust Collector	Point Source	1976
N/A	621-BF2	043-0008-6-0496 and 0497	Bulk Silos Material Loadout Dust Collector	Point Source	1976
N/A	511-BF4	043-0008-6-0496 & 0497	South Clinker Transfer Tower Dust Collector	Point Source	1976
N/A	491-BF1	043-0008-6-0496 & 0497	North Clinker Transfer Tower Dust Collector	Point Source	1976
N/A	591-BF1	043-0008-6-0496 & 0497	Bulk Silos Dust Collector	Point Source	1976
N/A	561-BF1	043-0008-6-0496 & 0497	Finish Mill Dust Collector	Point Source	1976
N/A	561-BF2	043-0008-6-0496 & 0497	Finish Mill Air Separator Dust Collector	Point Source	1976
N/A	511-BF3	043-0008-6-0496 & 0497	Finish Mill Feed Bins Dust Collector	Point Source	1976
N/A	591-BF3	043-0008-6-0496 & 0497	Bulk Silos Dust Collector	Point Source	1976
N/A	491-BF2	043-0008-6-0496 & 0497	Clinker Storage Building Dust Collector	Point Source	1976
N/A	511-BF2	043-0008-6-0496 & 0497	Clinker Storage Building Dust Collector	Point Source	1976
N/A	491-BF4	043-0008-6-0496 & 0497	Clinker Storage Silo Dust Collector	Point Source	1976
N/A	511-BF1	043-0008-6-0496 & 0497	Clinker Storage Silo Dust Collector	Point Source	1976
N/A	L91-BF1	043-0008-6-0495	Coal Mill Dust Collector	Point Source	1970
N/A	L91-BF2	043-0008-6-0495	Fine Coal Storage Dust Collector	Point Source	2016
N/A	P72-BF1	043-0008-6-0495	Hydrated Lime Bin Dust Collector	Point Source	2016
N/A	211-BF1	043-0008-6-0494	Limestone Handling Dust Collector	Point Source	1970
N/A	311-BF1	043-0008-6-0494	Shale Crusher Dust Collector	Point Source	1970
N/A	TBD	043-0008-6-0496 & 0497	Finish Mill De-dusting Dust Collector	Point Source	2016
	Roads				
3	Haul Roads	043-0008-6-0495	Raw Materials Delivery	Fugitive emissions	1970
1	Haul Roads	043-0008-6-0494	Quarry Haul Roads	Fugitive emissions	1970
3	Haul Roads	043-0008-6-0495	CKD to Pile	Fugitive emissions	1970
3	Haul Roads	043-0008-0496 & 0497	Sales Road	Fugitive emissions	1970

N/A - A dust collector is not an emission unit and all dust collectors are grouped into their associated emission units.

SECTION II GENERAL CONDITIONS

1. DEFINITIONS

[COMAR 26.11.01.01] and [COMAR 26.11.02.01]

The words or terms in this Part 70 permit shall have the meanings established under COMAR 26.11.01 and .02 unless otherwise stated in this permit.

2. ACRONYMS

ARMA	Air and Radiation Management Administration
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEM	Continuous Emissions Monitor
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COMAR	Code of Maryland Regulations
EPA	United States Environmental Protection Agency
FR	Federal Register
gr	grains
HAP	Hazardous Air Pollutant
MACT	Maximum Achievable Control Technology
MDE	Maryland Department of the Environment
MVAC	Motor Vehicle Air Conditioner
NESHAPS	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards
NSR	New Source Review
OTR	Ozone Transport Region
PM	Particulate Matter
PM10	Particulate Matter with Nominal Aerodynamic Diameter of 10 micrometers or less
ppm	parts per million
ppb	parts per billion
PSD	Prevention of Significant Deterioration
PTC	Permit to construct
PTO	Permit to operate (State)
SIC	Standard Industrial Classification
SO_2	Sulfur Dioxide
TAP	Toxic Air Pollutant

tpy	tons per year
VE	Visible Emissions
VOC	Volatile Organic Compounds

3. EFFECTIVE DATE

The effective date of the conditions in this Part 70 permit is the date of permit issuance, unless otherwise stated in the permit.

4. PERMIT EXPIRATION

[COMAR 26.11.03.13B(2)]

Upon expiration of this permit, the terms of the permit will automatically continue to remain in effect until a new Part 70 permit is issued for this facility provided that the Permittee has submitted a timely and complete application and has paid applicable fees under COMAR 26.11.02.16.

Otherwise, upon expiration of this permit the right of the Permittee to operate this facility is terminated.

5. PERMIT RENEWAL

[COMAR 26.11.03.02B(3)] and [COMAR 26.11.03.02E]

The Permittee shall submit to the Department a completed application for renewal of this Part 70 permit at least 12 months before the expiration of the permit. Upon submitting a completed application, the Permittee may continue to operate this facility pending final action by the Department on the renewal.

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall submit such supplementary facts or corrected information no later than 10 days after becoming aware that this occurred. The Permittee shall also provide additional information as necessary to address any requirements that become applicable to the facility after the date a completed application was submitted, but prior to the release of a draft permit. This information shall be submitted to the Department no later than 20 days after a new requirement has been adopted.

6. CONFIDENTIAL INFORMATION

[COMAR 26.11.02.02G]

In accordance with the provisions of the State Government Article, Sec. 10-611 et seq., Annotated Code of Maryland, all information submitted in an application shall be considered part of the public record and available for inspection and copying, unless the Permittee claims that the information is confidential when it is submitted to the Department. At the time of the request for inspection or copying, the Department will make a determination with regard to the confidentiality of the information. The Permittee, when requesting confidentiality, shall identify the information in a manner specified by the Department and, when requested by the Department, promptly provide specific reasons supporting the claim of confidentiality. Information submitted to the Department without a request that the information be deemed confidential may be made available to the public. Subject to approval of the Department, the Permittee may provide a summary of confidential information that is suitable for public review. The content of this Part 70 permit is not subject to confidential treatment.

7. PERMIT ACTIONS

[COMAR 26.11.03.06E(3)] and [COMAR 26.11.03.20(A)]

This Part 70 permit may be revoked or reopened and revised for cause. The filing of an application by the Permittee for a permit revision or renewal; or a notification of termination, planned changes or anticipated noncompliance by the facility, does not stay a term or condition of this permit.

The Department shall reopen and revise, or revoke the Permittee's Part 70 permit under the following circumstances:

a. Additional requirements of the Clean Air Act become applicable to this facility and the remaining permit term is 3 years or more;

b. The Department or the EPA determines that this Part 70 permit contains a material mistake, or is based on false or inaccurate information supplied by or on behalf of the Permittee;

c. The Department or the EPA determines that this Part 70 permit must be revised or revoked to assure compliance with applicable requirements of the Clean Air Act; or

d. Additional requirements become applicable to an affected source under the Federal Acid Rain Program.

e.

8. PERMIT AVAILABILITY

[COMAR 26.11.02.13G]

The Permittee shall maintain this Part 70 permit in the vicinity of the facility for which it was issued, unless it is not practical to do so, and make this permit immediately available to officials of the Department upon request.

9. REOPENING THE PART 70 PERMIT FOR CAUSE BY THE EPA

[COMAR 26.11.03.20B]

The EPA may terminate, modify, or revoke and reissue a permit for cause as prescribed in 40 CFR §70.7(g)

10. TRANSFER OF PERMIT

[COMAR 26.11.02.02E]

The Permittee shall not transfer this Part 70 permit except as provided in COMAR 26.11.03.15.

11. REVISION OF PART 70 PERMITS – GENERAL CONDITIONS

[COMAR 26.11.03.14] and [COMAR 26.11.03.06A(8)]

a. The Permittee shall submit an application to the Department to revise this Part 70 permit when required under COMAR 26.11.03.15 -.17.

b. When applying for a revision to a Part 70 permit, the Permittee shall comply with the requirements of COMAR 26.11.03.02 and .03 except that the application for a revision need include only information listed that is related to the proposed change to the source and revision to the permit. This information shall be sufficient to evaluate the proposed change and to determine whether it will comply with all applicable requirements of the Clean Air Act.

c. The Permittee may not change any provision of a compliance plan or schedule in a Part 70 permit as an administrative permit amendment or as a minor permit modification unless the change has been approved by the Department in writing.

d. A permit revision is not required for a change that is provided for in this permit relating to approved economic incentives, marketable permits, emissions trading, and other similar programs.

12. SIGNIFICANT PART 70 OPERATING PERMIT MODIFICATIONS

[COMAR 26.11.03.17]

The Permittee may apply to the Department to make a significant modification to its Part 70 Permit as provided in COMAR 26.11.03.17 and in accordance with the following conditions:

a. A significant modification is a revision to the federally enforceable provisions in the permit that does not qualify as an administrative permit amendment under COMAR 26.11.03.15 or a minor permit modification as defined under COMAR 26.11.03.16.

b. This permit does not preclude the Permittee from making changes, consistent with the provisions of COMAR 26.11.03, that would make the permit or particular terms and conditions of the permit irrelevant, such as by shutting down or reducing the level of operation of a source or of an emissions unit within the source. Air pollution control equipment shall not be shut down or its level of operation reduced if doing so would violate any term of this permit.

c. Significant permit modifications are subject to all requirements of COMAR 26.11.03 as they apply to permit issuance and renewal, including the requirements for applications, public participation, and review by affected states and EPA, except:

(1) An application need include only information pertaining to the proposed change to the source and modification of this permit, including a description of the change and modification, and any new applicable requirements of the Clean Air Act that will apply if the change occurs;

(2) Public participation, and review by affected states and EPA, is limited to only the application and those federally enforceable terms and

conditions of the Part 70 permit that are affected by the significant permit modification.

d. As provided in COMAR 26.11.03.15B(5), an administrative permit amendment may be used to make a change that would otherwise require a significant permit modification if procedures for enhanced preconstruction review of the change are followed that satisfy the requirements of 40 CFR 70.7(d)(1)(v).

e. Before making a change that qualifies as a significant permit modification, the Permittee shall obtain all permits-to-construct and approvals required by COMAR 26.11.02.

f. The Permittee shall not make a significant permit modification that results in a violation of any applicable requirement of the Clean Air Act.

g. The permit shield in COMAR 26.11.03.23 applies to a final significant permit modification that has been issued by the Department, to the extent applicable under COMAR 26.11.03.23.

13. MINOR PERMIT MODIFICATIONS

[COMAR 26.11.03.16]

The Permittee may apply to the Department to make a minor modification to the federally enforceable provisions of this Part 70 permit as provided in COMAR 26.11.03.16 and in accordance with the following conditions:

a. A minor permit modification is a Part 70 permit revision that:

(1) Does not result in a violation of any applicable requirement of the Clean Air Act;

(2) Does not significantly revise existing federally enforceable monitoring, including test methods, reporting, record keeping, or compliance certification requirements except by:

(a) Adding new requirements,

(b) Eliminating the requirements if they are rendered meaningless because the emissions to which the requirements apply will no longer occur, or

(c) Changing from one approved test method for a pollutant and source category to another;

(3) Does not require or modify a:

(a) Case-by-case determination of a federally enforceable emissions standard,

(b) Source specific determination for temporary sources of ambient impacts, or

(c) Visibility or increment analysis;

(4) Does not seek to establish or modify a federally enforceable permit term or condition for which there is no corresponding underlying applicable requirement of the Clean Air Act, but that the Permittee has assumed to avoid an applicable requirement to which the source would otherwise be subject, including:

(a) A federally enforceable emissions standard applied to the source pursuant to COMAR 26.11.02.03 to avoid classification as a Title I modification; and

(b) An alternative emissions standard applied to an emissions unit pursuant to regulations promulgated under Section 112(i)(5) of the Clean Air Act

(5) Is not a Title I modification; and

(6) Is not required under COMAR 26.11.03.17 to be processed as a significant modification to this Part 70 permit.

b. Application for a Minor Permit Modification

The Permittee shall submit to the Department an application for a minor permit modification that satisfies the requirements of COMAR 26.11.03.03 which includes the following:

(1) A description of the proposed change, the emissions resulting from the change, and any new applicable requirements that will apply if the change is made;

(2) The proposed minor permit modification;

(3) Certification by a responsible official, in accordance with COMAR 26.11.02.02F, that:

(a) The proposed change meets the criteria for a minor permit modification, and

(b) The Permittee has obtained or applied for all required permits-to-construct required by COMAR 26.11.03.16 with respect to the proposed change;

(4) Completed forms for the Department to use to notify the EPA and affected states, as required by COMAR 26.11.03.07-.12.

c. Permittee's Ability to Make Change

(1) For changes proposed as minor permit modifications to this permit that will require the applicant to obtain a permit to construct, the permit to construct must be issued prior to the new change.

(2) During the period of time after the Permittee applies for a minor modification but before the Department acts in accordance with COMAR 26.11.03.16F(2):

(a) The Permittee shall comply with applicable requirements of the Clean Air Act related to the change and the permit terms and conditions described in the application for the minor modification.

(b) The Permittee is not required to comply with the terms and conditions in the permit it seeks to modify. If the Permittee fails to comply with the terms and conditions in the application during this time, the terms and conditions of both this permit and the application for modification may be enforced against it.

d. The Permittee is subject to enforcement action if it is determined at any time that a change made under COMAR 26.11.03.16 is not within the scope of this regulation.

e. Minor permit modification procedures may be used for Part 70 permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, but only to the extent that the minor permit modification procedures are explicitly provided for in regulations approved by the EPA as part of the Maryland SIP or in other applicable requirements of the Clean Air Act.

14. ADMINISTRATIVE PART 70 OPERATING PERMIT AMENDMENTS

[COMAR 26.11.03.15]

The Permittee may apply to the department to make an administrative permit amendment as provided in COMAR 26.11.03.15 and in accordance with the following conditions:

a. An application for an administrative permit amendment shall:

(1) Be in writing;

(2) Include a statement certified by a responsible official that the proposed amendment meets the criteria in COMAR 26.11.03.15 for an administrative permit amendment, and

(3) Identify those provisions of this part 70 permit for which the amendment is requested, including the basis for the request.

b. An administrative permit amendment:

(1) Is a correction of a typographical error;

(2) Identifies a change in the name, address, or phone number of a person identified in this permit, or a similar administrative change involving the Permittee or other matters which are not directly related to the control of air pollution;

(3) requires more frequent monitoring or reporting by the Permittee;

(4) Allows for a change in ownership or operational control of a source for which the Department determines that no other revision to the permit is necessary and is documented as per COMAR 26.11.03.15B(4);

(5) Incorporates into this permit the requirements from preconstruction review permits or approvals issued by the Department in accordance with COMAR 26.11.03.15B(5), but only if it satisfies 40 CFR 70.7(d)(1)(v);

(6) Incorporates any other type of change, as approved by the EPA, which is similar to those in COMAR 26.11.03.15B(1) - (4);

(7) Notwithstanding COMAR 26.11.03.15B(1) - (6), all modifications to acid rain control provisions included in this Part 70 permit are governed

by applicable requirements promulgated under Title IV of the Clean Air Act; or

(8) Incorporates any change to a term or condition specified as State-only enforceable, if the Permittee has obtained all necessary permits-to-construct and approvals that apply to the change.

c. The Permittee may make the change addressed in the application for an administrative amendment upon receipt by the Department of the application, if all permits-to-construct or approvals otherwise required by COMAR 26.11.02 prior to making the change have first been obtained from the Department.

d. The permit shield in COMAR 26.11.03.23 applies to administrative permit amendments made under Section B(5) of COMAR 26.11.03.15 , but only after the Department takes final action to revise the permit.

e. The Permittee is subject to enforcement action if it is determined at any time that a change made under COMAR 26.11.03.15 is not within the scope of this regulation.

15. OFF-PERMIT CHANGES TO THIS SOURCE

[COMAR 26.11.03.19]

The Permittee may make off-permit changes to this facility as provided in COMAR 26.11.03.19 and in accordance with the following conditions:

a. The Permittee may make a change to this permitted facility that is not addressed or prohibited by the federally enforceable conditions of this Part 70 permit without obtaining a Part 70 permit revision if:

(1) The Permittee has obtained all permits and approvals required by COMAR 26.11.02 and .03;

(2) The change is not subject to any requirements under Title IV of the Clean Air Act;

(3) The change is not a Title I modification; and

(4) The change does not violate an applicable requirement of the Clean Air Act or a federally enforceable term or condition of the permit.

b. For a change that qualifies under COMAR 26.11.03.19, the Permittee shall provide contemporaneous written notice to the Department and the EPA, except for a change to an emissions unit or activity that is exempt from the Part 70 permit application, as provided in COMAR 26.11.03.04. This written notice shall describe the change, including the date it was made, any change in emissions, including the pollutants emitted, and any new applicable requirements of the Clean Air Act that apply as a result of the change.

c. Upon satisfying the requirements of COMAR 26.11.03.19, the Permittee may make the proposed change.

d. The Permittee shall keep a record describing:

(1) Changes made at the facility that result in emissions of a regulated air pollutant subject to an applicable requirement of the Clean Air Act, but not otherwise regulated under this permit; and

(2) The emissions resulting from those changes.

e. Changes that qualify under COMAR 26.11.03.19 are not subject to the requirements for Part 70 revisions.

f. The Permittee shall include each off-permit change under COMAR 26.11.03.19 in the application for renewal of the part 70 permit.

g. The permit shield in COMAR 26.11.03.23 does not apply to off-permit changes made under COMAR 26.11.03.19.

h. The Permittee is subject to enforcement action if it is determined that an off-permit change made under COMAR 26.11.03.19 is not within the scope of this regulation.

16. ON-PERMIT CHANGES TO SOURCES

[COMAR 26.11.03.18]

The Permittee may make on-permit changes that are allowed under Section 502(b)(10) of the Clean Air Act as provided in COMAR 26.11.03.18 and in accordance with the following conditions:

a. The Permittee may make a change to this facility without obtaining a revision to this Part 70 permit if:

(1) The change is not a Title I modification;

(2) The change does not result in emissions in excess of those expressly allowed under the federally enforceable provisions of the Part 70 permit for the Permittee's facility or for an emissions unit within the facility, whether expressed as a rate of emissions or in terms of total emissions;

(3) The Permittee has obtained all permits and approvals required by COMAR 26.11.02 and .03;

(4) The change does not violate an applicable requirement of the Clean Air Act;

(5) The change does not violate a federally enforceable permit term or condition related to monitoring, including test methods, record keeping, reporting, or compliance certification requirements;

(6) The change does not violate a federally enforceable permit term or condition limiting hours of operation, work practices, fuel usage, raw material usage, or production levels if the term or condition has been established to limit emissions allowable under this permit;

(7) If applicable, the change does not modify a federally enforceable provision of a compliance plan or schedule in this Part 70 permit unless the Department has approved the change in writing; and

(8) This permit does not expressly prohibit the change under COMAR 26.11.03.18.

b. The Permittee shall notify the Department and the EPA in writing of a proposed on-permit change under COMAR 26.11.03.18 not later than 7 days before the change is made. The written information shall include the following information:

(1) A description of the proposed change;

(2) The date on which the change is proposed to be made;

(3) Any change in emissions resulting from the change, including the pollutants emitted;

(4) Any new applicable requirement of the Clean Air Act; and

(5) Any permit term or condition that would no longer apply.

c. The responsible official of this facility shall certify in accordance with COMAR 26.11.02.02F that the proposed change meets the criteria for the use of on-permit changes under COMAR 26.11.03.18.

d. The Permittee shall attach a copy of each notice required by condition b. above to this Part 70 permit.

e. On-permit changes that qualify under COMAR 26.11.03.18 are not subject to the requirements for part 70 permit revisions.

f. Upon satisfying the requirements under COMAR 26.11.03.18, the Permittee may make the proposed change.

g. The permit shield in COMAR 26.11.03.23 does not apply to on-permit changes under COMAR 26.11.03.18.

h. The Permittee is subject to enforcement action if it is determined that an on-permit change made under COMAR 26.11.03.18 is not within the scope of the regulation or violates any requirement of the State air pollution control law.

17. FEE PAYMENT

[COMAR 26.11.02.16A(2) & (5)(b)]

a. The fee for this Part 70 permit is as prescribed in Regulation .19 of COMAR 26.11.02.

b. The fee is due on and shall be paid on or before each 12-month anniversary date of the permit.

c. Failure to pay the annual permit fee constitutes cause for revocation of the permit by the Department.

18. REQUIREMENTS FOR PERMITS-TO-CONSTRUCT AND APPROVALS

[COMAR 26.11.02.09.]

The Permittee may not construct or modify or cause to be constructed or modified any of the following sources without first obtaining, and having in current effect, the specified permits-to-construct and approvals:

a. New Source Review source, as defined in COMAR 26.11.01.01, approval required, except for generating stations constructed by electric companies;

b. Prevention of Significant Deterioration source, as defined in COMAR 26.11.01.01, approval required, except for generating stations constructed by electric companies;

c. New Source Performance Standard source, as defined in COMAR 26.11.01.01, permit to construct required, except for generating stations constructed by electric companies;

d. National Emission Standards for Hazardous Air Pollutants source, as defined in COMAR 26.11.01.01, permit to construct required, except for generating stations constructed by electric companies;

e. A stationary source of lead that discharges one ton per year or more of lead or lead compounds measured as elemental lead, permit to construct required, except for generating stations constructed by electric companies;

f. All stationary sources of air pollution, including installations and air pollution control equipment, except as listed in COMAR 26.11.02.10, permit to construct required;

g. In the event of a conflict between the applicability of (a.— e.) above and an exemption listed in COMAR 26.11.02.10, the provision that requires a permit applies.

h. Approval of a PSD or NSR source by the Department does not relieve the Permittee obtaining an approval from also obtaining all permits-to-construct required by (c.- g.) above.

19. CONSOLIDATION OF PROCEDURES FOR PUBLIC PARTICIPATION

[COMAR 26.11.02.11C] and [COMAR 26.11.03.01K]

The Permittee may request the Department to authorize special procedures for the Permittee to apply simultaneously, to the extent possible, for a permit to construct and a revision to this permit.

These procedures may provide for combined public notices, informational meetings, and public hearings for both permits but shall not adversely affect the rights of a person, including EPA and affected states, to obtain information about the application for a permit, to comment on an application, or to challenge a permit that is issued.

These procedures shall not alter any existing permit procedures or time frames.

20. PROPERTY RIGHTS

[COMAR 26.11.03.06E(4)]

This Part 70 permit does not convey any property rights of any sort, or any exclusive privileges.

21. SEVERABILITY

[COMAR 26.11.03.06A(5)]

If any portion of this Part 70 permit is challenged, or any term or condition deemed unenforceable, the remainder of the requirements of the permit continues to be valid.

22. INSPECTION AND ENTRY

[COMAR 26.11.03.06G(3)]

The Permittee shall allow employees and authorized representatives of the Department, the EPA, and local environmental health agencies, upon presentation of credentials or other documents as may be required by law, to:

a. Enter at a reasonable time without delay and without prior notification the Permittee's property where a Part 70 source is located, emissions-related activity is conducted, or records required by this permit are kept;

b. Have access to and make copies of records required by the permit;

c. Inspect all emissions units within the facility subject to the permit and all related monitoring systems, air pollution control equipment, and practices or operations regulated or required by the permit; and

d. Sample or monitor any substances or parameters at or related to the emissions units at the facility for the purpose of determining compliance with the permit.

23. DUTY TO PROVIDE INFORMATION

[COMAR 26.11.03.06E(5)]

The Permittee shall furnish to the Department, within a reasonable time specified by the Department, information requested in writing by the Department in order to determine whether the Permittee is in compliance with the federally enforceable conditions of this Part 70 permit, or whether cause exists for revising or revoking the permit. Upon request, the Permittee shall also furnish to the Department records required to be kept under the permit.

For information claimed by the Permittee to be confidential and therefore potentially not discloseable to the public, the Department may require the Permittee to provide a copy of the records directly to the EPA along with a claim of confidentiality.

The Permittee shall also furnish to the Department, within a reasonable time specified by the Department, information or records requested in writing by the Department in order to determine if the Permittee is in compliance with the State-only enforceable conditions of this permit.

24. COMPLIANCE REQUIREMENTS

[COMAR 26.11.03.06E(1)] and [COMAR 26.11.03.06A(11)] and [COMAR 26.11.02.05]

The Permittee shall comply with the conditions of this Part 70 permit. Noncompliance with the permit constitutes a violation of the Clean Air Act, and/or

the Environment Article Title 2 of the Annotated Code of Maryland and may subject the Permittee to:

a. Enforcement action,

b. Permit revocation or revision,

c. Denial of the renewal of a Part 70 permit, or

d. Any combination of these actions.

The conditions in this Part 70 permit are enforceable by EPA and citizens under the Clean Air Act except for the State-only enforceable conditions.

Under Environment Article Section 2-609, Annotated Code of Maryland, the Department may seek immediate injunctive relief against a person who violates this permit in such a manner as to cause a threat to human health or the environment.

25. CREDIBLE EVIDENCE

Nothing in this permit shall be interpreted to preclude the use of credible evidence to demonstrate noncompliance with any term of this permit.

26. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE

[COMAR 26.11.03.06E(2)]

The need to halt or reduce activity in order to comply with the conditions of this permit may not be used as a defense in an enforcement action.

27. CIRCUMVENTION

[COMAR 26.11.01.06]

The Permittee may not install or use any article, machine, equipment or other contrivance, the use of which, without resulting in a reduction in the total weight of emissions, conceals or dilutes emissions which would otherwise constitute a violation of any applicable air pollution control regulation.

28. PERMIT SHIELD

[COMAR 26.11.03.23]

A permit shield as described in COMAR 26.11.03.23 shall apply only to terms and conditions in this Part 70 permit that have been specifically identified as covered by the permit shield. Neither this permit nor COMAR 26.11.03.23 alters the following:

a. The emergency order provisions in Section 303 of the Clean Air Act, including the authority of EPA under that section;

b. The liability of the Permittee for a violation of an applicable requirement of the Clean Air Act before or when this permit is issued or for a violation that continues after issuance;

c. The requirements of the Acid Rain Program, consistent with Section 408(a) of the Clean Air Act;

d. The ability of the Department or EPA to obtain information from a source pursuant to Maryland law and Section 114 of the Clean Air Act; or

e. The authority of the Department to enforce an applicable requirement of the State air pollution control law that is not an applicable requirement of the Clean Air Act.

29. ALTERNATE OPERATING SCENARIOS

[COMAR 26.11.03.06A(9)]

For all alternate operating scenarios approved by the Department and contained within this permit, the Permittee, while changing from one approved scenario to another, shall contemporaneously record in a log maintained at the facility each scenario under which the emissions unit is operating and the date and time the scenario started and ended.

SECTION III PLANT WIDE CONDITIONS

1. PARTICULATE MATTER FROM CONSTRUCTION AND DEMOLITION

[COMAR 26.11.06.03D]

The Permittee shall not cause or permit any building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne.

2. OPEN BURNING

[COMAR 26.11.07]

Except as provided in COMAR 26.11.07.04, the Permittee shall not cause or permit an open fire from June 1 through August 31 of any calendar year. Prior to any open burning, the Permittee shall request and receive approval from the Department.

3. AIR POLLUTION EPISODE

[COMAR 26.11.05.04]

When requested by the Department, the Permittee shall prepare in writing standby emissions reduction plans, consistent with good industrial practice and safe operating procedures, for reducing emissions creating air pollution during periods of Alert, Warning, and Emergency of an air pollution episode.

4. REPORT OF EXCESS EMISSIONS AND DEVIATIONS

[COMAR 26.11.01.07] and [COMAR 26.11.03.06C(7)]

The Permittee shall comply with the following conditions for occurrences of excess emissions and deviations from requirements of this permit, including those in Section VI – State-only Enforceable Conditions:

a. Report any deviation from permit requirements that could endanger human health or the environment, by orally notifying the Department immediately upon discovery of the deviation;

b. Promptly report all occurrences of excess emissions that are expected to last for one hour or longer by orally notifying the Department of the onset and termination of the occurrence;

c. When requested by the Department the Permittee shall report all deviations from permit conditions, including those attributed to malfunctions as defined in COMAR 26.11.01.07A, within 5 days of the request by submitting a written description of the deviation to the Department. The written report shall include the cause, dates and times of the onset and termination of the deviation, and an account of all actions planned or taken to reduce, eliminate, and prevent recurrence of the deviation;

d. The Permittee shall submit to the Department semi-annual monitoring reports that confirm that all required monitoring was performed, and that provide accounts of all deviations from permit requirements that occurred during the reporting periods. Reporting periods shall be January 1 through June 30 and July 1 through December 31, and reports shall be submitted within 30 days of the end of each reporting period. Each account of deviation shall include a description of the deviation, the dates and times of onset and termination, identification of the person who observed or discovered the deviation, causes and corrective actions taken, and actions taken to prevent recurrence. If no deviations from permit conditions occurred during a reporting period, the Permittee shall submit a written report that so states.

e. When requested by the Department, the Permittee shall submit a written report to the Department within 10 days of receiving the request concerning an occurrence of excess emissions. The report shall contain the information required in COMAR 26.11.01.07D(2).

5. ACCIDENTAL RELEASE PROVISIONS

[COMAR 26.11.03.03B(23)] and [40 CFR 68]

Should the Permittee become subject to 40 CFR 68 during the term of this permit, the Permittee shall submit risk management plans by the date specified in 40 CFR 68.150 and shall certify compliance with the requirements of 40 CFR 68 as part of the annual compliance certification as required by 40 CFR 70.

The Permittee shall initiate a permit revision or reopening according to the procedures of 40 CFR 70.7 to incorporate appropriate permit conditions into the Permittee's Part 70 permit.

6. GENERAL TESTING REQUIREMENTS

[COMAR 26.11.01.04]

The Department may require the Permittee to conduct, or have conducted, testing to determine compliance with this Part 70 permit. The Department, at its option, may witness or conduct these tests. This testing shall be done at a reasonable time, and all information gathered during a testing operation shall be provided to the Department.

7. EMISSIONS TEST METHODS

[COMAR 26.11.01.04]

Compliance with the emissions standards and limitations in this Part 70 permit shall be determined by the test methods designated and described below or other test methods submitted to and approved by the Department.

Reference documents of the test methods approved by the Department include the following:

a. 40 CFR 60, appendix A

b. 40 CFR 51, appendix M

c. The Department's Technical Memorandum 91-01 "Test Methods and Equipment Specifications for Stationary Sources", (January 1991), as amended through Supplement 3, (October 1, 1997)

8. EMISSIONS CERTIFICATION REPORT

[COMAR 26.11.01.05-1] and [COMAR 26.11.02.19C] and [COMAR 26.11.02.19D]

The Permittee shall certify actual annual emissions of regulated pollutants from the facility on a calendar year basis.

a. The certification shall be on forms obtained from the Department and submitted to the Department not later than April 1 of the year following the year for which the certification is required;

b. The individual making the certification shall certify that the information is accurate to the individual's best knowledge. The individual shall be:

(1) Familiar with each source for which the certifications forms are submitted, and

(2) Responsible for the accuracy of the emissions information;

c. The Permittee shall maintain records necessary to support the emissions certification including the following information if applicable:

(1) The total amount of actual emissions of each regulated pollutant and the total of all regulated pollutants;

(2) An explanation of the methods used to quantify the emissions and the operating schedules and production data that were used to determine emissions, including significant assumptions made;

(3) Amounts, types and analyses of all fuels used;

(4) Emissions data from continuous emissions monitors that are required by this permit, including monitor calibration and malfunction information;

(5) Identification, description, and use records of all air pollution control equipment and compliance monitoring equipment including:

(a) Significant maintenance performed,
(b) Malfunctions and downtime, and
(c) Episodes of reduced efficiency of all equipment;

(6) Limitations on source operation or any work practice standards that significantly affect emissions; and

(7) Other relevant information as required by the Department.

9. COMPLIANCE CERTIFICATION REPORT

[COMAR 26.11.03.06G(6) and (7)]

The Permittee shall submit to the Department and EPA Region III a report certifying compliance with each term of this Part 70 permit including each

applicable standard, emissions limitation, and work practice for the previous calendar year by April 1 of each year.

a. The compliance certification shall include:

(1) The identification of each term or condition of this permit which is the basis of the certification;

(2) The compliance status;

(3) Whether the compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of each source, currently and over the reporting period; and

(5) Any other information required to be reported to the Department that is necessary to determine the compliance status of the Permittee with this permit.

b. The Permittee shall submit the compliance certification reports to the Department and EPA simultaneously.

10. CERTIFICATION BY RESPONSIBLE OFFICIAL

[COMAR 26.11.02.02F]

All application forms, reports, and compliance certifications submitted pursuant to this permit shall be certified by a responsible official as to truth, accuracy, and completeness. The Permittee shall expeditiously notify the Department of an appointment of a new responsible official.

The certification shall be in the following form:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

11. SAMPLING AND EMISSIONS TESTING RECORD KEEPING

[COMAR 26.11.03.06C(5)]

The Permittee shall gather and retain the following information when sampling and testing for compliance demonstrations:

a. The location as specified in this permit, and the date and time that samples and measurements are taken;

b. All pertinent operating conditions existing at the time that samples and measurements are taken;

c. The date that each analysis of a sample or emissions test is performed and the name of the person taking the sample or performing the emissions test;

d. The identity of the Permittee, individual, or other entity that performed the analysis;

e. The analytical techniques and methods used; and

f. The results of each analysis.

12. GENERAL RECORDKEEPING

[COMAR 26.11.03.06C(6)]

The Permittee shall retain records of all monitoring data and information that support the compliance certification for a period of five (5) years from the date that the monitoring, sample measurement, application, report or emissions test was completed or submitted to the Department.

These records and support information shall include:

a. All calibration and maintenance records;

b. All original data collected from continuous monitoring instrumentation;

c. Records which support the annual emissions certification; and

d. Copies of all reports required by this permit.

13. GENERAL CONFORMITY

[COMAR 26.11.26.09]

The Permittee shall comply with the general conformity requirements of 40 CFR 93, Subpart B and COMAR 26.11.26.09.

14. ASBESTOS PROVISIONS

[40 CFR 61, Subpart M]

The Permittee shall comply with 40 CFR 61, Subpart M when conducting any renovation or demolition activities at the facility.

15. OZONE DEPLETING REGULATIONS

[40 CFR 82, Subpart F]

The Permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for MVACs in subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the prohibitions and required practices pursuant to 40 CFR 82.154 and 82.156.

b. Equipment used during the maintenance, service, repair or disposal of appliances shall comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

c. Persons performing maintenance, service, repairs or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.

d. Persons disposing of small appliances, MVACS, and MVAC-like appliances as defined in 40 CFR 82.152, shall comply with record keeping requirements pursuant to 40 CFR 82.155.

e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.

f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

16. ACID RAIN PERMIT

Not applicable

SECTION IV PLANT SPECIFIC CONDITIONS

This section provides tables that include the emissions standards, emissions limitations, and work practices applicable to each emissions unit located at this facility. The Permittee shall comply with all applicable emissions standards, emissions limitations and work practices included herein.

The tables also include testing, monitoring, record keeping and reporting requirements specific to each emissions unit. In addition to the requirements included here in **Section IV**, the Permittee is also subject to the general testing, monitoring, record keeping and reporting requirements included in **Section III – Plant Wide Conditions** of this permit.

Unless otherwise provided in the specific requirements for an emissions unit, the Permittee shall maintain at the facility for at least five (5) years, and shall make available to the Department upon request, all records that the Permittee is required under this section to establish. [Authority: COMAR 26.11.03.06C(5)(g)]

Table IV – 1 **Fugitive Emissions from Quarry and Crushing Operation – Not Subject to MACT**	
1.0	**Emissions Unit Number(s)** **Quarry (Crushing) Operations (Registration Number 043-0008-6-0494)** 211-BC2, 211-BC3, transfer from dust collector (211-BF1) to belt conveyor (291-BC1), 211-IM2, 211-VF2, 211-VS1, 291-BC1, Transfer from dust collector (311-BF1) to belt conveyor (311-BC2), 291-3M1, 311-BC1, 311-HP1, 291-BC2, 291-ST1, 211-IM1, Alumina Loader, Iron Loader, Sand Loader, 211-VF1,211-BC1, 211-BC4, 291-ST2, Loader, Outside Stone Storage, Quarry Drilling, and X01-HC1. (Please see Section I, 2. Facility Inventory List Group 1) **Haul Roads** Quarry Haul Roads
1.1	**Applicable Standards/Limits :** **A. Visible Emissions and B. Particulate Matter** (1) **COMAR 26.11.06.03D**- Particulate Matter from Materials Handling and Construction. A person may not cause or permit any material to be handled, transported, or stored, or a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. (2) Affected facilities (as defined in §§60.670 and 60.671) that commenced construction, modification, or reconstruction after August 31,1983 but before April 22, 2008 must meet the following fugitive emission limits: **[40 CFR §60.672(b)]** (a) 10 percent opacity for grinding mills, screening operations, bucket elevators, transfer points on belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations of from any other affected facility (as defined in

Table IV – 1 **Fugitive Emissions from Quarry and Crushing Operation – Not Subject to MACT**	
	§§60.670 and 60.671); and (b) 15 percent opacity for crushers at which a capture system is not used. Note: This condition only applies to Emission Units 291-BC1, 291-3M1; 291-BC2, 291-ST1 and 291-ST2, which were installed in 1999.
1.2	**<u>Testing Requirements</u>:** A. & B (1) For opacity observations, the Permittee shall use Method 9 of Appendix A-4 of 40 CFR, Part 60 and the procedures in 40 CFR §60.11, with the following additions: (a) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet). (b) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (*e.g.,* road dust). The required observer position relative to the sun (Method 9 of Appendix A-4 of 40 CFR Part 60, Section 2.1) must be followed. (c) For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible. (d) The duration of the Method 9 observations must be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits in Table 3 of 40 CFR, Part 60, Subpart OOO must be based on the average of the five 6-minute averages. (e) Method 9 observations for buildings shall be conducted while all affected facilities inside the building are operating. **[40 CFR § 60.675(c)(1) and (d)]** (2) When determining compliance with the fugitive emissions standard for any affected facility described under §60.672(b) or §60.672(e)(1) of this subpart, the duration of the Method 9 (40 CFR part 60, appendix A-4) observations must be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits in Table 3 of this subpart must be based on the average of the five 6-minute averages. **[40 CFR § 60.675(c)(3)]**
1.3	**<u>Monitoring Requirements:</u>** A.& B. (1) Any fugitive emissions sources including crushing, screening, conveying, and other material handling operations shall be equipped with wet suppression systems, operational enclosures, or any equivalent emissions control mechanisms to reduce fugitive dust emissions. [**Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016]** (2) The Permittee shall prepare and update as needed the best management plan that describes the procedures and methods that will be used to take reasonable precautions. The management plan may be included in the written operation and

Table IV – 1 **Fugitive Emissions from Quarry and Crushing Operation – Not Subject to MACT**	
	maintenance plan required under the Portland Cement MACT. **[COMAR 26.11.03.06C]** ~~(3)~~ The Permittee shall control fugitive dust from plant roads and stockpiles by using water, chemical dust suppressants, or a combination of both, as needed. **[COMAR 26.11.03.06C]**
1.4	**Record Keeping Requirements:** A. & B. (1) The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of this subpart, including reports of opacity observations made using Method 9 (40 CFR part 60, appendix A-4) to demonstrate compliance with §60.672(b), (e) and (f). **[40 CFR §60.676(f)]** (2) The Permittee shall maintain the best management plan and records of the dates and inspection results for at least five (5) years and make them available to the Department upon request. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche.**[COMAR 26.11.03.06C]**
1.5	**Reporting Requirements:** A. & B. Please see the record keeping requirements.

A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.

Table IV – 2 **Point Sources Emissions from Quarry and Crushing Operation, including Wood Chip Storage Bin - Not Subject to MACT**	
2.0	**Emissions Unit Number(s)** **Quarry (Crushing) Operations (Registration Number 043-0008-6-0494)** Exhaust gases from emission units 211-BC2, 211-BC3, transfer from dust collector (211-BF1) to belt conveyor (291-BC1), 211-IM2, 211-VF2, Screen (211-VS1), and 291-BC1, controlled by dust collector (211-BF1). Exhaust gases from emission unitX01-HC1 (shale crusher), controlled by dust collector (311-BF1). Wood Chip Bin, controlled by dust collector (V14-BF1).
2.1	**Applicable Standards/Limits :** **A. Visible Emissions and B. Control of Particulate Matter** (1) COMAR 26.11.30.05(B)(1), which states that a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity.

Table IV – 2 **Point Sources Emissions from Quarry and Crushing Operation, including Wood Chip Storage Bin - Not Subject to MACT**	
	(2) COMAR 26.11.30.04(B)(1), which states that a person may not cause or permit particulate matter to be discharged from any installation in excess of 0.05 grains per standard cubic foot dry. (3) Affected facilities (as defined in §§60.670 and 60.671) that commenced construction, modification, or reconstruction after August 31,1983 but before April 22, 2008 with capture systems must meet the following stack emission limits: [**40 CFR §60.672(a)&(b)]** (a) a PM limit of 0.05 g/dscm (0.022 gr/dscf) except individual enclosed storage bins and other equipment as specified in §60.672(d) through (f); and (b) an opacity limit of 7 percent for dry control devices. Note: This condition only applies to Emission Unit 291-BC1 which was installed in 1999.
2.2	**<u>Testing Requirements</u>:** A.& B. (1) If visible emission being observed, the Department may require the Permittee to conduct a stack test for compliance determination and the Permittee shall determine compliance with the PM standards in §60.672(a) as follows: (a) Each stack emissions test shall be conducted in accordance with Method 5 of Appendix A-3 of 40 CFR, Part 60 or Method 17 of Appendix A-6 of 40 CFR, Part 60 to determine the particulate matter concentration. The sample volume shall be at least 1.70 DSCM (60 DSCF). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter. **[Reference 40 CFR §60.675(b)(1)]** (b) For opacity observations, the Permittee shall use Method 9 of Appendix A-4 of 40 CFR, Part 60 and the procedures in 40 CFR §60.11. **[Reference 40 CFR § 60.675(b)]** (2) During each stack emissions test or opacity observation, the affected equipment shall be operated at 90% or higher of its rated capacity.
2.3	**<u>Monitoring Requirements:</u>** A & B. The Permittee shall prepare preventive maintenance plan for baghouses that describes schedule of inspection and maintenance, methods of leaks and wear inspection, corrective measures, maintain a written record of the inspection and any action resulting from the inspection. **[COMAR 26.11.03.06C]**
2.4	**<u>Record Keeping Requirements</u>:** A & B (1) The Permittee shall maintain the log of inspection and maintenance records for at least five (5) years and make it available to the Department upon request. At a

Table IV – 2 **Point Sources Emissions from Quarry and Crushing Operation, including Wood Chip Storage Bin - Not Subject to MACT**	
	minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. **[COMAR 26.11.03.06C]** (2) The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of this subpart, including reports of opacity observations made using Method 9 (40 CFR part 60, appendix A-4) to demonstrate compliance with §60.672(b), (e) and (f). **[40 CFR §60.676(f)]**
2.5	**<u>Reporting Requirements</u>:** A & B (1) The Permittee shall submit a stack emissions testing protocol to the Department for review and approval at least 30 days prior to each stack emissions test. (2) Within 60days after the last day of any required stack emissions test or opacity observation, the Permittee shall submit to the Department the results.

A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.

Table IV – 3 **Material Handling – Fugitive Sources – Not Subject to MACT Requirements**	
3.0	**<u>Emissions Unit Numbers</u>** **<u>Coal Handling (Registration Number 043-0008-6-0495)</u>** Coal Delivery, L31-HP2, and Loader. **<u>Clinker Cooler (Registration Number 043-0008-6-0495)</u>** 471-RC1(Clinker Crusher) **<u>Clinker Handling (Registration Numbers 04-0008-6-0496 and 0497)</u>** Contingency clinker pile loaders **<u>Storage Piles</u>** Alumina Stockpile, Iron Stockpile, Sand Stockpile, Outside Stone Storage, Enclosed Stone Pile, Reject Pile, Gypsum storage, Emergency Coal Pile, and Coal storage. **<u>Haul Roads</u>** Raw materials delivery, CKD to pile, and sales road.
3.1	**<u>Applicable Standards/Limits</u>:** ***<u>A. Visible Emissions and B. Particulate Matter</u>*** **COMAR 26.11.06.03D** - Particulate Matter from Materials Handling and Construction. A person may not cause or permit any material to be handled, transported, or stored,

Table IV – 3
Material Handling – Fugitive Sources – Not Subject to MACT Requirements

	or a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne.
3.2	**Testing Requirements:** Please see the monitoring requirements.
3.3	**Monitoring Requirements:** A & B (1) Any fugitive emissions sources including crushing, screening, conveying, and other material handling operations shall be equipped with wet suppression systems, operational enclosures, or any equivalent emissions control mechanisms to reduce fugitive dust emissions. [**Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016]** (2) The Permittee shall control fugitive dust from plant roads and stockpiles by using water, chemical dust suppressants, or a combination of both, as needed. **[COMAR 26.11.03.06C]** (3) The Permittee shall comply with and update as needed the best management plan that describes the procedures and methods that will be used to take reasonable precautions. The management plan may be included in the written operation and maintenance plan required under the Portland Cement MACT. **[COMAR 26.11.03.06C]**
3.4	**Record Keeping Requirements:** A & B The Permittee shall maintain the best management plan and records of the dates and inspection results for at least five (5) years and make them available to the Department upon request. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. **[COMAR 26.11.03.06C]**
3.5	**Reporting Requirements:** Please see the record keeping requirements.

A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.

Table IV – 4
Material Handling - Fugitive Sources - Subject to MACT Requirements

4.0	**Emissions Unit Numbers** **Raw Grinding (Registration Number 043-0008-6-0495)** 361-BC3 **Kiln Feed Blending (Registration Number 043-0008-6-0495)** P72-3B1 **Clinker Handling (Registration Numbers 043-0008-6-0496 and 0497)** 491-BC1, Transfer from dust collector (491-BF1) to belt conveyor (491-BC2), 511-BC3, 511-BC1, and Transfer from dust collector (511-BF4) to belt conveyor (511-BC2). **Finish Grinding (Registration Numbers 043-0008-6-0496 and 0497)** 561-BL1 (from truck unload blower (561-BL1) to fringe bin (591-3B1) **Bulk Silos (Registration Numbers 043-0008-6-0496 and 0497)** 621-TC2 and 621-TC1 **Storage Piles** CKD Pile ,Clinker Pile 1, Clinker Pile 2, and Clinker Pile 3
4.1	**Applicable Standards/Limits:** **A. Visible Emissions Limitations& B. Control of Particulate Matter** (1) Each new or existing raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; bulk loading or unloading system; raw and finish mills; and each existing raw material dryer, at a facility which is a major source subject to the provisions of this subpart must not cause to be discharged any gases from these affected sources which exhibit opacity in excess of 10 percent. **[40 CFR §63.1345]** (2) **COMAR 26.11.06.03D** - Particulate Matter from Materials Handling and Construction. A person may not cause or permit any material to be handled, transported, or stored, or a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne.
4.2	**Testing Requirements:** A & B. Please see the monitoring requirements.
4.3	**Monitoring Requirements:** A & B. (1) The Permittee shall conduct required opacity monitoring in accordance with the provisions of paragraphs (f)(1)(i) through (vii) of 40 CFR §63.1350(f) and in accordance with the Permittee's monitoring plan developed under 40 CFR §63.1350(p). The Permittee must also develop an opacity monitoring plan in accordance with paragraphs (p)(1) through (4) and paragraph (o)(5), if applicable, of this section.

Table IV – 4
Material Handling - Fugitive Sources - Subject to MACT Requirements

	[40 CFR §63.1350(f)] (2) Any fugitive emissions sources including crushing, screening, conveying, and other material handling operations shall be equipped with wet suppression systems, operational enclosures, or any equivalent emissions control mechanisms to reduce fugitive dust emissions. **[Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016]** (3) The Permittee shall comply with and update as needed the written operations and maintenance plan [40 CFR §63.1347] which includes the following information: **[COMAR 26.11.03.06C]** (a) Procedures for proper operation and maintenance of the affected source and air pollution control devices in order to meet the emission limits and operating limits of §63.1345; and (b) Procedures of the opacity monitoring plan.
4.4	**Record Keeping Requirements:** A. & B. The Permittee shall maintain the written operations and maintenance plan and all records for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. **[40 CFR §63.1355]**
4.5	**Reporting Requirements:** A. & B. The Permittee shall submit a summary report semiannually which contains all failures to comply with any provision of the operation and maintenance plan developed in accordance with §63.1347(a). **[40 CFR §63.1354(b)(9)(v)]**

A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.

Table IV – 5
Material Handling – Point Sources, including Entirely Enclosed Conveying System Transfer – Subject to MACT Requirements

5.0 **Emissions Unit Numbers**

Raw Grinding (Registration Number 043-0008-6-0495)

Entirely Enclosed EU: 361-CN2/361-CN3, 391-AS2, and 391-BF2, controlled by one dust collector (391-BF2).

Entirely Enclosed EU: 421-SCJ, controlled by one dust collector (421-BF3).

EU: 311-3B7, 311-3B8, 331-WF5, 331-WF6, and transferring from dust collector (331-BF1) to screw conveyor (331-SC1), controlled by one dust collector (331-BF1).

EU: 311-3B9, 311-3BA, transfer from dust collector (331-BF2) to screw conveyor (331-SC2), 331-WF7, and 331-WF8, controlled by one dust collector (331-BF2).

EU: 331-BC2, transfer from dust collector (331-BF3) to belt conveyor (331-BC2), and 361-BC1, controlled by one dust collector (331-BF3).

EU: 311-BC5, 311-BC6, and Transfer from dust collector (311-BF4) to pebbled limestone feed bin (311-3B7), controlled by one dust collector (331-BF4).

EU: Transfer from dust collector (311-BF5) to sand feed bin (311-3BA), controlled by one dust collector (331-BF5).

EU: 311-BC2 and Transfer from dust collector (361-BF7) to reject bin (361-3B1), controlled by one dust collector (361-BF7).

EU: 361-BC3 and Transfer from dust collector (361-BF9) to belt conveyor (361-BC1), controlled by one dust collector (361-BF9).

Kiln Feed Blending (Registration Number 043-0008-6-0495)

Entirely Enclosed EU: Transferring from dust collector (391-BF1) to blending silo (391-3S1), 391-PP1, 421-PP1 and 431-PP1 controlled by one dust collector (391-BF1).

Entirely Enclosed EU: 391-PP1 controlled by two dust collectors (391-BF1 and Blending Silo DC).

Entirely Enclosed EU: 411-AS3, 411-AS4, transfer from dust collector (431-BF1) to screw conveyor (431-SCX), 431-SCY, P72-IJ2, controlled by one dust collector (431-BF1).

Entirely Enclosed EU: 431-PP1, controlled by one dust collector (431-BF4).

Entirely Enclosed EU: Transferring from dust collector (P72-BF1) to Lime Bin (P72-3B1) controlled by one dust collector (P72-BF1).

Table IV – 5
Material Handling – Point Sources, including Entirely Enclosed Conveying System Transfer – Subject to MACT Requirements

EU: Transfer from blending silo DC to blending silo (391-3S1), controlled by dust collectors (391-BF1 and Blending Silo DC).

EU: P72-3B1, controlled by one dust collector (P72-BF1).

Clinker Burning (Registration Number 043-0008-6-0495)

Entirely Enclosed EU: Transfer from kiln (461-KL1) to clinker cooler (471-GQ2), controlled by one dust collector (471-BF1).

Clinker cooler (Registration Number 043-0008-6-0495)

EU: Transfer from clinker crusher (471-RC1) to pan conveyor (491-AC1), and transfer from dust collector (491-BF7) to pan conveyor (491-AC1) controlled by dust collector (491-BF7).

EU: 491-AC1 and transfer from dust collector (491-BF8) to pan conveyor (491-AC2), controlled by dust collector (491-BF8).

Clinker Handling (Registration Numbers 043-0008-6-0496 and 0497)

Entirely Enclosed EU: 491-BC2, and 491-BE1, controlled by one dust collector (491-BF4).

EU: 491-BC1, transferring from F42 dust collector (491-BF1) to belt conveyor (491-BC2), 511-BC3, and 491-AC2, controlled by one dust collector (491-BF1).

EU: 491-BC2, transferring from F81-7 dust collector (491-BF2) to clinker storage building (491-3M1) at position #10, and 491-TR1, controlled by one dust collector (491-BF2).

EU: 491-BC3, and Transferring from F92-2 dust collector (491-BF4) to clinker silo (491-3S1) via rotary feeder (491-RF1), controlled by one dust collector (491-BF4).

EU: Transferring from dust collector (511-BF1) to belt conveyor (511-BC4) via rotary feeder (511-RF1), 491-3S1, 511-BC4, and K91-VF1 controlled by one dust collector (511-BF1).

EU: Transferring from dust collector (511-BF2) to belt conveyor (511-BC3) via rotary feeder (511-RF2), and 491-3M1 controlled by one dust collector(511-BF2).

EU: 511-BC1 and transferring from dust collector (511-BF4) to belt conveyor (511-BC2), controlled by one dust collector(511-BF4).

Finish Grinding (Registration Numbers 043-0008-6-0496 and 0497)

Entirely Enclosed EU: 561-AS2, controlled by one dust collector (561-BF2).

Table IV – 5
Material Handling – Point Sources, including Entirely Enclosed Conveying System Transfer – Subject to MACT Requirements

	Entirely Enclosed EU: 562-A2, 562-AS3, 592-AS1, 592-CQ1, and 592-PP1, controlled by one dust collector (562-BF1). Entirely Enclosed EU: 562-AS5, 562-BM1, and 562-CNA, controlled by one dust collector (562-BF2). Entirely Enclosed EU: Transferring from air separator (562-SR1) to airslide (592-AS1), controlled by one dust collector (562-BF3). EU: 511-BC2, transferring from baghouse (511-BF2) to limestone bin (512-3B4), controlled by one dust collector (511-BF2). EU: 511-BC2, transferring from dust collector (511-BF3) to bin #2 clinker (K91-3B1), and 591-CN1, controlled by one dust collector (511-BF3). EU: 531-BC1and 561-CN1, controlled by one dust collector (561-BF1). EU: Transferring from separator (561-SR1) to dust collector (561-BF2), controlled by one dust collector (561-BF2). EU: 562-SR1, 512-3B1, 512-3B2, 532-AF2, 532-BC1, 532-WF1, 532-WF2, 532-WF3, 532-WF4, controlled by one dust collector (562-BF3). EU: 531-WF1, 531-WF2, 531-WF3, 531-WF4, 531-WF5, K91-3B1, K91-3B2, K91-3B3, 511-3B1, and 511-3B2, controlled by an existing dust collector. **Bulk Silos (Registration Numbers 043-0008-6-0496 and 0497)** Entirely Enclosed EU: 591-PP1/591-PP2 and 611-PP2/611-PP3, controlled by dust collectors (591-BF1 and 591-BF3). Entirely Enclosed EU: 621-ASD, 621-ASE, and transfer from dust collector (621-BF1) to loading chute (621-TC2) via airslide (621-AS2), controlled by one dust collector (621-BF1). Entirely Enclosed EU: 621-AS7, 621-AS8, and transfer from dust collector (621-BF2) to loading chute (621-TC1) via airslide (621-TC1), controlled by one dust collector (621-BF2). EU: Transferring from dust collector (591-BF1) to bulk silos (silos #21-25, 31-34, and 41-45) and transfer from dust collector (591-BF3) to bulk silos (silos #21-25, 31-34, and 41-45), controlled by dust collectors (591-BF1 and 591-BF3). EU: 621-TC2 and Silo #23, controlled by one dust collectors (621-BF1).

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	EU: 621-TC1 and Silo #43, controlled by one dust collectors (621-BF2). **<u>Coal Handling (Registration Number 043-0008-6-0495)</u>** Entirely Enclosed EU: L91-3B1 and L91-CN1, controlled by one dust collector (L91-BF1). Entirely Enclosed EU: L91-PP1, controlled by one dust collector (L91-BF2). EU: L61-RM1, controlled by one dust collector (L91-BF1). **Note:** Entirely Enclosed fugitive emissions unit controlled by a dust collector is not in any fugitive emission group besides point source because it is entirely enclosed, however the enclosures for these transfer points must be operated and maintained as total enclosures on a continuing basis in accordance with the facility operations and maintenance plan. [40 CFR §63.1350(f)(1)(v)]
5.1	**<u>Applicable Standards/Limits</u>:** **<u>A. Visible Emissions & B. Particulate Matter</u>** (1) **COMAR 26.11.30.05(B)(1)**, which states that a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity. (2) **COMAR 26.11.30.04(B)(1)**, which states that a person may not cause or permit particulate matter to be discharged from any installation in excess of 0.05 grains per standard cubic foot dry. (3) **Portland Cement MACT-** Each new or existing raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; bulk loading or unloading system; raw and finish mills; and each existing raw material dryer, at a facility which is a major source subject to the provisions of this subpart must not cause to be discharged any gases from these affected sources which exhibit opacity in excess of 10 percent. **[40 CFR Part 63, Subpart LLL, §63.1345]** (4) **40 CFR Part 60, Subpart F, §60.62(c) -** Which limits the opacity of any gas from raw material storage to 10 percent for facility that commences construction or modification after August 17, 1971. **Note**: This condition is equivalent to the requirements of **40 CFR §63.1345** for the same affected facilities, therefore as long as the Company complies with **40 CFR §63.1345,** it meets this requirement. (5) The flue gases from following equipment and operations shall vent through a bag filter designed to meet the PM emission limit of not greater than 0.01 gr/dscf): **[Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 16, 2016]**

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Material Handling – Point Sources, including Entirely Enclosed Conveying System Transfer – Subject to MACT Requirements

	(a) Converted finish mill (361-BF9), blending silos (391-BF1), and Blending Silo DC; (b) Kiln feed pumps (431-BF1), north clinker transfer tower (491-BF1), and clinker storage building (491-BF2); (c) Clinker storage silo (491-BF4), north clinker transfer tower (491-BF6), and clinker storage silo (511-BF1); (d) Clinker storage building (511-BF2), finish mill feed bins (511-BF3), south clinker transfer tower (511-BF4); (e) Finish mill (561-BF1), finish mill air separator (561-BF2), bulk silos (591-BF1) and (591-BF3); and (f) Bulk silos material loadout (621-BF1) and (621-BF2) and wood chip bin V14-BF1. (6) The flue gases from following equipment and operations shall vent through a bag filter designed to meet the PM emission limit of not greater than 0.005 gr/dscf: **[Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 16, 2016]** (a) Raw mill feed bins 311-BF4 and 311-BF5; (b) Raw mill feed 331-BF1, 331-BF2 and 331-BF3; (c) Raw mill rejection bin 361-BF7 and Feed hopper 391-BF2; (d) Kiln feed 431-BF4; (e) Clinker cooler outlet 491-BF7 and 491-BF8; (f) CKD loadout 4A1-BF1 and Finish mill de-dusting (TBD); (g) Fine coal storage L91-BF2; and (h) Converted finish mill 562-BF2 and Converted finish mill outlet 562-BF3. (7) **40 CFR Part 60, Subpart Y, §60.254(b)** - which limits coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, reconstructed, or modified after April 28, 2008 to 10 percent opacity. **Note**: This condition is less stringent than or equal to the requirements of §63.1345 for the same affected facilities, therefore as long as the Company complies with §63.1345, it meets this requirement.
5.2	**Testing Requirements:** A & B. Please see the monitoring requirements.
5.3	**Monitoring Requirements:** A. & B. (1) The Permittee must conduct required opacity monitoring in accordance with the provisions of paragraphs (f)(1)(i) through (vii) of 40 CFR §63.1350(f) and in accordance with the Permittee monitoring plan developed under 40 CFR §63.1350(p). The Permittee must also develop an opacity monitoring plan in accordance with paragraphs (p)(1) through (4) and paragraph (o)(5), if applicable, of 40 CFR §63.1350.

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Material Handling – Point Sources, including Entirely Enclosed Conveying System Transfer – Subject to MACT Requirements

	[40 CFR §63.1350(f)] Note: Any totally enclosed conveying system transfer point, regardless of the location of the transfer point is not required to conduct Method 22 visible emissions monitoring under this paragraph. The enclosures for these transfer points must be operated and maintained as total enclosures on a continuing basis in accordance with the facility operations and maintenance plan. [**40 CFR §63.1350(f)(1)(v)]** (2) The Permittee shall comply with and update as needed the written operations and maintenance plan which includes the following information: **[40 CFR §63.1347]** (a) The Permittee must prepare, for each affected source subject to the provisions of this subpart, a written operations and maintenance plan. The plan must be submitted to the Administrator for review and approval as part of the application for a part 70 permit and must include the following information: (i) Procedures for proper operation and maintenance of the affected source and air pollution control devices in order to meet the emissions limits and operating limits, including fugitive dust control measures for open clinker piles of §§63.1343, 63.1345, and 63.1346. The operations and maintenance plan must address periods of startup and shutdown. (ii) Corrective actions to be taken when required by paragraph §63.1350(f)(3); (b) Failure to comply with any provision of the operations and maintenance plan developed in accordance with this section is a violation of the standard. (3) The flue gases from each point source shall vent through a dust collector to meet its applicable emission limit. **[COMAR 26.11.03.06C]**
5.4	**<u>Record Keeping Requirements</u>:** A & B. The Permittee shall maintain the written operations and maintenance plan and all records for at least five years following the date of each inspection, occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. **[40 CFR §63.1355]**
5.5	**<u>Reporting Requirements</u>:** A & B. The Permittee shall submit a summary report semiannually which contains all failures to comply with any provision of the Operation and Maintenance Plan developed in accordance with §63.1350(a). **[40 CFR §63.1354(b)(9)(v)]**

A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.

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Kiln, In-line Raw Mill, In-line Coal Mill, Clinker Cooler, and Alkali-bypass - (Subject to MACT requirements)

6.0	**Emissions Unit Numbers** **Kiln (Pre-heater/pre-calciner), In-line Raw Mill, In-line Coal Mill, Clinker Cooler, and Alkali-bypass (Registration Number 043-0008-6-0495)** 461-KL1: It is equipped with an SNCR, a dry scrubber, and a main dust collector. All flue gases from associated equipment are combined and exhausted through the kiln common stack.
6.1	**Applicable Standards/Limits:** A. Visible Emissions COMAR 26.11.30.05(B)(1), which states that a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity. B. Particulate Matter Emissions (1) **COMAR 26.11.30.04(B)(1)**, which states that a person may not cause or permit particulate matter to be discharged from any installation in excess of 0.05 grains per standard cubic foot dry. (2) The air emissions from each existing kiln and any alkali bypass associated with that kiln during normal operation shall meet the Particulate matter emission limit of 0.07 pounds per tons of clinker; **[40 CFR §60.62(a)(1)(iii)] and Table 1-1. of 40 CFR §63.1343(b)(1)]** (3) The PM emissions from the clinker cooler (installed after 2008) shall meet PM emissions standard of 0.020 lb per ton clinker. **[40 CFR §60.62(b)(1)(i)] and Table 1-1. of 40 CFR §63.1343(b)(1)]** (4) Since all flue gas streams from the kiln and clinker cooler vent through a common stack, the Permittee shall calculate the alternative PM emission limit by using the following equation: **[40 CFR §63.1343(b)(2) and Holcim Hagerstown MACT LLL Particulate Matter Limit Determination letter issued by U.S. EPA on March 5, 2014]** $PM_{alt} = (A \times 1.65) \times (Q_k + Q_c + Q_{ab} + Q_{cm})/7000$ Where: PM_{alt} = Alternative PM emission limit for commingled sources. A = the PM exhaust concentration (gr/dscf), A = 0.006 equivalent to 0.070 lb per ton clinker where existing clinker cooler and existing kiln exhaust gas are not combined or A= 0.002 equivalent to 0.020 lb per ton clinker where new or reconstructed clinker cooler and new or reconstructed kiln exhaust gas are not combined. 1.65 = the conversion factor of ton feed per ton clinker. Q_k = the exhaust flow of the kiln (dscf/ton feed).

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Q_c = the exhaust flow of the clinker cooler (dscf/ton feed).
Q_{ab} = the exhaust flow of the alkali bypass (dscf/ton feed).
Q_{cm} = the exhaust flow of the coal mill (dscf/ton feed).
7000 = the conversion factor for grains (gr) per lb.

Note 1: The Permittee conducted its initial PM stack emission testing with raw mill on 10/19/2016 and with raw mill off on 10/20/2016. The following information in the table below is included in its test results submitted to the Department:

Test Date	Raw Mill On or Off	Total Flue Gas, dscf/ton of feed	Clinker Production, Tons/hr	PM Emissions, lb/ton of clinker
10/19/2016	On	61,931.82	102.4	0.00464
10/20/2016	Off	57,705.97	102.4	0.00396
Comment: Based on the design specifications stated in its application, 28.47% of total flue gas comes from the clinker cooler.				

Note 2: Based on the above test result, the PM_{alt} shall not exceed 0.088 when the raw mill is on and 0.082 lb/ton of clinker when the raw mill is off and the Permittee shall conduct PM stack emission testing to update the PM_{alt} annually.

Note 3: On January 4, 2018 the Department received a PM stack emissions testing report from Holcim. The tests were conducted on 9/26/2017 with raw mill on and 9/28/2017 with raw mill off. The PM emissions obtained from this testing were 0.022 (raw mill on) and 0.009 (raw mill off) lb/ton of clinker, which has demonstrated compliance with the PM_{alt} emission limits mentioned on Note 2.

(5) The alternative PM emissions limit PM_{alt} shall be calculated based on the actual flow rate of the most current annual stack test. **[40 CFR §63.1343(b)(2) and Holcim Hagerstown MACT LLL Particulate Matter Limit Determination letter issued by U.S. EPA on March 5, 2014]**

(6) The continuously monitored site specific operating parameters from CPMS, used to demonstrate compliance with PM emission limit, shall not exceed the established site specific operating limit until it is superseded by a new performance test results.

Note: According to **40 CFR §63.1349(b)(1)(ii)**, the site specific operating limit for CPMS is calculated as 4.6428 milliamp (mA) based on results from stack tests conducted on October 19 & 20, 2016. The site specific operating limit shall be

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recalculated based on the required annual PM emission testing. The Permittee has continuously demonstrated compliance with the PM limits by meeting the site specific operation limits.

C. Dioxins/Furans (D/F)

40 CFR §63.1343(b)(1) which prohibits D/F in excess of

(1) 0.2 ng per dscm (8.7 X 10^{-11} gr per dscf) (TEQ) corrected to seven percent oxygen; or

(2) 0.4 ng per dscm (1.7 x 10^{-10} gr dscf) (TEQ) corrected to seven percent oxygen, when the temperature at the inlet to the particulate matter air pollution control device is 204°C (400° F) or less.

D. Control of Nitrogen Oxides

(1) COMAR 26.11.30.07C(2) and 26.11.30.07D, which limit NOx emissions to 2.4 pounds per ton of clinker produced for pre-heater/pre-calciner or pre-calciner kilns based on a 30-day rolling average on or after April 1, 2017.

(2) The Permittee shall limit NOx emission to not exceed 1.8 pounds per ton of clinker on a 30-day rolling average. [**Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016]**

E. SO_x Emissions

(1) **COMAR 26.11.30.06A(1)** and **26.11.30.06C**, which limit the sulfur dioxide concentration in the exhaust gases not to exceed 500 parts per million by volume corrected to 7 percent oxygen.

(2) **COMAR 26.11.30.06B(1)** and **26.11.30.06C**, which limits the content of sulfuric acid, sulfur trioxide, or any combination not to exceed 35 milligrams reported as sulfuric acid per cubic meter of gas corrected to 7 percent oxygen.

(3) SO_2 emissions not to exceed 1.6 pounds per ton of clinker on a 30-day rolling average. [**Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016]**

(4) SO_2 emissions not to exceed 655 tons for any 12-month rolling period. **[Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016]**

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F. CO Emissions
Prevention of Significant Deterioration (PSD) Approval PSD-2014-01 issued April 11, 2014which states that the Permittee shall use CEM systems to assess compliance with the CO emission limits of 4.0 pounds per ton of clinker, based on a 30-day rolling average and 1700 tons per rolling 12-month period for the pre-heater/pre-calciner kiln.

G. THC Emissions
The emissions limit of total hydrocarbons (THC) is 24 parts per million by volume dry (ppmvd) on a rolling 30-day average measured as propane and corrected to 7% O_2. Any source subject to the 24 ppmvd THC limit may elect to meet an alternative limit of 12 ppmvd for total organic hazardous air pollutants (HAP). **[Table 1-1. of 40 CFR §63.1343(b)(1)]**

H. Lead Emissions
The net emission increase resulting from the 2016 kiln modernization shall not exceed 0.6 tons of lead for any 12-month period, rolling monthly.

Note 1: The lead emission limit is based on the lead threshold limit subject to a Prevention of Significant Deterioration (PSD) review.

Note 2: The majority of facility's lead emissions are exhausted through the main kiln stack and the more sophisticated emissions control systems from the 2016 modification would result in a significant reduction in lead emissions. The net emission increase for the project was calculated as 0.1 tpy, submitted by the applicant, which is well below 0.6 tpy. Therefore, the lead emission is not an issue of concern for this Title-V renewal.

I. Fluoride Emissions
COMAR 26.11.06.07B(1)(a), which states that a person may not cause or permit the discharge of fluorides into the atmosphere that causes a violation of any applicable air quality standards for fluorides set forth in COMAR 26.11.04.

J. Mercury
The air emissions from each existing kiln and any alkali bypass associated with that kiln during normal operation shall meet the mercury emission limit of 55 pounds per million tons (lb/MM tons) of clinker. **[Reference: Table 1-1. of 40 CFR §63.1343(b)(1)]**.

K. Hydrogen Chloride (HCl)
The emissions limit for hydrogen chloride (HCl) is 3 parts per million by volume dry (ppmvd) measured corrected to 7% O_2 on a 30-day rolling average. **[Table 1-2. of 40 CFR §63.1343(b)(1)]**

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	L. Greenhouse Gas (GHG) Emissions Prevention of Significant Deterioration (PSD) Approval PSD-2014-01 issued April 11, 2014 which states that: (1) The Permittee shall install a 5-stage pre-heater/pre-calciner kiln to meet the greenhouse gas BACT emissions limit of 0.94 ton of CO_{2e} per ton of clinker produced based on a 12-month average, rolling monthly. (2) Total emissions of CO_{2e} from the 5-stage pre-heater/pre-calciner kiln and the emergency generator shall not exceed 801,270 tons for any 12-month period, rolling monthly.
6.2	**Testing Requirements:** A. B. and H. (Visible, Particulate Matter and Lead Emissions) (1) For each stack performance test for demonstrating compliance with opacity limit, the Permittee must conduct opacity tests in accordance with Method 9 of appendix A-4 to part 60. The duration of the Method 9 performance test must be 3 hours (30 6-minute averages). **[COMAR 26.11.03.06 & 40 CFR §63.1349(b)(2)]** (2) The stack emissions tests shall be conducted as follows: (a) For compliance with the limitations on PM emissions under §63.1343(b), the Permittee shall conduct a performance test using Method 5 or Method 5I at appendix A-3 to part 60 of this chapter. Permittee must also monitor continuous performance through use of a PM continuous parametric monitoring system (PM CPMS) **[40 CFR §60.63(c)(1), 40 CFR §63.1349(b)(1), and COMAR 26.11.30.04(C)]** (b) For each performance test, the Permittee must conduct at least three separate test runs each while the mill is on and the mill is off, under the conditions that exist when the affected source is operating at the level reasonably expected to occur. Conduct each test run to collect a minimum sample volume of 2 dscm for determining compliance with a new source limit and 1 dscm for determining compliance with an existing source limit. Calculate the time weighted average of the results from three consecutive runs, including applicable sources as required by 40 CFR §63.1349(b)(1)(viii), to determine compliance. The Permittee needs not determine the particulate matter collected in the impinges ("back half") of the Method 5 or Method 5I particulate sampling train to demonstrate compliance with the PM standards of this subpart. This shall not preclude the permitting authority from requiring a determination of the "back half" for other purposes. **[40 CFR §60.63(c)(7) and 40 CFR §63.1349(b)(1)(vi)]** (c) For PM performance test reports used to set a PM CPMS operating limit, the electronic submission of the test report must also include the make and model of the PM CPMS instrument, serial number of the instrument, analytical principle of the instrument (e.g. beta attenuation), span of the instruments primary analytical range, milliamp value equivalent to the

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instrument zero output, technique by which this zero value was determined, and the average milliamp signals corresponding to each PM compliance test run. **[40 CFR §60.63(c)(8) and 40 CFR §63.1349(b)(1)(vii)]**

(d) The Permittee shall demonstrate compliance by conducting separate performance tests while the raw mill is under normal operating conditions and while the raw mill is not operating, and calculate the time weighted average emissions. The operating limit will then be determined using §63.1349(b)(1)(i) of this section. **[40 CFR §63.1349(b)(1)(ix)]**

C. D/F Emissions

(1) The Permittee must conduct a performance test using Method 23 of appendix A-7 to 40 CFR, Part 60. The Permittee must conduct simultaneous performance tests of the kiln or in-line kiln/raw mill exhaust and the alkali bypass. The Permittee shall conduct a performance test of the alkali bypass exhaust when the raw mill of the in-line kiln/raw mill is operating and not operating. Subsequent performance tests must be performed within 30 months of the last performance test. **[40 CFR §63.1349(b)(3) and 40 CFR §63.1349(c)]**

(2) Each performance test must consist of three separate runs conducted under representative conditions. The duration of each run must be at least 3 hours, and the sample volume for each run must be at least 2.5 dscm (90 dscf). **[40 CFR §63.1349(b)(3)(i)]**

(3) The temperature at the inlet to the kiln or in-line kiln/raw mill PMCD, and, where applicable, the temperature at the inlet to the alkali bypass PMCD must be continuously recorded during the period of the Method 23 test, and the continuous temperature record(s) must be included in the performance test report. **[40 CFR §63.1349(b)(3)(ii)]**

(4) Hourly average temperatures must be calculated for each run of the performance test. **[40 CFR §63.1349(b)(3)(iii)]**

(5) The run average temperature must be calculated for each run, and the average of the run average temperatures must be determined and included in the performance test report and will determine the applicable temperature limit in accordance with §63.1346(b). **[40 CFR §63.1349(b)(3)(iv)]**

(6) The temperature limit for affected sources meeting the limits of paragraph (a) of §63.1346 or paragraphs (a)(1) through (a)(3) of §63.1346 is determined from the performance test report in accordance with §63.1349(b)(3)(iv). **[40 CFR §63.1346(b)]**

D. E. and F. (NOx, SOx, and CO Emissions)
Please see the Monitoring Requirements

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G. THC Emissions

The Permittee must operate a CEMs in accordance with the requirements in §63.1350(i). For the purposes of conducting the accuracy and quality assurance evaluations for CEMs, the THC span value (as propane) is 50 ppmvw and the reference method (RM) is Method 25A of appendix A to 40 CFR, Part 60. **[40 CFR §63.1349(b)(4)(i)]**

I. Fluoride Emissions

COMAR 26.11.06.07B(1)(c), which states that the procedures for measuring total fluorides shall be Method 1010 of the Department's Technical Memorandum 91-01, "Test Methods and Equipment Specifications for Stationary Sources," which is incorporated by reference in COMAR 26.11.01.04C.

J. Mercury Emissions

(1) The Permittee must operate a mercury CEMs in accordance with the requirements of §63.1350(k). The compliance test must be based on the first 30 kiln operating days in which the affected source operates using a mercury CEMs after the compliance date of the rule (See §63.1348(a)). **[40 CFR §63.1349(b)(5)]**

(2) The Permittee must operate, calibrate, and maintain an instrument for continuously measuring and recording the exhaust gas flow rate to the atmosphere according to the requirements in §63.1350(k)(5). **[40 CFR §63.1349(b)(5)(i)]**

(3) The Permittee must calculate the mercury emission rate using Equation 10 of §63.1349(b)(5)(ii). **[40 CFR §63.1349(b)(5)(ii)]**

K. Hydrogen Chloride – HCl Emissions

(1) Since the Permittee chose to use the SO_2 CEMS as a continuous parametric monitoring system (CPMS) to demonstrate compliance with HCl emission limit, the Permittee must follow the procedures in §63.1349(b)(8)(i) through (ix) and in accordance with the requirements of §63.1350(l)(3). The Permittee shall conduct performance tests required for HCl every 30 months to verify correlation between HCl and SO_2 CEM measurement and establish new SO_2 operating limit. **[40 CFR §63.1349(b)(8); §63.1349(c); COMAR 26.11.03.06]**

(2) To comply with the HCl emissions limit of 3 ppmvd, the SO_2 CEM operating value shall not exceed the established site specific operating limit until it is superseded by a new performance test result. The Permittee shall conduct HCl emission testing every 30 months to establish the new SO_2 CEM operating limit for HCl compliance demonstration. **[40 CFR §63.1349(c); COMAR 26.11.03.06]**

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	Note: To comply with the HCl emission limit, the SO_2 operating value shall not exceed 307 ppmvd corrected to 7% O_2 on a 30-day rolling average, which was derived by the Compliance Program based on the HCl emissions testing and the SO_2 monitoring between 02/14 and 02/15/2017. L. GHG Emissions Please see the monitoring requirements.
6.3	**<u>Monitoring Requirements:</u>** General Monitoring Requirements – Unless being specified in other appropriate requirements, the following general monitoring requirements are applicable to all regulated pollutants: (1) The Permittee shall comply with the monitoring requirements of §60.13, §60.63, §60.256, §60.674, §63.8 and §63.1350. (2) Parameter Monitoring requirements include, but not limited to, the following: (a) If the Permittee has an operating limit that requires the use of a CMS, the Permittee must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the procedures in (m)(1) through (4) of §63.1350 by the compliance date specified in §63.1351. The Permittee must also meet the applicable specific parameter monitoring requirements in (m)(5) through (11) that are applicable to the facility. **[40 CFR §63.1350(m)]** (b) If the Permittee has an operating limit that requires the use of a pressure measurement device, the Permittee must meet the requirements in (m)(6)(i) through (vi) of §63.1350. **[40 CFR §63.1350(m)(6)]** (3) Continuous flow rate monitoring requirements include, but not limited to, the following: (a) The Permittee must install, operate, calibrate, and maintain instruments, according to the requirements in (n)(1) through (10) of §63.1350, for continuously measuring and recording the stack gas flow rate to allow determination of the pollutant mass emissions rate to the atmosphere from sources subject to an emissions limitation that has a pounds per ton of clinker unit. **[40 CFR §63.1350(n)]** (b) The Permittee must install sensor of the flow rate monitoring system in a location that provides representative measurement of the exhaust gas flow rate at the sampling location of the mercury or PM CEMs, taking into account the manufacturer's recommendations. The flow rate sensor is that portion of the system that senses the volumetric flow rate and generates an output proportional to that flow rate. **[40 CFR §63.1350(n)(1)]** (c) The flow rate monitoring system must be designed to measure the exhaust flow rate over a range that extends from a value of at least 20 percent less than the lowest expected exhaust flow rate to a value of at least 20 percent greater than the highest expected exhaust flow rate. **[40 CFR**

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§63.1350(n)(2)]

(d) The flow rate monitoring system must be equipped with a data acquisition and recording system that is capable of recording values over the entire range specified in (n)(1) of §63.1350. **[40 CFR §63.1350(n)(4)]**

(e) The signal conditioner, wiring, power supply, and data acquisition and recording system for the flow rate monitoring system must be compatible with the output signal of the flow rate sensors used in the monitoring system. **[40 CFR §63.1350(n)(5)]**

(f) The flow rate monitoring system must be designed to complete a minimum of one cycle of operation for each successive 15-minute period. **[40 CFR §63.1350(n)(6)]**

(g) The flow rate sensor must have provisions to determine the daily zero and upscale calibration drift (CD) (*see* sections 3.1 and 8.3 of Performance Specification 2 in appendix B to Part 60 for a discussion of CD), including the following: [**40 CFR §63.1350(n)(7)]**

(i) Conduct the CD tests at two reference signal levels, zero (e.g., 0 to 20 percent of span) and upscale (e.g., 50 to 70 percent of span); and

(ii) The absolute value of the difference between the flow monitor response and the reference signal must be equal to or less than 3 percent of the flow monitor span.

(h) The Permittee must perform a relative accuracy test of the flow rate monitoring system according to Section 8.2 of Performance Specification 6 of appendix B to Part 60 with the following exceptions specified in (n)(8)(i) and (n)(8)(ii) of §63.1350: [**40 CFR §63.1350(n)(8)]**

(i) The relative accuracy test is to evaluate the flow rate monitoring system alone rather than a continuous emission rate monitoring system; and

(ii) The relative accuracy of the flow rate monitoring system shall be no greater than 10 percent of the mean value of the reference method data.

(i) The Permittee must verify the accuracy of the flow rate monitoring system at least once per year by repeating the relative accuracy test specified in (n)(8) of §63.1350. **[40 CFR §63.1350(n)(9)]**

(j) The Permittee must operate the flow rate monitoring system and record data during all periods of operation of the affected facility including periods of startup, shutdown, and malfunction, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments). **[40 CFR §63.1350(n)(10)]**

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(4) Alternate monitoring requirements approval - The Permittee may submit an application to the Department for approval of alternate monitoring requirements to demonstrate compliance with the emission standards of Subpart LLL, except for emission standards for THC. The application for alternative monitoring requirements is subject to the provisions of (o)(1) through (6) of §63.1350. **[40 CFR §63.1350(o)]**

(5) Development and submittal (upon request) of monitoring plans - If the Permittee demonstrates compliance with any applicable emissions limit through performance stack testing or other emissions monitoring, the Permittee must develop a site-specific monitoring plan according to the requirements in (p)(1) through (4) of §63.1350. This requirement also applies to the facility if the Permittee petitions the Department for alternative monitoring parameters under (o) of §63.1350 and §63.8(f). If the Permittee uses a BLDS, the Permittee must also meet the requirements specified in (p)(5) of §63.1350. **[40 CFR §60.63(i) and 40 CFR §63.1350(p)]**

(6) Clinker production monitoring requirements include, but not limited to, the following:

(a) The Permittee shall determine hourly clinker production by one of two methods: [**40 CFR §60.63(b)(1) and 40 CFR §63.1350(d)(1)]**

(i) Install, calibrate, maintain, and operate a permanent weigh scale system to measure and record weight rates in tons-mass per hour of the amount of clinker produced. The system of measuring hourly clinker production must be maintained within ±5 percent accuracy; **[40 CFR §60.63(b)(1)(i) and 40 CFR §63.1350(d)(1)(i)]** or

(ii) Install, calibrate, maintain, and operate a permanent weigh scale system to measure and record weight rates in tons-mass per hour of the amount of feed to the kiln. The system of measuring feed must be maintained within ±5 percent accuracy. Calculate the Permittee's hourly clinker production rate using a kiln-specific feed to clinker ratio based on reconciled clinker production determined for accounting purposes and recorded feed rates. Update this ratio monthly. Note that if this ratio changes at clinker reconciliation, the Permittee must use the new ratio going forward, but the Permittee does not have to retroactively change clinker production rates previously estimated. **[40 CFR §60.63(b)(1)(ii) and 40 CFR §63.1350(d)(1)(ii)]**

(b) For each kiln operating hour for which the Permittee does not have data on clinker production or the amount of feed to the kiln, the Permittee shall use the value from the most recent previous hour for which valid data are available. **[40 CFR §60.63(b)(1)(iii)]**

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(c) The Permittee shall determine, record, and maintain a record of the accuracy of the system of measuring hourly clinker production (or feed mass flow if applicable) before initial use (for new sources) or by the effective compliance date of this rule (for existing sources). During each quarter of source operation, the Permittee must determine, record, and maintain a record of the ongoing accuracy of the system of measuring hourly clinker production (or feed mass flow). **[40 CFR §60.63(b)(2) and 40 CFR §63.1350(d)(2)]**

(d) If the Permittee measure clinker production directly, record the daily clinker production rates; if the Permittee measure the kiln feed rates and calculate clinker production, record the hourly kiln feed and clinker production rates. **[40 CFR §60.63(b)(3) and 40 CFR §63.1350(d)(3)]**

(7) Following the compliance date, the Permittee must demonstrate compliance with 40 CFR Part 63, Subpart LLL on a continuous basis by meeting the requirements of §63.1350. **[40 CFR §63.1350(a)(1)]**

(8) For each existing unit that is equipped with a continuous monitoring system (CMS), maintain the average emissions or the operating parameter values within the operating parameter limits established through performance tests. **[40 CFR §63.1350(a)(3)]**

(9) Any instance where the Permittee fails to comply with the continuous monitoring requirements of §63.1350 is a violation. **[40 CFR §63.1350(a)(4)]**

(10) For each CEM used to monitor a gas concentration, the Permittee shall equip the CEM to record not less than four equally spaced data points per hour and to automatically reduce data in terms of averaging times consistent with applicable emission standard. **[COMAR 26.11.01.11D(3)]**

(11) During the normal operation, either the kiln or the calciner shall not burn any type of fuel other than the followings unless the Permittee obtains permission from the Department:

(a) Natural gas, synthetic natural gas, propane, distillate oil, synthesis gas (syngas), and ultra-low sulfur diesel (ULSD);
(b) Coal;
(c) Pet Coke;
(d) Fuel Oil;
(e) Tire Derived Fuel (TDF);
(f) On-Specification Used Oil which meets the specifications in COMAR 26.11.09.10B; and
(g) Wood which has no paints, stains, or other type of coating and/or has not been treated with chromium copper arsenate (CCA) or pentachlorophenol.

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A. B. and H (Visible, Particulate Matter and Lead Emissions)

(1) The flue gases from the following equipment or operations shall vent through a bag filter to comply with all applicable PM emission limits: **[Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016]**
   (a) The cement kiln and the clinker cooler; and
   (b) The in-line raw mill, the in-line coal mill and alkali bypass.

(2) Permittee shall use the PM continuous parametric monitoring system (PM CPMS) to demonstrate compliance with the established site specific operating limit until it is superseded by a new performance result. The Permittee shall retest annually to establish a new site specific operating limit. **[40 CFR §60.63(c)(1), 40 CFR §63.1349(b)(1) and COMAR 26.11.30.04(C)]**

(3) To determine continuous compliance, the Permittee must use the PM CPMS output data for all periods when the process is operating and the PM CPMS is not out-of-control. The Permittee must demonstrate continuous compliance by using all quality-assured hourly average data collected by the PM CPMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit (milliamps) on a 30 operating day rolling average basis, updated at the end of each new kiln operating day. **[§63.1350(b)(1)(ii)]**

(4) The Permittee shall use the PM CPMS to demonstrate continuous compliance with the current operating limit, based on a 30-operating day rolling average, established during the most recent performance test. The Permittee must repeat the performance test annually and reassess and adjust the site-specific operating limit in accordance with the results of the performance test using the procedures in §63.1349(b)(1) (i) through (vi) of this subpart. The Permittee must also repeat the test if the Permittee changes the analytical range of the instrument, or if the Permittee replaces the instrument itself or any principle analytical component of the instrument that would alter the relationship of output signal to in-stack PM concentration. **[40 CFR §63.1350(b)(1)(i)]**

(5) For any exceedance of the 30 process operating day PM CPMS average value from the established operating parameter limit, the Permittee must: **[40 CFR §63.1350(b)(1)(iii)]**
   (a) Within 48 hours of the exceedance, visually inspect the Air Pollution Control Device (APCD);
   (b) If inspection of the APCD identifies the cause of the exceedance, take corrective action as soon as possible and return the PM CPMS measurement to within the established value; and
   (c) Within 30 days of the exceedance or at the time of the annual compliance

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test, whichever comes first, conduct a PM emissions compliance test to determine compliance with the PM emissions limit and to verify or re-establish the PM CPMS operating limit within 45 days. The Permittee is not required to conduct additional testing for any exceedances that occur between the time of the original exceedance and the PM emissions compliance test required under this paragraph. For an annual re-test, the first valid 30-day average will be 30 kiln operating days after the PM performance test.

(6) PM CPMS exceedances leading to more than four required performance tests in a 12-month process operating period (rolling monthly) constitute a presumptive violation of this subpart. **[40 CFR §63.1350(b)(1)(iv)]**

C. D/F Emissions

(1) The Permittee, subject to a D/F emissions limitation under §63.1343, must operate the kiln such that the temperature of the gas at the inlet to the kiln PM Control Device (PMCD) and alkali bypass PMCD, if applicable, does not exceed the applicable temperature limit specified in paragraph (b) of §63.1346. **[40 CFR §63.1346(a)]**

(2) The Permittee must comply with the monitoring requirements of (g)(1) through (g)(6) and (m)(1) through (m)(4) of this §63.1350to demonstrate continuous compliance with the D/F emissions standard. The Permittee must also develop an emissions monitoring plan in accordance with (p)(1) through (p)(4) of §63.1350. **[40 CFR §63.1350(g)]**

(3) The Permittee must calibrate, maintain, and continuously operate a continuous monitoring system (CMS)to record the temperature of the exhaust gases from the kiln and alkali bypass at the inlet to, or upstream of, the kiln and/or alkali bypass PMCDs. **[40 CFR §63.1350(g)(1)]**

(4) The temperature recorder response range must include zero and 1.5 times the average temperature established according to the requirements in §63.1349(b)(3)(iv). **[40 CFR §63.1350(g)(1)(i)]**

(5) The calibration reference for the temperature measurement must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Department. The calibration of all thermocouples and other temperature sensors must be verified at least once every three months. **[40 CFR §63.1350(g)(1)(ii) & (iii)]**

(6) The Permittee must monitor and continuously record the temperature of the exhaust gases from the kiln and alkali bypass at the inlet to the kiln and/or alkali

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bypass PMCD. The required minimum data collection frequency must be one minute. The Permittee shall calculate the rolling three-hour average temperature using the average of 180 successive one-minute average temperatures. See §63.1349(b)(3). **[40 CFR §63.1350(g)(2), (3) and (4)]**

(7) When the operating status of the raw mill of the in-line kiln/raw mill is changed from off to on or from on to off, the calculation of the three-hour rolling average temperature must begin anew, without considering previous recordings. **[40 CFR §63.1350(g)(5)]**

(8) The flue gas temperature at each inlet of the PMCD shall not exceed the operating limits established during the most recent stack tests to comply with the Dioxin/Furan emission limit of 0.2(ng/dscm) (TEQ) corrected to 7% O_2. The Permittee shall conduct Dioxin/Furan emission testing at least every 30 months to re-establish the operating limit for Dioxin/Furan compliance demonstration. [40 CFR **§63.1350(i)(2) and COMAR 26.11.03.06]**

Note: The following limits were established during the initial stack performance tests conducted on **10/19/2016 and 2/14/2017**:

(a) When the raw mill is on, the flue gas inlet temperature shall not exceed 158^{o} C at the main stack baghouse and 203^{o} C at the alkali bypass baghouse; and
(b) When the raw mill is off, the flue gas inlet temperature shall not exceed 220^{o} C at the main stack baghouse and the alkali bypass baghouse.
(c) The Permittee is required to conduct Dioxin/Furan emission testing at least every 30 months to re-establish the operating temperature limits.

D. and E. (NOx and SOx Emissions)

(1) The Permittee shall continuously operate a selective non-catalytic reduction (SNCR) technology to comply with the NOx emissions limit of 1.8 pounds per ton of clinker on a 30-day rolling average. **[Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016]**

Note: For the purposes of this permit condition, the term "continuously operate" shall mean that a control technology used at the kiln, except during a malfunction of the control technology, shall be operated at all times of kiln operation, consistent with technical limitations, manufacturer's specifications and good engineering practices for such control technologies and the kiln**.**

(2) The Permittee shall continuously monitor NOx emissions with a continuous emissions monitor ("CEM") certified in accordance with COMAR 26.11.01.11B(1) and (4) and C. **[COMAR 26.11.30.08A & B]**

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(3) The Permittee shall continuously operate a lime injection system to comply with applicable SO_2 emissions limits of (a) 1.6 pounds per ton of clinker on a 30-day rolling average; and (b) 655 tons for any 12-month rolling period. **[Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016]**

(4) The Permittee shall operate, maintain, and calibrate the CEM in accordance with the Performance Specifications under 40 CFR Part 60, Appendix B and the Quality Assurance Procedures under 40 CFR Part 60, Appendix F. **[Permit to Construct #043-0008-6-0495 issued April 11, 2014 and revised April 18, 2016 and COMAR 26.11.01.11C]**

(5) The NO_X and SO_2 CEMs must be operated and maintained according to Performance Specification 2 of Appendix B of 40 CFR, Part 60 and the following requirements:

(a) The span value of each NO_X CEMs monitor must be set at 125 percent of the maximum estimated hourly potential NO_X emission concentration that translates to the applicable emissions limit at full clinker production capacity.

(b) The Permittee must conduct performance evaluations of each NO_X CEMs monitor according to the Performance Specification 2 of Appendix B to 40 CFR, Part 60. The Permittee must use Methods 7, 7A, 7C, 7D, or 7E of Appendix A-4 to 40 CFR, Part 60 for conducting the relative accuracy evaluations. The method ASME PTC 19.10-1981, “Flue and Exhaust Gas Analyses,” (incorporated by reference—see §60.17) is an acceptable alternative to Method 7 or 7C of Appendix A-4.

(c) The span value for the SO_2 CEMs monitor is the SO_2 emission concentration that corresponds to 125 percent of the applicable emissions limit at full clinker production capacity and the expected maximum fuel sulfur content.

(d) The Permittee must conduct performance evaluations of each SO_2 CEMs monitor according to the requirements in §60.13(c) and Performance Specification 2 of Appendix B to 40 CFR, Part 60. The Permittee must use Methods 6, 6A, or 6C of Appendix A-4 to 40 CFR, Part 60 for conducting the relative accuracy evaluations. The method ASME PTC 19.10-1981, “Flue and Exhaust Gas Analyses,” (incorporated by reference—see §60.17) is an acceptable alternative to Method 6 or 6A of Appendix A-4.

(e) The Permittee must comply with the quality assurance requirements in Procedure 1 of Appendix F to 40 CFR, Part 60 for each NO_X and SO_2 CEMs, including quarterly accuracy determinations for monitors, and daily calibration drift tests.

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(6) The Permittee shall install, operate, maintain, and calibrate the continuous emission rate monitoring system (CERMS) in accordance with Performance Specification 6 under 40 CFR Part 60, Appendix B.

F. CO Emissions

(1) The Permittee shall use continuous emissions monitoring systems (CEMs) to monitor CO emissions from the flue gases of the in-line raw mill, the in-line coal mill, and the pre-heater alkali bypass.

(2) The Permittee shall operate, maintain, and calibrate the CO CEM and CERMS in accordance with Performance Specifications 4 and 6 under 40 CFR Part 60, Appendix B and the Quality Assurance Procedures under 40 CFR Part 60, Appendix F.

[Prevention of Significant Deterioration (PSD) Approval #PSD-2014-01 issued April 11, 2014]

G. THC Emissions

(1) The Permittee must comply with the monitoring requirements of (i)(1), (i)(2) and (m)(1) through (m)(4) of §63.1350. The Permittee must also develop an emissions monitoring plan in accordance with (p)(1) through (p)(4) of §63.1350. **[40 CFR §63.1350(i)]**

(2) The Permittee must operate and maintain a THC continuous emission monitoring system in accordance with Performance Specification 8 or Performance Specification 8A of appendix B to Part 60 and comply with all of the requirements for continuous monitoring systems found in the general provisions, subpart A of Part 60. The Permittee must operate and maintain each CEMs according to the quality assurance requirements in Procedure 1 of appendix F in Part 60. For THC continuous emission monitoring system certified under Performance Specification 8A, conduct the relative accuracy test audit required under Procedure 1 in accordance with Performance Specification 8, Section 8 and 11 using Method 25A in appendix A to 40 CFR part 60 as the reference method; the relative accuracy must meet the criteria of Performance Specification 8, Section 13.2. **[40 CFR §63.1350(i)(1)]**

[Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016]

I. Fluoride Emissions

COMAR 26.11.06.07B(1)(b), which states that the Department, after written notice to a person discharging fluorides to the atmosphere, may require the person to conduct a surveillance to determine whether ambient air quality standards for fluorides are violated. The manner, scope, and duration of the surveillance program will be determined by the Department.

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J. Mercury Emissions

(1) The Permittee must operate a mercury continuous emissions monitoring system (Hg CEMs) in accordance with Performance Specification 12A (PS 12A) of appendix B to Part 60. The Permittee must monitor mercury continuously according to (k)(1) through (5) of §63.1350 if applicable. The Permittee must also develop an emissions monitoring plan in accordance with (p)(1) through (4) of **§63.1350**. **[40 CFR §63.1350(k)]**

(2) During periods of startup and shutdown, the Permittee shall follow the Startup and shutdown work practices to reduce mercury emissions. **[40 CFR §63.1346(g); Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016]**

(3) As applicable, the Permittee shall equip the CEM to record not less than four equally spaced data points per hour and to automatically reduce data in terms of averaging times consistent with applicable emission standard. **[COMAR 26.11.01.11D(2)]**

K. Hydrogen Chloride Emissions - HCl

(1) The Permittee shall also follow the monitoring procedures required for demonstrating compliance with the SO_2 emissions limit of 1.6 lb/ton of clinker. **[COMAR 26.11.03.06]**

(2) The lime injection system shall be maintained and operated to comply with the HCl emissions limit. **[PTC issued April 11, 2014 and updated April 18, 2016]**

L. GHG Emissions

(1) The Permittee shall operate, maintain, and calibrate the CO_2 CEM and continuous emission rate monitoring system (CERMS) in accordance with Performance Specifications 3 and 6 under 40 CFR Part 60, Appendix B and the Quality Assurance Procedures under 40 CFR Part 60, Appendix F. **[Prevention of Significant Deterioration (PSD) Approval #PSD-2014-01 issued April 11, 2014]**

(2) The Permittee shall use continuous emissions monitoring systems (CEMs) to monitor CO_2 emissions from the flue gases of the in-line raw mill, the in-line coal mill, and the pre-heater alkali bypass. **[Prevention of Significant Deterioration (PSD) Approval #PSD-2014-01 issued April 11, 2014]**

(3) Upon certification of the CEM system for CO_2, the Permittee shall use CEM systems to assess compliance with the CO_{2e} emission limits of 0.94 ton per ton of clinker produced based on a 12-month average, rolling monthly and 801,270 tons for any 12-month period, rolling monthly. **[Prevention of Significant Deterioration (PSD) Approval #PSD-2014-01 issued April 11, 2014]**

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6.4 **Record Keeping Requirements:**

General recordkeeping Requirements – Unless being specified in other appropriate requirements, the following general recordkeeping requirements are applicable to all regulated pollutants:

(1) The Permittee shall comply with the recordkeeping requirements of §60.7, §60.65, §60.258, §60.676, §63.10, and §63.1355.

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

(3) The Permittee shall maintain the following records for each affected source as required by §63.10(b)(2) and (b)(3) of this part: **[40 CFR §63.1355(b)]**
   (a) All documentation supporting initial notifications and notifications of compliance status under §63.9;
   (b) All records of applicability determination, including supporting analyses; and
   (c) If the Permittee has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements.

(4) In addition to the recordkeeping requirements in (b) of §63.1355, the Permittee of an affected source equipped with a continuous monitoring system shall maintain all records required by §63.10(c). **[40 CFR §63.1355(c)]**

(5) The Permittee must keep annual records of the amount of CKD which is removed from the kiln system and either disposed of as solid waste or otherwise recycled for a beneficial use outside of the kiln system. **[40 CFR §63.1355(d)]**

(6) The Permittee must keep records of the daily clinker production rates and kiln feed rates. **[40 CFR §63.1355(e)]**

(7) The Permittee must keep records of the date, time and duration of each startup or shutdown period for any affected source that is subject to a standard during startup or shutdown that differs from the standard applicable at other times, and the quantity of feed and fuel used during the startup or shutdown period. **[40 CFR §63.1355(f)]**

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(8) The Permittee must keep records of the date, time and duration of each malfunction that causes an affected source to fail to meet an applicable standard; if there was also a monitoring malfunction, the date, time and duration of the monitoring malfunction; the record must list the affected source or equipment, an estimate of the volume of each regulated pollutant emitted over the standard for which the source failed to meet a standard, and a description of the method used to estimate the emissions. **[40 CFR §63.1355(g)(1)]**

(9) The Permittee must keep records of actions taken during periods of malfunction to minimize emissions in accordance with §63.1348(d) including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. **[40 CFR §63.1355(g)(2)]**

(10) For each exceedance from an emissions standard or established operating parameter limit, the Permittee must keep records of the date, duration and description of each exceedance and the specific actions taken for each exceedance including inspections, corrective actions and repeat performance tests and the results of those actions. **[40 CFR §63.1355(h)]**

(11) The Permittee shall maintain records of the following information on-site for at least five (5) years and shall make the records available to the Department upon request:
(a) Tons of clinker produced per 30-day period, rolling daily;
(b) The amount of each type of raw material as raw kiln feed processed each month for any 12-month period rolling monthly;
(c) The amount of clinker produced each month for any 12-month period rolling monthly;
(d) Flow rate monitoring data used for emission calculation.

A. D. E. and G. (Visible, NOx, SOx and VOC/THC Emissions)
The Permittee shall maintain records of the following information on-site for at least five (5) years and shall make the records available to the Department upon request: **[COMAR 26.11.03.06C]**

(1) Opacity observations;

(2) Emissions of NO_X in pounds per 30-day period, rolling daily;

(3) Emissions of SO_2 in pounds per 30-day period, rolling daily;

(4) Emissions of SO_2 in tons for any 12-month period, rolling monthly;

(5) Emission of THC, ppmvw, on a 30 operating day rolling average basis;

(6) Any violation of any emission limit required for each rolling 12-month period; and

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(7) The date of each occurrence, measurement, maintenance, corrective action, report, or record.

At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche.

B. PM Emissions

The Permittee must record the PM CPMS output data for all periods when the process is operating, and use all the PM CPMS data for calculations when the source is not out-of-control. The Permittee must demonstrate continuous compliance by using all quality-assured hourly average data collected by the PM CPMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit (milliamps or the digit equivalent) on a 30 operating day rolling average basis, updated at the end of each new kiln operating day. Use Equation 7 of 40 CFR §63.1349(b)(1)(v) to determine the 30 kiln operating day average. **[40 CFR §60.63(c)(6) and 40 CFR §63.1349(b)(1)(v)]**

C. D/F Emissions

In addition to the general record keeping requirements, the Permittee shall maintain the following records on site for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record:

(1) Stack performance tests for dioxins/furans;

(2) PMCD and temperature monitoring data; and

(3) Records of the date, duration and description of each violation of the established criteria or parameters including inspections and corrective actions.

At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. **[COMAR 26.11.03.06C and 40 CFR §63.1355]**

F. CO Emissions

The following records with supporting documentation shall be maintained for at least 5 years and made available to the Department upon request:

(1) Emissions of CO in pounds per 30-day period, rolling daily;

(2) Emissions of CO in pounds per ton of clinker produced based on a 30-day rolling average; and

(3) Emissions of CO in tons per 12-month period, rolling monthly

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	[Prevention of Significant Deterioration (PSD) Approval #PSD-2014-01 issued April 11, 2014] H. and I. (Lead and Fluoride Emissions) Please see the monitoring requirements J. & K. (Mercury and HCl Emissions) Please see the monitoring requirements L. GHG Emissions The following records with supporting documentation shall be maintained for at least 5 years and made available to the Department upon request: (1) Emissions of CO_{2e} from the 5-stage pre-heater/pre-calciner kiln in tons of CO_{2e} per ton of clinker produced based on a 12-month average, rolling monthly; (2) Total emissions of CO_{2e} from the 5-stage pre-heater/pre-calciner kiln and the emergency generator in tons per 12-month period, rolling monthly; (3) Tons of clinker produced per 12-month period, rolling monthly; and (4) Demonstration of compliance with the CO_{2e} BACT requirements. **[Prevention of Significant Deterioration (PSD) Approval #PSD-2014-01 issued April 11, 2014]**
6.5	**<u>Reporting Requirements</u>:** General Reporting Requirements – Unless being specified in other appropriate requirements, the following general reporting requirements are applicable to all regulated pollutants: (1) The Permittee shall comply with the reporting requirements of §60.19, §60.65, §60.258, §60.676, §63.10, and §63.1354. (2) The Permittee shall comply with the following requirements: [**40 CFR §60.64(d)]** (a) Within 60 days after the date of completing each performance test (see §60.8) as required by this subpart the Permittee must submit the results of the performance tests conducted to demonstrate compliance under this subpart to the EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through the EPA's Central Data Exchange (CDX) (*http://www.epa.gov/cdx*). Performance test data must be submitted in the file format generated through use of the EPA's Electronic Reporting Tool (ERT) (see *http://www.epa.gov/ttn/chief/ert/index.html*). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE.

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The Permittee who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk, flash drive or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to the EPA via CDX as described earlier in this paragraph. At the discretion of the delegated authority, the Permittee must also submit these reports, including the CBI, to the delegated authority in the format specified by the delegated authority. For any performance test conducted using test methods that are not listed on the ERT Web site, the Permittee must submit the results of the performance test to the Administrator at the appropriate address listed in §63.13.

(b) Within 60 days after the date of completing each CEMs performance evaluation test as defined in §63.2, the Permittee must submit relative accuracy test audit (RATA) data to the EPA's CDX by using CEDRI in accordance with paragraph (d)(1) of this section. Only RATA pollutants that can be documented with the ERT (as listed on the ERT Web site) are subject to this requirement. For any performance evaluations with no corresponding RATA pollutants listed on the ERT Web site, the Permittee must submit the results of the performance evaluation to the Administrator at the appropriate address listed in §63.13.

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

(d) All reports required by this subpart not subject to the requirements in paragraphs (d)(1) and (2) of §60.64 must be sent to the Administrator at the appropriate address listed in §63.13. The Administrator or the delegated authority may request a report in any form suitable for the specific case (e.g., by commonly used electronic media such as Excel spreadsheet, on CD or hard copy). The Administrator retains the right to require submittal of reports subject to paragraph (d)(1) and (2) of §60.64 in paper format.

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(3) As required by §63.10(d)(2), the Permittee shall report the results of performance tests as part of the notification of compliance status. **[40 CFR §63.1354(b)(1)]**

(4) As required by §63.10(d)(3), the Permittee of an affected source shall report the opacity results from tests required by §63.1349. **[40 CFR §63.1354(b)(2)]**

(5) As required by §63.10(d)(4), the Permittee of an affected source who is required to submit progress reports as a condition of receiving an extension of compliance under §63.6(i) shall submit such reports by the dates specified in the written extension of compliance. **[40 CFR §63.1354(b)(3)]**

(6) As required by §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 §63.8(e). The Permittee shall submit the report simultaneously with the results of the performance test. **[40 CFR §63.1354(b)(6)]**

(7) As required by §63.10(e)(2), the Permittee of an affected source using a continuous opacity monitoring system to determine opacity compliance during any performance test required under §63.7 and described in §63.6(d)(6) shall report the results of the continuous opacity monitoring system performance evaluation conducted under §63.8(e). **[40 CFR §63.1354(b)(7)]**

(8) As required by §63.10(e)(3), the Permittee of an affected source equipped with a continuous emission monitor shall submit an excess emissions and continuous monitoring system performance report for any event when the continuous monitoring system data indicate the source is not in compliance with the applicable emission limitation or operating parameter limit. **[40 CFR §63.1354(b)(8)]**

(9) The Permittee shall submit a summary report semiannually which contains the information specified in §63.10(e)(3)(vi). In addition, the summary report shall include: [**40 CFR §63.1354(b)(9)]**
   (a) All exceedances of maximum control device inlet gas temperature limits specified in §63.1344(a) and (b);
   (b) All failures to calibrate thermocouples and other temperature sensors as required under §63.1350(f)(7) of this subpart;
   (c) All failures to maintain the activated carbon injection rate, and the activated carbon injection carrier gas flow rate or pressure drop, as applicable, as required under §63.1344(c);
   (d) The results of any combustion system component inspections conducted within the reporting period as required under §63.1350(i);
   (e) All failures to comply with any provision of the operation and maintenance plan developed in accordance with §63.1350(a);
   (f) For each PM, HCl (if applicable), Hg, and THC CEMs or Hg sorbent

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trap monitoring system (if applicable), within 60 days after the reporting periods, the Permittee must submit reports to the EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through the EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). The Permittee must use the appropriate electronic reporting form in CEDRI or provide an alternate electronic file consistent with the EPA's reporting form output format.

For each reporting period, the reports must include all of the calculated 30-operating day rolling average values derived from the CEMs or Hg sorbent trap monitoring systems; and

(g) In response to each violation of an emissions standard or established operating parameter limit, the date, duration and description of each violation and the specific actions taken for each violation including inspections, corrective actions and repeat performance tests and the results of those actions.

(10) If the total continuous monitoring system downtime for any CEM or any continuous monitoring system (CMS) for the reporting period is ten percent or greater of the total operating time for the reporting period, the Permittee shall submit an excess emissions and continuous monitoring system performance report along with the summary report. **[40 CFR §63.1354(b)(10)]**

(11) For each failure to meet a standard or emissions limit caused by a malfunction at an affected source, the Permittee must report the failure in the semi-annual compliance report required by §63.1354(b)(9). The report must contain the date, time and duration, and the cause of each event (including unknown cause, if applicable), and a sum of the number of events in the reporting period. The report must list for each event the affected source or equipment, an estimate of the volume of each regulated pollutant emitted over the emission limit for which the source failed to meet a standard, and a description of the method used to estimate the emissions. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.1348(d), including actions taken to correct a malfunction. **[40 CFR §63.1354(c)]**

(12) Unless being specified in other appropriate requirements, the Permittee shall submit a stack emissions testing protocol to the Department for review and approval at least 30 days prior to each stack emissions test.

(13) Unless being specified in other appropriate requirements, within 60 days after the last day of any required stack emissions test or opacity observation, the Permittee shall submit to the Department the results.

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(14) The Permittee shall submit to the Department by April 1 of each year a certification of emissions for the previous calendar year. The certifications shall be prepared in accordance with requirements, as applicable, adopted under COMAR 26.11.01.05 – 1 and COMAR 26.11.02.19D.
(a) Certifications of emissions shall be submitted on forms obtained from the Department.
(b) A certification of emissions shall include mass emissions rates for each regulated pollutant, and the total mass emissions rate for all regulated pollutants for each of the facility's registered sources of emissions.
(c) The person responsible for a certification of emissions shall certify the submittal to the Department in the following manner:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

(15) The Permittee shall submit to the Department by April 1 of each year a written certification of the results of an analysis of emissions of toxic air pollutants from the Permittee's facility during the previous calendar year. The analysis shall include either:
(a) a statement that previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid; or
(b) a revised compliance demonstration, developed in accordance with requirements included under COMAR 26.11.15 & 16, that accounts for changes in operations, analytical methods, emissions determinations, or other factors that have invalidated previous demonstrations.

(16) The Permittee shall report, in accordance with requirements under COMAR 26.11.01.07, occurrences of excess emissions to the Compliance Program of the Air and Radiation Management Administration.

A. D. E. and G. (Visible, NOx, SOx and THC Emissions)
(1) If the total continuous monitoring system downtime for any CEM or any

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continuous monitoring system (CMS) for the reporting period is ten percent or greater of the total operating time for the reporting period, the Permittee shall submit an excess emissions and continuous monitoring system performance report along with the summary report. **[40 CFR §63.1354(b)(10)]**

(2) The Company shall submit to the Department semiannually a Summary Report - *Gaseous and Opacity Excess Emissions and Continuous Monitoring System (CMS) Performance* on January 31st and July 31st of each year. The Summary Report shall include the following items:
- (a) Company name and address;
- (b) "Regulated Portland Cement MACT/NESHAP" pollutants;
- (c) A brief description of the process;
- (d) The emissions limit;
- (e) Name, title and signature of responsible party;
- (f) Date of report;
- (g) All exceedances of the three-hour average inlet temperature limit to the Particulate matter control device;
- (h) All failures to calibrate thermocouples;
- (i) Notification of failure to conduct any combustion system component inspections conducted within reporting period as required under 40 CFR§63.1347(a)(3).
- (j) All failures to comply with the operations and maintenance plan;
- (k) The date of the latest CMS certification or audit;
- (l) The total operating time of the affected source during the reporting period; and
- (m) A CMS performance summary, including:
  - (i) the total CMS downtime during the operating period (in minutes);
  - (ii) the total CMS downtime expressed as a percent of the total operating time; and
  - (iii) a breakdown of total CMS downtime into periods due to:
    - (1) Monitoring equipment malfunctions,
    - (2) Non monitoring equipment malfunctions,
    - (3) Quality assurance/quality control calibrations,
    - (4) Other known causes, and
    - (5) Other unknown causes.

[40 CFR§63.1354b(9) and 40 CFR §63.10(e)(3)(vi)]

(3) CEM System Downtime Reporting Requirements:
- (a) All CEM system downtime that lasts or is expected to last more than 24 hours shall be reported to the Department by telephone before 10 a.m. of the first regular business day following the breakdown.
- (b) The system breakdown report required by §E(1)(a) of this regulation shall include the reason, if known, for the breakdown and the estimated period of time that the CEM will be down. The owner or operator of the CEM shall notify the Department by telephone when an out-of-service CEM is back in

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operation and producing data that has met performance specifications for accuracy, reliability, and durability of acceptable monitoring systems, as provided in COMAR 26.11.31, and is producing data.

(4) CEM Data Reporting Requirements:

(a) All test results shall be reported in a format approved by the Department.

(b) Certification testing shall be repeated when the Department determines that the CEM data may not meet performance specifications because of component replacement or other conditions that affect the quality of generated data.

(c) A quarterly summary report shall be submitted to the Department not later than 30 days following each calendar quarter. The report shall be in a format approved by the Department, and shall include the following:

(i) The cause, time periods, and magnitude of all emissions which exceed the applicable emission standards;

(ii) The source downtime including the time and date of the beginning and end of each downtime period and whether the source downtime was planned or unplanned;

(iii) The time periods and cause of all CEM downtime including records of any repairs, adjustments, or maintenance that may affect the ability of the CEM to meet performance specifications of emission data;

(iv) Quarterly totals of excess emissions, installation downtime, and CEM downtime during the calendar quarter;

(v) Quarterly quality assurance activities;

(vi) Daily calibration activities that include reference values, actual values, absolute or percent of span differences, and drift status; [Note: This information shall be maintained on-site and submitted to the Department upon request. The Permittee shall submit a daily calibration report for each day of the calendar quarter in the quarterly summary report.]; and

(vii) Other information required by the Department that is determined to be necessary to evaluate the data, to ensure that compliance is achieved, or to determine the applicability of this regulation.

(d) All information required by this regulation to be reported to the Department shall be retained and made available for review by the Department for a minimum of 2 years from the time the report is submitted**. [COMAR 26.11.01.11E(2)]**

(5) The Permittee shall include the following information in the quarterly emissions report submitted to the Department:

(a) the NOx emissions, pounds/ton of clinker, on a monthly average;

(b) the total kiln's operating hours during the month; and

(c) Daily NOx and 30-day rolling averages are routinely reported in the quarterly

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CEM report and the semi-annual report.
[COMAR 26.11.03.06C]

(6) The Permittee shall submit to the Department, a report no later than 30 days after the end of each calendar quarter, which shall include a summary of the following information:
(a) Emissions for each calendar month and each rolling 12-month period;
(b) All required stack emission test reports;
(c) All processed CEM emission monitoring data; and
(d) All CEM certification and calibration results.
[COMAR 26.11.03.06C]

C. D/F Emissions
The Permittee shall submit the results of performance tests before the close of business on the 60th day following the completion of the performance test.
[40 CFR §63.1354(b)(1)] & [40 CFR §63.10(d)(2)]

F. CO Emissions
The Permittee shall submit to the Department, a report no later than 30 days after the end of each calendar quarter, which shall include a summary of the following information:
(1) Emissions of CO in pounds per 30-day period, rolling daily;

(2) Tons of clinker produced per 30-day period, rolling daily;

(3) Emissions of CO in pounds per ton of clinker produced based on a 30-day rolling average; and

(4) Emissions of CO in tons per 12-month period, rolling monthly
[Prevention of Significant Deterioration (PSD) Approval #PSD-2014-01 issued April 11, 2014]

H. & I. (Lead and Fluoride Emissions)
Please see the monitoring requirements.

J. & K. (Mercury and HCl Emissions)
The Permittee shall include the following records in the quarterly emissions report submitted to the Department:

(1) Mercury emissions in pounds of mercury per million tons of clinker produced based on a rolling 30 operating day emission rate during normal operation; and

(2) HCl emissions in parts per million by volume dry (ppmvd) corrected to 7% O_2.

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	L. GHG Emissions The Permittee shall submit to the Department, a report no later than 30 days after the end of each calendar quarter, which shall include a summary of the following information: (1) Emissions of CO_{2e} from the 5-stage pre-heater/pre-calciner kiln in tons of CO_{2e} per ton of clinker produced based on a 12-month average, rolling monthly; (2) Total emissions of CO_{2e} from the 5-stage pre-heater/pre-calciner kiln and the emergency generator in tons per 12-month period, rolling monthly; (3) Tons of clinker produced per 12-month period, rolling monthly; and (4) Demonstration of compliance with all BACT requirements including the CO and CO_{2e} BACT emission limits. **[Prevention of Significant Deterioration (PSD) Approval #PSD-2014-01 issued April 11, 2014]**

A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.

Table IV – 7 **Finish Mill Systems – Subject to MACT Requirements**	
7.0	**Emissions Unit Numbers** **Finish Grinding System #1 (Registration Number 043-0008-6-0497)** 561-BM1 and 561-SR1 Controlled by Dust Collectors 561-BF1 and 561-BF2. **Finish Grinding System #2 (Registration Number 043-0008-6-0496)** - to be converted from Raw mill 562-SR1, 562-BM1 Controlled by Dust Collectors 562-BF1 and 562-BF2.
7.1	**Applicable Standards/Limits:** A. Visible Emissions Limitations (1) **COMAR 26.11.30.05(B)(1)**, which states that a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity. (2) Opacity for each finish mill, located at a major source, during all operating mode shall not exceed 10%. **[Table 1-13. of 40 CFR §63.1343(b)(1)]** (3) Each new or existing raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; bulk loading or unloading

Table IV – 7
Finish Mill Systems – Subject to MACT Requirements

	system; raw and finish mills; and each existing raw material dryer, at a facility which is a major source subject to the provisions of this subpart must not cause to be discharged any gases from these affected sources which exhibit opacity in excess of 10 percent. **[40 CFR §63.1345]** B. Control of Particulate Matter **COMAR 26.11.30.04(B)(1)**, which states that a person may not cause or permit particulate matter to be discharged from any installation in excess of 0.05 grains per standard cubic foot dry.
7.2	**Testing Requirements:** A. Please see the monitoring requirements. B. Control of Particulate Matter The Permittee shall conduct a particulate matter emissions test for each mill at least once every 5-year period in accordance with AMA Technical Memorandum 91-01 or using Method 5 of 40 CFR Part 60, Appendix A. Each performance test shall consist of three separate runs under the conditions that exist when the affected source is operating under representative performance conditions in accordance with 40 CFR Part 63, Subpart LLL. Each run shall be conducted for at least one hour, and the minimum sample volume shall be 0.85 dscm (30 dscf). The average of the three runs shall be used to determine compliance. **[COMAR 26.11.03.06C]**
7.3	**Monitoring Requirements:** A. Visible Emissions Limitations (1) The Permittee must monitor opacity in accordance with the following: [**40 CFR §63.1350(f)(2) & (4)]** (a) Conduct daily visible emissions observations of the mill sweep and air separator PM control devices (PMCD) of these affected sources in accordance with the procedures of Method 22 of appendix A-7 to part 60 of CFR 40. The duration of the Method 22 performance test must be 6 minutes. **[40 CFR §63.1350(f)(2)(i)]** (b) Within 24 hours of the end of the Method 22 performance test in which visible emissions were observed, the owner or operator must conduct a follow up Method 22 performance test of each stack from which visible emissions were observed during the previous Method 22 performance test. **[40 CFR §63.1350(f)(2)(ii)]** (c) If visible emissions are observed during the follow-up Method 22 performance test required by (f)(2)(ii) of §63.1350 from any stack from which visible emissions were observed during the previous Method 22 performance test required by (f)(2)(i) of §63.1350, the Permittee must then conduct an opacity test of each stack from which emissions were observed during the follow up Method 22 performance test in accordance with Method 9 of appendix A-4 to Part 60. The duration of the Method 9 test must be 30

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Finish Mill Systems – Subject to MACT Requirements

	minutes. **[40 CFR §63.1350(f)(2)(iii)]** (2) If visible emissions are observed during any Method 22 visible emissions test conducted under (f)(1) or (2) of §63.1350, the Permittee must initiate, within one-hour, the corrective actions specified in the operation and maintenance plan as required in §63.1347. **[40 CFR §63.1350(f)(3)]** B. Control of Particulate Matter The exhaust gases from each emission unit shall vent through a dust collector designed to meet the particulate matter emissions limit before discharging to the atmosphere.**[COMAR 26.11.03.06C]**
7.4	**Record Keeping Requirements:** A. Visible Emissions Limitations The Permittee shall maintain all records for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report or record. At a minimum, the most recent two years of data shall be retained on site; the remaining three years of data may be retained offsite. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or no microfiche. **[40 CFR §63.1355 and COMAR 26.11.03.06C]** B. Control of Particulate Matter The Permittee shall maintain all the records of particulate matter emissions test results for at least five years and make them available to the Department upon request. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. **[COMAR 26.11.03.06C]**
7.5	**Reporting Requirements:** A. & B. The Permittee shall submit a summary report semiannually which contains all failures to comply with any provision of the operation and maintenance plan developed in accordance with §63.1350(a). **[40 CFR §63.1354(b)(9)(v)&COMAR 26.11.03.06C]**

A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.

Table IV – 8
Miscellaneous Sources Venting or Enclosed Inside Building – Subject to MACT Requirements

8.0 **Emissions Unit Numbers**

Miscellaneous Sources Venting Inside Building – Subject to MACT requirement

Crushing Operations (Registration Number 043-0008-6-0494)
W01-AF1, W01-AF2, W01-HP1, W01-HP2, X01-AF1, X01-BC1, X01-BC2, X01-BC3, X01-HP1, and transfer from shale crusher (X01-HC1) to belt conveyor (X01-BC3).

Raw Grinding (Registration Number 043-0008-6-0495)
311-3B7, 311-3B8, 331-WF5, 331-WF6, Transfer from dust collector (331-BF1) to screw conveyor (331-SC1), 311-3B9, 311-3BA, Transfer from dust collector (331-BF2) to screw conveyor (331-SC2), 331-WF7, 331-WF8, 331-BC2, Transfer from dust collector (331-BF3) to belt conveyor (331-BC2), 361-BC1, 311-BC5, 311-BC6, Transfer from dust collector (311-BF4) to pebbled limestone feed bin (311-3B7), Transfer from dust collector (311-BF5) to sand feed bin (311-3BA), 331-BC2, Transfer from dust collector (361-BF7) to reject bin (361-3B1), 311-BC3, Transfer from dust collector (361-BF9) to belt conveyor (361-BC1), 361-BC2, 331-SC1, 331-SC2, 361-3B1, 361-RM1, and 361-VF1.

Kiln Feed Blending (Registration Number 043-0008-6-0495)
Transfer from blending silo DC to blending silo (391-3S1)

Clinker cooler (Registration Number 043-0008-6-0495)
Transfer from clinker crusher (471-RC1) to pan conveyor (491-AC1), Transfer from dust collector (491-BF7) to pan conveyor (491-AC1), 491-AC1, and Transfer from dust collector (491-BF8) to pan conveyor (491-AC2).

Clinker Handling (Registration Numbers 043-0008-6-0496 and 0497)
491-AC2, 491-BC2, transfer from dust collector (491-BF2) to clinker storage building (491-3M1) at position #10, 491-TR1, 491-BC3, transfer from dust collector (491-BF4) to clinker silo (491-3S1) via rotary feeder (491-RF1), transfer from dust collector (511-BF1) to belt conveyor (511-BC4) via rotary feeder (511-RF1), 491-3S1, 511-BC4, K91-VF1, transfer from dust collector (511-BF2) to belt conveyor (511-BC3) via F86-2 rotary feeder (511-RF2), and 491-3M1.

Finish Grinding (Registration Numbers 043-0008-6-0496 and 0497)
511-BC2, transfer from baghouse (511-BF2) to limestone bin (512-3B4), transfer from dust collector (511-BF3) to bin #2 clinker (K91-3B1), 591-CN1, 531-BC1, 561-CN1, 561-SR1, 562-SR1, 512-3B1, 512-3B2, 532-AF2, 532-BC1, 532-WF1, 532-WF2, 532-WF3, 532-WF4, 531-WF1, 531-WF2, 531-WF3, 531-WF4, 531-WF5, K91-3B1, K91-3B2, K91-3B3, 511-3B1, 511-3B2, 512-3B3, and 512-3B4.

Table IV – 8
Miscellaneous Sources Venting or Enclosed Inside Building – Subject to MACT Requirements

	Bulk Silos (Registration Numbers 043-0008-6-0496 and 0497) Transfer from dust collector (591-BF1) to bulk silos (silos #21-25, 31-34, and 41-45), Transfer from dust collector (591-BF3) to bulk silos (silos #21-25, 31-34, and 41-45), Transfer from silo #23 to loading chute (621-TC2) via rotary valve (621-VA1), and Transfer from silo #43 to loading chute (621-TC1) via rotary valve (621-VA2). **Coal Handling (Registration Number 043-0008-6-0495)** 451-3B1, 451-PF1, 481-3B1, 481-PF2, and transfer from coal roller mill (L61-RM1) to cyclone (L91-CN1).
8.1	**Applicable Standards/Limits:** A. Visible Emissions Limitations (1) **COMAR 26.11.30.05(B)(1)**, which states that a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity. (2) **Portland Cement MACT- 40 CFR §63.1345**which limits opacity to 10% or less for each new or existing raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system. B. Control of Particulate Matter **COMAR 26.11.30.04(B)(1)**, which states that a person may not cause or permit particulate matter to be discharged from any installation in excess of 0.05 grains per standard cubic foot dry.
8.2	**Testing Requirements:** A & B. Please see the monitoring requirements.
8.3	**Monitoring Requirements:** A. Visible Emissions Limitations (1) The Permittee shall conduct required opacity monitoring in accordance with the provisions of paragraphs (f)(1)(i) through (vii) of 40 CFR §63.1350(f) and in accordance with the Permittee's monitoring plan developed under 40 CFR §63.1350(p). The Permittee must also develop an opacity monitoring plan in accordance with paragraphs (p)(1) through (4) and paragraph (o)(5), if applicable, of this section. **[40 CFR §63.1350(f)]** (2) The Permittee must conduct a monthly 10-minute visible emissions test of each affected source in accordance with Method 22 of appendix A-7 to part 60 of this chapter. The performance test must be conducted while the affected source is in operation. **[40 CFR §63.1350(f)(1)(i)]**

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(3) If no visible emissions are observed in six consecutive monthly tests for any affected source, the owner or operator may decrease the frequency of performance testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, the Permittee must resume performance testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests. **[40 CFR §63.1350(f)(1)(ii)]**

(4) If no visible emissions are observed during the semi-annual test for any affected source, the Permittee may decrease the frequency of performance testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual performance test, the owner or operator must resume performance testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests. **[40 CFR §63.1350(f)(1)(iii)]**

(5) If visible emissions are observed during any Method 22 performance test, of appendix A-7 to part 60 of this chapter, the Permittee must conduct 30 minutes of opacity observations, recorded at 15-second intervals, in accordance with Method 9 of appendix A-4 to part 60 of this chapter. The Method 9 performance test, of appendix A-4 to part 60 of this chapter, must begin within 1 hour of any observation of visible emissions. **[40 CFR §63.1350(f)(1)(iv)]**

Note: Any totally enclosed conveying system transfer point, regardless of the location of the transfer point is not required to conduct Method 22 visible emissions monitoring under this paragraph. The enclosures for these transfer points must be operated and maintained as total enclosures on a continuing basis in accordance with the facility operations and maintenance plan. [**40 CFR §63.1350(f)(1)(v)]**

(6) If any partially enclosed or unenclosed conveying system transfer point is located in a building, the Permittee must conduct a Method 22 performance test, of appendix A-7 to part 60 of this chapter, according to the requirements of paragraphs (f)(1)(i) through (iv) of this section for each such conveying system transfer point located within the building, or for the building itself, according to paragraph (f)(1)(vii) of this section. [**40 CFR §63.1350(f)(1)(vi)]**

(7) If visible emissions from a building are monitored, the requirements of paragraphs (f)(1)(i) through (f)(1)(iv) of this section apply to the monitoring of the building, and the Permittee must also test visible emissions from each side, roof, and vent of the building for at least 10 minutes. [**40 CFR §63.1350(f)(1)(vii)]**

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Miscellaneous Sources Venting or Enclosed Inside Building – Subject to MACT Requirements

	(8) The Permittee shall comply with and update as needed the written operations and maintenance plan which includes the following information: (a) Procedures for proper operation and maintenance of the affected source and air pollution control devices in order to continuously meet the emission limits and operating limits of §§63.1345; and (b) an opacity monitoring plan to periodically monitor affected sources. **[COMAR 26.11.03.06C]** B. Control of Particulate Matter The exhaust gas from each emissions unit shall vent through a dust collector designed to meet the particulate matter emissions limit before discharging into the atmosphere. **[COMAR 26.11.03.06C]**
8.4	**Record Keeping Requirements:** A. & B. The Permittee shall maintain the written opacity monitoring plan, operations and maintenance plan and all records for at least five years following the date of each inspection, occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. **[40 CFR §63.1355& COMAR 26.11.03.06]**
8.5	**Reporting Requirements:** A. & B. The Permittee shall report the failure in the semi-annual compliance report required by §63.1354(b)(9). The report must contain the date, time and duration, and the cause of each event (including unknown cause, if applicable), and a sum of the number of events in the reporting period. The report must list for each event the affected source or equipment, an estimate of the volume of each regulated pollutant emitted over the emission limit for which the source failed to meet a standard, and a description of the method used to estimate the emissions. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.1348(d), including actions taken to correct a malfunction.**[40 CFR §63.1354(c)& COMAR 26.11.03.06]**

A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.

Table IV – 9 **Emergency Generator and Coal Mill Heater**	
9.0	**Emissions Unit Number:** Combustion Sources: **Emergency Generator (800kw); and** **Coal Mill Heater**
9.1	**Applicable Standards/Limits :** A. **Visible Emissions** (1) **COMAR 26.11.30.05(B)(1)**, which states that a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity. (2) The Permittee may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity. **[COMAR 26.11.09.05E(2)]** **Exceptions:** **COMAR 26.11.09.05E(2)** does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system. **COMAR 26.11.09.05E(2)** does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods: (a) Engines that are idled continuously when not in service: 30 minutes (b) All other engines: 15 minutes (3) The Permittee may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity. **[COMAR 26.11.09.05E(3)]** **Exception:** COMAR 26.11.09.05E(2) and (3) do not apply while maintenance, repair, or testing is being performed by qualified mechanics. (4) The emergency generator is subject to the requirements of the federal NSPS promulgated under 40 CFR 60, Subparts A and IIII for Stationary Compression Ignition Internal Combustion Engines including, but not limited to, the following opacity standards: [**Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016]** (a) Exhaust opacity must not exceed 20 percent during the acceleration mode. (b) Exhaust opacity must not exceed 15 percent during the lugging mode. (c) Exhaust opacity must not exceed 50 percent during the peaks in either the acceleration or lugging modes. **[40 CFR §60.4202(a)(2), 40 CFR §60.4205(b) and §89.113(a)]**

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	B. **Particulate Matter Emissions** (1) **COMAR 26.11.30.04(B)(1)**, which states that a person may not cause or permit particulate matter to be discharged from any installation in excess of 0.05 grains per standard cubic foot dry. (2) The emergency generator is subject to the requirements of the federal NSPS promulgated under 40 CFR 60, Subparts A and IIII for Stationary Compression Ignition Internal Combustion Engines including, but not limited to, 0.2 g/kW-hr of the Particulate Matter (PM). **[Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016; 40 CFR §60.4202(a)(2), §60.4205(b) and §89.112(a)]** C. **NOx** The emergency generator is subject to the requirements of the federal NSPS promulgated under 40 CFR 60, Subparts A and IIII for Stationary Compression Ignition Internal Combustion Engines including, but not limited to, 6.4 grams per kilowatt hour (g/kW-hr) of Non-Methane Hydrocarbons (NMHC) and NO_x. [**Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016; §60.4202(a)(2), §60.4205(b) and §89.112(a)]** D. **Sulfur Oxides** (1) The Permittee shall not burn any distillate fuel oil with a sulfur content of greater than 0.3% by weight. **[COMAR 26.11.09.07A(1)(c)]** (2) The Permittee must use diesel fuel in the emergency generator that meets the requirements of 40 CFR §80.510(b) for nonroad diesel fuel, i.e., diesel fuel that has a per-gallon sulfur content that does not exceed 15 ppm. **[40 CFR §60.4207(b)]** E. **Carbon Monoxide (CO)** The emergency generator is subject to the requirements of the federal NSPS promulgated under 40 CFR 60, Subparts A and IIII for Stationary Compression Ignition Internal Combustion Engines including, but not limited to, 3.5 g/kW-hr of CO. [**Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016; 40 CFR §60.4202(a)(2), §60.4205(b) and §89.112(a)]** F. **Non-Methane Hydrocarbons (NMHC)** (1) The emergency generator is subject to the requirements of the federal NSPS promulgated under 40 CFR 60, Subparts A and IIII for Stationary Compression Ignition Internal Combustion Engines including, but not limited to, 6.4 grams per kilowatt hour (g/kW-hr) of Non-Methane Hydrocarbons (NMHC) and NO_x. [**Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016; 40 CFR §60.4202(a)(2), §60.4205(b) and §89.112(a)]** (2) The Permittee must use diesel fuel in the emergency generator that meets the requirements of 40 CFR §80.510(b) for nonroad diesel fuel, i.e., diesel fuel that

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	has a minimum per-gallon cetane index of 40 or a maximum per-gallon aromatic content of 35 volume percent. **[40 CFR §60.4207(b)]**
9.2	**Testing Requirements:** A. Through F. See Monitoring and Record Keeping Requirements.
9.3	**Monitoring Requirements:** A, B, E and F. (1) The Permittee shall not burn any type of fuel in each heater except natural gas, propane, and No. 2 fuel oil and shall not burn any type of fuel in the emergency diesel engine except diesel fuel. **[COMAR 26.11.03.06C]** (2) The Permittee shall inspect and analyze the combustion system when the visual emission is observed. The Permittee shall record and maintain results of each inspection at the premises at least five (5) years, and shall make available to the Department upon request. **[COMAR 26.11.03.06C]** (3) The Permittee must operate and maintain the emergency generator that achieves the emissions standards in §60.4202 of 40 CFR 60 Subpart IIII as required by 40 CFR §60.4205 according to the manufacturers emission-related written instructions or procedures developed by the Permittee that are approved by the engine manufacturer over the entire life of the engine. In addition, the Permittee may only change those emission related settings that are permitted by the manufacturer. The Permittee must also meet the requirements of 40 CFR Parts 89, 94, and/or 1068 as applicable. **[40 CFR §60.4206 and 40 CFR §60.4211(a)]** C. (1) The Permittee shall not burn any type of fuel in each heater except natural gas, propane, and No. 2 fuel oil and shall not burn any type of fuel in the emergency diesel engine except diesel fuel. **[COMAR 26.11.03.06C]** (2) The Permittee shall inspect and analyze the combustion system when the visual emission is observed. The Permittee shall record and maintain results of each inspection at the premises at least five (5) years, and shall make available to the Department upon request. **[COMAR 26.11.03.06C]** (3) A person who owns or operates fuel-burning equipment with a capacity factor (as defined in 40 CFR, Part 72.2) of 15 percent or less shall: (a) Provide certification of the capacity factor of the equipment to the Department in writing; (b) For fuel-burning equipment that operates more than 500 hours during a calendar year, perform a combustion analysis and optimize combustion at least once annually; (c) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request; (d) Require each operator of an installation, except combustion turbines, to attend

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	operator training programs at least once every 3 years, on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and (e) Maintain a record of training program attendance for each operator at the site, and make these records available to the Department upon request. **[COMAR 26.11.09.08G].** (4) For the purposes of COMAR 26.11.09.08, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation. **[COMAR 26.11.09.08B(5)]** (5) The Permittee must operate and maintain the emergency generator that achieves the emissions standards in §60.4202 of 40 CFR 60 Subpart IIII as required by 40 CFR §60.4205 according to the manufacturers emission-related written instructions or procedures developed by the Permittee that are approved by the engine manufacturer over the entire life of the engine. In addition, the Permittee may only change those emissions related settings that are Permitted by the manufacturer. The Permittee must also meet the requirements of 40 CFR Parts 89, 94, and/or 1068 as applicable. **[40 CFR §60.4206 and §60.4211(a)]** D. (1) The sulfur content in each fuel used in either heaters or the generator shall not exceed the limits required for each type of fuel. **[COMAR 26.11.09.07A]** (2) The Permittee shall obtain a certification from the fuel supplier indicating that the sulfur in fuel complies with the required limits. **[COMAR 26.11.03.06C]**
9.4	**<u>Record Keeping Requirements</u>:** A, B, and E. (1) The Permittee shall maintain the records of each inspection when the visual emission is observed at the premises at least five (5) years, and shall make available to the Department upon request. **[COMAR 26.11.03.06C]** (2) The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, annual records of the quantity and type of fuel combusted in the generator. **[COMAR 26.11.03.06C]** C. & F. The Permittee shall maintain the following records at the premises at least five (5) years, and shall make available to the Department upon request: (1) Records of the calculated capacity factors. **[COMAR 26.11.03.06C]** (2) Records of hours of operation. **[COMAR 26.11.02.19C]** (3) Records of combustion analysis performed if the hours of operation exceed 500. **[COMAR 26.11.09.08G(1)(c)]**

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	(4) Record of training program attendance for each operator. **[COMAR 26.11.09.08G(1)(e)]** D. The Permittee shall maintain the following records at the premises at least five (5) years, and shall make available to the Department upon request: **[COMAR 26.11.03.06C]** (1) Annual records of the quantity and type of fuel consumed in each equipment; and (2) Fuel supplier certifications. F. The Permittee shall maintain the following records for the emergency generator for the entire life of the emergency generator and shall make available to the Department upon request: [**Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016]** (1) copies of all notifications and reports required by 40 CFR 63, Subpart ZZZZ; (2) documentation from the manufacturer that the engine is certified to meet applicable emissions standards **[40 CFR §60.4214(a)(2)(iii)]**; and (3) records of the hours of operation of the emergency generator that are recorded through the non-resettable hour meter, the time of operation of the emergency generator and the reason the emergency generator was in operation during that time. **[40 CFR §60.4214(b)]**
9.5	**Reporting Requirements:** A. through F. See the Record Keeping Requirements.

A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.

	Table IV – 10 Facility Wide – MACT Sources Only
10.0	**Emissions Unit Number(s)** Facility Wide- MACT Sources Only
10.1	**Applicable Standards/Limits and Operating Conditions:** (1) The Permittee must prepare a written operations and maintenance plan. The plan must be submitted to the Department, for review and approval, as part of the application for a Title V - Part 70 operating permit and must include the following information**: [40 CFR §63.1347(a)]** (a) Procedures for proper operation and maintenance of the affected source and air pollution control devices in order to meet the emissions limits and operating limits,

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	including fugitive dust control measures for open clinker piles, of §63.1343 through 63.1348. the Permittee's operations and maintenance plan must address periods of startup and shutdown; (b) Corrective actions to be taken when required by paragraph §63.1350(f)(3); and (c) Procedures to be used during an inspection of the components of the combustion system of each kiln and each in-line kiln raw mill located at the facility at least once per year. (2) Failure to comply with any provision of the operations and maintenance plan developed in accordance with this section is a violation of the standard. **[40 CFR §63.1347(b)]** (3) In order to demonstrate continuous compliance during startup and shutdown, all air pollution control devices must be operating. **[40 CFR §63.1348(b)(9)]** (4) During periods of startup and shutdown, the kiln shall meet the following requirements: [**40 CFR §63.1346(g)]** (a) During startup the Permittee must use any one or combination of the following clean fuels: natural gas, synthetic natural gas, propane, distillate oil, synthesis gas (syngas), and ultra-low sulfur diesel (ULSD) until the kiln reaches a temperature of 1200 degrees Fahrenheit; **[40 CFR §63.1346(g)(1)]** (b) Combustion of the primary kiln fuel may commence once the kiln temperature reaches 1200 degrees Fahrenheit; **[40 CFR §63.1346(g)(2)]** (c) All dry sorbent and activated carbon systems that control hazardous air pollutants must be turned on and operating at the time the gas stream at the inlet to the baghouse or ESP reaches 300 degrees Fahrenheit (five-minute average) during startup. Temperature of the gas stream is to be measured at the inlet of the baghouse or ESP every minute. Such injection systems can be turned off during shutdown. Particulate control and all remaining devices that control hazardous air pollutants should be operational during startup and shutdown; **[40 CFR §63.1346(g)(3)]** and (d) The Permittee must keep records as specified in §63.1355 during periods of startup and shutdown. **[40 CFR §63.1346(g)(4)]**
10.2	**<u>Testing Requirements</u>** General Testing Requirements: (1) The Permittee shall comply with the testing requirements of §60.8, §60.64, §60.255, §60.257, §63.7, and §63.1349. (2) In conducting the performance tests and relative accuracy tests required in §60.8, the Permittee must use reference methods and procedures and the test methods in appendix A of this part or other methods and procedures as specified in §60.64, except as provided in §60.8(b). **[40 CFR §60.64(a) and §60.675(a)]**

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	(3) The Permittee must demonstrate compliance with the PM standards in §60.62 and applicable PM bag filter emission limits using EPA method 5 or method 5I and use Method 9 and the procedures in §60.11 to determine opacity. For any sources other than kilns (including associated alkali bypass and clinker cooler) that are subject to the 10 percent opacity limit must follow the appropriate monitoring procedures in §63.1350(f), (m)(1) through (4), (10) and (11), (o), and (p) of this chapter. **[40 CFR §60.64(b)]** (4) Initial Performance Test Requirements under 40 CFR Part 63, Subpart LLL - The Permittee must demonstrate compliance with the emissions standards and operating limits by using the test methods and procedures in §63.1349 and 63.7. Any cement kiln that has been subject to the requirements of subpart CCCC or subpart DDDD of 40 CFR Part 60, and is now electing to cease burning nonhazardous solid waste and become subject to this subpart, must meet all the initial compliance testing requirements each time it becomes subject to this subpart, even if it was previously subject to this subpart. **[40 CFR §63.1348(a)]** Notes: The first day of the 30 operating day performance test is the first day after the compliance date following completion of the field testing and data collection that demonstrates that the CPMS or CEMS has satisfied the relevant CPMS performance evaluation or CEMS performance specification (e.g., PS 2, 12A, or 12B) acceptance criteria. The performance test period is complete at the end of 30th consecutive day. See §63.1341 for definition of operating day and §63.1348(b)(1) for the CEMS operating requirements. The Permittee has the option of performing the compliance test earlier than the compliance date if desired. (5) Unless being specified in other appropriate requirements, during each stack emissions test or opacity observation, the affected equipment shall be operated at 90% or higher of its rated capacity. Specific Testing Requirements: (6) The Permittee shall comply with the following test requirements: (a) The Permittee shall document performance test results in complete test reports that contain the information required by paragraphs (a)(1) through (10) of this section, as well as all other relevant information. As described in §63.7(c)(2)(i), the Permittee must make available to the Administrator prior to testing, if requested, the site-specific test plan to be followed during performance testing. For purposes of determining exhaust gas flow rate to the atmosphere from an alkali bypass stack or a coal mill stack, the Permittee must either install, operate, calibrate and maintain an instrument for continuously measuring and recording the exhaust gas flow rate according to the requirements in paragraphs §63.1350(n)(1) through (10) of this subpart or use the maximum design exhaust gas flow rate. For purposes of determining the combined emissions from kilns equipped with an alkali bypass or that exhaust kiln gases to a coal mill that exhausts through a separate stack, instead of installing a CEMS on the alkali

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bypass stack or coal mill stack, the Permittee may use the results of the initial and subsequent performance test to demonstrate compliance with the relevant emissions limit. **[40 CFR 63.1349(a)]**

(i) A brief description of the process and the air pollution control system;
(ii) Sampling location description(s);
(iii) A description of sampling and analytical procedures and any modifications to standard procedures;
(iv) Test results;
(v) Quality assurance procedures and results;
(vi) Records of operating conditions during the performance test, preparation of standards, and calibration procedures;
(vii) Raw data sheets for field sampling and field and laboratory analyses;
(viii) Documentation of calculations;
(ix) All data recorded and used to establish parameters for monitoring; and
(x) Any other information required by the performance test method.

(b) **40 CFR 63.1349(c)** requires the Permittee to repeat performance test for particulate matter emissions required under 40 CFR 63.1349(b)(1) and (b)(2) at least once every five years.
(c) **40 CFR 63.1349(c)** requires the Permittee to repeat performance test for dioxin/furan emissions required under 40 CFR 63.1349(b)(3)at least once every 30 months.
(d) **40 CFR 63.1349(e)(1)** requires that if a source plans to undertake a change in operations that may adversely affect compliance with an applicable D/F standard under this subpart, the source must conduct a performance test and establish new temperature limit(s) as specified in paragraph (b)(3) of this section.
(e) **40 CFR 63.1349(e)(2)** requires that if a source plans to undertake a change in operations that may adversely affect compliance with an applicable PM standard under § 63.1343, the source must conduct a performance test as specified in paragraph (b)(1) of this section.

[40 CFR 63.1349(c), (d), and (e)]

(7) The Permittee shall comply with the following compliance dates:
(a) The compliance date for existing sources for all the requirements that became effective on February 12, 2013, except for the open clinker pile requirements will be September 9, 2015. The Department has extended the compliance date to September 9, 2016; **[40 CFR §63.1351(c); Department Letter dated May 22, 2014]**
(b) The compliance date for new sources is February 12, 2013, or startup, whichever is later; **[40 CFR §63.1351(d)]**
(c) The compliance date for existing sources with the requirements for open clinker storage piles in §63.1343(c) is February 12, 2014; **[40 CFR §63.1351(e)]** and

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	(d) Emissions limits in effect prior to September 9, 2010. Any source defined as an existing source in §63.1351, and that was subject to a PM, mercury, THC, D/F, or opacity emissions limit prior to September 9, 2010, must continue to meet the limits shown in Table 2 to 40 CFR 63, Subpart LLL until September 9, 2015. **[40 CFR §63.1343(d)]** (8) If an affected facility subject to 40 CFR 63, Subpart LLL has a different emissions limit or requirement for the same pollutant under another regulation in Title 40, the Permittee of the affected facility must comply with the most stringent emissions limit or requirement and is exempt from the less stringent requirement. **[§63.1356]**
10.3	**Monitoring Requirements** A. Parameter Monitoring requirements (1) If the Permittee has an operating limit that requires the use of a CMS, the Permittee must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the procedures in (m)(1) through (4) of §63.1350 by the compliance date specified in §63.1351. The Permittee must also meet the applicable specific parameter monitoring requirements in (m)(5) through (11) that are applicable to the facility. **[40 CFR §63.1350(m)]** (2) If the Permittee has an operating limit that requires the use of a pressure measurement device, the Permittee must meet the requirements in (m)(6)(i) through (vi) of §63.1350. **[40 CFR §63.1350(m)(6)]** (3) If the Permittee elects to use a fabric filter bag leak detection system (BLDS) to comply with the requirements of Part 63, Subpart LLL, the Permittee must install, calibrate, maintain, and continuously operate a BLDS as specified in (m)(10)(i) through (viii) of §63.1350. **[40 CFR §63.1350(m)(10)]** B. Continuous Flow Rate Monitoring System (1) The Permittee must install, operate, calibrate, and maintain instruments, according to the requirements in (n)(1) through (10) of §63.1350, for continuously measuring and recording the stack gas flow rate to allow determination of the pollutant mass emissions rate to the atmosphere from sources subject to an emissions limitation that has a pounds per ton of clinker unit. **[40 CFR §63.1350(n)]** (2) The Permittee must install each sensor of the flow rate monitoring system in a location that provides representative measurement of the exhaust gas flow rate at the sampling location of the mercury or PM CEMs, taking into account the manufacturer's recommendations. The flow rate sensor is that portion of the system that senses the volumetric flow rate and generates an output proportional to that flow rate. **[40 CFR §63.1350(n)(1)]** (3) The flow rate monitoring system must be designed to measure the exhaust flow rate over a range that extends from a value of at least 20 percent less than the lowest

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	expected exhaust flow rate to a value of at least 20 percent greater than the highest expected exhaust flow rate. **[40 CFR §63.1350(n)(2)]** (4) The flow rate monitoring system must be equipped with a data acquisition and recording system that is capable of recording values over the entire range specified in (n)(2) of §63.1350. **[40 CFR §63.1350(n)(4)]** (5) The signal conditioner, wiring, power supply, and data acquisition and recording system for the flow rate monitoring system must be compatible with the output signal of the flow rate sensors used in the monitoring system. **[40 CFR §63.1350(n)(5)]** (6) The flow rate monitoring system must be designed to complete a minimum of one cycle of operation for each successive 15-minute period. **[40 CFR §63.1350(n)(6)]** (7) The flow rate sensor must have provisions to determine the daily zero and upscale calibration drift (CD) (*see* sections 3.1 and 8.3 of Performance Specification 2 in appendix B to Part 60 for a discussion of CD), including the following: [**40 CFR §63.1350(n)(7)]** (a) Conduct the CD tests at two reference signal levels, zero (e.g., 0 to 20 percent of span) and upscale (e.g., 50 to 70 percent of span); and (b) The absolute value of the difference between the flow monitor response and the reference signal must be equal to or less than 3 percent of the flow monitor span. (8) The Permittee must perform an initial relative accuracy test of the flow rate monitoring system according to Section 8.2 of Performance Specification 6 of appendix B to Part 60 with the following exceptions specified in (n)(8)(i) and (n)(8)(ii) of §63.1350: [**40 CFR §63.1350(n)(8)]** (a) The relative accuracy test is to evaluate the flow rate monitoring system alone rather than a continuous emission rate monitoring system; and (b) The relative accuracy of the flow rate monitoring system shall be no greater than 10 percent of the mean value of the reference method data. (9) The Permittee must verify the accuracy of the flow rate monitoring system at least once per year by repeating the relative accuracy test specified in (n)(8) of §63.1350. **[40 CFR §63.1350(n)(9)]** (10) The Permittee must operate the flow rate monitoring system and record data during all periods of operation of the affected facility including periods of startup, shutdown, and malfunction, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments). **[40 CFR §63.1350(n)(10)]**

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	C. Alternate monitoring requirements approval The Permittee may submit an application to the Department for approval of alternate monitoring requirements to demonstrate compliance with the emission standards of Subpart LLL, except for emission standards for THC. The application for alternative monitoring requirements is subject to the provisions of (o)(1) through (6) of §63.1350. **[40 CFR §63.1350(o)]** D. Development and submittal (upon request) of monitoring plans If the Permittee demonstrates compliance with any applicable emissions limit through performance stack testing or other emissions monitoring, the Permittee must develop a site-specific monitoring plan according to the requirements in (p)(1) through (4) of §63.1350. This requirement also applies to the facility if the Permittee petitions the Department for alternative monitoring parameters under (o) of §63.1350 and §63.8(f). If the Permittee uses a BLDS, the Permittee must also meet the requirements specified in (p)(5) of §63.1350. **[40 CFR §60.63(i) and 40 CFR §63.1350(p)]** E. Operation and maintenance requirements (1) The Permittee shall prepare for each affected source subject to the provisions of the Subpart LLL, a written operations and maintenance plan. The plan must be submitted to the Administrator for review and approval as part of the application for a part 70 permit and must include the following information: (a) Procedures for proper operation and maintenance of the affected source and air pollution control devices in order to meet the emissions limits and operating limits, including fugitive dust control measures for open clinker piles of §§63.1343, 63.1345, and 63.1346. Your operations and maintenance plan must address periods of startup and shutdown. (b) Corrective actions to be taken when required by paragraph §63.1350(f)(3). (c) Procedures to be used during an inspection of the components of the combustion system of each kiln and each in-line kiln raw mill located at the facility at least once per year. (2) Failure to comply with any provision of the operations and maintenance plan developed in accordance with this section is a violation of the standard. **[40 CFR §63.1347]**
10.4	**Record Keeping Requirements** (1) The Permittee shall comply with the recordkeeping requirements of §60.7, §60.65, §60.258, §63.10, and §63.1355. (2) The Permittee shall maintain files of all information (including all reports and notifications) required by §63.1355 recorded in a form suitable and readily available for inspection and review as required by §63.10(b)(1). The files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm,

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	on a computer, on floppy disks, on magnetic tape, or on microfiche. **[40 CFR §63.1355(a)]** (3) The Permittee shall maintain the following records for each affected source as required by §63.10(b)(2) and (b)(3) of this part: **[40 CFR §63.1355(b)]** (a) All documentation supporting initial notifications and notifications of compliance status under §63.9; (b) All records of applicability determination, including supporting analyses; and (c) If the Permittee has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements. (4) In addition to the recordkeeping requirements in (b) of §63.1355, the Permittee of an affected source equipped with a continuous monitoring system shall maintain all records required by §63.10(c). **[40 CFR §63.1355(c)]** (5) The Permittee must keep records of the daily clinker production rates and kiln feed rates. **[40 CFR §63.1355(e)]** (6) The Permittee must keep records of the date, time and duration of each startup or shutdown period for any affected source that is subject to a standard during startup or shutdown that differs from the standard applicable at other times, and the quantity of feed and fuel used during the startup or shutdown period. **[40 CFR §63.1355(f)]** (7) The Permittee must keep records of the date, time and duration of each malfunction that causes an affected source to fail to meet an applicable standard; if there was also a monitoring malfunction, the date, time and duration of the monitoring malfunction; the record must list the affected source or equipment, an estimate of the volume of each regulated pollutant emitted over the standard for which the source failed to meet a standard, and a description of the method used to estimate the emissions. **[40 CFR §63.1355(g)(1)]** (8) The Permittee must keep records of actions taken during periods of malfunction to minimize emissions in accordance with §63.1348(d) including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. **[40 CFR §63.1355(g)(2)]** (9) For each exceedance from an emissions standard or established operating parameter limit, the Permittee must keep records of the date, duration and description of each exceedance and the specific actions taken for each exceedance including inspections, corrective actions and repeat performance tests and the results of those actions. **[40 CFR §63.1355(h)]**

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10.5	**Reporting Requirements** (1) The Permittee shall comply with the reporting requirements of §60.19, §60.65, §60.258, §60.676, §63.10, and §63.1354. (2) The Permittee shall comply with the following requirements: [**40 CFR §60.64(d)]** (a) Within 60 days after the date of completing each performance test (see §60.8) as required by this subpart the Permittee must submit the results of the performance tests conducted to demonstrate compliance under this subpart to the EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through the EPA's Central Data Exchange (CDX) (*http://www.epa.gov/cdx*). Performance test data must be submitted in the file format generated through use of the EPA's Electronic Reporting Tool (ERT) (see *http://www.epa.gov/ttn/chief/ert/index.html*). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. The Permittee who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk, flash drive or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to the EPA via CDX as described earlier in this paragraph. At the discretion of the delegated authority, the Permittee must also submit these reports, including the CBI, to the delegated authority in the format specified by the delegated authority. For any performance test conducted using test methods that are not listed on the ERT Web site, the Permittee must submit the results of the performance test to the Administrator at the appropriate address listed in §63.13. (b) Within 60 days after the date of completing each CEMs performance evaluation test as defined in §63.2, the Permittee must submit relative accuracy test audit (RATA) data to the EPA's CDX by using CEDRI in accordance with paragraph (d)(1) of this section. Only RATA pollutants that can be documented with the ERT (as listed on the ERT Web site) are subject to this requirement. For any performance evaluations with no corresponding RATA pollutants listed on the ERT Web site, the Permittee must submit the results of the performance evaluation to the Administrator at the appropriate address listed in §63.13. (c) For PM performance test reports used to set a PM CPMS operating limit, the electronic submission of the test report must also include the make and model of the PM CPMS instrument, serial number of the instrument, analytical principle of the instrument (e.g. beta attenuation), span of the instruments primary analytical range, milliamp value equivalent to the instrument zero output, technique by which this zero value was determined, and the average milliamp signals corresponding to each PM compliance test run.

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	(d) All reports required by this subpart not subject to the requirements in paragraphs (d)(1) and (2) of §60.64 must be sent to the Administrator at the appropriate address listed in §63.13. The Administrator or the delegated authority may request a report in any form suitable for the specific case (e.g., by commonly used electronic media such as Excel spreadsheet, on CD or hard copy). The Administrator retains the right to require submittal of reports subject to paragraph (d)(1) and (2) of §60.64 in paper format. (3) The Permittee shall submit reports of excess emissions. The content of these reports must comply with the requirements in §60.7(c). Notwithstanding the provisions of §60.7(c), such reports shall be submitted semiannually. **[40 CFR §60.65(a)]** (4) The Permittee shall submit semiannual reports of the malfunction information required to be recorded by §60.7(b). These reports shall include the frequency, duration, and cause of any incident resulting in de-energization of any device controlling kiln emissions or in the venting of emissions directly to the atmosphere. **[40 CFR §60.65(b)]** (5) As required by §63.10(d)(2), the Permittee shall report the results of performance tests as part of the notification of compliance status. **[40 CFR §63.1354(b)(1)]** (6) As required by §63.10(d)(3), the Permittee of an affected source shall report the opacity results from tests required by §63.1349. **[40 CFR §63.1354(b)(2)]** (7) As required by §63.10(d)(4), the Permittee of an affected source who is required to submit progress reports as a condition of receiving an extension of compliance under §63.6(i) shall submit such reports by the dates specified in the written extension of compliance. **[40 CFR §63.1354(b)(3)]** (8) As required by §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 §63.8(e). The Permittee shall submit the report simultaneously with the results of the performance test. **[40 CFR §63.1354(b)(6)]** (9) As required by §63.10(e)(2), the Permittee of an affected source using a continuous opacity monitoring system to determine opacity compliance during any performance test required under §63.7 and described in §63.6(d)(6) shall report the results of the continuous opacity monitoring system performance evaluation conducted under §63.8(e). **[40 CFR §63.1354(b)(7)]** (10) As required by §63.10(e)(3), the Permittee of an affected source equipped with a continuous emission monitor shall submit an excess emissions and continuous monitoring system performance report for any event when the continuous monitoring system data indicate the source is not in compliance with the applicable

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	emission limitation or operating parameter limit. **[40 CFR §63.1354(b)(8)]** (11) The Permittee shall submit a summary report semiannually which contains the information specified in §63.10(e)(3)(vi). In addition, the summary report shall include: [**40 CFR §63.1354(b)(9)]** (a) All exceedances of maximum control device inlet gas temperature limits specified in §63.1346(a) and (b); (b) Notification of any failure to calibrate thermocouples and other temperature sensors as required under §63.1350(g)(1)(iii) of this subpart; (c) Notification of any failure to maintain the activated carbon injection rate, and the activated carbon injection carrier gas flow rate or pressure drop, as applicable, as required under §63.1346(c)(2); (d) Notification of failure to conduct any combustion system component inspections conducted within the reporting period as required under §63.1347(a)(3); (e) Any and all failures to comply with any provision of the operation and maintenance plan developed in accordance with §63.1347(a); (f) For each PM CPMS, HCl, Hg, and THC CEMS, D/F temperature monitoring system, or Hg sorbent trap monitoring system, within 60 days after the reporting periods, the Permittee must report all of the calculated 30-operating day rolling average values derived from the CPMS, CEMS, CMS, or Hg sorbent trap monitoring systems; (g) In response to each violation of an emissions standard or established operating parameter limit, the date, duration and description of each violation and the specific actions taken for each violation including inspections, corrective actions and repeat performance tests and the results of those actions; (h) Within 60 days after the date of completing each CEMS performance evaluation test as defined in §63.2, the Permittee must submit relative accuracy test audit (RATA) data to the EPA's CDX by using CEDRI in accordance with paragraph (b)(9) of this section. Only RATA pollutants that can be documented with the ERT (as listed on the ERT Web site) are subject to this requirement. For any performance evaluations with no corresponding RATA pollutants listed on the ERT Web site, the Permittee must submit the results of the performance evaluation to the Administrator at the appropriate address listed in §63.13; (i) For PM performance test reports used to set a PM CPMS operating limit, the electronic submission of the test report must also include the make and model of the PM CPMS instrument, serial number of the instrument, analytical principle of the instrument (*e.g.* beta attenuation), span of the instruments primary analytical range, milliamp value equivalent to the instrument zero output, technique by which this zero value was determined, and the average milliamp signals corresponding to each PM compliance test run; and (j) All reports required by this subpart not subject to the requirements in paragraphs (b)(9) introductory text and (b)(9)(viii) of this section must be sent to the Administrator at the appropriate address listed in §63.13. The Administrator or the delegated authority may request a report in any form suitable for the specific

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	case (*e.g.,* by commonly used electronic media such as Excel spreadsheet, on CD or hard copy). The Administrator retains the right to require submittal of reports subject to paragraph (b)(9) introductory text and (b)(9)(viii) of this section in paper format. (12) If the total continuous monitoring system downtime for any CEM or any continuous monitoring system (CMS) for the reporting period is ten percent or greater of the total operating time for the reporting period, the Permittee shall submit an excess emissions and continuous monitoring system performance report along with the summary report. **[40 CFR §63.1354(b)(10)]** (13) For each failure to meet a standard or emissions limit caused by a malfunction at an affected source, the Permittee must report the failure in the semi-annual compliance report required by §63.1354(b)(9). The report must contain the date, time and duration, and the cause of each event (including unknown cause, if applicable), and a sum of the number of events in the reporting period. The report must list for each event the affected source or equipment, an estimate of the volume of each regulated pollutant emitted over the emission limit for which the source failed to meet a standard, and a description of the method used to estimate the emissions. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.1348(d), including actions taken to correct a malfunction. **[40 CFR §63.1354(c)]** (14) Unless being specified in other appropriate requirements, the Permittee shall submit a stack emissions testing protocol to the Department for review and approval at least 30 days prior to each stack emissions test. (15) Unless being specified in other appropriate requirements, within 60 days after the last day of any required stack emissions test or opacity observation, the Permittee shall submit to the Department the results.
10.6	**<u>Notification Requirements</u>** (1) The Permittee shall comply with the notification requirements of §60.7, §60.19, §63.9, and §63.1353. (2) The Permittee shall notify the Department in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin to allow the Department to review and approve the site-specific test plan required under §63.7(c), if requested by the Department, and to have an observer present during the test.**[40 CFR §63.9(e) and 40 CFR §63.1353(b)(2)]** (3) The Permittee of an affected source shall notify the Department in writing of the anticipated date for conducting the opacity or visible emission observations specified in §63.6(h)(5), if such observations are required for the source by a

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	relevant standard. The notification shall be submitted with the notification of the performance test date, as specified in paragraph (e) of 63.9, or if no performance test is required or visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the initial performance test required under §63.7, the Permittee shall deliver or postmark the notification not less than 30 days before the opacity or visible emission observations are scheduled to take place.**[40 CFR §63.9(f) and 40 CFR §63.1353(b)(3)]** (4) The Permittee of an affected source required to use a CMS by a relevant standard shall furnish the Department written notification as follows: **[40 CFR §63.9(g) and 40 CFR §63.1353(b)(4)]** (a) A notification of the date the CMS performance evaluation under §63.8(e) is scheduled to begin, submitted simultaneously with the notification of the performance test date required under §63.7(b). If no performance test is required, or if the requirement to conduct a performance test has been waived for an affected source under §63.7(h), the Permittee shall notify the Department in writing of the date of the performance evaluation at least 60 calendar days before the evaluation is scheduled to begin; (b) A notification that COMS data results will be used to determine compliance with the applicable opacity emission standard during a performance test required by §63.7 in lieu of Method 9 or other opacity emissions test method data, as allowed by §63.6(h)(7)(ii), if compliance with an opacity emission standard is required for the source by a relevant standard. The notification shall be submitted at least 60 calendar days before the performance test is scheduled to begin; and (c) A notification that the criterion necessary to continue use of an alternative to relative accuracy testing, as provided by §63.8(f)(6), has been exceeded. The notification shall be delivered or postmarked no later than 10 days after the occurrence of such exceedance, and it shall include a description of the nature and cause of the increased emissions. (5) Before a title V permit has been issued to the affected facility, and each time a notification of compliance status is required under Part 63, the Permittee shall submit to the Department a notification of compliance status, signed by the responsible official who shall certify its accuracy, attesting to whether the source has complied with the relevant standard. The notification shall list at least the following: **[40 CFR §63.9(h)(2)(i) and 40 CFR §63.1353(b)(5)]** (a) The methods that were used to determine compliance; (b) The results of any performance tests, opacity or visible emission observations, continuous monitoring system (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted; (c) The methods that will be used for determining continuing compliance, including a description of monitoring and reporting requirements and test methods;

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	(d) The type and quantity of hazardous air pollutants emitted by the source (or surrogate pollutants if specified in the relevant standard), reported in units and averaging times and in accordance with the test methods specified in the relevant standard; (e) If the relevant standard applies to both major and area sources, an analysis demonstrating whether the affected source is a major source (using the emissions data generated for this notification); (f) A description of the air pollution control equipment (or method) for each emission point, including each control device (or method) for each hazardous air pollutant and the control efficiency (percent) for each control device (or method); and (g) A statement by the Permittee of the affected existing, new, or reconstructed source as to whether the source has complied with the relevant standard or other requirements. (6) The notification must be sent before the close of business on the 60th day following the completion of the relevant compliance demonstration activity specified in the relevant standard (unless a different reporting period is specified in the standard, in which case the letter must be sent before the close of business on the day the report of the relevant testing or monitoring results is required to be delivered or postmarked). For example, the notification shall be sent before close of business on the 60th (or other required) day following completion of the initial performance test and again before the close of business on the 60th (or other required) day following the completion of any subsequent required performance test. If no performance test is required but opacity or visible emission observations are required to demonstrate compliance with an opacity or visible emission standard under Part 63, the notification of compliance status shall be sent before close of business on the 30th day following the completion of opacity or visible emission observations. Notifications may be combined as long as the due date requirement for each notification is met. **[40 CFR §63.9(h)(2)(ii) and 40 CFR §63.1353(b)(5)]** (7) Any change in the information already provided under §63.9shall be provided to the Department in writing within 15 calendar days after the change. **[40 CFR §63.9(j) and 40 CFR §63.1353(b)(5)]** (8) Within 48 hours of an exceedance that triggers retesting to establish compliance and new operating limits, the Permittee shall notify the appropriate permitting agency of the planned performance tests. The notification requirements of §§63.7(b) and 63.9(e) do not apply to retesting required for exceedances under Subpart LLL. **[40 CFR §63.1353(b)(6)]**

A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.

MACT Requirements - (Applies to MACT Sources Only)

Applicable Standards and Regulations

The Permittee shall comply with the following sections of the General Provisions. The provisions, which do not apply, have been deleted.

Table IV-10a to Subpart LLL of Part 63—Applicability of General Provisions

General Provisions 40 CFR Citation	Requirement	Comment
63.1(a)(1)-(4)	Applicability	
63.1(a)(6)-(8)	Applicability	
63.1(a)(10)-(14)	Applicability	
63.1(b)(2)-(3)	Initial Applicability Determination	
63.1(c)(1)	Applicability After Standard Established	
63.1(c)(2)	Permit Requirements	Area sources must obtain Title V permits.
63.1(c)(4)-(5)	Extensions, Notifications	
63.1(e)	Applicability of Permit Program	
63.2	Definitions	Additional definitions in §63.1341.
63.3(a)-(c)	Units and Abbreviations	
63.4(a)(1)-(3)	Prohibited Activities	
63.4(a)(5)	Compliance date	
63.4(b)-(c)	Circumvention, Severability	
63.5(a)(1)-(2)	Construction/Reconstruction	
63.5(b)(1)	Compliance Dates	
63.5(b)(3)-(6)	Construction Approval, Applicability	
63.5(d)(1)-(4)	Approval of Construction/Reconstruction	
63.5(e)	Approval of Construction/Reconstruction	
63.5(f)(1)-(2)	Approval of Construction/Reconstruction	
63.6(a)	Compliance for Standards and Maintenance	
63.6(b)(1)-(5)	Compliance Dates	
63.6(b)(7)	Compliance Dates	
63.6(c)(1)-(2)	Compliance Dates	
63.6(c)(5)	Compliance Dates	

63.6(f)(2)-(3)	Compliance with Emission Standards	
63.6(g)(1)-(3)	Alternative Standard	
63.6(h)(2)	Opacity/VE Standards	
63.6(h)(4)-(h)(5)(i)	Opacity/VE Standards	
63.6(h)(6)	Opacity/VE Standards	
63.6(h)(7)	Opacity/VE Standards	
63.6(i)(1)-(14)	Extension of Compliance	
63.6(i)(16)	Extension of Compliance	
63.6(j)	Exemption from Compliance	
63.7(a)(1)-(3)	Performance Testing Requirements	§63.1349 has specific requirements.
63.7(b)	Notification period	Except for repeat performance test caused by an exceedance. See §63.1353(b)(6).
63.7(c)	Quality Assurance/Test Plan	
63.7(d)	Testing Facilities	
63.7(e)(2)-(4)	Conduct of tests	
63.7(f)	Alternative Test Method	
63.7(g)	Data Analysis	
63.7(h)	Waiver of Tests	
63.8(a)(1)	Monitoring Requirements	
63.8(b)(1)-(3)	Conduct of Monitoring	
63.8(c)(1)-(8)	CMS Operation/Maintenance	Temperature and activated carbon injection monitoring data reduction requirements given in subpart LLL.
63.8(d)	Quality Control	
63.8(e)	Performance Evaluation for CMS	
63.8(f)(1)-(5)	Alternative Monitoring Method	Additional requirements in §63.1350(l).
63.8(f)(6)	Alternative to RATA Test	
63.8(g)	Data Reduction	
63.9(a)	Notification Requirements	
63.9(b)(1)-(5)	Initial Notifications	
63.9(c)	Request for Compliance Extension	
63.9(d)	New Source Notification for Special Compliance Requirements	

63.9(e)	Notification of performance test	Except for repeat performance test caused by an exceedance. See §63.1353(b)(6).
63.9(f)	Notification of VE/Opacity Test	Notification not required for VE/opacity test under §63.1350(e) and (j).
63.9(g)	Additional CMS Notifications	
63.9(h)(1)-(3)	Notification of Compliance Status	
63.9(h)(5)-(6)	Notification of Compliance Status	
63.9(i)	Adjustment of Deadlines	
63.9(j)	Change in Previous Information	
63.10(a)	Recordkeeping/Reporting	
63.10(b)(1)	General Recordkeeping Requirements	
63.10(b)(2)(iii)	General Recordkeeping Requirements	
63.10(b)(2)(vi)-(ix)	General Recordkeeping Requirements	
63.10(c)(1)	Additional CMS Recordkeeping	PS-8A supersedes requirements for THC CEMS.
63.10(c)(1)	Additional CMS Recordkeeping	PS-8A supersedes requirements for THC CEMS.
63.10(c)(5)-(8)	Additional CMS Recordkeeping	PS-8A supersedes requirements for THC CEMS.
63.10(c)(10)-(15)	Additional CMS Recordkeeping	PS-8A supersedes requirements for THC CEMS.
63.10(d)(1)	General Reporting Requirements	
63.10(d)(2)	Performance Test Results	
63.10(d)(3)	Opacity or VE Observations	
63.10(d)(4)	Progress Reports	
63.10(e)(1)-(2)	Additional CMS Reports	
63.10(e)(3)	Excess Emissions and CMS Performance Reports	Exceedances are defined in subpart LLL.
63.10(f)	Waiver for Recordkeeping/Reporting	
63.12(a)-(c)	State Authority and Delegations	
63.13(a)-(c)	State/Regional Addresses	
63.14(a)-(b)	Incorporation by Reference	
63.15(a)-(b)	Availability of Information	

SECTION V INSIGNIFICANT ACTIVITIES

This section provides a list of insignificant emissions units that were reported in the Title V permit application. The applicable Clean Air Act requirements, if any, are listed below the insignificant activity.

(1) No. 1 Fuel burning equipment using gaseous fuels or no. 1 or no. 2 fuel oil, and having a heat input less than 1,000,000 Btu (1.06 gigajoules) per hour;

The installation is subject to the following requirements:

COMAR 26.11.09.05A(1), which establishes that the Permittee may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is greater than 20 percent opacity.

Exceptions: COMAR 26.11.09.05A(2) does not apply to emissions during load changing, soot blowing, start-up, or adjustments or occasional cleaning of control equipment if:

(a) The visible emissions are not greater than 40 percent opacity; and

(b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period.

COMAR 26.11.09.07A(1)(c), which establishes that the Permittee may not burn, sell, or make available for sale any distillate fuel with a sulfur content by weight in excess of 0.3 percent.

(2) No. 2 Stationary internal combustion engines with an output less than 500 brake horsepower (373 kilowatts) and which are not used to generate electricity for sale or for peak or load shaving;

One 150 HP Emergency Generator and one 475 HP Quarry dewatering Pump are subject to the following requirements:

(a) COMAR 26.11.09.05E(2), Emissions During Idle Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.

(b) COMAR 26.11.09.05E(3), Emissions During Operating Mode: The Permittee may not cause or permit the

discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.

(c) Exceptions:

(i) COMAR 26.11.09.05E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.

(ii) COMAR 26.11.09.05E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:

(a) Engines that are idled continuously when not in service: 30 minutes
(b) all other engines: 15 minutes.

(iii) COMAR 26.11.09.05E(2) & (3) do not apply while maintenance, repair or testing is being performed by qualified mechanics.

(d) COMAR 26.11.36.03A(1), which establishes that the Permittee may not operate an emergency generator except for emergencies, testing and maintenance purposes.

(e) COMAR 26.11.36.03A(5), which establishes that the Permittee may not operate an emergency generator for testing and engine maintenance purposes between 12:01 a.m. and 2:00 p.m. on any day on which the Department forecasts that the air quality will be a code orange, code red, or code purple unless the engine fails a test and engine maintenance and a re-test are necessary.

(f) 40 CFR 63, Subpart ZZZZ which states that the Permittee must:

(i) Change oil and filter every 500 hours of operation or annually, whichever comes first;

(ii) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;

(iii) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary;

(iv) operate and maintain the engine and keep records as specified in Subpart ZZZZ; and

(v) keep records of the hours of operation of the engine as recorded through a non-resettable hour meter.

(3) No. 4 Space heaters utilizing direct heat transfer and used solely for comfort heat;

(4) No. 2 Unheated VOC dispensing containers or unheated VOC rinsing containers of 60 gallons (227 liters) capacity or less;

The containers are subject to COMAR 26.11.19.09D, which requires that the Permittee control emissions of volatile organic compounds (VOC) from cold degreasing operations by meeting the following requirements:

(a) COMAR 26.11.19.09D(2)(b), which establishes that the Permittee shall not use any VOC degreasing material that exceeds a vapor pressure of 1 mm Hg at 20 ° C;

(b) COMAR 26.11.19.09D(3)(a—d), which requires that the Permittee implement good operating practices designed to minimize spills and evaporation of VOC degreasing material. These practices, which shall be established in writing and displayed such that they are clearly visible to operators, shall include covers (including water covers), lids, or other methods of minimizing evaporative losses, and reducing the time and frequency during which parts are cleaned;

(c) COMAR 26.11.19.09D(4), which prohibits the use of any halogenated VOC for cold degreasing.

The Permittee shall maintain on site for at least five (5) years, and shall make available to the Department upon request, the following records of operating data:

(a) Monthly records of the total VOC degreasing materials used; and

(b) Written descriptions of good operating practices designed to minimize spills and evaporation of VOC degreasing materials.

(5) Containers, reservoirs, or tanks used exclusively for:

(a) No. 4 Storage of lubricating oils;

(b) No. 8 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;

(6) ✓ Certain recreational equipment and activities, such as fireplaces, barbecue pits and cookers, fireworks display, and kerosene fuel use;

(7) ✓ Emissions resulting from the use of explosives for blasting at quarrying operations and from the required disposal of boxes used to ship the explosive;

(8) ✓ Comfort air conditioning subject to requirements of Title VI of the Clean Air Act; and

(9) ✓ Laboratory fume hoods and vents.

SECTION VI STATE-ONLY ENFORCEABLE CONDITIONS

The Permittee is subject to the following state-only enforceable requirements:

A. **Applicable Regulations**

(1) COMAR 26.04.10, which provides requirements for management of coal combustion byproducts.

(2) COMAR 26.11.01.11B, which provides general requirements for CEMs.

(3) COMAR 26.11.06.08 and 26.11.06.09, which generally prohibit the discharge of emissions beyond the property line in such a manner that a nuisance or air pollution is created.

(4) COMAR 26.11.15.05, which requires that the Permittee implement "Best Available Control Technology for Toxics" (T – BACT) to control emissions of toxic air pollutants.

(5) COMAR 26.11.15.06, which prohibits the discharge of toxic air pollutants to the extent that such emissions will unreasonably endanger human health.

(6) COMAR 26.11.36.03A, which provides requirements for emissions of oxides of nitrogen (NOx) from emergency generators.

B. **Compliance Demonstration**

The Permittee shall submit to the Department by April 1 of each year a written certification of the results of an analysis of emissions of toxic air pollutants from the Permittee's facility during the previous calendar year. Such analysis shall include either:

(1) a statement that previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid; or

(2) a revised compliance demonstration, developed in accordance with requirements included under COMAR 26.11.15 & 16, that accounts for changes in operations, analytical methods, emissions determinations, or other factors that have invalidated previous demonstrations.

Emergency Generator

A. **Applicable Requirements - Operating Conditions:**

(1) The Permittee may not operate the emergency generator registered under ARMA Registration No. 043-0008-9-0218 except for emergencies, testing, and maintenance purposes. **[COMAR 26.11.36.03A(1)]**

(2) The Permittee may not operate the emergency generator registered under ARMA Registration No. 043-0008-9-0218 for testing and maintenance purposes between 12:01 a.m. and 2 p.m. on any day on which the Department forecasts that the air quality will be code orange, code red, or code purple. **[COMAR 26.11.36.03A(5)]**

B. **Compliance Demonstration**

The Permittee shall record the date and time of operating hours used for emergency, testing and maintenance purposes and shall make them available to the Department upon request.

HOLCIM (US) INC.
1260 SECURITY ROAD HAGERSTOWN, MARYLAND 21742
PERMIT NO. 24-043-0008
PART 70 OPERATING PERMIT FACT SHEET

Background

Holcim (US), Inc. (Holcim, or the Permittee) currently operates a plant in Hagerstown, Maryland that produces cement, masonry cement, and blended cement. The plant includes a limestone quarry, limestone crushing plant, a raw mill system, a cement kiln, a clinker cooler, a finish mill system, and a shipping operation. Although cement production at this location dates back to 1903, this facility has been in operation since 1971.

In 2014, Holcim received from the Department a Prevention of Significant Deterioration (PSD) approval and a permit to construct to modernize the existing cement kiln configuration from a long-dry kiln into a more efficient, pre-heater/pre-calciner kiln. The modernization project includes the following modifications:

(1) Modification of the existing kiln to convert the kiln from a long-dry kiln to a pre-heater pre-calciner kiln with an in-line raw mill, in-line coal mill and an alkali bypass system;

(2) Installation of a new clinker cooler to accommodate the modified kiln. Exhaust gases from the clinker cooler vent to the new in-line raw mill and pre-heater pre-calciner kiln baghouse;

(3) Modification of the existing finish mill and conversion of the existing raw mill to a second finish mill to support the cement kiln changes; and

(4) More emission control devices being installed and operated including:

   a. Bag filters capable of achieving better control for new emission units and some existing emission units;
   b. A lime injection system for SOx emissions control; and
   c. A selective non-catalytic reduction (SNCR) technology for NOx emissions control.

Resulting from 2016 modernization, the new kiln configuration is capable of producing 850,000 short tons of clinker per year.

The Permit to Construct #043-0008-6-0495 for Holcim's modernization project was issued April 11, 2014 and updated with a temporary permit to operate on April 18, 2016. The construction was complete and first clinker was produced June 10, 2016 and first quality clinker was achieved June 11, 2016, which is the official startup date.

The SIC code for a Portland cement manufacturing plant is 3241.

PROCESS DESCRIPTION

Quarry and Raw Material Handling

The quarry located at the plant currently produces limestone, the primary ingredient in the cement manufacturing process. Stone is hauled from the quarry, stored in stockpiles and fed to storage bins. A primary crusher and secondary crusher are used to reduce the size of the stone in preparation for the raw mill and kiln.

Other additive raw materials (e.g. slag, gypsum, sand, iron, etc.) that meet Holcim's raw material specifications are unloaded from trucks and also kept in storage piles and storage bins.

These raw materials can include traditional raw materials as well as alternate raw materials which are non-NHSM (Non-Hazardous Secondary Materials). Conveyor belts and trucks are used to transfer materials.

Pre-heater/Pre-calciner Kiln System

Holcim converted its long dry kiln to a pre-heater/pre-calciner kiln which is equipped with an in-line raw mill, an in-line coal mill, and an alkali bypass system. Different from a long dry kiln, the pre-heater/pre-calciner kiln has two combustion streams, one for the kiln section and the other for the calciner section. The exhaust gases from the kiln and calciner sections vent through a 5-stage pre-heater section for kiln feed drying. The exhaust gases from the pre-heater section vent through the in-line raw mill and the in-line coal mill. The exhaust gases from the in-line raw mill, in-line coal mill, pre-heater/pre-calciner, alkali bypass from kiln, and clinker cooler, all vent through the main stack.

In-Line Raw Mill

In order to improve energy efficiency, most of the exhaust gases from the pre-heater section vent through the in-line raw mill for raw meal drying. The exhaust gases from the in-line raw mill vent through the raw mill baghouse which is equipped with a high-efficiency membrane filter for better emission control.

In-Line Coal Mill

Some of the exhaust gases from the pre-heater section vent through the in-line coal mill for coal drying to further improve energy efficiency. The exhaust gases from the in-line coal mill vent through their own baghouse. The in-line coal mill is also equipped with a coal mill heater fired by fuel oil including on-spec. used oil. The coal mill heater is used to preheat the coal mill for the initial start-up and has its own separate exhaust stack.

Alkali Bypass System

Up to 15% of the exhaust gases from the kiln section vent through the alkali bypass system for alkali reduction. The alkali bypass system includes a conditioning tower with water spray injection for cooling the exhaust gases and a baghouse for dust emission control. The exhaust gases from the alkali bypass baghouse pass through a new bypass vent fan and exhaust into the common exhaust stack.

Clinker Cooler

A new clinker cooler is installed to replace the existing one in order to accommodate the new pre-heater/pre-calciner kiln. Most of the exhaust gases from the clinker cooler are used as combustion air for the calciner section combustion streams.

Finish Mill Systems

Finish Mill No. 1 system (**Registration #6-0497)** is an existing finish mill. Finish Mill No. 2 system was converted from an existing raw mill. The associated heater provides hot air to the new finish mill, only as needed. Each finish mill system consists of a finish mill, a mill separator, and a variety of transfer air slides, air separators, bucket elevators, screw conveyors, rotary valves, weigh feeders and hoppers, process bins and storage silos, and bulk cement silos.

Common Exhaust Stack
The exhaust gases from the raw mill, pre-heater/pre-calciner, clinker cooler baghouse, the coal mill baghouse, and the alkali bypass baghouse vent through a common exhaust stack (main stack) before discharging into the atmosphere.

800 KW Diesel-fired Emergency Generator
One (1) 800 KW, NSPS Tier II compliant diesel-fired emergency generator is used to provide backup power in case of power failure.

Clinker Storage Pile
There are three (3) contingency open clinker storage piles to be used as backup storage for clinker. Emissions from the storage piles will be minimized by covering the piles with tarps when not in use and using wet suppression during deposition or reclamation activities.

Fuel Handling
Coal is imported to the plant via truck (or rail) and stored in outside stockpiles. A coal crushing system is used to prepare the solid fuel for the kiln. Dust collectors are used to control point emissions from transfer points and the crusher. Tire derived fuel (TDF) is stored in trailers and on-spec used oil is stored in two 20,000-gallon storage tanks. Diesel fuel is stored in one 10,000-gallon storage tank.

EMISSIONS INFORMATION
The following table summarizes the actual emissions from Holcim based on its Annual Emission Certification Reports:

Table 1: Actual Emissions

Year	NO_x (TPY)	SO_x (TPY)	PM_{10} (TPY)	CO (TPY)	VOC (TPY)	Total HAP (TPY)
2011	1,614	537	211	182	16	45
2012	983	445	227	174	10	45
2013	1,046	692	226	139	13	15
2014	1,173	723	222	117	15	30
2015	1,225	361	247	84	14	31
2016	313	212	30	105	4	29

The major source threshold for triggering Title V permitting requirements in Washington County is 50 tons/year for VOC, 100 tons/year for NO_x, 100 tons/year for any other criteria pollutants, 10 tons/year for a single HAP, and/or 25 tons/year for total HAPS. Since the actual emissions of NO_x, SO_x, PM_{10}, CO, and HAP from the facility are greater than the major source threshold, Holcim is required to obtain a Title V – Part 70 Operating Permit under COMAR 26.11.03.01.

The significant modification application for the Part 70 permit was received by the Department on April 15, 2016. An administrative completeness review was conducted and the application was deemed to be administratively complete. A letter was sent to Holcim on April 28, 2016 granting an application shield.

On March 8 and April 4, 2017, Holcim submitted updates to their Part 70 application to clarify and confirm grouping of the emission units.

RECENT PLANT MODIFICATIONS

The following changes and modifications have occurred since the issuance of the last Part 70 permit:

(1) On March 24, 2011, Holcim received a Permit to Construct for the installation of one (1) Selective Non-catalytic Reduction System (SNCR).

(2) On June 2, 2011, Holcim received a Permit to Construct for the replacement of multiclones on existing cement kiln clinker cooler.

(3) On April 11, 2014, Holcim received a Permit to Construct and PSD approval for the modification of the existing cement manufacturing plant by modernizing the existing cement kiln configuration from a long-dry kiln to a pre-heater/pre-calciner kiln.

(4) On October 5, 2015, Holcim received a Permit to Construct for the installation of three (3) contingency open clinker storage piles in the existing cement manufacturing plant.

(5) On April 18, 2016, Holcim received a reissued Permit to Construct and Temporary State PTO for the modification of the existing cement manufacturing plant by modernizing the existing cement kiln configuration from a long-dry kiln to a pre-heater/pre-calciner kiln.

(6) On September 26, 2016, Holcim received a Permit to Construct for the installation of one (1) dust collector to control the emissions from clinker transport to the clinker storage shed.

GREENHOUSE GAS (GHG) EMISSIONS

Holcim emits greenhouse gases (GHGs) related to Clean Air Act requirements from various processes (i.e., combustion source such as kiln, internal combustion engines, and boilers) contained within the facility premises. Emission certification reports for the years 2013, 2014, and 2015 showed that Holcim is a major source (threshold: 100,000tpy CO_2e) for GHGs.

Table 3:Greenhouse Gases Emissions Summary

GHG	Conversion factor	2013 tpy CO_2e	2014 tpy CO_2e	2015 tpy CO_2e	2016 tpy CO_2e
Carbon dioxide CO_2	1	452,289	579,537	506,394	506,394
Methane CH_4	25	640	705	673	673
Nitrous Oxide N_2O	298	1,109	1,199	1,153	1,153
Total GHG CO_{2e}		**454,038**	**581,441**	**508,220**	**508,220**

Since Holcim is an existing major source and its 2016 modification project triggered Prevention of Significant Deterioration (PSD) requirements for GHG emissions, it has installed a 5-stage

pre-heater/pre-calciner kiln to meet the BACT emissions limit of 0.94 ton of CO_{2e} per ton of clinker produced based on a 12-month average, rolling monthly. CO_{2e} emissions shall be assessed by a CO_2 continuous emission monitoring system and Part 98 emission factors/global warming potentials (in effect as of March 2014) for N_2O and CH_4 emissions. In addition to compliance with the BACT requirements, Holcim shall quantify facility wide GHGs emissions and report them in accordance with Section 3 of the Part 70 permit.

EMISSION UNIT IDENTIFICATION

Holcim has identified the following emission units as being subject to Title V permitting requirements and having applicable requirements.

Group1 – Fugitive Emissions from Quarry and Crushing Operation – Not Subject to MACT

Group2 – Point Sources Emissions from Quarry and Crushing Operation, and Wood Chip Storage Bin - Not Subject to MACT

Group 3 – Material Handling – Fugitive Sources – Not Subject to MACT Requirements

Group 4 – Material Handling – Fugitive Sources – Subject to MACT Requirements

Group 5 – Material Handling– Point Sources, including Entirely Enclosed Conveying System Transfer* – Subject to MACT Requirements

Group 6 – Kiln, In-line Raw Mill, In-line Coal Mill, Clinker Cooler, and Alkali-bypass - Subject to MACT requirements

Group 7 – Finish Mill Systems – Subject to MACT Requirements

Group 8 – Miscellaneous Sources Venting or Enclosed Inside Building – Subject to MACT Requirements

Group 9 – Emergency Generator and Coal Mill Heater.

Note: Emission unit with fugitive emissions controlled by a dust collector (i.e. Fugitive emissions controlled - Dust collector (211-BF1); Enclosed in Building) is grouped as a fugitive emissions source and a point source in association with its dust collector.

* Entirely enclosed fugitive emissions unit controlled by a dust collector (for example, Fugitive emissions controlled - Dust collector (391-BF2); Entirely Enclosed) is not in any fugitive emission group besides point source because it is entirely enclosed, however the enclosures for these transfer points must be operated and maintained as total enclosures on a continuing basis in accordance with the facility operations and maintenance plan. [40 CFR §63.1350(f)(1)(v)]

Group	Emission Unit Number	MDE Registration Number	Emissions Unit Name	Emissions Unit Description	Installation Date
	Combustion Sources				
6	461-KL1	043-0008-6-0495	Main Kiln Stack (emissions from coal mill, in-line raw mill, kiln, and clinker cooler)	Point source – controlled by SNCR and baghouse 421-BF3	1970 and modernized in 2016
9	E31-EG1	043-0008-9-0218	Emergency Generator	Point source – uncontrolled	2016
9	L51-HG1	043-0008-6-0495	Coal Mill Heater	Point source - uncontrolled	1970
9	N/A	N/A	One 150 HP Emergency Generator (listed in insignificant activities)	Point Source - uncontrolled	2012
9	N/A	N/A	One 475 HP Quarry dewatering Pump (listed in insignificant activities)	Point Source - uncontrolled	2013
	Crushing Operations Registration Number 043-0008-6-0494				
1 & 2	211-BC2	043-0008-6-0494	Transfer from belt conveyor (211-BC2) to pan feeder (211-VF2) through hopper	Fugitive emissions controlled - Dust collector (211-BF1); Enclosed in Building	1970
1 & 2	211-BC3	043-0008-6-0494	Transfer from belt conveyor (211-BC3) to screen (211-VS1)	Fugitive emissions controlled - Dust collector (211-BF1); Enclosed in Building	1970
1 & 2	211-BF1	043-0008-6-0494	Transfer from dust collector (211-BF1) to belt conveyor (291-BC1)	Fugitive emissions controlled - Dust collector (211-BF1); Enclosed in Building	1970
1 & 2	211-IM2	043-0008-6-0494	Transfer from crusher (211-IM2) to belt conveyor (291-BC1)	Fugitive emissions controlled - Dust collector (211-BF1); Enclosed in Building	1970
1 & 2	211-VF2	043-0008-6-0494	Transfer from pan feeder (211-VF2) to belt conveyor (211-BC3)	Fugitive emissions controlled - Dust collector (211-BF1); Enclosed in Building	1970
1 & 2	211-VS1	043-0008-6-0494	Screen	Fugitive emissions controlled - Dust collector (211-BF1); Enclosed in Building	1970
1 & 2	211-VS1	043-0008-6-0494	Transfer from screen (211-VS1) to belt conveyor (291-BC1)	Fugitive emissions controlled - Dust collector (211-BF1); Enclosed in Building	1970
1 & 2	291-BC1	043-0008-6-0494	Transfer from belt conveyor (291-BC1) to stacker conveyor (291-ST2)	Fugitive emissions controlled - Dust collector (211-BF1); Enclosed in Building	1999
1 & 2	291-BC1	043-0008-6-0494	Transfer from belt conveyor (291-BC1) to belt conveyor (291-BC2)	Fugitive emissions controlled - Dust collector (211-BF1); Enclosed in Building	1999
1	211-IM2	043-0008-6-0494	Secondary Crusher	Fugitive emissions controlled - Enclosed in building	1970
1	211-VS1	043-0008-6-0494	Transfer from screen (211-VS1) to crusher (211-IM2)	Fugitive emissions controlled - Enclosed in Building	1970
1	311-BF1	043-0008-6-0494	Transfer from dust collector (311-BF1) to belt conveyor (311-BC2)	Fugitive emissions controlled - Enclosed in Building	1970
1	291-3M1	043-0008-6-0494	Transfer from dome storage pile (291-3M1) to belt conveyor (311-BC1)	Fugitive emissions controlled - Enclosed Underground	1999

Group	Emission Unit Number	MDE Registration Number	Emissions Unit Name	Emissions Unit Description	Installation Date
1	311-BC1	043-0008-6-0494	Transfer from belt conveyor (311-BC1) to belt conveyor (311-BC2)	Fugitive emissions controlled - Enclosed Underground	1970
1	311-HP1	043-0008-6-0494	Transfer from stone hopper (311-HP1) to belt conveyor (311-BC1) via vibratory feeder (311-VF1)	Fugitive emissions controlled - Enclosed Underground	1970
1	291-BC2	043-0008-6-0494	Transfer from belt conveyor (291-BC2) to stacker conveyor (291-ST1)	Fugitive emissions controlled - Enclosed in Q34 Dome	1999
1	291-ST1	043-0008-6-0494	Drop from stacker conveyor (291-ST1) to dome storage pile (291-3M1)	Fugitive emissions controlled - Enclosed in Q34 Dome	1999
1	211-IM1	043-0008-6-0494	Transfer from crusher (211-IM1) to conveyor (211-BC1)	Fugitive emissions controlled - Partially Enclosed	1970
1	Alumina Loader	043-0008-6-0494	Transfer from loader to Alumina storage bin (W01-HP1)	Fugitive emissions controlled - Partially Enclosed	1970
1	Iron Loader	043-0008-6-0494	Transfer from loader to iron storage bin (W01-HP2)	Fugitive emissions controlled - Partially Enclosed	1970
1	Sand Loader	043-0008-6-0494	Transfer from loader to sand storage bin (X01-HP1)	Fugitive emissions controlled - Partially Enclosed	1970
1	211-IM1	043-0008-6-0494	Primary Crusher	Fugitive emissions controlled - Wet Suppression	1970
1	211-VF1	043-0008-6-0494	Transfer from loader to crusher (211-IM1) via vibratory feeder (211-VF1)	Fugitive emissions controlled - Wet Suppression	1970
1	211-BC1	043-0008-6-0494	Transfer from belt conveyor (211-BC1) to belt conveyor (211-BC4)	Fugitive emissions uncontrolled	1970
1	211-BC4	043-0008-6-0494	Transfer from belt conveyor (211-BC4) to belt conveyor (211-BC2)	Fugitive emissions uncontrolled	1970
1	291-ST2	043-0008-6-0494	Drop from stacker conveyor (291-ST2) to outside stone storage	Fugitive emissions uncontrolled	1999
1	Loader	043-0008-6-0494	Transfer from loader to stone hopper (311-HP1)	Fugitive emissions uncontrolled	1970
1	Outside Stone Storage	043-0008-6-0494	Transfer from outside stone storage pile to loader	Fugitive emissions uncontrolled	1970
1	Quarry Drilling	043-0008-6-0494	Drilling in Quarry	Fugitive emissions uncontrolled	1970
8	W01-AF1	043-0008-6-0494	Transfer from belt feeder (W01-AF1) to belt conveyor (X01-BC2)	Fugitive emissions controlled - Enclosed in Building	1970
8	W01-AF2	043-0008-6-0494	Transfer from belt feeder (W01-AF2) to belt conveyor (X01-BC1)	Fugitive emissions controlled - Enclosed in Building	1970
8	W01-HP1	043-0008-6-0494	Transfer from Alumina storage bin to belt feeder (W01-AF1)	Fugitive emissions controlled - Enclosed in Building	1970

Group	Emission Unit Number	MDE Registration Number	Emissions Unit Name	Emissions Unit Description	Installation Date
8	W01-HP2	043-0008-6-0494	Transfer from iron storage bin (W01-HP2) to belt feeder (W01-AF2)	Fugitive emissions controlled - Enclosed in Building	1970
8	X01-AF1	043-0008-6-0494	Transfer from belt feeder (X01-AF1) to belt conveyor (X01-BC1)	Fugitive emissions controlled - Enclosed in Building	1970
8	X01-BC1	043-0008-6-0494	Transfer from belt conveyor (X01-BC1) to belt conveyor (X01-BC2)	Fugitive emissions controlled - Enclosed in Building	1970
8	X01-BC2	043-0008-6-0494	Transfer from belt conveyor (X01-BC2) to belt conveyor (311-BC2)	Fugitive emissions controlled - Enclosed in Building	1970
8	X01-BC3	043-0008-6-0494	Transfer from belt conveyor (X01-BC3) to belt conveyor (311-BC2)	Fugitive emissions controlled - Enclosed in Building	1970
8	X01-HP1	043-0008-6-0494	Transfer from sand storage bin (X01-HP1) to belt feeder (X01-AF1)	Fugitive emissions controlled - Enclosed in Building	1970
5 & 8	X01-BC2	043-0008-6-0494	Transfer from belt conveyor (X01-BC2) to crusher (X01-HC1)	Fugitive emissions controlled - Dust collector (311-BF1); Enclosed in Building	1970
5 & 8	X01-HC1	043-0008-6-0494	Transfer from crusher (X01-HC1) to belt conveyor (X01-BC3)	Fugitive emissions controlled - Dust collector (311-BF1); Enclosed in Building	1970
1 & 2	X01-HC1	043-0008-6-0494	Shale crusher	Fugitive emissions controlled - Dust collector (311-BF1); Enclosed in Building	1970
	Raw Grinding Registration Number 043-0008-6-0495				
5 & 8	311-3B7	043-0008-6-0495	Transfer from limestone feed bin (311-3B7) to weigh belt feeder (331-WF5)	Fugitive emissions controlled - Dust collector (331-BF1); Enclosed in Building	2016
5 & 8	311-3B8	043-0008-6-0495	Transfer from shale feed bin (311-3B8) to weigh belt feeder (331-WF6)	Fugitive emissions controlled - Dust collector (331-BF1); Enclosed in Building	2016
5 & 8	331-WF5	043-0008-6-0495	Transfer from weigh belt feeder (331-WF5) to belt conveyor (331-BC2)	Fugitive emissions controlled - Dust collector (331-BF1); Enclosed in Building	2016
5 & 8	331-WF6	043-0008-6-0495	Transfer from weigh belt feeder (331-WF6) to belt conveyor (331-BC2)	Fugitive emissions controlled - Dust collector (331-BF1); Enclosed in Building	2016
5 & 8	331-BF1	043-0008-6-0495	Transfer from dust collector (331-BF1) to screw conveyor (331-SC1)	Fugitive emissions controlled - Dust collector (331-BF1); Enclosed in Building	2016
5 & 8	311-3B9	043-0008-6-0495	Transfer from sand feed bin (311-3B9) to weigh feeder (331-WF8)	Fugitive emissions controlled - Dust collector (331-BF2); Enclosed in Building	2016
5 & 8	311-3BA	043-0008-6-0495	Transfer from mill scale feed bin (311-3BA) to weigh belt feeder (331-WF7)	Fugitive emissions controlled - Dust collector (331-BF2); Enclosed in Building	2016
5 & 8	331-BF2	043-0008-6-0495	Transfer from dust collector (331-BF2) to screw conveyor (331-SC2)	Fugitive emissions controlled - Dust collector (331-BF2); Enclosed in Building	2016

Group	Emission Unit Number	MDE Registration Number	Emissions Unit Name	Emissions Unit Description	Installation Date
5 & 8	331-WF7	043-0008-6-0495	Transfer from weigh belt feeder (331-WF7) to belt conveyor (331-BC2)	Fugitive emissions controlled - Dust collector (331-BF2); Enclosed in Building	2016
5 & 8	331-WF8	043-0008-6-0495	Transfer from weigh feeder (331-WF8) to belt conveyor (331-BC2)	Fugitive emissions controlled - Dust collector (331-BF2); Enclosed in Building	2016
5 & 8	331-BC2	043-0008-6-0495	Transfer from conveyor belt (331-BC2) to raw mill (361-RM1) via rotary feeder (361-RF1)	Fugitive emissions controlled - Dust collector (331-BF3); Enclosed in Building	2016
5 & 8	331-BF3	043-0008-6-0495	Transfer from dust collector (331-BF3) to belt conveyor (331-BC2)	Fugitive emissions controlled - Dust collector (331-BF3); Enclosed in Building	2016
5 & 8	361-BC1	043-0008-6-0495	Transfer from belt conveyor (361-BC1) to belt conveyor (331-BC2)	Fugitive emissions controlled - Dust collector (331-BF3); Enclosed in Building	2016
5 & 8	311-BC5	043-0008-6-0495	Transfer from belt conveyor (311-BC5) to shuttle belt conveyor (311-BC6)	Fugitive emissions controlled - Dust collector (311-BF4); Enclosed in Building	2016
5 & 8	311-BC5	043-0008-6-0495	Transfer from belt conveyor (311-BC5) to shale feed bin (311-3B8)	Fugitive emissions controlled - Dust collector (311-BF4); Enclosed in Building	2016
5 & 8	311-BC6	043-0008-6-0495	Transfer from shuttle belt conveyor (311-BC6) to feed bins (311-3B7, 311-3BA, 311-3B9)	Fugitive emissions controlled - Dust collector (311-BF4); Enclosed in Building	2016
5 & 8	311-BF4	043-0008-6-0495	Transfer from dust collector (311-BF4) to pebbled limestone feed bin (311-3B7)	Fugitive emissions controlled - Dust collector (311-BF4); Enclosed in Building	2016
5 & 8	311-BF5	043-0008-6-0495	Transfer from dust collector (311-BF5) to sand feed bin (311-3BA)	Fugitive emissions controlled - Dust collector (311-BF5); Enclosed in Building	2016
5 & 8	331-BC2	043-0008-6-0495	Transfer from belt conveyor (331-BC2) to reject bin (361-3B1)	Fugitive emissions controlled - Dust collector (361-BF7); Enclosed in Building	2016
5 & 8	361-BF7	043-0008-6-0495	Transfer from dust collector (361-BF7) to reject bin (361-3B1)	Fugitive emissions controlled - Dust collector (361-BF7); Enclosed in Building	2016
5 & 8	361-BC3	043-0008-6-0495	Transfer from belt conveyor (361-BC3) to belt conveyor (361-BC1)	Fugitive emissions controlled - Dust collector (361-BF9); Enclosed in Building	2016
5 & 8	361-BF9	043-0008-6-0495	Transfer from dust collector (361-BF9) to belt conveyor (361-BC1)	Fugitive emissions controlled - Dust collector (361-BF9); Enclosed in Building	2016
4& 5	361-BC3	043-0008-6-0495	Transfer from belt conveyor (361-BC3) to pile	Fugitive emissions controlled - Dust collector (361-BF9); Partially Enclosed	2016
8	311-BC2	043-0008-6-0495	Transfer from belt conveyor (311-BC2) to belt conveyor (311-BC5)	Fugitive emissions controlled - Enclosed in Building	1970
8	331-SC1	043-0008-6-0495	Transfer from screw conveyor (331-SC1) to belt conveyor (331-BC2)	Fugitive emissions controlled - Enclosed in Building	1970

Group	Emission Unit Number	MDE Registration Number	Emissions Unit Name	Emissions Unit Description	Installation Date
8	331-SC2	043-0008-6-0495	Transfer from screw conveyor (331-SC2) to belt conveyor (331-BC2)	Fugitive emissions controlled - Enclosed in Building	2016
8	361-3B1	043-0008-6-0495	Transfer from reject bin (361-3B1) to belt conveyor (361-BC3)	Fugitive emissions controlled - Enclosed in Building	2016
8	361-RM1	043-0008-6-0495	Transfer from raw mill (361-RM1) to vibration conveyor (361-VF1)	Fugitive emissions controlled - Enclosed in Building	2016
8	361-VF1	043-0008-6-0495	Transfer from vibration conveyor (361-VF1) to belt conveyor (361-BC1)	Fugitive emissions controlled - Enclosed in Building	2016
5	361-CN2/361-CN3	043-0008-6-0495	Transfer from cyclones (361-CN2 and 361-CN3) to airslide (391-AS2)	Fugitive emissions controlled - Dust collector (391-BF2); Entirely Enclosed	2016
5	391-AS2	043-0008-6-0495	Transfer from airslide (391-AS2) to hopper (391-HP1) via sample measuring unit (391-SM2)	Fugitive emissions controlled - Dust collector (391-BF2); Entirely Enclosed	2016
5	391-BF2	043-0008-6-0495	Transfer from dust collector (391-BF2) to hopper (391-HP1)	Fugitive emissions controlled - Dust collector (391-BF2); Entirely Enclosed	2016
5	421-SCJ	043-0008-6-0495	Transfer from screw conveyor (421-SCJ) to hopper (421-HP1) via sample measuring unit (421-SM1)	Fugitive emissions controlled - Dust Collector (421-BF3); Entirely Enclosed	2016
	Kiln Feed Blending Registration Number 043-0008-6-0495				
5	391-BF1	043-0008-6-0495	Transfer from dust collector (391-BF1) to blending silo (391-3S1)	Fugitive emissions controlled - Dust collectors (391-BF1); Entirely Enclosed	1970
5	391-PP1	043-0008-6-0495	Transfer from pressure pump (391-PP1) to blending silo (391-3S2)	Fugitive emissions controlled - Dust collector (391-BF1); Entirely Enclosed	1970
5	391-PP1	043-0008-6-0495	Transfer from pressure pump (391-PP1) to blending silo (391-3S3)	Fugitive emissions controlled - Dust collector (391-BF1); Entirely Enclosed	1970
5	421-PP1	043-0008-6-0495	Transfer from pressure pump (421-PP1) to blending silo (391-3S1)	Fugitive emissions controlled - Dust collector (391-BF1); Entirely Enclosed	2016
5	421-PP1	043-0008-6-0495	Transfer from pressure pump (421-PP1) to blending silo (391-3S2)	Fugitive emissions controlled - Dust collector (391-BF1); Entirely Enclosed	2016
5	421-PP1	043-0008-6-0495	Transfer from pressure pump (421-PP1) to blending silo (391-3S3)	Fugitive emissions controlled - Dust collector (391-BF1); Entirely Enclosed	2016
5	431-PP1	043-0008-6-0495	Transfer from pressure pump (431-PP1) to blending silo (391-3S1)	Fugitive emissions controlled - Dust collector (391-BF1); Entirely Enclosed	1970
5	431-PP1	043-0008-6-0495	Transfer from pressure pump (431-PP1) to blending silo (391-3S2)	Fugitive emissions controlled - Dust collector (391-BF1); Entirely Enclosed	1970

Group	Emission Unit Number	MDE Registration Number	Emissions Unit Name	Emissions Unit Description	Installation Date
5	431-PP1	043-0008-6-0495	Transfer from pressure pump (431-PP1) to blending silo (391-3S3)	Fugitive emissions controlled - Dust collector (391-BF1); Entirely Enclosed	1970
5	391-PP1	043-0008-6-0495	Transfer from pressure pump (391-PP1) to blending silo (391-3S1)	Fugitive emissions controlled - Dust collectors (391-BF1 and Blending Silo DC); Entirely Enclosed	1970
5 &8	Blending Silo DC	043-0008-6-0495	Transfer from blending silo DC to blending silo (391-3S1)	Fugitive emissions controlled - Dust collectors (391-BF1 and Blending Silo DC); Enclosed in Building	1970
5	411-AS3	043-0008-6-0495	Transfer from airslide (411-AS3) to Level Box	Fugitive emissions controlled - Dust collector (431-BF1); Entirely Enclosed	1976
5	411-AS4	043-0008-6-0495	Transfer from airslide (411-AS4) to Level Box	Fugitive emissions controlled - Dust collector (431-BF1); Entirely Enclosed	~~1976~~
5	431-BF1	043-0008-6-0495	Transfer from dust collector (431-BF1) to screw conveyor (431-SCX)	Fugitive emissions controlled - Dust Collector (431-BF1); Entirely Enclosed	1976
5	431-SCY	043-0008-6-0495	Transfer from screw conveyor (431-SCY) to hopper (431-HP1)	Fugitive emissions controlled - Dust collector (431-BF1); Entirely Enclosed	2016
5	P72-IJ2	043-0008-6-0495	Transfer from injector feeder (P72-IJ2) to Level Box	Fugitive emissions controlled - Dust Collector (431-BF1); Entirely Enclosed	2016
5	431-PP1	043-0008-6-0495	Transfer from pressure pump (431-PP1) to dust collector (431-BF4)	Fugitive emissions controlled - Dust Collector (431-BF4); Entirely Enclosed	1970
5	P72-BF1	043-0008-6-0495	Transfer from dust collector (P72-BF1) to Lime Bin (P72-3B1)	Fugitive emissions controlled - Dust collector (P72-BF1); Entirely Enclosed	2016
4& 5	P72-3B1	043-0008-6-0495	Truck unload line to lime bin (P72-3B1)	Fugitive emissions controlled - Dust collector (P72-BF1)	2016
	Clinker Burning Registration Number 043-0008-6-0495				
5	461-KL1	043-0008-6-0495	Transfer from kiln (461-KL1) to clinker cooler (471-GQ2)	Fugitive emissions controlled - Dust Collector (471-BF1); Entirely Enclosed	2016
	Clinker Cooler Registration Number 043-0008-6-0495				
3	471-RC1	043-0008-6-0495	Clinker Crusher	Fugitive emissions controlled - Enclosed in Building	2016
5 & 8	471-RC1	043-0008-6-0495	Transfer from clinker crusher (471-RC1) to pan conveyor (491-AC1)	Fugitive emissions controlled - Dust Collector (491-BF7); Enclosed in Building	2016
5 & 8	491-BF7	043-0008-6-0495	Transfer from dust collector (491-BF7) to pan conveyor (491-AC1)	Fugitive emissions controlled - Dust Collector (491-BF7); Enclosed in Building	2016
5 & 8	491-AC1	043-0008-6-0495	Transfer from pan conveyor (491-AC1) to pan conveyor (491-AC2) via material sampler unit (491-SM1)	Fugitive emissions controlled - Dust Collector (491-BF8); Enclosed in Building	2016

Group	Emission Unit Number	MDE Registration Number	Emissions Unit Name	Emissions Unit Description	Installation Date
5 & 8	491-BF8	043-0008-6-0495	Transfer from dust collector (491-BF8) to pan conveyor (491-AC2)	Fugitive emissions controlled - Dust Collector (491-BF8); Enclosed in Building	2016
	Clinker Handling Registration Numbers 043-0008-6-0496 and 0497				
4& 5	491-BC1	043-0008-6-0496 & 0497	Transfer from belt conveyor (491-BC1) to belt conveyor (511-BC1)	Fugitive emissions controlled - Dust collector (491-BF1); Partially Enclosed	1976
4 & 5	491-BF1	043-0008-6-0496 & 0497	Transfer from dust collector (491-BF1) to belt conveyor (491-BC2)	Fugitive emissions controlled - Dust collector (491-BF1); Partially Enclosed	1976
4& 5	511-BC3	043-0008-6-0496 & 0497	Transfer from belt conveyor (511-BC3) to belt conveyor (511-BC1)	Fugitive emissions controlled - Dust collector (491-BF1); Partially Enclosed	1976
5 & 8	491-AC2	043-0008-6-0496 & 0497	Transfer from pan conveyor (491-AC2) to belt conveyor (491-BC2)	Fugitive emissions controlled - Dust collector (491-BF1); Enclosed in Building	2016
5 & 8	491-AC2	043-0008-6-0496 & 0497	Transfer from pan conveyor (491-AC2) to Position No. 1 Silo (491-3S1)	Fugitive emissions controlled - Dust collector (491-BF1); Enclosed in Building	2016
5 & 8	491-BC2	043-0008-6-0496 & 0497	Transfer from pan conveyor (491-BC2) to clinker silos (491-3S1 thru -3S9 and 491-3SA)	Fugitive emissions controlled - Dust collector (491-BF2); Enclosed in Building	1976
5 & 8	491-BF2	043-0008-6-0496 & 0497	Transfer from dust collector (491-BF2) to clinker storage building (491-3M1) at position #10	Fugitive emissions controlled - Dust collector (491-BF2); Enclosed in Building	1976
5 & 8	491-TR1	043-0008-6-0496 & 0497	Transfer from belt conveyor (491-BC2) to clinker storage building (491-3M1) via tripper (491-TR1) at 1 of 10 positions	Fugitive emissions controlled - Dust collector (491-BF2); Enclosed in Building	1976
5 & 8	491-BC3	043-0008-6-0496 & 0497	Transfer from belt conveyor (491-BC3) to clinker silo (491-3S1)	Fugitive emissions controlled - Dust collector (491-BF4); Enclosed in Building	1976
5 & 8	491-BF4	043-0008-6-0496 & 0497	Transfer from dust collector (491-BF4) to clinker silo (491-3S1) via rotary feeder (491-RF1)	Fugitive emissions controlled - Dust collector (491-BF4); Enclosed in Building	1976
5	491-BC2	043-0008-6-0496 & 0497	Transfer from belt conveyor (491-BC2) to bucket elevator (491-BE1)	Fugitive emissions controlled - Dust collector (491-BF4); Entirely Enclosed	1976
5	491-BE1	043-0008-6-0496 & 0497	Transfer from bucket elevator (491-BE1) to belt conveyor (491-BC3)	Fugitive emissions controlled - Dust collector (491-BF4); Entirely Enclosed	1976
5 & 8	511-BF1	043-0008-6-0496 & 0497	Transfer from dust collector (511-BF1) to belt conveyor (511-BC4) via rotary feeder (511-RF1)	Fugitive emissions controlled - Dust collector (511-BF1); Enclosed Underground	1976

Group	Emission Unit Number	MDE Registration Number	Emissions Unit Name	Emissions Unit Description	Installation Date
5 & 8	491-3S1	043-0008-6-0496 & 0497	Transfer from clinker silo (491-3S1) to belt conveyor (511-BC4) via vibratory feeders (511-DFB, 511-DFC, and 511-DFD)	Fugitive emissions controlled - Dust collector (511-BF1); Enclosed Underground	1976
5 & 8	511-BC4	043-0008-6-0496 & 0497	Transfer from belt conveyor (511-BC4) to belt conveyor (511-BC3)	Fugitive emissions controlled - Dust collectors (511-BF1 and 511-BF2); Enclosed Underground	1976
5 & 8	K91-VF1	043-0008-6-0496 & 0497	Transfer from vibratory feeder (K91-VF1) to belt conveyor (511-BC4)	Fugitive emissions controlled - Dust collector (511-BF1); Enclosed Underground	1976
5 & 8	511-BF2	043-0008-6-0496 & 0497	Transfer from dust collector (511-BF2) to belt conveyor (511-BC3) via rotary feeder (511-RF2)	Fugitive emissions controlled - Duct collector (511-BF2); Enclosed Underground	1976
5 & 8	491-3M1	043-0008-6-0496 & 0497	Transfer from clinker storage building (491-3M1) to belt conveyor (511-BC3) via vibratory feeders (511-DFA through 511-DF1)	Fugitive emissions controlled - Dust collector (511-BF2); Enclosed Underground	1976
4& 5	511-BC1	043-0008-6-0496 & 0497	Transfer from belt conveyor (511-BC1) to belt conveyor (511-BC2)	Fugitive emissions controlled - Dust collector (511-BF4); Partially Enclosed	1976
4& 5	511-BF4	043-0008-6-0496 & 0497	Transfer from dust collector (511-BF4) to belt conveyor (511-BC2)	Fugitive emissions controlled - Dust collector (511-BF4); Partially Enclosed	1976
3	Loader	043-0008-6-0496 & 0497	Transfer from loader to vibratory feeder (K91-VF1)	Fugitive emissions uncontrolled	2016
2 & 3	Loader	043-0008-6-0496 & 0497	Transfer to loader from typical storage	Fugitive emissions controlled - Dust collector; Enclosed in building	2016
2 & 3	Loader	043-0008-6-0496 & 0497	Transfer from loader to typical storage	Fugitive emissions controlled - Dust collector; Enclosed in building	2016
3	Loader	043-0008-6-0496 & 0497	Transfer from loader to storage pile	Fugitive emissions controlled - Moisture	2016
3	Loader	043-0008-6-0496 & 0497	Transfer from storage pile to loader	Fugitive emissions controlled - Moisture	2016
	Finish Grinding Registration Numbers 043-0008-6-0496 and 0497				
5 & 8	511-BC2	043-0008-6-0496 & 0497	Transfer from belt conveyor (511-BC2) to limestone bin (512-3B4) via tripper (511-TR1)	Fugitive emissions controlled - Dust collector (511-BF2); Enclosed in Building	1976
5 & 8	511-BC2	043-0008-6-0496 & 0497	Transfer from F43-1 belt conveyor (511-BC2) to gypsum bin (512-3B3) via F45 tripper (511-TR1)	Fugitive emissions controlled - Dust collector (511-BF2); Enclosed in Building	1976
5 & 8	511-BC2	043-0008-6-0496 & 0497	Transfer from belt conveyor (511-BC2) to clinker bin (512-3B2) via tripper (511-TR1)	Fugitive emissions controlled - Dust collector (511-BF2); Enclosed in Building	1976

Group	Emission Unit Number	MDE Registration Number	Emissions Unit Name	Emissions Unit Description	Installation Date
5 & 8	511-BC2	043-0008-6-0496 & 0497	Transfer from belt conveyor (511-BC2) to clinker bin (512-3B1) via tripper (511-TR1)	Fugitive emissions controlled - Dust collector (511-BF2); Enclosed in Building	1976
5 & 8	511-BF2	043-0008-6-0496 & 0497	Transfer from baghouse (511-BF2) to limestone bin (512-3B4)	Fugitive emissions controlled - Dust collector (511-BF2); Enclosed in Building	1976
5 & 8	511-BC2	043-0008-6-0496 & 0497	Transfer from belt conveyor (511-BC2) to gypsum bin (K91-3B3) via tripper (511-TR1)	Fugitive emissions controlled - Dust collector (511-BF3); Enclosed in Building	1976
5 & 8	511-BC2	043-0008-6-0496 & 0497	Transfer from belt conveyor (511-BC2) to bin #1 clinker (511-3B2) via tripper (511-TR1)	Fugitive emissions controlled - Dust collector (511-BF3); Enclosed in Building	1976
5 & 8	511-BC2	043-0008-6-0496 & 0497	Transfer from belt conveyor (511-BC2) to bin #2 clinker (K91-3B1) via tripper (511-TR1)	Fugitive emissions controlled - Dust collector (511-BF3); Enclosed in Building	1976
5 & 8	511-BC2	043-0008-6-0496 & 0497	Transfer from belt conveyor (511-BC2) to gypsum bin (511-3B1) via tripper (511-TR1)	Fugitive emissions controlled - Dust collector (511-BF3); Enclosed in Building	1976
5 & 8	511-BF3	043-0008-6-0496 &0497	Transfer from dust collector (511-BF3) to bin #2 clinker (K91-3B1)	Fugitive emissions controlled - Dust collector (511-BF3); Enclosed in Building	1976
5 & 8	591-CN1	043-0008-6-0496 & 0497	Transfer from alleviator (591-CN1) to fringe bin (591-3B1)	Fugitive emissions controlled - Dust collector (511-BF3); Enclosed in Building	1976
5 & 8	531-BC1	043-0008-6-0496 & 0497	Transfer from belt conveyor (531-BC1) to finish mill (561-BM1)	Fugitive emissions controlled - Dust collector (561-BF1); Enclosed in Building	1976
5 & 8	561-CN1	043-0008-6-0496 & 0497	Transfer from grit separator cyclone (561-CN1) to dust collector (561-BF1)	Fugitive emissions controlled - Dust collector (561-BF1); Enclosed in Building	1976
7	561-BM1	043-0008-6-0496 & 0497	Finish mill	Fugitive emissions controlled - Dust collector (561-BF1); Enclosed in Building	1976
5	561-AS2	043-0008-6-0496 & 0497	Transfer from airslide to separator (561-SR1)	Fugitive emissions controlled - Dust collector (561-BF2); Entirely Enclosed	1976
7	561-SR1	043-0008-6-0496 & 0497	Separator	Fugitive emissions controlled - Dust collector (561-BF2); Enclosed in Building	1976
5 &8	561-SR1	043-0008-6-0496 & 0497	Transfer from separator (561-SR1) to dust collector (561-BF2)	Fugitive emissions controlled - Dust collector (561-BF2); Enclosed in Building	1976
5	562-AS2	043-0008-6-0496 & 0497	Transfer from airslide (562-AS2) to air separator (562-SR1)	Fugitive emissions controlled - Dust collector (562-BF1); Entirely Enclosed	2016
5	562-AS3	043-0008-6-0496 & 0497	Transfer from airslide (562-AS3) to air separator (562-SR1)	Fugitive emissions controlled - Dust collector (562-BF1); Entirely Enclosed	2016

Group	Emission Unit Number	MDE Registration Number	Emissions Unit Name	Emissions Unit Description	Installation Date
5	592-AS1	043-0008-6-0496 & 0497	Transfer from airslide (592-AS1) to cement cooler (592-CQ1)	Fugitive emissions controlled - Dust collector (562-BF1); Entirely Enclosed	2016
5	592-AS1	043-0008-6-0496 & 0497	Transfer from airslide (592-AS1) to pump (592-PP1)	Fugitive emissions controlled - Dust collector (562-BF1); Entirely Enclosed	2016
5	592-CQ1	043-0008-6-0496 & 0497	Transfer from cement cooler (592-CQ1) to pump (592-PP1)	Fugitive emissions controlled - Dust collector (562-BF1); Entirely Enclosed	2016
5	592-PP1	043-0008-6-0496 & 0497	Transfer from pump (592-PP1) to bulk silos via 592-DG1 and 592-DG2	Fugitive emissions controlled - Dust collector (562-BF1); Entirely Enclosed	2016
7	562-SR1	043-0008-6-0496 & 0497	Air separator	Fugitive emissions controlled - Dust collector (562-BF1); Enclosed in Building	2016
7	562-BM1	043-0008-6-0496 & 0497	Finish mill	Fugitive emissions controlled - Dust collector (562-BF2); Enclosed in Building	2016
5	562-AS5	043-0008-6-0496 & 0497	Transfer from airslide (562-AS5) to bucket elevator (562-BE1)	Fugitive emissions controlled - Dust collector (562-BF2); Entirely Enclosed	2016
5	562-BM1	043-0008-6-0496 & 0497	Transfer from finish mill (562-BM1) to airslide (562-AS5)	Fugitive emissions controlled - Dust collector (562-BF2); Entirely Enclosed	2016
5	562-CNA	043-0008-6-0496 & 0497	Transfer from primary collector (562-CNA) to bucket elevator (562-BE1)	Fugitive emissions controlled - Dust collector (562-BF2); Entirely Enclosed	2016
5	562-SR1	043-0008-6-0496 and 0497	Transfer from air separator (562-SR1) to airslide (592-AS1)	Fugitive emissions controlled - Dust collector (562-BF3); Entirely Enclosed	2016
5 & 8	562-SR1	043-0008-6-0496 & 0497	Transfer from air separator (562-SR1) to air slide (562-AS4)	Fugitive emissions controlled - Dust collector (562-BF3); Enclosed in Building	2016
5 & 8	512-3B1	043-0008-6-0496 & 0497	Transfer from clinker bin (512-3B1) to weigh feeder (532-WF1)	Fugitive emissions controlled - Dust collector (562-BF3); Enclosed in Building	2016
5 & 8	512-3B2	043-0008-6-0496 & 0497	Transfer from clinker bin (512-3B2) to apron feeder (532-AF2)	Fugitive emissions controlled - Dust collector (562-BF3); Enclosed in Building	2016
5 & 8	532-AF2	043-0008-6-0496 & 0497	Transfer from apron feeder (532-AF2) to weigh feeder (532-WF2)	Fugitive emissions controlled - Dust collector (562-BF3); Enclosed in Building	2016
5 & 8	532-BC1	043-0008-6-0496 & 0497	Transfer from belt conveyor (532-BC1) to finish mill (562-BM1)	Fugitive emissions controlled - Dust collector (562-BF3); Enclosed in Building	2016
5 & 8	532-WF1	043-0008-6-0496 & 0497	Transfer from weigh feeder (532-WF1) to weigh feeder (532-WF2)	Fugitive emissions controlled - Dust collector (562-BF3); Enclosed in Building	2016
5 & 8	532-WF2	043-0008-6-0496 & 0497	Transfer from weigh feeder (532-WF2) to belt conveyor (532-BC1)	Fugitive emissions controlled - Dust collector (562-BF3); Enclosed in Building	2016
5 & 8	532-WF3	043-0008-6-0496 & 0497	Transfer from weigh feeder (532-WF3) to belt conveyor (532-BC1)	Fugitive emissions controlled - Dust collector (562-BF3); Enclosed in Building	2016

Group	Emission Unit Number	MDE Registration Number	Emissions Unit Name	Emissions Unit Description	Installation Date
5 & 8	532-WF4	043-0008-6-0496 & 0497	Transfer from weigh feeder (532-WF4) to belt conveyor (532-BC1)	Fugitive emissions controlled - Dust collector (562-BF3); Enclosed in Building	2016
5 & 8	531-WF1	043-0008-6-0496 & 0497	Transfer from weigh feeder (531-WF1) to belt conveyor (531-BC1)	Fugitive emissions controlled - To Be routed to Existing DC; Enclosed in Building	1976
5 & 8	531-WF2	043-0008-6-0496 & 0497	Transfer from weigh feeder (531-WF2) to belt conveyor (531-BC1)	Fugitive emissions controlled - To Be routed to Existing DC; Enclosed in Building	1976
5 & 8	531-WF3	043-0008-6-0496 & 0497	Transfer from weigh feeder (531-WF3) to belt conveyor (531-BC1)	Fugitive emissions controlled - To Be routed to Existing DC; Enclosed in Building	1976
5 & 8	531-WF4	043-0008-6-0496 & 0497	Transfer from weigh feeder (531-WF4) to belt conveyor (531-BC1)	Fugitive emissions controlled - To Be routed to Existing DC; Enclosed in Building	1976
5 & 8	531-WF5	043-0008-6-0496 & 0497	Transfer from weigh feeder (531-WF5) to belt conveyor (531-BC1)	Fugitive emissions controlled - To Be routed to Existing DC; Enclosed in Building	1976
5 & 8	K91-3B1	043-0008-6-0496 & 0497	Transfer from bin #2 clinker (K91-3B1) to weigh feeder (531-WF3)	Fugitive emissions controlled - To Be routed to Existing DC; Enclosed in Building	1976
5 & 8	K91-3B2	043-0008-6-0496 & 0497	Transfer from stone/slag bin (K91-3B2) to weigh feeder (531-WF1)	Fugitive emissions controlled - To Be routed to Existing DC; Enclosed in Building	1976
5 & 8	K91-3B3	043-0008-6-0496 & 0497	Transfer from gypsum bin (K91-3B3) to weigh feeder (531-WF5)	Fugitive emissions controlled - To Be routed to Existing DC; Enclosed in Building	1976
5 & 8	511-3B1	043-0008-6-0496 & 0497	Transfer from gypsum bin (511-3B1) to weigh feeder (531-WF4)	Fugitive emissions controlled - To Be routed to Existing DC; Enclosed in Building	1976
5 & 8	511-3B2	043-0008-6-0496 & 0497	Transfer from bin #1 clinker (511-3B2) to weigh feeder (531-WF2)	Fugitive emissions controlled - To Be routed to Existing DC; Enclosed in Building	1976
8	512-3B3	043-0008-6-0496 & 0497	Transfer from gypsum bin (512-3B3) to weigh feeder (532-WF3)	Fugitive emissions controlled - Enclosed in Building	2016
8	512-3B4	043-0008-6-0496 & 0497	Transfer from limestone bin (512-3B4) to weigh feeder (532-WF4)	Fugitive emissions controlled - Enclosed in Building	2016
4	561-BL1	043-0008-6-0496 & 0497	Unload line from truck unload blower (561-BL1) to fringe bin (591-3B1)	Fugitive emissions controlled - Partially Enclosed	1976
	Bulk Silos Registration Numbers 043-0008-6-0496 and 0497				
5	591-PP1/591-PP2	043-0008-6-0496 & 0497	Transfer from F-K pumps (591-PP1 and 591-PP2) to bulk silos (silos #21-25, 31-34, and 41-45)	Fugitive emissions controlled - Dust collectors (591-BF1 and 591-BF3); Entirely Enclosed	1976
5 & 8	591-BF1	043-0008-6-0496 & 0497	Transfer from dust collector (591-BF1) to bulk silos (silos #21-25, 31-34, and 41-45)	Fugitive emissions controlled - Dust collectors (591-BF1 and 591-BF3); Enclosed in Building	1976
5 & 8	591-BF3	043-0008-6-0496 & 0497	Transfer from dust collector (591-BF3) to bulk silos (silos #21-25, 31-34, and 41-45)	Fugitive emissions controlled - Dust collectors (591-BF1 and 591-BF3); Enclosed in Building	1976

Group	Emission Unit Number	MDE Registration Number	Emissions Unit Name	Emissions Unit Description	Installation Date
5	611-PP2/611-PP3	043-0008-6-0496 & 0497	Transfer from F-K pumps (611-PP2 and 611-PP3) to bulk silos (silos #21-25, 31-34, and 41-45)	Fugitive emissions controlled - Dust collectors (591-BF1 and 591-BF3); Entirely Enclosed	1976
5	621-ASD	043-0008-6-0496 & 0497	Transfer from airslide (621-ASD) to loading chute (621-TC2)	Fugitive emissions controlled - Dust collector (621-BF1); Entirely Enclosed	1976
5	621-ASE	043-0008-6-0496 & 0497	Transfer from airslide (621-ASE) to loading chute (621-TC2)	Fugitive emissions controlled - Dust collector (621-BF1); Entirely Enclosed	1976
5	621-BF1	043-0008-6-0496 & 0497	Transfer from dust collector (621-BF1) to loading chute (621-TC2) via airslide (621-AS2)	Fugitive emissions controlled - Dust collector (621-BF1); Entirely Enclosed	1976
4& 5	621-TC2	043-0008-6-0496 & 0497	Transfer from loading chute (621-TC2) to rail/truck	Fugitive emissions controlled - Dust collector (621-BF1); Partially Enclosed	1976
5 & 8	Silo #23	043-0008-6-0496 & 0497	Transfer from silo #23 to loading chute (621-TC2) via rotary valve (621-VA1)	Fugitive emissions controlled - Dust collector (621-BF1); Enclosed in Building	1976
5	621-AS7	043-0008-6-0496 & 0497	Transfer from airslide (621-AS7) to loading chute (621-TC1)	Fugitive emissions controlled - Dust collector (621-BF2); Entirely Enclosed	1976
5	621-AS8	043-0008-6-0496 & 0497	Transfer from airslide (621-AS8) to loading chute (621-TC1)	Fugitive emissions controlled - Dust collector (621-BF2); Entirely Enclosed	1976
5	621-BF2	043-0008-6-0496 & 0497	Transfer from dust collector (621-BF2) to loading chute (621-TC1) via airslide (621-AS1)	Fugitive emissions controlled - Dust collector (621-BF2); Entirely Enclosed	1976
4& 5	621-TC1	043-0008-6-0496 & 0497	Transfer from loading chute (621-TC1) to rail/truck	Fugitive emissions controlled - Dust collector (621-BF2); Partially Enclosed	1976
5 & 8	Silo #43	043-0008-6-0496 & 0497	Transfer from silo #43 to loading chute (621-TC1) via rotary valve (621-VA2)	Fugitive emissions controlled - Dust collector (621-BF2); Enclosed in Building	1976
	Coal Handling Registration Number 043-0008-6-0495				
8	451-3B1	043-0008-6-0495	Transfer from coal feed hopper (451-3B1) to weigh feeder (451-PF1)	Fugitive emissions controlled - Enclosed in Building	2016
8	451-PF1	043-0008-6-0495	Transfer from weigh feeder (451-PF1) to kiln (461-KL1)	Fugitive emissions controlled - Enclosed in Building	2016
8	481-3B1	043-0008-6-0495	Transfer from coal feed hopper (481-3B1) to weigh feeder (481-PF2)	Fugitive emissions controlled - Enclosed in Building	2016
8	481-PF2	043-0008-6-0495	Transfer from weigh feeder (481-P21) to kiln (461-KL1)	Fugitive emissions controlled - Enclosed in Building	2016
3	Coal Delivery	043-0008-6-0495	Drop from loader to storage pile	Fugitive emissions uncontrolled	1970
3	L31-HP2	043-0008-6-0495	Transfer from loader to coal storage bin (L31-HP2)	Fugitive emissions controlled - Partially Enclosed	1970

Group	Emission Unit Number	MDE Registration Number	Emissions Unit Name	Emissions Unit Description	Installation Date
3	L31-HP2	043-0008-6-0495	Transfer from coal hopper (L31-HP2) to roller mill (L61-RM1)	Fugitive emissions controlled - Enclosed in Building	1970
6	L61-RM1	043-0008-6-0495	Coal Roller Mill	Fugitive emissions controlled - Enclosed in Building	2016
5 &8	L61-RM1	043-0008-6-0495	Transfer from coal mill (L61-RM1) to cyclone (L91-CN1)	Fugitive emissions controlled - Dust collector (L91-BF1); Enclosed in Building	2016
5	L91-3B1	043-0008-6-0495	Transfer from I-bin (L91-3B1) to hopper (L91-HP1) via rotary feeder (L91-RF3)	Fugitive emissions controlled - Dust Collector (L91-BF1); Entirely Enclosed	1970
5	L91-CN1	043-0008-6-0495	Transfer from cyclone (L91-CN1) to screw conveyor (L91-SC1)	Fugitive emissions controlled - Dust collector (L91-BF1); Entirely Enclosed	1970
5	L91-PP1	043-0008-6-0495	Transfer from pressure pump (L91-PP1) to coal storage (L91-3B2)	Fugitive emissions controlled - Dust Collector (L91-BF2); Entirely Enclosed	2016
3	Loader	043-0008-6-0495	Transfer from storage pile to loader	Fugitive emissions uncontrolled	1970
	Storage Piles				
3	Storage Pile	043-0008-6-0495	GAF Stockpile	Fugitive emissions controlled - Partially enclosed	1970
3	Storage Pile	043-0008-6-0495	Iron Ore Stockpile	Fugitive emissions controlled - Partially enclosed	1970
3	Storage Pile	043-0008-6-0495	Sand Stockpile	Fugitive emissions controlled - Partially enclosed	1970
3	Storage Pile	043-0008-6-0495	Outside Stone Storage	Fugitive emissions uncontrolled	1970
3	Storage Pile	043-0008-6-0495	Enclosed Stone Pile	Fugitive emissions controlled - Enclosed in dome	1970
3	Storage Pile	043-0008-6-0495	Reject Pile	Fugitive emissions controlled - Partially enclosed	2016
4	Storage Pile	043-0008-6-0495	CKD Pile	Fugitive emissions controlled - Dust Control Actions	1970
3	Storage Pile	043-0008-6-0495	Gypsum storage	Fugitive emissions controlled - Partially enclosed	1970
3	Storage Pile	043-0008-6-0495	Emergency Coal Pile	Fugitive emissions uncontrolled	1970
3	Storage Pile	043-0008-6-0495	Coal storage	Fugitive emissions controlled - Partially enclosed	1970
4	Storage Pile	043-0008-9-0223	Clinker Pile 1	Fugitive emissions controlled - Partially enclosed	2016
4	Storage Pile	043-0008-9-0223	Clinker Pile 2	Fugitive emissions controlled - Partially enclosed	2016
4	Storage Pile	043-0008-9-0223	Clinker Pile 3	Fugitive emissions controlled - Partially enclosed	2016
	Dust Collectors (A dust collector is not an emission unit and all dust collectors are grouped into their associated emission units)				
N/A	4A1-BF1	043-0008-6-0495	Main Kiln Stack Baghouse	Point Source	2016
N/A	V14-BF1	043-0008-6-0495	Wood Chip Bin Dust Collector	Point Source	1999
N/A	311-BF4	043-0008-6-0495	Roller Mill Feed Bins Dust Collector	Point Source	2016

Group	Emission Unit Number	MDE Registration Number	Emissions Unit Name	Emissions Unit Description	Installation Date
N/A	311-BF5	043-0008-6-0495	Roller Mill Feed Bins Dust Collector	Point Source	2016
N/A	331-BF1	043-0008-6-0495	Roller Mill Feed Dust Collector	Point Source	2016
N/A	331-BF2	043-0008-6-0495	Roller Mill Feed Dust Collector	Point Source	2016
N/A	331-BF3	043-0008-6-0495	Roller Mill Feed Dust Collector	Point Source	2016
N/A	361-BF7	043-0008-6-0495	Roller Mill Reject Bin Dust Collector	Point Source	2016
N/A	361-BF9	043-0008-6-0495	Roller Mill Outlet Dust Collector	Point Source	1970
N/A	391-BF1	043-0008-6-0495	Roller Mill/Blending Silos Dust Collector	Point Source	1970
N/A	391-BF2	043-0008-6-0495	Feed Hopper Dust Collector	Point Source	2016
N/A	431-BF1	043-0008-6-0495	Kiln Feed Dust Collector	Point Source	1970
N/A	431-BF4	043-0008-6-0495	Kiln Feed Dust Collector	Point Source	2016
N/A	491-BF6	043-0008-6-0496 & 0497	North Clinker Transfer Tower Dust Collector	Point Source	1976
N/A	491-BF7	043-0008-6-0495	Clinker cooler outlet Dust Collector	Point Source	2016
N/A	491-BF8	043-0008-6-0495	Clinker cooler outlet Dust Collector	Point Source	2016
N/A	4A1-BF1	043-0008-6-0495	CKD Loadout Dust Collector	Point Source	2016
N/A	562-BF1	043-0008-6-0496 & 0497	Converted Finish Mill Air Separator Dust Collector	Point Source	1976
N/A	562-BF2	043-0008-6-0496 & 0497	Converted Finish Mill Dust Collector	Point Source	2016
N/A	562-BF3	043-0008-6-0496 & 0497	Converted Finish Mill Outlet Dust Collector	Point Source	2016
N/A	Blending Silo DC	043-0008-6-0495	Blending silos Dust Collector	Point Source	1970
N/A	621-BF1	043-0008-6-0496 & 0497	Bulk Silos Material Loadout Dust Collector	Point Source	1976
N/A	621-BF2	043-0008-6-0496 and 0497	Bulk Silos Material Loadout Dust Collector	Point Source	1976
N/A	511-BF4	043-0008-6-0496 & 0497	South Clinker Transfer Tower Dust Collector	Point Source	1976
N/A	491-BF1	043-0008-6-0496 & 0497	North Clinker Transfer Tower Dust Collector	Point Source	1976
N/A	591-BF1	043-0008-6-0496 & 0497	Bulk Silos Dust Collector	Point Source	1976
N/A	561-BF1	043-0008-6-0496 & 0497	Finish Mill Dust Collector	Point Source	1976
N/A	561-BF2	043-0008-6-0496 & 0497	Finish Mill Air Separator Dust Collector	Point Source	1976
N/A	511-BF3	043-0008-6-0496 & 0497	Finish Mill Feed Bins Dust Collector	Point Source	1976

Group	Emission Unit Number	MDE Registration Number	Emissions Unit Name	Emissions Unit Description	Installation Date
N/A	591-BF3	043-0008-6-0496 & 0497	Bulk Silos Dust Collector	Point Source	1976
N/A	491-BF2	043-0008-6-0496 & 0497	Clinker Storage Building Dust Collector	Point Source	1976
N/A	511-BF2	043-0008-6-0496 & 0497	Clinker Storage Building Dust Collector	Point Source	1976
N/A	491-BF4	043-0008-6-0496 & 0497	Clinker Storage Silo Dust Collector	Point Source	1976
N/A	511-BF1	043-0008-6-0496 & 0497	Clinker Storage Silo Dust Collector	Point Source	1976
N/A	L91-BF1	043-0008-6-0495	Coal Mill Dust Collector	Point Source	1970
N/A	L91-BF2	043-0008-6-0495	Fine Coal Storage Dust Collector	Point Source	2016
N/A	P72-BF1	043-0008-6-0495	Hydrated Lime Bin Dust Collector	Point Source	2016
N/A	211-BF1	043-0008-6-0494	Limestone Handling Dust Collector	Point Source	1970
N/A	311-BF1	043-0008-6-0494	Shale Crusher Dust Collector	Point Source	1970
N/A	TBD	043-0008-6-0496 & 0497	Finish Mill De-dusting Dust Collector	Point Source	2016
	Roads				
3	Haul Roads	043-0008-6-0495	Raw Materials Delivery	Fugitive emissions	1970
1	Haul Roads	043-0008-6-0494	Quarry Haul Roads	Fugitive emissions	1970
3	Haul Roads	043-0008-6-0495	CKD to Pile	Fugitive emissions	1970
3	Haul Roads	043-0008-0496 & 0497	Sales Road	Fugitive emissions	1970

N/A - A Dust collector is not an emission unit and all dust collectors are grouped into their associated emission units.

AN OVERVIEW OF THE PART 70 PERMIT

The Fact Sheet is an informational document. If there are any discrepancies between the Fact Sheet and the Part 70 permit, the Part 70 permit is the enforceable document.

Section I of the Part 70 Permit contains a brief description of the facility and an inventory list of the emissions units for which applicable requirements are identified in Section IV of the permit.

Section II of the Part 70 Permit contains the general requirements that relate to administrative permit actions. This section includes the procedures for renewing, amending, reopening, and transferring permits, the relationship to permits to construct and approvals, and the general duty to provide information and to comply with all applicable requirements.

Section III of the Part 70 Permit contains the general requirements for testing, record keeping and reporting; and requirements that affect the facility as a whole, such as open burning, air pollution episodes, particulate matter from construction and demolition activities, asbestos provisions, ozone depleting substance provisions, general conformity, and acid rain permit. This section includes the requirement to report excess emissions and deviations, to submit an annual emissions certification report and an annual compliance certification report, and results of sampling and testing.

Section IV of the Part 70 Permit identifies the emissions standards, emissions limitations, operational limitations, and work practices applicable to each emissions unit located at the facility. For each standard, limitation, and work practice, the permit identifies the basis upon which the Permittee will demonstrate compliance. The basis will include testing, monitoring, record keeping, and reporting requirements. The demonstration may include one or more of these methods.

Section V of the Part 70 Permit contains a list of insignificant activities. These activities emit very small quantities of regulated air pollutants and do not require a permit to construct or registration with the Department. For insignificant activities that are subject to a requirement under the Clean Air Act, the requirement is listed under the activity.

Section VI of the Part 70 Permit contains State-only enforceable requirements. Section VI identifies requirements that are not based on the Clean Air Act, but solely on Maryland air pollution regulations. These requirements generally relate to the prevention of nuisances and implementation of Maryland's Air Toxics Program.

Overview

Portland Cement MACT- 40 CFR Part 63 Subpart LLL

The Holcim plant is a major hazardous air pollutant (HAP) emission source. The plant is subject to the Portland Cement MACT standards found at 40 CFR Part 63, Subpart A and Subpart LLL, which were finalized on February 12, 2013, with Final Technical Amendments published July 27, 2015 and corrections to the Final Technical Amendments published on September 11, 2015. Since the current kiln was constructed at the same premises as the old plant, the current kiln is considered a Brownfield site, not a Greenfield site. The following sources at a Portland cement plant are subject to Subpart A and Subpart LLL:

(1) Each kiln including alkali bypasses and inline coal mills;

(2) Each clinker cooler at any Portland cement plant;

(3) Each raw mill at any Portland cement plant;

(4) Each finish mill at any Portland cement plant;

(5) Each raw material dryer at any Portland cement plant;

(6) Each raw material, clinker, or finished product storage bin at any Portland cement plant that is a major source;

(7) Each conveying system transfer point including those associated with coal preparation used to convey coal from the mill to the kiln at any Portland cement plant that is a major source;

(8) Each bagging and bulk loading and unloading system at any Portland cement plant that is a major source; and

(9) Each open clinker storage pile at any Portland cement plant.

Onsite sources that are subject to standards for nonmetallic mineral processing plants in 40 CFR 60, Subpart OOO are not subject to 40 CFR 63, Subpart LLL. Crushers are not covered by Subpart LLL regardless of their location. (See § 63.1340(c))

The conveying system transfer points used to convey coal from the mill to the kiln are subject to 40 CFR 63 Subpart LLL. (See § 63.1340(b)(7))

Under the MACT (§63.1347), Holcim was required to prepare for each affected source, a written operations and maintenance plan which shall be a part of its Title V permit renewal application. Holcim is also required to develop site specific monitoring plan and submit to the Department upon request in accordance with §63.1350(p):
(a) Site specific opacity monitoring plan; and
(b) Site specific monitoring plan for CMS if applicable.

*Note**:** Holcim submitted the written Operations and Maintenance Plan as part of its Title V application*.

Holcim's Portland cement plant in Washington County, in operation prior to March 24, 1988, is considered as an existing Brownfield kiln. The compliance date for existing sources with the PM, mercury, THC, and HCl emission limits in 63.1343(b), which became effective on February 12, 2013, was September 9, 2015.

Holcim is required to continuously monitor the emissions of mercury, total hydrocarbons (THC), HCl, Dioxins/Furans (D/F), and particulate matter (PM). Subpart LLL establish methods and criteria for installing and certifying the accuracy of continuous emissions monitoring systems. The particulate matter monitoring requirement in the amended rule replaces existing opacity (visual evaluation) standards with a more accurate means of demonstrating compliance with the

particulate matter emission limit. Holcim is also required to perform stack test for PM, D/F, and HCl to establish parameters to monitor compliance. D/F and HCl emissions are continuously monitored by parameters established during the performance tests. The parameters for D/F (Temperature measured prior to PM Control device) and HCl (SO_2 as a surrogate for HCl) are good for 30 months after the test. The parameter for PM (milliampere signal; mA) is good for one year. Compliance of Mercury, PM, HCl, THC is based on 30-day rolling average. D/F is based on 180-minute rolling average.

New Source Performance Standards (NSPS)

(1) **Subpart F - Standards of Performance for Portland Cement Plant**
Although the raw material storage equipment constructed or modified after August 17, 1971 is subject to Subpart F - Standards of Performance for Portland Cement Plant, the MACT requirements are more stringent than Subpart F for any emissions unit constructed before 2008. Therefore, compliance with the MACT requirement is sufficient for compliance with Subpart F for any emission unit constructed before June 16, 2008 except NSPS requirements for NO_x and SO_2, which are not covered by the MACT. The modernization of the existing kiln system to pre-heater/pre-calciner system is determined as a non-reconstruction project. The kiln is considered as an "existing" kiln relative to NSPS and PC MACT.

(2) **Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing**
The Quarry and Crushing Operation, constructed or modified on or after August 31, 1983, are subject to Subpart OOO, but not subject to the Portland Cement MACT.

Note: The Quarry and Crushing Operation, constructed or modified before August 31, 1983, are not subject to Subpart OOO, but subject to the COMAR regulations.

(3) **Subpart Y - Standards of Performance for Coal Preparation Plants**
Under 40 CFR §63.1356, the coal preparation processes before the coal mill, constructed or reconstructed on or after October 27, 1974 escape the MACT requirements, but they are subject to Subpart Y.

Prevention of Significant Deterioration (PSD) Approval

On April 11, 2014, the Department issued Permits to Construct #043-0008-6-0489, 0494, 0496, and 0497 and 043-0008-9-0218, and a PSD Approval #PSD-2014-01, to Holcim for the modernization and expansion of its Washington County facility. The PSD Approval limits the CO and CO_{2e} emission for the facility. Conditions from these permits and the PSD approval are incorporated into the renewed Title V operating permit.

COMPLIANCE ASSURANCE MONITORING (CAM) REQUIREMENTS

Per 40 CFR 64.2(a), the CAM requirements are applicable to a unit which is located at a major source and subject to an emission limitation or standard; uses a control device to achieve compliance; has pre-control emissions of at least 100% of the major source amount; and must not otherwise be exempt from CAM under 40 CFR 64.2(b)(1)(i). 40 CFR 64.2(b)(1)(i) exempts all *emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to Section 111 or 112 of the Act*. Applicability determinations are made on a pollutant-by-pollutant basis for each emissions unit.

Compliance Assurance Monitoring (CAM) is intended to provide a reasonable assurance of compliance with applicable requirements under the Clean Air Act for large emission units that rely on air pollution control (APC) equipment to achieve compliance. The CAM approach establishes monitoring for the purpose of:

(1) documenting continued operation of the control measures within ranges of specified indicators of performance (such as emissions, control device parameters, and process parameters) that are designed to provide a reasonable assurance of compliance with applicable requirements;

(2) indicating any excursions from these ranges; and

(3) responding to the data so that the cause or causes of the excursions are corrected.

Discussion of Holcim's CAM Applicability

Holcim's Washington County facility is not subject to the CAM requirements because:

(1) Pre-heater/pre-calciner kiln
The kiln uses a baghouse to control PM emissions, a lime injection system to control SO_2, and HCl emissions, and SNCR to control NOx emissions. However Holcim is exempt from the CAM regulations per 40 CFR 64.2 (b) for following reasons:

(a) For the emissions of PM and HCl, the pre-heater/pre-calciner kiln is subject to the MACT requirements, but it is exempt from the CAM regulations per 40 CFR 64.2(b)(1)(i), which specifically exempts emission units with emission limits or standards proposed after November 15, 1990 pursuant to Section 111 or 112 of the Clean Air Act. Although the kiln is subject to COMAR emission limits, they are less stringent than the MACT requirements which take precedence over COMAR limits; and
(b) For SOx and NOx emissions, the kiln is exempt from the CAM requirements because the kiln's emissions are monitored by continuous emission monitoring systems to demonstrate compliance with the applicable emission limits.

(2) Finish Mills and Other Emission Units

The potential pre-control emission from each emission unit is below the major source threshold.

REGULATORY REVIEW/TECHNICAL REVIEW/COMPLIANCE METHODOLOGY

Compliance Tables of Section IV of the Part 70 permit:

1. Fugitive Emissions from Quarry and Crushing Operations - not subject to MACT

Quarry (Crushing) Operations (Registration Number 043-0008-6-0494)
211-BC2, 211-BC3, transfer from dust collector (211-BF1) to belt conveyor (291-BC1), 211-IM2, 211-VF2, 211-VS1, 291-BC1, 211-IM2, 211-VS1, Transfer from dust collector (311-

BF1) to belt conveyor (311-BC2), 291-3M1, 311-BC1, 311-HP1, 291-BC2, 291-ST1, 211-IM1, Alumina Loader, Iron Loader, Sand Loader, 211-IM1, 211-VF1,211-BC1, 211-BC4, 291-ST2, Loader, Outside Stone Storage, Quarry Drilling, and X01-HC1.

Haul Roads
Quarry Haul Roads

A. Visible Emissions and B. Particulate Matter

Applicable Standards and Regulations

(1) COMAR 26.11.06.03D- Particulate matter from Materials Handling and Construction. A person may not cause or permit any material to be handled, transported, or stored, or a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne.

(2) New Source Performance Standards (NSPS) for nonmetallic mineral processing plants 40 CFR 60 Subpart OOO for installations that commences construction, modification, or reconstruction after August 31, 1983but before April 22, 2008 include the following:
   (a) 10 percent opacity for grinding mills, screening operations, bucket elevators, transfer points on belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations of from any other affected facility.
   (b) 15 percent opacity for crushers at which a capture system is not used.

   Note: This condition only applies to Emission Units 291-3M1; 291-BC2, 291-ST1 and 291-ST2, which were installed in 1999.

Compliance Demonstration

(1) For opacity observations, the Permittee shall use Method 9 of Appendix A-4 of 40 CFR, Part 60 and the procedures in 40 CFR §60.11, with the following additions:
   (a) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).
   (b) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (*e.g.,* road dust). The required observer position relative to the sun (Method 9 of Appendix A-4 of 40 CFR Part 60, Section 2.1) must be followed.
   (c) For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.
   (d) The duration of the Method 9 observations must be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits in Table 3 of 40 CFR, Part 60, Subpart OOO must be based on the average of the five 6-minute averages.
   (e) Method 9 observations for buildings shall be conducted while all affected facilities inside the building are operating.

   [Reference 40 CFR § 60.675(c)(1) and (d)]

(2) When determining compliance with the fugitive emissions standard for any affected facility described under §60.672(b) or §60.672(e)(1) of this subpart, the duration of the Method 9 (40 CFR part 60, appendix A-4) observations must be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits in Table 3 of this subpart must be based on the average of the five 6-minute averages. **[Reference 40 CFR § 60.675(c)(3)]**

(3) Any fugitive emissions sources including crushing, screening, conveying, and other material handling operations shall be equipped with wet suppression systems, operational enclosures, or any equivalent emissions control mechanisms to reduce fugitive dust emissions. [**Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016]**

(4) The Permittee shall prepare and update as needed the best management plan that describes the procedures and methods that will be used to take reasonable precautions. The management plan may be included in the written operation and maintenance plan required under the Portland Cement MACT. **[COMAR 26.11.03.06C]**

Note: Holcim submitted the operation and maintenance plan in 2016.

(5) The Permittee shall control fugitive dust from plant roads and stockpiles by using water, chemical dust suppressants, or a combination of both, as needed.**[COMAR 26.11.03.06C]**

(6) The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of this subpart, including reports of opacity observations made using Method 9 (40 CFR part 60, appendix A-4) to demonstrate compliance with §60.672(b), (e) and (f). **[40 CFR §60.676(f)]**

(7) The Permittee shall maintain the best management plan and records of the dates and inspection results for at least five (5) years and make them available to the Department upon request. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. **[COMAR 26.11.03.06C]**

Rationale for Compliance Demonstration

The best management plan has been reviewed and approved by the Department and contains the methods and procedures that the Permittee uses to minimize emissions from these fugitive sources, including federal NSPS monitoring requirements. The wet suppression system has been recognized as the best control strategy for the fugitive emission sources. The reporting keeping requirements are sufficient to document compliance status.

2. ***Point sources Emissions from Quarry and Crushing Operation, including Wood Chip Storage Bin- not Subject to MACT***

Quarry (Crushing) Operations (Registration Number 043-0008-6-0494)
Exhaust gases from emission units 211-BC2, 211-BC3, transferring from dust collector (211-BF1) to belt conveyor (291-BC1), 211-IM2, 211-VF2, Screen 211-VS1, and 291-BC1, controlled by one dust collector (211-BF1).

Exhaust gases from emission unitX01-HC1, controlled by one dust collector (311-BF1).

Wood Chip Bin, controlled by one dust collector (V14-BF1).

A. Visible Emissions and B. Particulate Matter

Applicable Standards and Regulations

(1) **COMAR 26.11.30.05(B)(1)**, which states that a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity.

(2) **COMAR 26.11.30.04B(1)** - A person may not cause or permit particulate matter to be discharged from any installation in excess of 0.05 gr/SCFD (114.5 mg/dscm).

(3) Affected facilities (as defined in §§60.670 and 60.671) that commenced construction, modification, or reconstruction after August 31,1983 but before April 22, 2008 with capture systems must meet the following stack emission limits: **[40 CFR §60.672(a)&(b)]**
   (a) a PM limit of 0.05 g/dscm (0.022 gr/dscf) except individual enclosed storage bins and other equipment as specified in §60.672(d) through (f); and
   (b) an opacity limit of 7 percent for dry control devices.

   Note: This condition only applies to Emission Unit 291-BC1 which was installed in 1999.

Compliance Demonstration

(1) If visible emission being observed, the Department may require the Permittee to conduct a stack test for compliance determination and the Permittee shall determine compliance with the PM standards in §60.672(a) as follows:
   (a) Each stack emissions test shall be conducted in accordance with Method 5 of Appendix A-3 of 40 CFR, Part 60 or Method 17 of Appendix A-6 of 40 CFR, Part 60 to determine the particulate matter concentration. The sample volume shall be at least 1.70 DSCM (60 DSCF). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter. **[Reference 40 CFR §60.675(b)(1)]**
   (b) For opacity observations, the Permittee shall use Method 9 of Appendix A-4 of 40 CFR, Part 60 and the procedures in 40 CFR §60.11.
   [Reference 40 CFR § 60.675(b)]

(2) During each stack emissions test or opacity observation, the affected equipment shall be operated at 90% or higher of its rated capacity.

(3) The Permittee shall prepare preventive maintenance plan for baghouses that describes schedule of inspection and maintenance, methods of leaks and wear inspection, corrective measures, maintain a written record of the inspection and any action resulting from the inspection. **[COMAR 26.11.03.06C]**

(4) The Permittee shall perform visual inspection to emission units in accordance with the best management plan approved by the Department to demonstrate continuous compliance with the visual emission standards. **[COMAR 26.11.03.06C]**

(5) The Permittee shall maintain the log of inspection and maintenance records for at least five (5) years and make it available to the Department upon request. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. **[COMAR 26.11.03.06C]**

(6) The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of this subpart, including reports of opacity observations made using Method 9 (40 CFR part 60, appendix A-4) to demonstrate compliance with §60.672(b), (e) and (f). **[40 CFR §60.676(f)]**

(7) The Permittee shall submit a stack emissions testing protocol to the Department for review and approval at least 30 days prior to each stack emissions test.

(8) Within 60 days after the last day of any required stack emissions test or opacity observation, the Permittee shall submit to the Department the results.

Rationale for Compliance Demonstration:
Each emission unit is controlled by a bag filter which is the most effective control for visible emissions and particulate matter. In addition to the preventive maintenance plan used for bag filters, the Permittee should use Method 22 tests to monitor the visible emissions situation and to keep each bag filter in a good operating condition. Reporting and record keeping requirements are sufficient documentation of the test results and compliance status.

3. Material Handling - Fugitive Sources (not Subject to MACT Requirements)

Coal Handling (Registration Number 043-0008-6-0495)
Coal Delivery, L31-HP2, and Loader.

Clinker Cooler (Registration Number 043-0008-6-0495)
471-RC1(Clinker Crusher)

Storage Piles
Alumina Stockpile, Iron Stockpile, Sand Stockpile, Outside Stone Storage, Enclosed Stone Pile, Reject Pile, Gypsum storage, Emergency Coal Pile, and Coal storage.

A. Visible Emissions and B. Particulate Matter

Applicable Standards and Regulations

COMAR 26.11.06.03D - Particulate Matter from Materials Handling and Construction. A person may not cause or permit any material to be handled, transported, or stored, or a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne.

Compliance Demonstration

(1) Any fugitive emissions sources including crushing, screening, conveying, and other material handling operations shall be equipped with wet suppression systems, operational enclosures, or any equivalent emissions control mechanisms to reduce fugitive dust emissions. [**Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016]**

(2) The Permittee shall control fugitive dust from plant roads and stockpiles by using water, chemical dust suppressants, or a combination of both, as needed. **[COMAR 26.11.03.06C]**

(3) The Permittee shall comply with and update as needed the best management plan that describes the procedures and methods that will be used to take reasonable precautions. The best management plan may be included in the written operation and maintenance plan required under the Portland Cement MACT. The Permittee shall keep the plan on-site and maintain records to demonstrate compliance with the procedures outlined in the plan. **[COMAR 26.11.03.06C]**

(4) The Permittee shall maintain the best management plan and records of the dates and inspection results for at least five (5) years and make them available to the Department upon request. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. **[COMAR 26.11.03.06C]**

Rationale for Compliance Demonstration

The best management plan has been reviewed and approved by the Department and contains the methods and procedures that the Permittee uses to minimize particulate matter from these fugitive sources. The wet suppression system has been recognized as the best control strategy for the fugitive emission sources. Documentation that the procedures in the plan are followed is sufficient to demonstrate that the Permittee is using reasonable precautions to minimize fugitive particulate matter emissions.

4. Material Handling - Fugitive Sources (Subject to MACT Requirements)

Raw Grinding (Registration Number 043-0008-6-0495)

361-BC3

Kiln Feed Blending (Registration Number 043-0008-6-0495)

P72-3B1.

Clinker Handling (Registration Numbers 043-0008-6-0496 and 0497)
491-BC1, Transfer from dust collector (491-BF1) to belt conveyor (491-BC2), 511-BC3, 511-BC1, and Transfer from dust collector (511-BF4) to belt conveyor (511-BC2).

Finish Grinding (Registration Numbers 043-0008-6-0496 and 0497)
561-BL1 (Unload line from F74 truck unload blower (561-BL1) to F45-1 fringe bin (591-3B1)

Bulk Silos (Registration Numbers 043-0008-6-0496 and 0497)
621-TC2 and 621-TC1

Storage Piles
CKD (Cement Kiln Dust) Pile, Clinker Pile 1, Clinker Pile 2, and Clinker Pile 3

A. Visible Emissions and B. Particulate Matter

Applicable Standards/Limits:
(1) Each new or existing raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; bulk loading or unloading system; raw and finish mills; and each existing raw material dryer, at a facility which is a major source subject to the provisions of this subpart must not cause to be discharged any gases from these affected sources which exhibit opacity in excess of 10 percent. **[40 CFR §63.1345]**

(2) COMAR 26.11.06.03D - Particulate Matter from Materials Handling and Construction. A person may not cause or permit any material to be handled, transported, or stored, or a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne.

Compliance Demonstration
(1) The Permittee shall conduct required opacity monitoring in accordance with the provisions of paragraphs (f)(1)(i) through (vii) of 40 CFR §63.1350(f) and in accordance with the monitoring plan developed under 40 CFR §63.1350(p). You must also develop an opacity monitoring plan in accordance with paragraphs (p)(1) through (4) and paragraph (o)(5), if applicable, of this section. **[40 CFR §63.1350(f)]**

(2) Any fugitive emissions sources including crushing, screening, conveying, and other material handling operations shall be equipped with wet suppression systems, operational enclosures, or any equivalent emissions control mechanisms to reduce fugitive dust emissions. **[Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016]**

(3) The Permittee shall comply with and update as needed the written operations and maintenance plan [40 CFR §63.1347] which includes the following information:
(a) Procedures for proper operation and maintenance of the affected source and air pollution control devices in order to meet the emission limits and operating limits of §63.1345; and
(b) Procedures of the opacity monitoring plan.
[COMAR 26.11.03.06C]

(4) The Permittee shall maintain the written operations and maintenance plan and all records for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. **[40 CFR §63.1355]**

(5) The Permittee shall submit a summary report semiannually which contains all failures to comply with any provision of the operation and maintenance plan developed in accordance with §63.1350(a). **[40 CFR §63.1354(b)(9)(v)]**

Rationale for Compliance Demonstration
The operations and maintenance plan has been reviewed and approved by the Department and contains the methods and procedures that the Permittee uses to minimize opacity and particulate matter from these fugitive sources. The wet suppression system has been recognized as the best control strategy for the fugitive emission sources. Documentation that the procedures in the plan are followed is sufficient to demonstrate that the Permittee is using reasonable precautions to comply with the opacity limitation and minimize fugitive particulate matter.

5. Material Handling- Point Sources (Subject to MACT Requirements)

Raw Grinding (Registration Number 043-0008-6-0495)
Entirely Enclosed EU: 361-CN2/361-CN3, 391-AS2, and 391-BF2, controlled by one dust collector (391-BF2).

Entirely Enclosed EU: 421-SCJ, controlled by one dust collector (421-BF3).

EU: 311-3B7, 311-3B8, 331-WF5, 331-WF6, and transferring from dust collector (331-BF1) to screw conveyor (331-SC1), controlled by one dust collector (331-BF1).

EU: 311-3B9, 311-3BA, transfer from dust collector (331-BF2) to screw conveyor (331-SC2), 331-WF7, and 331-WF8, controlled by one dust collector (331-BF2).

EU: 331-BC2, transfer from dust collector (331-BF3) to belt conveyor (331-BC2), and 361-BC1, controlled by one dust collector (331-BF3).

EU: 311-BC5, 311-BC6, and Transfer from dust collector (311-BF4) to pebbled limestone feed bin (311-3B7), controlled by one dust collector (331-BF4).

EU: Transfer from dust collector (311-BF5) to sand feed bin (311-3BA), controlled by one dust collector (331-BF5).

EU: 311-BC2 and Transfer from dust collector (361-BF7) to reject bin (361-3B1), controlled by one dust collector (361-BF7).

EU: 361-BC3 and Transfer from dust collector (361-BF9) to belt conveyor (361-BC1), controlled by one dust collector (361-BF9).

Kiln Feed Blending (Registration Number 043-0008-6-0495)
Entirely Enclosed EU: Transferring from dust collector (391-BF1) to blending silo (391-3S1), 391-PP1, 421-PP1 and 431-PP1 controlled by one dust collector (391-BF1).

Entirely Enclosed EU: 391-PP1 controlled by two dust collectors (391-BF1 and Blending Silo DC).

Entirely Enclosed EU: 411-AS3, 411-AS4, transfer from dust collector (431-BF1) to screw conveyor (431-SCX), 431-SCY, P72-IJ2, controlled by one dust collector (431-BF1).

Entirely Enclosed EU: 431-PP1, controlled by one dust collector (431-BF4).

Entirely Enclosed EU: Transferring from dust collector (P72-BF1) to Lime Bin (P72-3B1) controlled by one dust collector (P72-BF1).

EU: Transfer from blending silo DC to blending silo (391-3S1), controlled by dust collectors (391-BF1 and Blending Silo DC).

EU: P72-3B1, controlled by one dust collector (P72-BF1).

Clinker Burning (Registration Number 043-0008-6-0495)
Entirely Enclosed EU: Transfer from kiln (461-KL1) to clinker cooler (471-GQ2), controlled by one dust collector (471-BF1).

Clinker cooler (Registration Number 043-0008-6-0495)
EU: Transferring from clinker crusher (471-RC1) to pan conveyor (491-AC1) and 491-BF7, controlled by one dust collector (491-BF7).

EU: 491-AC1 and 491-BF8, controlled by one dust collector (491-BF8).

Clinker Handling (Registration Numbers 043-0008-6-0496 and 0497)
Entirely Enclosed EU: 491-BC2, and 491-BE1, controlled by one dust collector (491-BF4).

EU: 491-BC1, transferring from F42 dust collector (491-BF1) to belt conveyor (491-BC2), 511-BC3, and 491-AC2, controlled by one dust collector (491-BF1).

EU: 491-BC2, transferring from F81-7 dust collector (491-BF2) to clinker storage building (491-3M1) at position #10, and 491-TR1, controlled by one dust collector (491-BF2).

EU: 491-BC3, and Transferring from F92-2 dust collector (491-BF4) to clinker silo (491-3S1) via rotary feeder (491-RF1), controlled by one dust collector (491-BF4).

EU: Transferring from dust collector (511-BF1) to belt conveyor (511-BC4) via rotary feeder (511-RF1), 491-3S1, 511-BC4, and K91-VF1 controlled by one dust collector (511-BF1).

EU: Transferring from dust collector (511-BF2) to belt conveyor (511-BC3) via rotary feeder (511-RF2), and 491-3M1 controlled by one dust collector(511-BF2).

EU: 511-BC1 and transferring from dust collector (511-BF4) to belt conveyor (511-BC2), controlled by one dust collector(511-BF4).

Finish Grinding (Registration Numbers 043-0008-6-0496 and 0497)
Entirely Enclosed EU: 561-AS2, controlled by one dust collector (561-BF2).

Entirely Enclosed EU: 562-A2, 562-AS3, 592-AS1, 592-CQ1, and 592-PP1, controlled by one dust collector (562-BF1).

Entirely Enclosed EU: 562-AS5, 562-BM1, and 562-CNA, controlled by one dust collector (562-BF2).

Entirely Enclosed EU: Transferring from air separator (562-SR1) to airslide (592-AS1), controlled by one dust collector (562-BF3).

EU: 511-BC2, transferring from baghouse (511-BF2) to limestone bin (512-3B4), controlled by one dust collector (511-BF2).

EU: 511-BC2, transferring from dust collector (511-BF3) to bin #2 clinker (K91-3B1), and 591-CN1, controlled by one dust collector (511-BF3).

EU: 531-BC1and 561-CN1, controlled by one dust collector (561-BF1).

EU: Transferring from separator (561-SR1) to dust collector (561-BF2), controlled by one dust collector (561-BF2).

EU: 562-SR1, 512-3B1, 512-3B2, 532-AF2, 532-BC1, 532-WF1, 532-WF2, 532-WF3, 532-WF4, controlled by one dust collector (562-BF3).

EU: 531-WF1, 531-WF2, 531-WF3, 531-WF4, 531-WF5, K91-3B1, K91-3B2, K91-3B3, 511-3B1, and 511-3B2, controlled by an existing dust collector.

Bulk Silos (Registration Numbers 043-0008-6-0496 and 0497)
Entirely Enclosed EU: 591-PP1/591-PP2 and 611-PP2/611-PP3, controlled by dust collectors (591-BF1 and 591-BF3).

Entirely Enclosed EU: 621-ASD, 621-ASE, and transfer from dust collector (621-BF1) to loading chute (621-TC2) via airslide (621-AS2), controlled by one dust collector (621-BF1).

Entirely Enclosed EU: 621-AS7, 621-AS8, and transfer from dust collector (621-BF2) to loading chute (621-TC1) via airslide (621-TC1), controlled by one dust collector (621-BF2).

EU: Transferring from dust collector (591-BF1) to bulk silos (silos #21-25, 31-34, and 41-45) and transfer from dust collector (591-BF3) to bulk silos (silos #21-25, 31-34, and 41-45), controlled by dust collectors (591-BF1 and 591-BF3).

EU: 621-TC2 and Silo #23, controlled by one dust collectors (621-BF1).

EU: 621-TC1 and Silo #43, controlled by one dust collectors (621-BF2).

Coal Handling (Registration Number 043-0008-6-0495)
Entirely Enclosed EU: L91-3B1 and L91-CN1, controlled by one dust collector (L91-BF1).

Entirely Enclosed EU: L91-PP1, controlled by one dust collector (L91-BF2).

EU: L61-RM1, controlled by one dust collector (L91-BF1).

Note: Entirely Enclosed fugitive emissions unit controlled by a dust collector is not in any fugitive emission group besides point source because it is entirely enclosed, however the enclosures for these transfer points must be operated and maintained as total enclosures on a continuing basis in accordance with the facility operations and maintenance plan. [40 CFR §63.1350(f)(1)(v)]

A. Visible Emissions and B. Particulate Matter

Applicable Standards and Regulations

(1) **COMAR 26.11.30.05(B)(1)**, which states that a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity.

(2) **COMAR 26.11.30.04(B)(1)**, which states that a person may not cause or permit particulate matter to be discharged from any installation in excess of 0.05 grains per standard cubic foot dry.

(3) **Portland Cement MACT** - Each new or existing raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; bulk loading or unloading system; raw and finish mills; and each existing raw material dryer, at a facility which is a major source subject to the provisions of this subpart must not cause to be discharged any gases from these affected sources which exhibit opacity in excess of 10 percent. **[40 CFR §63.1345**]

(4) **40 CFR Part 60, Subpart F, §60.62(c)**, which limits the opacity of any gas from raw material storage to 10 percent for facility that commences construction or modification after August 17, 1971.
Note: This condition is equivalent to the requirements of **§63.1345** for the same affected facilities, therefore as long as the Company complies with **§63.1345,** it meets this requirement.

(5) The flue gases from following equipment and operations shall vent through a bag filter designed to meet the PM emission limit of not greater than 0.01 gr/dscf): **[Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 16, 2016]**
   (a) Converted finish mill (361-BF9), blending silos R62 (391-BF1), and Blending Silo DC;
   (b) Kiln feed pumps KB3 (431-BF1), north clinker transfer tower F42 (491-BF1), and clinker storage building F81-7 (491-BF2);
   (c) Clinker storage silo F92-2 (491-BF4), north clinker transfer tower 491-BF6, and clinker storage silo F96-2 (511-BF1);
   (d) Clinker storage building F86 (511-BF2), finish mill feed bins F71 (511-BF3), south clinker transfer tower F39 (511-BF4);

(e) Finish mill F68 (561-BF1), finish mill air separator F69 (561-BF2), bulk silos F67-4 (591-BF1) and F75 (591-BF3); and
(f) Bulk silos material lead-out BS802 (621-BF1) and BS 814 (621-BF2) and wood chip bin V14-BF1.

(6) The flue gases from following equipment and operations shall vent through a bag filter designed to meet the PM emission limit of not greater than 0.005 gr/dscf: [**Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016]**
(a) Raw mill feed bins 311-BF4 and 311-BF5;
(b) Raw mill feed 331-BF1, 331-BF2 and 331-BF3;
(c) Raw mill rejection bin 361-BF7 and Feed hopper 391-BF2;
(d) Kiln feed 431-BF4;
(e) Clinker cooler outlet 491-BF7 and 491-BF8;
(f) CKD lead-out 4A1-BF1 and Finish mill de-dusting (TBD);
(g) Fine coal storage L91-BF2; and
(h) Converted finish mill 562-BF2 and Converted finish mill outlet 562-BF3.

(7) **40 CFR Part 60, Subpart Y, §60.254(b)** - which limits coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, reconstructed, or modified after April 28, 2008 to 10 percent opacity.

Note: This condition is less stringent than or equal to the requirements of §63.1345 for the same affected facilities, therefore as long as the Company complies with §63.1345, it meets this requirement.

Compliance Demonstration

(1) The Permittee must conduct required opacity monitoring in accordance with the provisions of paragraphs (f)(1)(i) through (vii) of 40 CFR §63.1350(f) and in accordance with your monitoring plan developed under 40 CFR §63.1350(p). The Permittee must also develop an opacity monitoring plan in accordance with paragraphs (p)(1) through (4) and paragraph (o)(5), if applicable, of 40 CFR §63.1350. **[40 CFR §63.1350(f)]**

Note: Any totally enclosed conveying system transfer point, regardless of the location of the transfer point is not required to conduct Method 22 visible emissions monitoring under this paragraph. The enclosures for these transfer points must be operated and maintained as total enclosures on a continuing basis in accordance with the facility operations and maintenance plan. **[40 CFR §63.1350(f)(1)(v)]**

(2) The Permittee shall comply with and update as needed the written operations and maintenance plan which includes the following information: **[40 CFR §63.1347]**
(a) The Permittee must prepare, for each affected source subject to the provisions of the Subpart LLL, a written operations and maintenance plan. The plan must be submitted to the Administrator for review and approval as part of the application for a part 70 permit and must include the following information:
(i) Procedures for proper operation and maintenance of the affected source and air pollution control devices in order to meet the emissions limits and operating limits, including fugitive dust control measures for open clinker piles of

§§63.1343, 63.1345, and 63.1346. The operations and maintenance plan must address periods of startup and shutdown.

(ii) Corrective actions to be taken when required by paragraph §63.1350(f)(3).

(b) Failure to comply with any provision of the operations and maintenance plan developed in accordance with this section is a violation of the standard.

(3) The flue gases from each point source shall vent through a dust collector to meet its applicable emission limit. **[COMAR 26.11.03.06C]**

(4) The Permittee shall maintain the written operations and maintenance plan and all records for at least five years following the date of each inspection, occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. **[40 CFR §63.1355]**

(5) The Permittee shall submit a summary report semiannually which contains all failures to comply with any provision of the Operation and Maintenance Plan developed in accordance with §63.1350(a). **[40 CFR §63.1354(b)(9)(v)]**

Rationale for Compliance Demonstration:
The opacity monitoring plan and preventive maintenance plan are reviewed and approved by the Department and contain the methods and procedures that the Permittee uses to comply with the opacity and particulate matter limitations. Each emission unit is controlled by a bag filter which is the most effective control for visible emissions and particulate matter. Reporting and record keeping requirements are sufficient documentation that the procedures are followed.

6. Kiln, In-line Raw Mill, In-line Coal Mill, Clinker Cooler, and Alkali-bypass

461-KL1: Main Kiln Stack (emissions from coal mill, in-line raw mill, kiln, clinker cooler and alkaline bypass)

Note: These emission units discharge through a common stack.

The pyro processing system consists of an in-line raw mill and 5-stage pre-heater kiln system. The kiln line consists of an in-line raw mill, a pre-heater/pre-calciner kiln. A portion of the kiln flue gas is pulled off for the coal mill system and the raw mill system for drying. Gases from the kiln not needed for the mill processes, as well as the raw mill gases, are vented through the main baghouse and stack. Gases from the coal mill are vented through a separate baghouse before entering the main stack. Although the coal mill feed system is not subject to MACT requirements, the coal mills are addressed here with Pre-heater/Pre-calciner Kiln system because they utilize the exhaust gases from the Pre-heater/Pre-calciner Kiln system for coal drying and the exhaust gases vent through the main stack.

A. Visible, B. Particulate Matter, and H. Lead Emissions

Applicable Regulations and Standards

(1) Visible Emissions

COMAR 26.11.30.05(B)(1), which states that a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity.

(2) Particulate Matter Emissions

(a) **COMAR 26.11.30.04(B)(1)**, which states that a person may not cause or permit particulate matter to be discharged from any installation in excess of 0.05 grains per standard cubic foot dry.

(b) The air emissions from each existing kiln and any alkali bypass associated with that kiln during normal operation shall meet the Particulate matter emission limit of 0.07 pounds per tons of clinker; **[40 CFR §60.62(a)(1)(iii)] and Table 1-1. of §63.1343(b)(1)]**

(c) The PM emissions from the clinker cooler (installed after 2008) shall meet PM emissions standard of 0.020lb per ton clinker. **[40 CFR §60.62(b)(1)(i)] and Table 1-1. of §63.1343(b)(1)]**

(d) Since all flue gas streams from the kiln and clinker cooler vent through a common stack, the Permittee shall calculate the alternative PM emission limit by using the following equation: **[40 CFR §63.1343(b)(2) and Holcim Hagerstown NESHAP Subpart LLL Particulate Matter Limit Determination letter issued by U.S. EPA on March 5, 2014]**

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

Where:

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

A = the PM exhaust concentration (gr/dscf), A = 0.006 equivalent to 0.070 lb per ton of clinker where existing clinker cooler and existing kiln exhaust gas are not combined or A = 0.002 equivalent to 0.020 lb per ton clinker where new or reconstructed clinker cooler and new or reconstructed kiln exhaust gas are not combined.

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

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

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

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

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

7000 = the conversion factor for grains (gr) per lb.

Note 1: The Permittee conducted its initial PM stack emission testing with raw mill on (10/19/2016) and with raw mill off (10/20/2016). The following information in the table below is included in its test results submitted to the Department:

Test Date	Raw Mill On or Off	Total Flue Gas, dscf/ton of feed	Clinker Production, Tons/hr	PM Emissions, lb/ton of clinker
10/19/2016	On	61,931.82	102.4	0.00464
10/20/2016	Off	57,705.97	102.4	0.00396

Comment: Based on the design specifications stated in its application, 28.47% of total flue gas comes from the clinker cooler.

Note 2: Based on the above test result, the PM_{alt} shall not exceed 0.088 when the raw mill is on and 0.082 lb/ton of clinker when the raw mill is off and the Permittee shall conduct PM stack emission testing to update the PM_{alt} annually.

Note 3: On January 4, 2018 the Department received a PM stack emissions testing report from Holcim. The tests were conducted on 9/26/2017 with raw mill on and 9/28/2017 with raw mill off. The PM emissions obtained from this testing were 0.022 (raw mill on) and 0.009 (raw mill off) lb/ton of clinker, which has demonstrated compliance with the PM_{alt} emission limits mentioned on Note 2.

(3) Lead Emissions

The net emission increase resulting from the 2016 kiln modernization project shall not exceed 0.6 tons of lead for any 12-month period, rolling monthly.

Note 1: The lead emission limit is based on the lead threshold limit subject to a Prevention of Significant Deterioration (PSD) review.

Note 2: The majority of facility's lead emissions are exhausted through the main kiln stack and the more sophisticated emissions control systems from the 2016 modification would result in a significant reduction in lead emissions. The net emission increase for the project was calculated as 0.1 tpy, submitted by the applicant, which is well below 0.6 tpy. Therefore, the lead emission is not an issue of concern for this Title-V renewal.

Compliance Demonstration

(1) For each stack performance test for demonstrating compliance with particulate emission limit, the Permittee must conduct opacity tests in accordance with Method 9 of appendix A-4 to part 60. The duration of the Method 9 performance test must be 3 hours (30 6-minute averages). **[COMAR 26.11.03.06 & §63.1349(b)(2)]**

(2) For compliance demonstration with the limitations on PM emissions under §63.1343(b), the Permittee shall demonstrate initial compliance by conducting a performance test using Method 5 or Method 5I at appendix A-3 to part 60 of this chapter. **[40 CFR §60.63(c)(1), §63.1349(b)(1), and COMAR 26.11.30.04(C)]**

(3) For each performance test, the Permittee must conduct at least three separate test runs each while the mill is on and the mill is off, under the conditions that exist when the affected source is operating at the level reasonably expected to occur. Conduct each test run to collect a minimum sample volume of 2 dscm for determining compliance with a new source limit and 1 dscm for determining compliance with an existing source limit. Calculate the time weighted average of the results from three consecutive runs, including applicable sources as required by §63.1349(b)(1)(viii), to determine compliance. The Permittee need not determine the particulate matter collected in the impingers ("back half") of the Method 5 or Method 5I particulate sampling train to demonstrate compliance with the PM standards of this subpart. This

shall not preclude the permitting authority from requiring a determination of the "back half" for other purposes. **[40 CFR §60.63(c)(7) and §63.1349(b)(1)(vi)]**

(4) The Permittee shall demonstrate compliance by conducting separate performance tests while the raw mill is under normal operating conditions and while the raw mill is not operating, and calculate the time weighted average emissions. The operating limit will then be determined using §63.1349(b)(1)(i) of this section. **[40 CFR §63.1349(b)(1)(ix)]**

(5) The flue gases from the following equipment or operations shall vent through a bag filter to comply with all applicable PM emission limits: **[Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016]**
(a) The cement kiln and the clinker cooler; and
(b) The in-line raw mill, the in-line coal mill and alkali bypass.

(6) The Permittee shall use the PM continuous parametric monitoring system (PM CPMS) to demonstrate compliance with the PM emission limit. The PM CPMS value shall be less than the site specific operating limit established during the most recent stack performance tests. The Permittee shall conduct stack performance test annually to establish a new site specific operating limit. **[§60.63(c)(1), §63.1349(b)(1) and COMAR 26.11.30.04(C)]**

Note: According to **40 CFR §63.1349(b)(1)(ii)**, the site specific operating limit for CPMS is calculated as 4.6428 milliamp (mA) based on results from stack tests conducted on October 19 & 20, 2016. The site specific operating limit shall be recalculated based on the required annual PM emission testing. The Permittee has continuously demonstrated compliance with the PM limits by meeting the site specific operation limits.

(7) For PM performance test reports used to set a PM CPMS operating limit, the electronic submission of the test report must also include the make and model of the PM CPMS instrument, serial number of the instrument, analytical principle of the instrument (e.g. beta attenuation), span of the instruments primary analytical range, milliamp value equivalent to the instrument zero output, technique by which this zero value was determined, and the average milliamp signals corresponding to each PM compliance test run. **[40 CFR §60.63(c)(8) and §63.1349(b)(1)(vii)]**

(8) The Permittee must record the PM CPMS output data for all periods when the process is operating, and use all the PM CPMS data for calculations when the source is not out-of-control. The Permittee must demonstrate continuous compliance by using all quality-assured hourly average data collected by the PM CPMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit (milliamps or the digit equivalent) on a 30 operating day rolling average basis, updated at the end of each new kiln operating day. Use Equation 7 of §63.1349(b)(1)(v) to determine the 30 kiln operating day average. **[40 CFR §60.63(c)(6) and §63.1349(b)(1)(v)]**

(9) To determine continuous compliance, the Permittee must use the PM CPMS output data for all periods when the process is operating and the PM CPMS is not out-of-control. The Permittee must demonstrate continuous compliance by using all quality-

assured hourly average data collected by the PM CPMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit (milliamps) on a 30 operating day rolling average basis, updated at the end of each new kiln operating day. **[40 CFR §63.1350(b)(1)(ii)]**

(10) For any exceedance of the 30 process operating day PM CPMS average value from the established operating parameter limit, the Permittee must: [**40 CFR §63.1350(b)(1)(iii) and COMAR 26.11.30.04(C)(5)]**
   (a) Within 48 hours of the exceedance, visually inspect the Air Pollution Control Device (APCD);
   (b) If inspection of the APCD identifies the cause of the exceedance, take corrective action as soon as possible and return the PM CPMS measurement to within the established value; and
   (c) Within 30 days of the exceedance or at the time of the annual compliance test, whichever comes first, conduct a PM emissions compliance test to determine compliance with the PM emissions limit and to verify or re-establish the PM CPMS operating limit within 45 days. The Permittee is not required to conduct additional testing for any exceedance that occurs between the time of the original exceedance and the PM emissions compliance test required under this paragraph. For an annual re-test, the first valid 30-day average will be 30 kiln operating days after the PM performance test.

(11) PM CPMS exceedances leading to more than four required performance tests in a 12-month process operating period (rolling monthly) constitute a presumptive violation of this subpart. **[40 CFR §63.1350(b)(1)(iv)**

(12) The Permittee shall determine hourly clinker production by one of two methods: [**40 CFR §60.63(b)(1) and §63.1350(d)(1)]**
   (a) Install, calibrate, maintain, and operate a permanent weigh scale system to measure and record weight rates in tons-mass per hour of the amount of clinker produced. The system of measuring hourly clinker production must be maintained within ±5 percent accuracy; **[40 CFR §60.63(b)(1)(i) and §63.1350(d)(1)(i)]** or
   (b) Install, calibrate, maintain, and operate a permanent weigh scale system to measure and record weight rates in tons-mass per hour of the amount of feed to the kiln. The system of measuring feed must be maintained within ±5 percent accuracy. Calculate the Permittee's hourly clinker production rate using a kiln-specific feed to clinker ratio based on reconciled clinker production determined for accounting purposes and recorded feed rates. Update this ratio monthly. Note that if this ratio changes at clinker reconciliation, the Permittee must use the new ratio going forward, but the Permittee does not have to retroactively change clinker production rates previously estimated. **[40 CFR §60.63(b)(1)(ii) and §63.1350(d)(1)(ii)]**

(13) The Permittee shall determine, record, and maintain a record of the accuracy of the system of measuring hourly clinker production (or feed mass flow if applicable) before initial use (for new sources) or by the effective compliance date of this rule (for existing sources). During each quarter of source operation, the Permittee must determine, record, and maintain a record of the ongoing accuracy of the system of measuring

hourly clinker production (or feed mass flow). **[40 CFR §60.63(b)(2) and §63.1350(d)(2)]**

(14) If the Permittee measure clinker productions directly, record the daily clinker production rates; if the Permittee measure the kiln feed rates and calculate clinker production, record the hourly kiln feed and clinker production rates. **[40 CFR §60.63(b)(3) and §63.1350(d)(3)]**

(15) For each kiln operating hour for which the Permittee does not have data on clinker production or the amount of feed to the kiln, the Permittee shall use the value from the most recent previous hour for which valid data are available. **[40 CFR §60.63(b)(1)(iii)]**

(16) The Permittee shall maintain the following records on site for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record:
(a) Opacity observations;
(b) Stack performance tests for particulate matter
(c) PM control devices (PMCD) and temperature monitoring data; and
(d) records of the date, duration and description of each violation of the established criteria or parameters including inspections and corrective actions.

At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. **[COMAR 26.11.03.06C]**

(17) The Permittee shall comply with the general monitoring requirements, general recordkeeping requirements, and general reporting requirement specified in Table IV-6 in the Permit. **[COMAR 26.11.03.06C**]

Rationale of Compliance Demonstration

The flue gases from the pre-heater/pre-calciner kiln, in-line raw mill, the inline raw mill, the alkali bypass and the clinker cooler are vented through baghouses which are the most effective control for visible emissions and particulate matter. In accordance with its (1) Operation and Maintenance Plan (O & M plan), Holcim calibrates, operates and maintains its CPMS in a manner consistent with good air pollution control practices. The PM CPMS output signal (in milliamps) is used along with corresponding Method 5 stack test results (performed annually) to establish a site-specific operating limit for compliance demonstration. The CPMS with a data acquisition system (DAS) is in continuous operation except for periods of malfunctions, out-of-control, repairs, maintenance, and calibration checks. Any malfunction of the CPMS shall be identified and corrective actions will be implemented as soon as practicable. Holcim is required to perform preventative maintenance on each baghouse as specified in the baghouse O & M plan. All periods of CPMS downtime, QA/QC activities and corrective measures are recorded and reported to show compliance status.

C - *Dioxins/Furans (D/F).*

Applicable Regulations and Standards

40 CFR §63.1343(b)(1) which prohibits D/F in excess of:

(1) 0.2 ng per dscm (8.7 X 10^{-11} gr per dscf) (TEQ) corrected to seven percent oxygen; or

(2) 0.4 ng per dscm (1.7 x 10^{-10} gr dscf) (TEQ) corrected to seven percent oxygen, when the temperature at the inlet to the particulate matter air pollution control device is 204°C (400° F) or less.

Compliance Demonstration

(1) The Permittee must conduct a performance test using Method 23 of appendix A-7 to 40 CFR, Part 60. The Permittee must conduct simultaneous performance tests of the kiln or in-line kiln/raw mill exhaust and the alkali bypass. The Permittee shall conduct a performance test of the alkali bypass exhaust when the raw mill of the in-line kiln/raw mill is operating and not operating. Subsequent performance tests must be performed within 30 months of the last performance test. **[40 CFR §63.1349(b)(3) and §63.1349(c)]**

(2) Each performance test must consist of three separate runs conducted under representative conditions. The duration of each run must be at least 3 hours, and the sample volume for each run must be at least 2.5 dscm (90 dscf). **[40 CFR §63.1349(b)(3)(i)]**

(3) The temperature at the inlet to the kiln or in-line kiln/raw mill PMCD, and, where applicable, the temperature at the inlet to the alkali bypass PMCD must be continuously recorded during the period of the Method 23 test, and the continuous temperature record(s) must be included in the performance test report. **[40 CFR §63.1349(b)(3)(ii)]**

(4) Hourly average temperatures must be calculated for each run of the performance test. **[40 CFR §63.1349(b)(3)(iii)]**

(5) The run average temperature must be calculated for each run, and the average of the run average temperatures must be determined and included in the performance test report and will determine the applicable temperature limit in accordance with §63.1346(b). **[40 CFR §63.1349(b)(3)(iv)]**

(6) The Permittee, subject to a D/F emissions limitation under §63.1343, must operate the kiln such that the temperature of the gas at the inlet to the kiln PM Control Device (PMCD) and alkali bypass PMCD, if applicable, does not exceed the applicable temperature limit specified in paragraph (b) of §63.1346. **[40 CFR §63.1346(a)]**

(7) The temperature limit for affected sources meeting the limits of paragraph (a) of §63.1346 or paragraphs (a)(1) through (a)(3) of §63.1346 is determined from the performance test report in accordance with §63.1349(b)(3)(iv). **[40 CFR §63.1346(b)]**

(8) The Permittee must comply with the monitoring requirements of (g)(1) through (g)(6) and (m)(1) through (m)(4) of this §63.1350to demonstrate continuous compliance with the D/F emissions standard. The Permittee must also develop an emissions monitoring plan in accordance with (p)(1) through (p)(4) of **§63.1350**. **[40 CFR §63.1350(g)]**

(9) The Permittee shall calibrate, maintain, and continuously operate a CMS to record the temperature of the exhaust gases from the kiln and alkali bypass at the inlet to, or upstream of, the kiln and/or alkali bypass PMCDs. **[40 CFR §63.1350(g)(1)]**

(10) The temperature recorder response range must include zero and 1.5 times the average temperature established according to the requirements in §63.1349(b)(3)(iv). **[40 CFR §63.1350(g)(1)(i)]**

(11) The calibration reference for the temperature measurement must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Department. The calibration of all thermocouples and other temperature sensors must be verified at least once every three months. **[40 CFR §63.1350(g)(1)(ii) & (iii)]**

(12) The Permittee must monitor and continuously record the temperature of the exhaust gases from the kiln and alkali bypass at the inlet to the kiln and/or alkali bypass PMCD. The required minimum data collection frequency must be one minute. The Permittee shall calculate the rolling three-hour average temperature using the average of 180 successive one-minute average temperatures. See §63.1349(b)(3). **[40 CFR §63.1350(g)(2), (3) and (4)]**

(13) When the operating status of the raw mill of the in-line kiln/raw mill is changed from off to on, or from on to off, the calculation of the three-hour rolling average temperature must begin anew, without considering previous recordings. **[40 CFR §63.1350(g)(5)]**

(14) The flue gas temperature at each inlet of the PMCD shall not exceed the operating limits established during the most recent stack tests to comply with the Dioxin/Furan emission limit of 0.2(ng/dscm) (TEQ) corrected to 7% O_2. The Permittee shall conduct Dioxin/Furan emission testing at least every 30 months to re-establish the operating limit for Dioxin/Furan compliance demonstration. [**40 CFR §63.1350(i)(2) and COMAR 26.11.03.06]**

Note**:** The following limits were established during the initial stack performance tests conducted on **10/19/2016 and 2/14/2017**:

(a) When the raw mill is on, the flue gas inlet temperature shall not exceed 158^{o} C at the main stack baghouse and 203^{o} C at the alkali bypass baghouse; and
(b) When the raw mill is off, the flue gas inlet temperature shall not exceed 220^{o} C at the main stack baghouse and the alkali bypass baghouse.
(c) The Permittee is required to conduct Dioxin/Furan emission testing at least every 30 months to re-establish the operating temperature limits.

(15) The Permittee shall maintain the following records on site for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record:

(a) stack performance tests for dioxins/furans;
(b) PMCD and temperature monitoring data, if applicable based on the next emission testing; and
(c) records of the date, duration and description of each violation of the established criteria or parameters including inspections and corrective actions.

At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. **[COMAR 26.11.03.06C and 40 CFR §63.1355]**

(16) The Permittee shall submit the results of performance tests before the close of business on the 60th day following the completion of the performance test. **[40 CFR §63.1354(b)(1)] & [40 CFR §63.10(d)(2)]**

Rationale for Compliance Demonstration

D/F emissions from a Portland cement plant are quite sensitive with flue gas temperature entering the main baghouse and the alkali bypass baghouse. The Permittee conducted the initial emissions performance testing on 10/19/2016 and 2/14/2017 to establish the temperature limits of glue gas entering the main baghouse and the alkali bypass baghouse so that continuous temperature monitoring systems can be used for continuous compliance demonstration. As shown below, all the D/F emissions were well below the Dioxin/Furans standards of 0.2 ng (TEQ) per dscm. Therefore, the temperature of flue gas entering each baghouse is sufficient enough to determine whether or not the kiln system is in compliance with the D/F emission limit.

D/F stack tests

Date	Raw Mill	D/F emissions (ng /dscm)	Main Baghouse Temperature	Bypass Baghouse Temperature	Standard (ng /dscm)
10/19/2016	off	0.004	219.6 °C	220.0 °C	0.2 (Temperature>204°C)
02/14/2017	on	0.006	157.6 °C	202.3 °C	0.4 (Temperature≤204°C)

D – NOx, E–SOx, F – CO, and G -THC Emissions.

Applicable Regulations and Standards

NOx Emissions

(1) COMAR 26.11.30.07A(2) and 26.11.30.07D, which limit NOx emissions to 2.8 pounds per ton of clinker produced for pre-heater/pre-calciner or pre-calciner kilns based on a 30-day rolling average prior to April 1, 2017.
Note: Holcim's demonstrated compliance with the COMAR requirements on a 30-day rolling average prior to April 1, 2017)

(2) COMAR 26.11.30.07C(2) and 26.11.30.07D, which limit NOx emissions to 2.4 pounds per ton of clinker produced for pre-heater/pre-calciner or pre-calciner kilns based on a 30-day rolling average on or after April 1, 2017.

(3) The Permittee shall limit NOx emission to not exceed 1.8 pounds per ton of clinker on a 30-day rolling average. [**Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016]**

Note: The Permittee met this requirement on a 30-day rolling average on October 12, 2016.

SOx Emissions

(4) COMAR 26.11.30.06A(1) and 26.11.30.06C, which limit the sulfur dioxide concentration in the exhaust gases not to exceed 500 parts per million by volume corrected to 7 percent oxygen.

(5) COMAR 26.11.30.06B(1) and 26.11.30.06C, which limits the content of sulfuric acid, sulfur trioxide, or any combination not to exceed 35 milligrams reported as sulfuric acid per cubic meter of gas corrected to 7 percent oxygen.

(6) The Permittee shall comply with the following SO_2 emissions limits: **[40 CFR Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016]**

(a) 1.6 pounds per ton of clinker on a 30-day rolling average; and
(b) 655 tons for any 12-month rolling period.

Note: The Permittee met 1.6 pounds per ton of clinker on a 30-day rolling average requirement on October 12, 2016. Compliance demonstration for the 655 tons for the 12-month rolling result is currently unavailable until September 2017 for the first 12-month data.

CO Emissions

(7) **Prevention of Significant Deterioration (PSD) Approval PSD-2014-01 issued April 11, 2014** which states that the Permittee shall use CEM systems to assess compliance with the CO emission limits of 4.0 pounds per ton of clinker, based on a 30-day rolling average and 1700 tons per rolling 12-month period for the pre-heater/pre-calciner kiln.

Note: The Permittee met 4.0 pounds per ton of clinker requirement on a30-day rolling average on November 25, 2016.

THC Emissions

(8) The emissions limit of total hydrocarbons (THC) is 24 parts per million by volume dry (ppmvd) on a rolling 30-day average measured as propane and corrected to 7% O_2. Any source subject to the 24 ppmvd THC limit may elect to meet an alternative limit of 12 ppmvd for total organic hazardous air pollutants (HAP). **[40 CFR Table 1-1. of §63.1343(b)(1)]**

Note: The Permittee met THC requirement on a 30-day rolling average on April 19, 2017.

Compliance Demonstration

NOx Emissions

(1) The Permittee shall continuously operate a selective non-catalytic reduction (SNCR) technology to comply with the NOx emissions limit of 1.8 pounds per ton of clinker on a

30-day rolling average. **[40 CFR Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016]**

Note: For the purposes of this permit condition, the term "continuously operate" shall mean that a control technology used at the kiln, except during a malfunction of the control technology, shall be operated at all times of kiln operation, consistent with technical limitations, manufacturer's specifications and good engineering practices for such control technologies and the kiln**.**

(2) The Permittee shall continuously monitor NOx emissions with a continuous emissions monitor ("CEM") certified in accordance with COMAR 26.11.01.11B(1) and (4) and C.**[COMAR 26.11.30.08A & B]**

SOx Emissions

(3) The Permittee shall continuously operate a lime injection system to comply with applicable SO_2emissions limits of (a) 1.6 pounds per ton of clinker on a 30-day rolling average; and (b) 655 tons for any 12-month rolling period. **[40 CFR Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016]**

(4) The Permittee shall operate, maintain, and calibrate the CEM in accordance with the Performance Specifications under 40 CFR Part 60, Appendix B and the Quality Assurance Procedures under 40 CFR Part 60, Appendix F. **[Permit to Construct #043-0008-6-0495 issued April 11, 2014 and revised April 18, 2016 and COMAR 26.11.01.11C]**

(5) The NO_X and SO_2 CEMs must be operated and maintained according to Performance Specification 2 of Appendix B of 40 CFR, Part 60 and the following requirements:
   (a) The span value of each NO_X CEMs monitor must be set at 125 percent of the maximum estimated hourly potential NO_X emission concentration that translates to the applicable emissions limit at full clinker production capacity.
   (b) The Permittee must conduct performance evaluations of each NO_X CEMs monitor according to the Performance Specification 2 of Appendix B to 40 CFR, Part 60. The Permittee must use Methods 7, 7A, 7C, 7D, or 7E of Appendix A-4 to 40 CFR, Part 60 for conducting the relative accuracy evaluations. The method ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses," (incorporated by reference—see §60.17) is an acceptable alternative to Method 7 or 7C of Appendix A-4.
   (c) The span value for the SO_2 CEMs monitor is the SO_2 emission concentration that corresponds to 125 percent of the applicable emissions limit at full clinker production capacity and the expected maximum fuel sulfur content.
   (d) The Permittee must conduct performance evaluations of each SO_2 CEMs monitor according to the requirements in §60.13(c) and Performance Specification 2 of Appendix B to 40 CFR, Part 60. The Permittee must use Methods 6, 6A, or 6C of Appendix A-4 to 40 CFR, Part 60 for conducting the relative accuracy evaluations. The method ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses," (incorporated by reference—see §60.17) is an acceptable alternative to Method 6 or 6A of Appendix A-4.
   (e) The Permittee must comply with the quality assurance requirements in Procedure 1 of Appendix F to 40 CFR, Part 60 for each NO_X and SO_2 CEMs,

including quarterly accuracy determinations for monitors, and daily calibration drift tests.

(6) The Permittee shall operate, maintain, and calibrate the continuous emission rate monitoring system (CERMS) in accordance with Performance Specification 6 under 40 CFR Part 60, Appendix B.

CO Emissions

(7) The Permittee shall use continuous emissions monitoring systems (CEMs) to monitor CO emissions from the flue gases of the in-line raw mill, the in-line coal mill, and the pre-heater alkali bypass. **[Prevention of Significant Deterioration (PSD) Approval #PSD-2014-01 issued April 11, 2014**]

(8) The Permittee shall operate, maintain, and calibrate the CO CEM and CERMS in accordance with Performance Specifications 4 and 6 under 40 CFR Part 60, Appendix B and the Quality Assurance Procedures under 40 CFR Part 60, Appendix F. **[Prevention of Significant Deterioration (PSD) Approval #PSD-2014-01 issued April 11, 2014]**

THC Emissions

(9) The Permittee must operate a CEMs in accordance with the requirements in §63.1350(i). For the purposes of conducting the accuracy and quality assurance evaluations for CEMs, the THC span value (as propane) is 50 ppmvw and the reference method (RM) is Method 25A of appendix A to 40 CFR, Part 60. **[40 CFR §63.1349(b)(4)(i))**

(10) The Permittee must comply with the monitoring requirements of (i)(1), (i)(2) and (m)(1) through (m)(4) of **§63.1350**. The Permittee must also develop an emissions monitoring plan in accordance with (p)(1) through (p)(4) of **§63.1350. [40 CFR §63.1350(i)]**

(11) The Permittee must operate and maintain a THC continuous emission monitoring system in accordance with Performance Specification 8 or Performance Specification 8A of appendix B to Part 60 and comply with all of the requirements for continuous monitoring systems found in the general provisions, subpart A of Part 60. The Permittee must operate and maintain each CEMs according to the quality assurance requirements in Procedure 1 of appendix F in Part 60. For THC continuous emission monitoring system certified under Performance Specification 8A, conduct the relative accuracy test audit required under Procedure 1 in accordance with Performance Specification 8, Section 8 and 11 using Method 25A in appendix A to 40 CFR part 60 as the reference method; the relative accuracy must meet the criteria of Performance Specification 8, Section 13.2. **[40 CFR §63.1350(i)(1)]**

NOx, SOx, CO, and THC Emissions

(12) The Permittee shall maintain records of the following information on-site for at least five (5) years and shall make the records available to the Department upon request: **[COMAR 26.11.03.06C]**

(a) Emissions of NO_X, SO_2, and CO in pounds per 30-day period, rolling daily;

(b) Emissions of NO_X, SO_2, and CO in tons for any 12-month period, rolling monthly;

(c) Emissions of CO in pounds per ton of clinker produced based on a 30-day rolling average;

(d) Emission of THC, ppmvw, on a 30 operating day rolling average basis;
(e) Any violation of any emission limit required for each rolling 12-month period; and
(f) The date of each occurrence, measurement, maintenance, corrective action, report, or record.

At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche.

Rationale of Compliance Demonstration

The Permittee has demonstrated initial compliance with the emission limits for NOx, and SO_2 through the use of continuous emission monitoring systems (CEMs). The add-on control devices are used to control NOx (SNCR) and SO_2 (Lime and limestone injection) emissions. The SO_2 standard is more stringent than the limits of the content of sulfuric acid, sulfur trioxide, or any combination, therefore as long as the facility meets the SO_2requirement; it meets the applicable requirements of sulfuric acid, sulfur trioxide, or any combination. CEMs and the good combustion practices including kiln temperature, carbon monoxide, and oxygen monitoring are used to reduce CO and THC emission. All emissions are continuously monitored by CEMs. In accordance with the O & M plan, each CEMs with a data acquisition system (DAS) is in continuous operation except for periods of malfunctions, out-of-control, repairs, maintenance, and calibration checks. Any malfunction of the CEMs is identified and corrective actions will be implemented, as soon as practicable. All periods of CEMs downtime, QA/QC activities and corrective measures are recorded and reported to show compliance status.

Note: The Permittee has demonstrated compliance on a 30-day rolling average with THC emissions limit (7.1 vs. 24 ppm) on April 19, 2017, NOx emissions limit (1.55 vs. 1.80 lb/ton of clinker) on October 12, 2016, SO_2 emissions limit (1.37 vs. 1.6 lb/ton of clinker) on October 12, 2016 and CO emissions limit (0.71 vs. 4.0 lb/ton of clinker) on November 24, 2016. Compliance demonstration of the 12-month rolling average for SO_2 is currently unavailable until September 2017 due to availability of the first 12-month data. Compliance demonstration for PSD annual emissions of CO is currently unavailable until end of 2017 for a full year data.

I -Fluoride Emissions.

Applicable Regulations and Standards

(1) COMAR 26.11.06.07B(1)(a), which states that a person may not cause or permit the discharge of fluorides into the atmosphere that causes a violation of any applicable air quality standards for fluorides set forth in COMAR 26.11.04.

(2) COMAR 26.11.06.07B(1)(b), which states that the Department, after written notice to a person discharging fluorides to the atmosphere, may require the person to conduct a surveillance to determine whether ambient air quality standards for fluorides are violated. The manner, scope, and duration of the surveillance program will be determined by the Department.

Note: The majority of facility's fluoride emissions are exhausted through the main kiln stack. At the design clinker production rate of 850,000 tons per year and in accordance with EPA AP-42 emission factor Section 11.6-9, the premises wide fluorides emission is estimated to be 0.39 tons per year, 0.38 tons/year from the main stack and 0.01 tons/year from other heating sources. The total fluorides emissions are well below the PSD significant net emission increase of 3.0 tons per year, any further fluoride emission testing is not needed at this moment.

Compliance Demonstration

The Department may require the Permittee to conduct a surveillance to determine whether ambient air quality standards for fluorides are violated.

Rationale of Compliance Demonstration

The kiln stack baghouse and the SO_2 scrubber would reduce fluoride emissions to an insignificant level. Since the premises wide fluorides emission is well below the PSD significant net emission increase of 3.0 tons per year, any further fluoride emission testing is not needed at the moment. The record keeping requirements including clinker production data and annual emission certification are sufficient for compliance demonstration.

J -Mercury Emissions.

Applicable Regulations and Standards

The air emissions from each existing kiln and any alkali bypass associated with that kiln during normal operation shall meet the mercury emission limit of 55 pounds per million tons (lb/MM tons) of clinker. **[40 CFR Table 1-1. of §63.1343(b)(1)]**.

Compliance Demonstration

(1) The Permittee must operate a mercury CEMs in accordance with the requirements of §63.1350(k). The compliance test must be based on the first 30 kiln operating days in which the affected source operates using a mercury CEMs after the compliance date of the rule (See §63.1348(a)). **[40 CFR §63.1349(b)(5)]**

(2) The Permittee must operate, calibrate, and maintain an instrument for continuously measuring and recording the exhaust gas flow rate to the atmosphere according to the requirements in §63.1350(k)(5). **[40 CFR §63.1349(b)(5)(i)]**

(3) The Permittee must calculate the mercury emission rate using Equation 10 of §63.1349(b)(5)(ii). **[40 CFR §63.1349(b)(5)(ii)]**

(4) The Permittee must operate a mercury continuous emissions monitoring system (Hg CEMs) in accordance with Performance Specification 12A (PS 12A) of appendix B to Part 60. The Permittee must monitor mercury continuously according to (k)(1) through (5) of §63.1350 if applicable. The Permittee must also develop an emissions monitoring plan in accordance with (p)(1) through (4) of §63.1350. **[40 CFR §63.1350(k)]**

(5) During periods of startup and shutdown, the Permittee shall follow the Startup and shutdown work practices to reduce mercury emissions.
[40 CFR §63.1346(g); Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016]

(6) As applicable, the Permittee shall equip the CEM to record not less than four equally spaced data points per hour and to automatically reduce data in terms of averaging times consistent with applicable emission standard. **[COMAR 26.11.01.11D(2)]**

Rationale for Compliance Demonstration

Holcim Portland cement plant equipped with an alkali bypassing system that not only reduce alkali content in clinker but also reduce mercury emissions. The Permittee operates CEMS at the main stack, which combines exhaust gases from the in-line raw mill, in-line coal mill, pre-heater/pre-calciner, alkali bypass, and clinker cooler, to demonstrate continuous compliance with mercury emissions. The Permittee must submit Relative Accuracy Test Audit (RATA) data at least annually to the EPA's Central Data Exchange (CDX) by using Compliance & Emissions Data Reporting Interface(CEDRI). A RATA was performed in October 2016 and the first 30-day rolling average on November 25, 2016 was 19 pounds of mercury per million tons (lbs/MM tons) of clinker, which was less than the mercury limit of 55 lbs/MM tons of clinker. The CEMs is in continuous operation except for periods of malfunctions, out-of-control, repairs, maintenance, and calibration checks. Any malfunction of the CEMs is identified and corrective actions will be implemented, as soon as practicable. All periods of CEMs downtime, QA/QC activities and corrective measures are recorded and reported to show compliance status.

K - Hydrogen Chloride (HCl) Emissions.

Applicable Regulations and Standards

The emissions limit for hydrogen chloride (HCl) is 3 parts per million by volume dry (ppmvd) measured corrected to 7% O_2 on a 30-day rolling average. **[Table 1 of 40 CFR §63.1343(b)(1)]**

Compliance Demonstration

(1) Since the Permittee chose to use the SO_2 CEMS as a continuous parametric monitoring system (CPMS) to demonstrate compliance with HCl emission limit, the Permittee must follow the procedures in §63.1349(b)(8)(i) through (ix) and in accordance with the requirements of §63.1350(l)(3). The Permittee shall conduct performance tests required for HCl every 30 months to verify correlation between HCl and SO_2 CEM measurement and establish new SO_2 operating limit. **[40 CFR §63.1349(b)(8); §63.1349(c); COMAR 26.11.03.06]**

(2) To comply with the HCl emissions limit of 3 ppmvd, the SO_2 CEM operating value shall not exceed limit established during the most recent stack performance tests on a 30-day rolling average. The Permittee shall conduct HCl emission testing every 30 months to establish the new SO_2 CEM operating limit for HCl compliance demonstration. **[40 CFR §63.1349(c); COMAR 26.11.03.06]**

Note: To comply with the HCl emission limit, the SO_2 operating value shall not exceed 307 ppmvd corrected to 7% O_2 on a 30-day rolling average, which was derived by the Compliance Program based on the HCl emissions testing and SO_2 emission monitoring between 02/14 and 02/15/2017.

(3) The Permittee shall also follow the monitoring procedures required for demonstrating compliance with the SO_2 emissions limit of 1.6 lb/ton of clinker. **[COMAR 26.11.03.06]**

(4) The lime injection system shall be maintained and operated to comply with the HCl emissions limit. **[PTC issued April 11, 2014 and updated April 18, 2016]**

Rationale for Compliance Demonstration

The Permittee uses (1) a pre-heater/pre-calciner kiln that inherently controls acid gases prior to discharging to the atmosphere and (2) a lime injection system to control both SO_2 and HCl. The Permittee chose to use the SO_2 CEMS as an operating parameter for compliance demonstration. To comply with the HCl emissions limit of 3 ppmvd, the SO_2 CEM operating value shall not exceed limit established during the most recent stack performance tests, 307 ppmvd on a 30-day rolling average based on the HCl emissions testing and SO_2 monitoring between 02/14 and 02/15/2017. Therefore, as long as the Permittee complies with the SO_2 operating limit, it is for sure to comply with the HCl emissions limit. The Permittee must conduct the HCl emissions test at least every 30 months to establish a new SO_2 operating value for continuous compliance with the HCl emission limit. The recordkeeping of the SO_2 emission monitoring data including equipment malfunction and corrective measures are sufficient to document compliance status.

L -Greenhouse Gas (GHG) Emissions.

Applicable Regulations and Standards

Prevention of Significant Deterioration (PSD) Approval PSD-2014-01 issued April 11, 2014 which states that:

(a) The Permittee shall install a 5-stage pre-heater/pre-calciner kiln to meet the greenhouse gas BACT emissions limit of 0.94 ton of CO_{2e} per ton of clinker produced based on a 12-month average, rolling monthly.

(b) Total emissions of CO_{2e} from the 5-stage pre-heater/pre-calciner kiln and the emergency generator shall not exceed 801,270 tons for any 12-month period, rolling monthly.

Compliance Demonstration

(1) The Permittee shall operate, maintain, and calibrate the CO_2 CEM and continuous emission rate monitoring system (CERMS) in accordance with Performance Specifications 3 and 6 under 40 CFR Part 60, Appendix B and the Quality Assurance Procedures under 40 CFR Part 60, Appendix F. **[Prevention of Significant Deterioration (PSD) Approval #PSD-2014-01 issued April 11, 2014]**

(2) The Permittee shall use continuous emissions monitoring systems (CEMs) to monitor CO_2 emissions from the flue gases of the in-line raw mill, the in-line coal mill, and the pre-heater alkali bypass. **[Prevention of Significant Deterioration (PSD) Approval #PSD-2014-01 issued April 11, 2014]**

(3) Upon certification of the CEM system for CO_2, the Permittee shall use CEM systems to assess compliance with the CO_{2e} emission limits of 0.94 ton per ton of clinker produced based on a 12-month average, rolling monthly and 801,270 tons for any 12-month period, rolling monthly. **[Prevention of Significant Deterioration (PSD) Approval #PSD-2014-01 issued April 11, 2014]**

(4) The following records with supporting documentation shall be maintained on site for at least 5 years and shall be submitted to the Department not later than 30 days after the end of each calendar quarter:
   (a) Emissions of CO_{2e} from the 5-stage pre-heater/pre-calciner kiln in tons of CO_{2e} per ton of clinker produced based on a 12-month average, rolling monthly;
   (b) Total emissions of CO_{2e} from the 5-stage pre-heater/pre-calciner kiln and the emergency generator in tons per 12-month period, rolling monthly;
   (c) Tons of clinker produced per 12-month period, rolling monthly; and
   (d) Demonstration of compliance with the CO_{2e} BACT requirements.
   [Prevention of Significant Deterioration (PSD) Approval #PSD-2014-01 issued April 11, 2014]

Note: In accordance with the V.C – Permitting Requirements of the PSD AND TITLE V PERMITTING GUIDANCE FOR GREENHOUSE GASES, Holcim is not subject to 40 CFR Part 98 requirements.
https://www.epa.gov/sites/production/files/2015-07/documents/ghgguid.pdf

Rationale for Compliance Demonstration

The Permittee uses continuous emissions monitoring systems (CEMs) to monitor CO_2 emissions from the flue gases of the in-line raw mill, the in-line coal mill, and the pre-heater alkali bypass. The Permittee operates, maintains, and calibrates the CO_2 CEM and continuous emission rate monitoring system (CERMS) in accordance with Performance Specifications 3 and 6 under 40 CFR Part 60.

The following records with supporting documentation are required to be maintained on site and submitted to the Department not later than 30 days after the end of each calendar quarter:
(a) Emissions of CO_{2e} from the 5-stage pre-heater/pre-calciner kiln in tons of CO_{2e} per ton of clinker produced based on a 12-month average, rolling monthly;
(b) Total emissions of CO_{2e} from the 5-stage pre-heater/pre-calciner kiln and the emergency generator in tons per 12-month period, rolling monthly;
(c) Tons of clinker produced per 12-month period, rolling monthly; and
(d) Demonstration of compliance with the CO_{2e} BACT requirements.

Any malfunction of the CEMs is required to be identified and corrective actions is required to be implemented, as soon as practicable. All periods of CEMs downtime, QA/QC activities and corrective measures are required to be recorded and reported to show compliance status.

7. Finish Mill Systems (Subject to MACT Requirements)

Finish Grinding System #1 (Registration Number 043-0008-6-0497)

561-BM1 and 561-SR1 are controlled by Dust Collectors 561-BF1 and 561-BF2, respectively.

Finish Grinding System #2 (Registration Number 043-0008-6-0496) - to be converted from Raw mill
562-SR1 and 562-BM1 are controlled by Dust Collectors 562-BF1 and 562-BF2, respectively.

A - Visible Emissions and B - Particulate Matter Emissions.

Applicable Regulations and Standards

(1) **COMAR 26.11.30.05(B)(1)**, which states that a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity.

(2) Opacity for each finish mill, located at a major source, during all operating mode shall not exceed 10%. **[Table 1-13. Of 40 CFR §63.1343(b)(1)]**

(3) Each new or existing raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; bulk loading or unloading system; raw and finish mills; and each existing raw material dryer, at a facility which is a major source subject to the provisions of this subpart must not cause to be discharged any gases from these affected sources which exhibit opacity in excess of 10 percent. **[40 CFR §63.1345]**

(4) **COMAR 26.11.30.04(B)(1)**, which states that a person may not cause or permit particulate matter to be discharged from any installation in excess of 0.05 grains per standard cubic foot dry.

Compliance Demonstration

(1) The Permittee must monitor opacity in accordance with the following: **[40 CFR §63.1350(f)(2) & (4)]**
   (a) Conduct daily visible emissions observations of the mill sweep and air separator PM control devices (PMCD) of these affected sources in accordance with the procedures of Method 22 of appendix A-7 to part 60 of CFR 40. The duration of the Method 22 performance test must be 6 minutes. **[40 CFR §63.1350(f)(2)(i)]**
   (b) Within 24 hours of the end of the Method 22 performance test in which visible emissions were observed, the owner or operator must conduct a follow up Method 22 performance test of each stack from which visible emissions were observed during the previous Method 22 performance test. **[40 CFR §63.1350(f)(2)(ii)]**
   (c) If visible emissions are observed during the follow-up Method 22 performance test required by (f)(2)(ii) of §63.1350 from any stack from which visible emissions were observed during the previous Method 22 performance test required by (f)(2)(i) of §63.1350, the Permittee must then conduct an opacity test of each stack from which emissions were observed during the follow up Method 22 performance test in accordance with Method 9 of appendix A-4 to Part 60. The duration of the Method 9 test must be 30 minutes. **[40 CFR §63.1350(f)(2)(iii)]**

(2) If visible emissions are observed during any Method 22 visible emissions test conducted under (f)(1) or (2) of §63.1350, the Permittee must initiate, within one-hour, the corrective actions specified in the operation and maintenance plan as required in §63.1347. **[40 CFR §63.1350(f)(3)]**

(3) The exhaust gases from each emission unit shall vent through a dust collector designed to meet the particulate matter emissions limit before discharging to the atmosphere. **[COMAR 26.11.03.06C]**

(4) The Permittee shall conduct a particulate matter emissions test for each mill at least once every 5-year period in accordance with AMA Technical Memorandum 91-01 or using Method 5 of 40 CFR Part 60, Appendix A. Each performance test shall consist of three separate runs under the conditions that exist when the affected source is operating under representative performance conditions in accordance with 40 CFR Part 63, Subpart LLL. Each run shall be conducted for at least one hour, and the minimum sample volume shall be 0.85 dscm (30 dscf). The average of the three runs shall be used to determine compliance. **[COMAR 26.11.03.06C]**

(5) The Permittee shall maintain all records, including particulate matter emissions test results, for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report or record. At a minimum, the most recent two years of data shall be retained on site; the remaining three years of data may be retained offsite. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or no microfiche. **[40 CFR §63.1355 and COMAR 26.11.03.06C]**

(6) The Permittee shall submit a summary report semiannually which contains all failures to comply with any provision of the operation and maintenance plan developed in accordance with §63.1350(a). **[40 CFR §63.1354(b)(9)(v) & COMAR 26.11.03.06C]**

Rationale for compliance demonstration:
The permit requires that the exhaust gases from each emission unit vent through a baghouse, which is the most effective control for visible emissions and particulate matter, before discharging into the atmosphere for compliance with the emissions limits of visible emissions and particulate matter. Reporting and record keeping requirements are sufficient documentation that the procedures are followed.

8. Miscellaneous Sources Venting Inside Building (Subject to MACT Requirements)

Crushing Operations (Registration Number 043-0008-6-0494)
W01-AF1, W01-AF2, W01-HP1, W01-HP2, X01-AF1, X01-BC1, X01-BC2, X01-BC3, X01-HP1, and transfer from crusher (X01-HC1) to belt conveyor (X01-BC3).

Raw Grinding (Registration Number 043-0008-6-0495)
311-3B7, 311-3B8, 331-WF5, 331-WF6, Transfer from dust collector (331-BF1) to screw conveyor (331-SC1), 311-3B9, 311-3BA, Transfer from dust collector (331-BF2) to screw conveyor (331-SC2), 331-WF7, 331-WF8, 331-BC2, Transfer from dust collector (331-BF3) to belt conveyor (331-BC2), 361-BC1, 311-BC5, 311-BC6, Transfer from dust collector (311-BF4) to pebbled limestone feed bin (311-3B7), Transfer from dust collector (311-BF5) to sand feed bin (311-3BA), 331-BC2, Transfer from dust collector (361-BF7) to reject bin (361-3B1), 311-BC3, Transfer from dust collector (361-BF9) to belt conveyor (361-BC1), 311-BC2, 331-SC1, 331-SC2, 361-3B1, 361-RM1, and 361-VF1.

Kiln Feed Blending (Registration Number 043-0008-6-0495)
Transfer from Blending Silo DC to blending silo (391-3S1).

Clinker cooler (Registration Number 043-0008-6-0495)
Transfer from clinker crusher (471-RC1) to pan conveyor (491-AC1), 491-BF7, 491-AC1, and 491-BF8.

Clinker Handling (Registration Numbers 043-0008-6-0496 and 0497)
491-AC2, 491-BC2, transfer from dust collector (491-BF2) to clinker storage building (491-3M1) at position #10, 491-TR1, 491-BC3, Transfer from dust collector (491-BF4) to clinker silo (491-3S1) via rotary feeder (491-RF1), 511-BF1, 491-3S1, 511-BC4, K91-VF1, 511-BF2, and 491-3M1.

Finish Grinding (Registration Numbers 043-0008-6-0496 and 0497)
511-BC2, transfer from baghouse (511-BF2) to limestone bin (512-3B4), Transfer from dust collector (511-BF3) to bin #2 clinker (K91-3B1), 591-CN1, 531-BC1, 561-CN1, 561-SR1, 562-SR1, 512-3B1, 512-3B2, 532-AF2, 532-BC1, 532-WF1, 532-WF2, 532-WF3, 532-WF4, 531-WF1, 531-WF2, 531-WF3, 531-WF4, 531-WF5, K91-3B1, K91-3B2, K91-3B3, 511-3B1, 511-3B2, 512-3B3, and 512-3B4.

Bulk Silos (Registration Numbers 043-0008-6-0496 and 0497)
Transfer from dust collector (591-BF1) to bulk silos (silos #21-25, 31-34, and 41-45), Transfer from dust collector (591-BF3) to bulk silos (silos #21-25, 31-34, and 41-45), Transfer from silo #23 to loading chute (621-TC2) via rotary valve (621-VA1), Transfer from silo #43 to loading chute (621-TC1) via rotary valve (621-VA2).

Coal Handling (Registration Number 043-0008-6-0495)
451-3B1, 451-PF1, 481-3B1, 481-PF2, and L61-RM1.

A - Visible Emissions and B - Particulate Matter Emissions.

Applicable Standards and Regulations

(1) **COMAR 26.11.30.05(B)(1)**, which states that a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity.

(2) **40 CFR §63.1345,** which limits opacity to 10% or less for each new or existing raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; and bulk loading or unloading system.

(3) **COMAR 26.11.30.04(B)(1)**, which states that a person may not cause or permit particulate matter to be discharged from any installation in excess of 0.05 grains per standard cubic foot dry.

Compliance Demonstration

(1) The Permittee shall conduct required opacity monitoring in accordance with the provisions of paragraphs (f)(1)(i) through (vii) of 40 CFR §63.1350(f) and in accordance with your monitoring plan developed under 40 CFR §63.1350(p). You

must also develop an opacity monitoring plan in accordance with paragraphs (p)(1) through (4) and paragraph (o)(5), if applicable, of this section. **[40 CFR §63.1350(f)]**

(2) The Permittee must conduct a monthly 10-minute visible emissions test of each affected source in accordance with Method 22 of appendix A-7 to part 60 of this chapter. The performance test must be conducted while the affected source is in operation. **[40 CFR §63.1350(f)(1)(i)]**

(3) If no visible emissions are observed in six consecutive monthly tests for any affected source, the owner or operator may decrease the frequency of performance testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, the Permittee must resume performance testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests. **[40 CFR §63.1350(f)(1)(ii)]**

(4) If no visible emissions are observed during the semi-annual test for any affected source, you may decrease the frequency of performance testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual performance test, the owner or operator must resume performance testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests. **[40 CFR §63.1350(f)(1)(iii)]**

(5) If visible emissions are observed during any Method 22 performance test, of appendix A-7 to part 60 of this chapter, the Permittee must conduct 30 minutes of opacity observations, recorded at 15-second intervals, in accordance with Method 9 of appendix A-4 to part 60 of this chapter. The Method 9 performance test, of appendix A-4 to part 60 of this chapter, must begin within 1 hour of any observation of visible emissions. **[40 CFR §63.1350(f)(1)(iv)]**

Note: Any totally enclosed conveying system transfer point, regardless of the location of the transfer point is not required to conduct Method 22 visible emissions monitoring under this paragraph. The enclosures for these transfer points must be operated and maintained as total enclosures on a continuing basis in accordance with the facility operations and maintenance plan. [**40 CFR §63.1350(f)(1)(v)]**

(6) If any partially enclosed or unenclosed conveying system transfer point is located in a building, you must conduct a Method 22 performance test, of appendix A-7 to part 60 of this chapter, according to the requirements of paragraphs (f)(1)(i) through (iv) of this section for each such conveying system transfer point located within the building, or for the building itself, according to paragraph (f)(1)(vii) of this section. **[40 CFR §63.1350(f)(1)(vi)]**

(7) If visible emissions from a building are monitored, the requirements of paragraphs (f)(1)(i) through (f)(1)(iv) of this section apply to the monitoring of the building, and the Permittee must also test visible emissions from each side, roof, and vent of the building for at least 10 minutes. **[40 CFR §63.1350(f)(1)(vii)]**

(8) The Permittee shall comply with and update as needed the written operations and maintenance plan which includes the following information:

(a) Procedures for proper operation and maintenance of the affected source and air pollution control devices in order to continuously meet the emission limits and operating limits of §§63.1345; and
(b) an opacity monitoring plan to periodically monitor affected sources.
[COMAR 26.11.03.06C]

(9) The Permittee shall maintain all records for at least five years following the date of each inspection, occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. **[40 CFR §63.1355]**

(10) The Permittee shall report the failure in the semi-annual compliance report required by §63.1354(b)(9). The report must contain the date, time and duration, and the cause of each event (including unknown cause, if applicable), and a sum of the number of events in the reporting period. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.1348(d), including actions taken to correct a malfunction. **[40 CFR §63.1354(c)]**

Rationale for compliance demonstration:
Each emissions unit is located inside the building and the opacity monitoring plan and the operation and maintenance plan submitted by the Company have been reviewed and approved by the Department. The Method 22 visible emissions monitoring procedures are used to monitor the building exhaust points to ensure compliance with the MACT limit, 10% opacity, which is more stringent than the COMAR limit, 20% opacity. As long as the opacity does not exceed 10%, compliance with 0.05 gr/dscf of PM would not become an issue. Reporting and record keeping requirements are sufficient to document compliance status.

Note: Holcim hired MAQS-Easton, an affiliate of Montrose Air Quality Services, LLC, to do the opacity performance tests on January 30, 2017 through February 1, 2017. MAQS-Easton to conduct the opacity performance tests for the building side vents, roof vents, transfer points, and door entrance etc. from coal mill building, raw mill building, clinker building, finish mill building. The stack test reported on February 20, 2017 shows that all the opacity test results are below 10% that is required by the 40 CFR 63, Subpart LLL, which is currently the most stringent standard for opacity among the NSPS and NESHAP for the cement plants.

9. Emergency Generator and Coal Mill Heater

Combustion Sources:
Emergency Generator (800kw); and
Coal Mill Heater

A. Visible Emission, B. Particulate Matter Emissions & E. Carbon Monoxide (CO)

Applicable Standards and Regulations

(1) **COMAR 26.11.30.05(B)(1)**, which states that a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity.

(2) The Permittee may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity. **[COMAR 26.11.09.05E(2)]**

Exceptions:
COMAR 26.11.09.05E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.

COMAR 26.11.09.05E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:
(a) Engines that are idled continuously when not in service: 30 minutes
(b) All other engines: 15 minutes

(3) The Permittee may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity. **[COMAR 26.11.09.05E(3)]**

Exception:
COMAR 26.11.09.05E(2) and (3) do not apply while maintenance, repair, or testing is being performed by qualified mechanics.

(4) The emergency generator is subject to the requirements of the federal NSPS promulgated under 40 CFR 60, Subparts A and IIII for Stationary Compression Ignition Internal Combustion Engines including, but not limited to, the following opacity standards: [**Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016]**
(a) Exhaust opacity must not exceed 20 percent during the acceleration mode.
(b) Exhaust opacity must not exceed 15 percent during the lugging mode.
(c) Exhaust opacity must not exceed 50 percent during the peaks in either the acceleration or lugging modes.
[40 CFR §60.4202(a)(2), §60.4205(b) and §89.113(a)]

(5) **COMAR 26.11.30.04(B)(1)**, which states that a person may not cause or permit particulate matter to be discharged from any installation in excess of 0.05 grains per standard cubic foot dry.

(6) The emergency generator is subject to the requirements of the federal NSPS promulgated under 40 CFR 60, Subparts A and IIII for Stationary Compression Ignition Internal Combustion Engines including, but not limited to, 0.2 g/kW-hr of the Particulate Matter (PM). **[Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016; §60.4202(a)(2), §60.4205(b) and §89.112(a)]**

(7) The emergency generator is subject to the requirements of the federal NSPS promulgated under 40 CFR 60, Subparts A and IIII for Stationary Compression Ignition Internal Combustion Engines including, but not limited to, 3.5 g/kW-hr of CO. **[Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016; §60.4202(a)(2), §60.4205(b) and §89.112(a)]**

Compliance Demonstration

(1) The Permittee shall not burn any type of fuel in each heater except natural gas, propane, and No. 2 fuel oil and shall not burn any type of fuel in the emergency diesel engine except diesel fuel. **[COMAR 26.11.03.06C]**

(2) The Permittee shall inspect and analyze the combustion system when the visual emission is observed. The Permittee shall record and maintain results of each inspection at the premises at least five (5) years, and shall make available to the Department upon request. **[COMAR 26.11.03.06C]**

(3) The Permittee shall maintain the records of each inspection when the visual emission is observed at the premises at least five (5) years, and shall make available to the Department upon request. **[COMAR 26.11.03.06C]**

(4) The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, annual records of the quantity and type of fuel combusted in the generator. **[COMAR 26.11.03.06C]**

(5) The Permittee must operate and maintain the emergency generator that achieves the emissions standards in §60.4202 of 40 CFR 60 Subpart IIII as required by 40 CFR §60.4205 according to the manufacturers emission-related written instructions or procedures developed by the Permittee that are approved by the engine manufacturer over the entire life of the engine. In addition, the Permittee may only change those emission related settings that are permitted by the manufacturer. The Permittee must also meet the requirements of 40 CFR Parts 89, 94, and/or 1068 as applicable. **[40 CFR §60.4206 and §60.4211(a)]**

Rationale for compliance demonstration:

Under normal operation, heaters burning natural gas, propane, or No. 2 fuel oil should be able to comply with visible and particulate matter emission standards. If visual emissions are observed, the Permittee is required to conduct an inspection and analysis of the combustion system to correct the operational problems. The requirement to operate and maintain the generator in accordance with the manufacturer's emission related instructions and procedures would continuously ensure compliance. The requirements of record keeping and the excess emission reporting described under Section III of the permit should be sufficient to document compliance status.

C. Control of NOx

Applicable Standards and Regulations

The emergency generator is subject to the requirements of the federal NSPS promulgated under 40 CFR 60, Subparts A and IIII for Stationary Compression Ignition Internal Combustion Engines including, but not limited to, 6.4 grams per kilowatt hour (g/kW-hr) of Non-Methane Hydrocarbons (NMHC) and NO_x. [**Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016; §60.4202(a)(2), §60.4205(b) and §89.112(a)]**

Compliance Demonstration

(1) The Permittee shall not burn any type of fuel in each heater except natural gas, propane, and No. 2 fuel oil and shall not burn any type of fuel in the emergency diesel engine except diesel fuel. **[COMAR 26.11.03.06C]**

(2) The Permittee shall inspect and analyze the combustion system when the visual emission is observed. The Permittee shall record and maintain results of each inspection at the premises at least five (5) years, and shall make available to the Department upon request. **[COMAR 26.11.03.06C]**

(3) A person who owns or operates fuel-burning equipment with a capacity factor (as defined in 40 CFR, Part 72.2) of 15 percent or less shall:
   (a) Provide certification of the capacity factor of the equipment to the Department in writing;
   (b) For fuel-burning equipment that operates more than 500 hours during a calendar year, perform a combustion analysis and optimize combustion at least once annually;
   (c) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request;
   (d) Require each operator of an installation, except combustion turbines, to attend operator training programs at least once every 3 years, on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and
   (e) Maintain a record of training program attendance for each operator at the site, and make these records available to the Department upon request.
   [COMAR 26.11.09.08G].

(4) For the purposes of COMAR 26.11.09.08, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation. **[COMAR 26.11.09.08B(5)]**

(5) The Permittee must operate and maintain the emergency generator that achieves the emissions standards in §60.4202 of 40 CFR 60 Subpart IIII as required by 40 CFR §60.4205 according to the manufacturers emission-related written instructions or procedures developed by the Permittee that are approved by the engine manufacturer over the entire life of the engine. In addition, the Permittee may only change those emission related settings that are permitted by the manufacturer. The Permittee must also meet the requirements of 40 CFR Parts 89, 94, and/or 1068 as applicable. **[40 CFR §60.4206 and §60.4211(a)]**

(6) The Permittee shall maintain the following records at the premises at least five (5) years, and shall make available to the Department upon request:
   (a) Records of the calculated capacity factors. **[COMAR 26.11.03.06C]**
   (b) Records of hours of operation. **[COMAR 26.11.02.19C]**
   (c) Records of combustion analysis performed if the hours of operation exceed 500. **[COMAR 26.11.09.08G(1)(c)]**
   (d) Record of training program attendance for each operator. **[COMAR 26.11.09.08G(1)(e)]**

(7) The Permittee shall maintain the following records for the emergency generator for the entire life of the emergency generator and shall make available to the Department upon request: **[Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016]**
   (a) copies of all notifications and reports required by 40 CFR 63, Subpart ZZZZ;
   (b) documentation from the manufacturer that the engine is certified to meet applicable emissions standards **[40 CFR §60.4214(a)(2)(iii)]**; and
   (c) records of the hours of operation of the emergency generator that are recorded through the non-resettable hour meter, the time of operation of the emergency generator and the reason the emergency generator was in operation during that time. **[40 CFR §60.4214(b)]**

Rationale for compliance demonstration:
Good combustion practices implemented in heaters and the emergency generator are the best approaches to reduce NO_x emissions. The operator training requirements are to ensure that each equipment is operated in accordance with the good combustion practices. The record keeping requirements should be able to document whether each operator has been going through proper training.

D. Control of Sulfur Oxides

Applicable Standards and Regulations
(1) The Permittee shall not burn any distillate fuel oil with a sulfur content of greater than 0.3% by weight. **[COMAR 26.11.09.07A(1)(c)]**

(2) The Permittee must use diesel fuel in the emergency generator that meets the requirements of 40 CFR §80.510(b) for nonroad diesel fuel, i.e., diesel fuel that has a per-gallon sulfur content that does not exceed 15 ppm. **[40 CFR §60.4207(b)]**

Compliance Demonstration
(1) The sulfur content in each fuel used in either heaters or the generator shall not exceed the limits required for each type of fuel. **[COMAR 26.11.09.07A]**

(2) The Permittee shall obtain a certification from the fuel supplier indicating that the sulfur in fuel complies with the required limits. **[COMAR 26.11.03.06C]**

(3) The Permittee shall maintain the following records at the premises at least five (5) years, and shall make available to the Department upon request:
   (a) Annual records of the quantity and type of fuel combusted in the generator.

(b) Fuel supplier certifications. **[COMAR 26.11.03.06C]**

Rationale for Compliance Demonstration
The record keeping requirements are sufficient to document compliance status.

F. Non-Methane Hydrocarbons (NMHC)

Applicable Standards and Regulations
(1) The emergency generator is subject to the requirements of the federal NSPS promulgated under 40 CFR 60, Subparts A and IIII for Stationary Compression Ignition Internal Combustion Engines including, but not limited to, 6.4 grams per kilowatt hour (g/kW-hr) of Non-Methane Hydrocarbons (NMHC) and NO_x. [**Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016; §60.4202(a)(2), §60.4205(b) and §89.112(a)]**

(2) The Permittee must use diesel fuel in the emergency generator that meets the requirements of 40 CFR §80.510(b) for nonroad diesel fuel, i.e., diesel fuel that has a minimum per-gallon cetane index of 40 or a maximum per-gallon aromatic content of 35 volume percent. **[40 CFR §60.4207(b)]**

Compliance Demonstration
The Permittee shall maintain the following records for the emergency generator for the entire life of the emergency generator and shall make available to the Department upon request: [**Permit to Construct #043-0008-6-0495 issued April 11, 2014 and updated on April 18, 2016]**
(1) copies of all notifications and reports required by 40 CFR 63, Subpart ZZZZ;

(2) documentation from the manufacturer that the engine is certified to meet applicable emissions standards **[40 CFR §60.4214(a)(2)(iii)]**; and

(3) records of the hours of operation of the emergency generator that are recorded through the non-resettable hour meter, the time of operation of the emergency generator and the reason the emergency generator was in operation during that time. **[40 CFR §60.4214(b)]**

Rationale for Compliance Demonstration
The requirements to operate and maintain the generator in accordance with the manufacturer's emission related instructions and procedures would continuously ensure compliance. The requirements of record keeping and the excess emission reporting described under Section III of the permit should be sufficient to document compliance status.

10. **Facility Wide – MACT Sources Only**

Applicable Standards and Regulations
The Permittee shall comply with the facility wide general requirements specified in Table IV-10 of the permit and the sections of the General Provisions listed in Table IV-10a of the permit.

TITLE IV – ACID RAIN

Holcim is not subject to the Acid Rain Program requirements.

TITLE VI – OZONE DEPLETING SUBSTANCES

Holcim is not subject to Title VI requirements.

SECTION 112(r) – ACCIDENTAL RELEASE

Holcim is not subject to the requirements of Section 112(r).

PERMIT SHIELD

Holcim requested that a permit shield be expressly included in the Permittee's Part 70 permit. Permit shields are granted on an emission unit by emission unit basis. If an emission unit is covered by a permit shield, a permit shield statement will follow the emission unit table in Section IV - Plant Specific Conditions of the permit. In this case, a permit shield was granted for each emission unit covered by the permit.

INSIGNIFICANT ACTIVITIES

This section provides a list of insignificant emissions units that were reported in the Title V permit application. The applicable Clean Air Act requirements, if any, are listed below the insignificant activity.

(1) No. 1 Fuel burning equipment using gaseous fuels or no. 1 or no. 2 fuel oil, and having a heat input less than 1,000,000 Btu (1.06 gigajoules) per hour;

The installation is subject to the following requirements:

COMAR 26.11.09.05A(1), which establishes that the Permittee may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is greater than 20 percent opacity.

Exceptions: COMAR 26.11.09.05A(2) does not apply to emissions during load changing, soot blowing, start-up, or adjustments or occasional cleaning of control equipment if:

(a) The visible emissions are not greater than 40 percent opacity; and

(b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period.

COMAR 26.11.09.07A(1)(c), which establishes that the Permittee may not burn, sell, or make available for sale any distillate fuel with a sulfur content by weight in excess of 0.3 percent.

(2) No. 2 Stationary internal combustion engines with an output less than 500 brake horsepower (373 kilowatts) and which are not used to generate electricity for sale or for peak or load shaving;

One 150 HP Emergency Generator and one 475 HP Quarry dewatering Pump are subject to the following requirements:

(a) COMAR 26.11.09.05E(2), Emissions During Idle Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.

(b) COMAR 26.11.09.05E(3), Emissions During Operating Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.

(c) Exceptions:

(i) COMAR 26.11.09.05E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.

(ii) COMAR 26.11.09.05E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:

(a) Engines that are idled continuously when not in service: 30 minutes
(b) all other engines: 15 minutes.

(iii) COMAR 26.11.09.05E(2) & (3) do not apply while maintenance, repair or testing is being performed by qualified mechanics.

(d) COMAR 26.11.36.03A(1), which establishes that the Permittee may not operate an emergency generator except for emergencies, testing and maintenance purposes.

(e) COMAR 26.11.36.03A(5), which establishes that the Permittee may not operate an emergency generator for testing and engine maintenance purposes between 12:01 a.m. and 2:00 p.m. on any day on which the Department forecasts that the air quality will be a code orange, code

red, or code purple unless the engine fails a test and engine maintenance and a re-test are necessary.

(f) 40 CFR 63, Subpart ZZZZ which states that the Permittee must:

(i) Change oil and filter every 500 hours of operation or annually, whichever comes first;

(ii) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;

(iii) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary;

(iv) operate and maintain the engine and keep records as specified in Subpart ZZZZ; and

(v) keep records of the hours of operation of the engine as recorded through a non-resettable hour meter.

(3) 4 Space heaters utilizing direct heat transfer and used solely for comfort heat;

(4) No. 2 Unheated VOC dispensing containers or unheated VOC rinsing containers of 60 gallons (227 liters) capacity or less;

The containers are subject to COMAR 26.11.19.09D, which requires that the Permittee control emissions of volatile organic compounds (VOC) from cold degreasing operations by meeting the following requirements:

(a) COMAR 26.11.19.09D(2)(b), which establishes that the Permittee shall not use any VOC degreasing material that exceeds a vapor pressure of 1 mm Hg at 20 ° C;

(b) COMAR 26.11.19.09D(3)(a—d), which requires that the Permittee implement good operating practices designed to minimize spills and evaporation of VOC degreasing material. These practices, which shall be established in writing and displayed such that they are clearly visible to operators, shall include covers (including water covers), lids, or other methods of minimizing evaporative losses, and reducing the time and frequency during which parts are cleaned;

(c) COMAR 26.11.19.09D(4), which prohibits the use of any halogenated VOC for cold degreasing.

The Permittee shall maintain on site for at least five (5) years, and shall make available to the Department upon request, the following records of operating data:

(a) Monthly records of the total VOC degreasing materials used; and

(b) Written descriptions of good operating practices designed to minimize spills and evaporation of VOC degreasing materials.

(5) Containers, reservoirs, or tanks used exclusively for:

(a) No. 4 Storage of lubricating oils;

(b) No. 8 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;

(6) ✓ Certain recreational equipment and activities, such as fireplaces, barbecue pits and cookers, fireworks display, and kerosene fuel use;

(7) ✓ Emissions resulting from the use of explosives for blasting at quarrying operations and from the required disposal of boxes used to ship the explosive;

(8) ✓ Comfort air conditioning subject to requirements of Title VI of the Clean Air Act; and

(9) ✓ Laboratory fume hoods and vents.

STATE ONLY ENFORCEABLE REQUIREMENTS

This section of the permit contains state-only enforceable requirements. The requirements in this section will not be enforced by the U.S. Environmental Protection Agency. The requirements in this section are not subject to COMAR 26.11.03.10 - Public Petitions for Review to EPA Regarding Part 70 Permits.

Applicable Regulations

(1) COMAR 26.04.10, which provides requirements for management of coal combustion byproducts.

(2) COMAR 26.11.01.11B, which provides general requirements for CEMs.

(3) COMAR 26.11.06.08 and 26.11.06.09, which generally prohibit the discharge of emissions beyond the property line in such a manner that a nuisance or air pollution is created.

(4) COMAR 26.11.15.05, which requires that the Permittee implement “Best Available Control Technology for Toxics” (T – BACT) to control emissions of toxic air pollutants.

(5) COMAR 26.11.15.06, which prohibits the discharge of toxic air pollutants to the extent that such emissions will unreasonably endanger human health.

(6) COMAR 26.11.36.03A, which provides requirements for emissions of oxides of nitrogen (NOx) from emergency generators.

Compliance Demonstration

The Permittee shall submit to the Department by April 1 of each year a written certification of the results of an analysis of emissions of toxic air pollutants from the Permittee's facility during the previous calendar year. Such analysis shall include either:

(1) a statement that previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid; or

(2) a revised compliance demonstration, developed in accordance with requirements included under COMAR 26.11.15 & 16, that accounts for changes in operations, analytical methods, emissions determinations, or other factors that have invalidated previous demonstrations.

Rationale of Compliance Demonstration

Compliance Demonstrations specified for each emission unit, particularly for the Kiln, should be sufficient to demonstrate compliance with regards to the issues of nuisance and toxic air pollutants. In addition, the Permittee is required to submit to the Department each year a written certification of the results of an analysis of emissions of toxic air pollutants.

Emergency Generator

Applicable Requirements - Operating Conditions:

(1) The Permittee may not operate the emergency generator registered under ARMA Registration No. 043-0008-9-0218 except for emergencies, testing, and maintenance purposes. **[COMAR 26.11.36.03A (1)]**

(2) The Permittee may not operate the emergency generator registered under ARMA Registration No. 043-0008-9-0218 for testing and maintenance purposes between 12:01 a.m. and 2 p.m. on any day on which the Department forecasts that the air quality will be code orange, code red, or code purple. **[COMAR 26.11.36.03A (5)]**

Compliance Demonstration

The Permittee shall record the date and time of operating hours used for emergency, testing and maintenance purposes and shall make them available to the Department upon request.

COMPLIANCE SCHEDULE

Holcim is operating under the Consent Decree of July 11, 2013. The Consent Decree addressed violations for failure to obtain the necessary PSD permit and install controls under the Act to control emissions of sulfur dioxide (SO_2), which increased significantly as a result of Holcim's implementation of a tire-derived fuel project at the facility. As part of the option required by the Decree, Holcim chose to modify the current kiln configuration from a long-dry kiln into a more efficient pre-heater/pre-calciner kiln with an in-line raw mill and in-line coal mill. Holcim is operating following the Decree. The requirements of the Consent Decree are included in the Permit to Construct and Part 70 Operating permit.