

# AIR AND RADIATION ADMINISTRATION DRAFT PART 70 OPERATING PERMIT

# **DOCKET # 24-013-0012**

**COMPANY**: Heidelburg Materials North America

**LOCATION**: Union Bridge Plant

675 Quaker Hill Road

Union Bridge, Maryland 21791

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### MARYLAND DEPARTMENT OF THE ENVIRONMENT AIR AND RADIATION ADMINISTRATION AIR QUALITY PERMITS PROGRAM

#### TITLE V - PART 70 OPERATING PERMIT PROGRAM OVERVIEW

Title V of the Clean Air Act (amended) requires each state to implement a federally enforceable operating permit program for major sources of air pollution. This program, the Part 70 Permit Program, also known as the Title V Permit Program, is designed to provide a comprehensive administrative document (a Part 70 Operating Permit) that identifies all air emissions sources at a given facility and the federal air quality regulations applicable to those sources. The permit establishes the methodology by which the owner/operator will demonstrate compliance, and includes testing, monitoring, record-keeping, and reporting requirements for each emissions source.

A Part 70 Operating Permit does not authorize new construction, and does not add any new emissions limitations, standards, or work practices on an affected facility. There may, however, be additional testing, record keeping, monitoring, and reporting requirements. A Part 70 Operating Permit is a five-year renewable permit. A responsible official for each facility subject to a Part 70 Operating Permit is required to annually certify compliance with each applicable requirement for that facility.

When an application for a Part 70 Operating Permit is received, the Department will complete a technical review of the application and will prepare a draft Part 70 Operating Permit and Fact Sheet. The Fact Sheet will explain the basis and technical analysis used by the Department to develop the federally enforceable permit conditions, including the required testing, monitoring, record keeping, and reporting provisions for each emissions unit at the permitted facility. The Fact Sheet will also include a description of the facility operations and the current compliance status with applicable requirements. If there are any discrepancies between the Part 70 Operating Permit application and the draft permit, the Fact Sheet will contain a discussion of the inconsistencies and the final resolution.

#### **Public Participation Process**

The Part 70 Operating Permit Program provides the public, adjacent states, and EPA the opportunity to review and submit comments on draft permits. The public may also request a public hearing on the draft permit.

The purpose of a public hearing is to give interested parties the opportunity to submit comments for the record which are germane to the draft federally enforceable permit conditions. Comments made at the hearing, or in writing to the Department during the comment period, should address errors and deficiencies in the permit such as unidentified emissions units, incorrect or deficient regulation citation, deficient record keeping, monitoring, reporting or testing requirements and unresolved compliance issues. After the public comment period has closed, the Department will review the formal testimony as part of the final review and prepare a Response to Comments document which will be sent to the EPA along with the draft Part 70 Operating Permit and Fact Sheet.

Testimony on state-only requirements will be kept on file at the Department as part of the formal record, however, state-only rules and regulations are not federally enforceable, and therefore are not within the scope of the EPA review. The Department will keep a record of the identity of the commenters, their statements, a summary of the issues raised during the public comment period, and the Response to Comments document for at least five years.

#### Citizen Petition to EPA to Object to Permit Issuance

Interested parties may petition the EPA to object to the Part 70 Permit if the EPA has not already objected, within 60 days after the 45-day EPA review period has ended. The petition period will be posted on the EPA website. The EPA will only consider objections to the federally enforceable provisions of the draft permit which were raised with reasonable specificity during the public comment period, unless: (1) the petitioner demonstrates that it was impractical to raise the objections within the public comment period, or (2) the grounds for the objection arose after the comment period. If the EPA agrees with the petition, the Department will reopen, revise, or revoke the permit as determined.

#### <u>Applicant Objection to Permit Issuance and Recourse</u>

If the applicant objects to the federally enforceable permit conditions contained in the issued Part 70 Operating Permit, the applicant has 15 days from receipt of the issued permit to request a contested case hearing. More information on that can be found in 40 CFR, Part 70, and COMAR 26.11.03.11.

# MARYLAND DEPARTMENT OF THE ENVIRONMENT AIR AND RADIATION ADMINISTRATION

# NOTICE OF INTENT TO ISSUE PART 70 OPERATING PERMIT, OPPORTUNITY TO SUBMIT WRITTEN COMMENTS OR TO REQUEST A PUBLIC HEARING

The Department of the Environment, Air and Radiation Administration (ARA) has completed its review of the application for a renewal Part 70 Operating Permit submitted by Heidelberg Materials US Cement, LLC for the Union Bridge Plant. The facility includes limestone loading/unloading, trucking, and storage equipment, crushing and screening operations, and belt conveyors.

The applicant is represented by: Mr. Paul Rogers, Plant Manger

Heidelberg Materials North America 675 Quaker Hill Rd Union Bridge, MD 21791

The Department has prepared a draft Part 70 Operating Permit for review and is now ready to receive public comment. A docket containing the application, draft permit, and supporting documentation is available for review on the Department's website, under the Air Quality Permitting Page's Title V link under "Draft Title V Permits" and may be viewed here:

#### https://tinyurl.com/DraftTitleV

Interested persons may submit written comments or request a public hearing on the draft permit. Written comments must be received by the Department no later than 30 days from the date of this notice. Requests for a public hearing must be submitted in writing and must also be received by the Department no later than 30 days from the date of this notice.

Comments and requests for a public hearing will be accepted by the Department if they raise issues of law or material fact regarding applicable requirements of Title V of the Clean Air Act, and/or regulations implementing the Title V Program in Maryland found in COMAR.

A Request for public hearing shall include the following:

- 1) The name, mailing address, and telephone number of the person making the request;
- 2) The names and addresses of any other persons for whom the person making the request if representing; and
- 3) The reason why a hearing is requested, including the air quality concern that forms the basis for the request and how this concern relates to the person making the request.

All written comments and requests for a public hearing should be directed to the attention of Ms. Shannon Heafey via email at <a href="mailto:Shannon.heafey@maryland.gov">Shannon.heafey@maryland.gov</a> or by post at Air Quality Permits Program, Air and Radiation Administration, 1800 Washington Boulevard Suite 720, Baltimore, Maryland 21230-1720. Further information may be obtained by calling Ms. Shannon Heafey at (410) 537-4433.

#### **BACKGROUND**

Heidelberg Materials US Cement LLC (Heidelberg, formerly Lehigh Cement Company LLC) owns and operates a Portland cement manufacturing plant at 675 Quaker Hill Road in Union Bridge, Maryland 21791. The plant is located in both Carroll and Frederick Counties. The Union Bridge Quarry is located in Frederick County (Maryland Air Quality Region II), while the main part of the Union Bridge Plant, including the New Windsor Quarry, is located in Carroll County (Maryland Air Quality Region III). The original plant at Union Bridge was built in 1910 and has been modernized several times, including the modernization/expansion where the four long-dry kilns were replaced with one pre-heater/pre-calciner kiln system. A permit to construct and New Source Review (NSR) and Prevention of Significant Deterioration (PSD) Approvals were issued on April 8, 1999, and revised on June 7, 2000, for the plant modernization and expansion. The primary SIC code for this facility is 3241.

#### PROCESS DESCRIPTION

The following is a description of the processes at the Union Bridge facility:

#### **Union Bridge Quarry**

The principal raw materials used to manufacture cement at the Union Bridge plant are limestone, sand, mill scale, shale, and power plant fly ash/bottom ash. Sand, mill scale, and fly ash/bottom ash are purchased from outside sources and brought to the plant by trucks for use in the kiln. Limestone is mined from the Union Bridge Quarry site near the crushing plant. Limestone is periodically mined from the Union Bridge Quarry, this quarry serves as backup for the New Windsor Quarry and provides infrastructure stone and masonry stone to the plant.

#### New Windsor Quarry

The New Windsor Quarry began operations on June 1, 2018. A five (5) mile long conveyor system is used to transfer limestone and shale mined from the New Windsor Quarry to the Union Bridge plant, where these raw materials are used to manufacture cement. The New Windsor Quarry has a crushing plant to process limestone.

#### Rock Crushing

Each quarry has its own crushing plant. The crushing plant at the Union Bridge Quarry is periodically operated. At the New Windsor Quarry, trucks dump the rock into the hopper of an apron feeder, which feeds an impact crusher where the limestone it is broken down into fragments less than six inches in size. After the limestone passes through the impact crusher, the material drops onto the long belt conveyor. Particulate emissions at the New Windsor crushing system and the transfer points are controlled by dust collectors.

#### Rock Storage

Rock travels to the plant from the New Windsor Quarry crusher along the 5-mile belt to the Union Bridge dome storage. The dome is 400 feet in diameter and 126 feet high and has a storage capacity of 50,000 metric tons of rock.

#### Raw Material Storage and Handling

Iron and silica-based raw materials are stored in an open area, uncovered. These raw materials are conveyed to a partially enclosed raw material storage barn building. Solid fossil fuels (coal) are located in outdoor storage piles. Alumina-bearing ash (fly ash) raw materials are pneumatically conveyed to a storage silo. There are two (2) covered structures near the kiln for storing Alumina-bearing ash (bottom ash) raw materials. Raw material transfer throughout the plant is done by covered conveyor systems and transfer towers, which have dust collectors venting all transfers.

#### Vertical Roller Mill (Raw Mill)

The Heidelberg plant includes an in-line Loesche vertical raw mill system. The in-line raw mill utilizes recycled heated gases from the kiln exhaust to dry the raw material ground into raw meal. The dry raw meal is stored in a blending silo (the Raw Mill Silo). Next, the raw meal is conveyed from the blending silo to the preheater/precalciner and then to the rotary kiln. An additional benefit of a pre-heater tower is that the limestone acts as a scrubber to remove some of the sulfur compounds from the precalciner exhaust gases. The exhaust gases from the raw mill are vented through a main kiln dust collector to the main kiln stack.

#### Blending Silo

In this operation, all the raw materials are blended to the proper proportions for introduction into the preheater tower/kiln system. Particulate emissions from the silos and raw material handling systems are controlled with baghouses.

#### Coal Storage

Coal is one of the primary fuels and is stockpiled outside on the ground near the preheater tower/kiln system. Coal is ground through a vertical coal mill and stored in two silos. Coal is brought in by truck.

#### Coal Mill

Heidelberg primarily fires coal and other approved solid fuels in both the kiln and the preheater/precalciner tower. Coal from the stockpiles is ground for use in the preheater tower/kiln system. The coal mill utilizes heated gases from the kiln exhaust to dry and separate the coal. Milled coal is blown into the firing end of the kiln and the preheater/precalciner. Exhaust gases from the coal mill are vented through a coal mill only dust collector and then are exhausted out of the main kiln stack.

#### Pyro-Processing / Kiln, Raw Meal Feed, and Coal Mill Feed Systems

Pyro-processing is a process in which materials are subjected to high temperatures (typically over 800°C) in order to bring about a chemical or physical change. The Union Bridge plant's pyroprocessing system consists of a 5-stage pre-heater tower and rotary kiln. The preheater tower contains secondary firing and a rotary kiln. Fuel used in the system may consist of coal, dried biolsolids and fuel oil. Energy, in the form of fan-power, is required to draw the kiln combustion gases through the string of cyclones. It is also normal to use the warm exhaust gas to dry the raw materials in the raw-mill and operate the coal mill. The air volume will eventually pass through a dust collector vented to the atmosphere.

Environmental controls installed in the pyro-processing line are SNCR for nitrous oxide reduction, Activated Carbon injection for mercury reduction and a fabric filter dust collector for particulate control.

Heidelberg monitors the emissions of NOx, SO2, CO, THC, CO2, and mercury (Hg), and hydrogen chloride (HCl) with continuous emissions monitors that are installed on the main kiln stack. There are also exhaust gas flow and PM continuous parametric monitoring systems (CPMS) installed in the stack. Particulate matter emissions are controlled by a baghouse, NOx emissions are controlled by urea injection, mercury emissions are controlled by carbon injection with baghouses to control dust at the finish mills, and SO2 emissions are controlled by limestone raw material in the pre-heater tower.

#### Clinker Cooler

As clinker from the kiln drops into reciprocating grate coolers, cooling air blows up through the clinker. The clinker is then transported to the clinker storage silo. A portion of the cooling ambient air after passing through the cooler grates is used for secondary combustion air for the kiln burner. The cooled clinker is loaded into the clinker silo and then conveyed to the crane hall. Emissions are controlled by a baghouse. There is a PM continuous parametric monitoring system (CPMS) installed in the stack from the cooler.

#### Roll Press/ Semi-Finishing Grinding Mill

The roll press is used to pre-grind the clinker for feeding to the finish ball mills. The product from the press is pre-ground cement. The finished product from the roll press is conveyed to the finish mills for final grinding. The system is controlled by baghouses.

#### Finish Mill System

This is the final grinding operation for the cement. Just before the finish grinding, gypsum, grinding aids, and/or limestone are mixed with the cement to control the rate at which the cement will set after it is mixed into concrete. Cement kiln baghouse dust is also mixed in to remove mercury from the kiln system. The finished cement is pneumatically conveyed to the storage silo. The finish mill system includes a semi finishing grinding system, finish mills #1, #4, #5, #6, and #7, in addition to the conversion of the old raw mill system to #8 finish mill. The semi finishing grinding system and the finish mills are controlled by baghouses.

#### **Cement Loadout**

There are two (2) cement loadout areas at the plant, the 32-silos area and the Day Silo. A total of 32 product silos are used at the plant. There is also a cement bagging operation on-site also. Cement is shipped offsite by trucks and rail. Both packaged and bulk products are shipped.

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

**Table 1: Actual Emissions** 

Year	NOx	SO <sub>x</sub>	PM <sub>10</sub>	PM	CO	VOC	Total
	(TPY)	(TPY)	(TPY)	Condensable	(TPY)	(TPY)	HAP
				(TPY)			(TPY)
2015	2936	12	83	32	1429	40	17
2016	2781	12	74	17	1502	41	10
2017	2560	4	78	17	1546	46	9
2018	2614	26	83	17	2006	49	11
2019	2614	23	66	17	1813	44	347
2020	2583	23	64	18	1485	47	364
2021	2352	16	69	17	1279	18	9
2022	2274	25	66	21	1473	32	9

The major source threshold for triggering Title V permitting requirements in Carroll County is 25 tons per year for VOC, 25 tons for NOx, and 100 tons per year for any other criteria pollutants and 10 tons for a single HAP or 25 tons per year for total HAPS. Since the actual emissions of NOx, PM10, CO, and HAPs from the facility are greater than the major source threshold, Heidelberg is required to obtain a Title V – Part 70 Operating Permit under COMAR 26.11.03.01.

The HAP emissions increased from 11 TPY in 2018 to 362 TPY in 2019. This is due to the processing of raw materials mined from the New Windsor Quarry. Air toxics stack testing was performed May 7-8, 2019 and August 3-10, 2021. The 2019 Annual Emissions Certification indicated significant increases in Chloroform and Ethyl Benzene, impacting the total HAP emissions reported. In October 2021, the Permittee submitted a Toxic Air Pollutant (TAP) Assessment based on the August 2021 stack test results. That assessment showed a reduction in HAPs because organic clays from the New Windsor Quarry are no longer used as raw feed.

The renewal application for the Part 70 permit was received by the Department on August 18, 2020. An administrative completeness review was conducted and the application was deemed to be administratively complete. A letter was sent to Heidelberg on September 23, 2020 granting an application shield.

#### RECENT PLANT MODIFICATIONS

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

- (1) On November 15, 2023, a Permit to Construct [013-0012-6-0256] was issued allowing the Kiln to combust natural gas as a primary fuel.
- (2) On May 10, 2022, a Permit to Construct [013-0012-6-0327] was issued in conjunction with all other valid permits. This permit allowed the permanent installation of one (1) MGL EX1 Scalper Screener powered by an electric Cummins 74 HP engine for the purpose of screening debris from wet bottom ash.

- (3) On March 8, 2022, a Permit to Construct [013-0012-6-0256] was issued in conjunction with all other valid permits. This facility became subject to Federal Consent Decree 5:19-cv-05688 effective November 18, 2020. Emission Units E01-001 and E02-001 Preheater-Precalciner/Kiln System are subject to the Decree. The Decree imposed limits on NOx and SO2 emissions, prohibited netting credits or offsets from required controls, and imposed requirements for monitoring, recording and reporting to demonstrate compliance with the new limits.
- (4) On January 11, 2021, a Permit to Construct [013-0012-6-0352] was issued, superseding the permit of March 14, 2014, to allow an increase in masonry limestone crushing throughput limit from 86,000 short tons per year to 160,000 short tons per year at the New Windsor Quarry. No new installations were proposed.
- (5) On May 29, 2018, a Temporary State Permit to Operate [013-0012-6-0352] for the New Windsor Quarry was issued. Although the current Title V permit issued on January 1, 2017 incorporated all of the equipment located at the New Windsor Quarry, the purpose of this temporary permit was to grant the Permittee up to one (1) year for system debugging and compliance demonstration. Immediately after the expiration of this temporary permit on May 31, 2019, the Permittee was required to operate in accordance with the Title V permit if it successfully demonstrated compliance with all applicable requirements. If the Permittee was not able to demonstrate compliance as stated, then they were required to submit a plan-for-compliance to the Department by August 1, 2019 to amend the Title V permit.

[On January 6, 2022, Heidelberg submitted an email to the Department stating that during the operation of the New Windsor Quarry under the 2014 Permit to Construct and 2018 Temporary State Permit to Operate, Heidelberg was able to immediately begin operation of the quarry and comply with all conditions of the Permit to Construct and operating permit. There was no need for any Plan for Compliance and Heidelberg notified MDE of its compliance with the New Windsor Quarry's Permit to Construct and Operating Permit conditions in the 2019 and 2020 Annual Compliance Certification Reports which cover all Title V operating conditions, including those that pertained to the New Windsor Quarry.

#### **GREENHOUSE GAS (GHG) EMISSIONS**

Heidelberg emits the following greenhouse gases (GHGs) related to Clean Air Act requirements: carbon dioxide, methane, and nitrous oxide. These GHGs originate from various processes (i.e., combustion source such as kiln, internal combustion engines, and boilers) contained within the facility premises applicable to Heidelberg. Emission certifications reports for the years 2018, 2019, 2020, 2021 and 2022 showed that Heidelberg is a major source (threshold: 100,000 tpy CO<sub>2</sub>e) for GHGs. The facility is an existing major source but has not triggered Prevention of Significant Deterioration (PSD) requirements for GHG emissions; therefore, there are no applicable GHG Clean Air Act requirements. While there may be no applicable requirements as a result of PSD, the Permittee shall quantify facility wide GHGs emissions and report them in accordance

with Section 3 of the Part 70 permit. The following table summarizes the actual emissions from Heidelberg based on its Annual Emission Certification Reports:

Table 3: Greenhouse Gases Emissions Summary

GHG	Conversion	2018	2019	2020	2021	2022
	factor	tpy CO <sub>2</sub> e				
Carbon dioxide CO <sub>2</sub>	1	2,056,633	2,022,984	2,510,510	2,062,859	2,109,032
Methane CH <sub>4</sub>	25	1,892	2,031	2,386	2,200	2150
Nitrous Oxide N <sub>2</sub> O	300	3,294	3,554	4,125	3,900	4200
Total GHG CO <sub>2eq</sub>		2,061,819	2,208,569	2,517,021	2,068,959	2,115,382

#### **EMISSION UNIT IDENTIFICATION**

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

Emission Unit Table 1-1: Area A-1 – Union Bridge Quarry Operations (SCC 3-05-006-09)

Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation
Sources Not S	Subject to MACT	and NSPS Requirements	
HR1	6-0027	Quarry haul roads	Modified – 2002
SP1	6-0027	Limestone Storage Pile	Modified – 2002
TLU1	6-0027	Limestone Truck Loading	1970
TLU2	6-0027	Limestone Truck Loading/Unloading	2002
SP8	6-0327	Iron B02-001 Surge Storage Pile	2002
SP9	6-0327	Silica B02-001 Surge Pile	2002
SP11	6-0027	Overburden Storage Pile	1911 & 1957
A01-009	6-0027	Gyratory Crusher – Primary crushing – Baghouse A01-012	1957
B01-017	6-0327	Belt Conveyor #8 - Baghouse A02-025	1970, moved from Area B
A01-018	6-0027	Belt Conveyor #1 – Baghouse A01-012	1957
A01-021	6-0027	Surge Bin/#8 Belt - Baghouse A01-025	1955
A02-005	6-0027	Belt Conveyor #2 - Baghouse A02-008, A02-003	1970
A02-006	6-0027	Secondary Crusher – Baghouse A02-008	1970
A02-010	6-0027	Belt Conveyor #3 – Baghouse A02-008	1970
A02-017	6-0027	Belt Conveyor #6 – Baghouse A02-008	1970

Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation	
A02-018	6-0027	Belt Conveyor #5 – Baghouse A02-008	1970	
A02-019	6-0027	Tertiary Crusher – Baghouse A02-008	1970	
A02-021	6-0027	Belt Conveyor #4 – Baghouse A02-008	1970	
A02-011	6-0027	Vibrating Screen and Transfer System – Baghouses A02-012, A01-015, A02-025	1970	
A02-022	6-0027	Vibrating Screen and Transfer System - Baghouses A02-012. A01-015, A02-025	1970	
A02-023	6-0027	Vibrating Screen and Transfer System - Baghouses A02-012, A02-015 and A02-025	1970	
A02-024	6-0027	Belt Conveyor #7 – Baghouses A02-012, A02-015	1970	
A03-022	6-0352	Masonry Hauling at Union Bridge (paved)	2014, Modified 2020	
SP13	6-0327	Bottom Ash Storage Pile	2011	
A02-026	6-0327	Screen for processing wet bottom ash	2011	
Sources Subje	Sources Subject to NSPS 40 CFR 60, Subpart OOO Requirements			
C0-001	6-0327	Bottom Ash Screener – one (1) MGL EX1 Scalper Screener, powered by an electric Cummins 74 HP engine	2022	

# Emission Unit Table 1-2: Area A-2 – New Windsor Quarry Operations

(SCC 3-05-006-09)

Emissions Unit Number	ARA Registration	Emissions Unit Name and Description	Date of Installation
0 N-4 0	No.	<u> </u>	
	ubject to NSPS I		T
A03-001A	6-0352	Waste Rock Hauling (Segment A)	2014
A03-001B	6-0352	Waste Rock Hauling (Segment B)	2014
A03-001C	6-0352	Waste Rock Hauling (Segment C)	2014
A03-002A	6-0352	Limestone Hauling (Segment A)	2014
A03-002C	6-0352	Limestone Hauling (Crusher Segment)	2014
A03-003	6-0352	Front End Loader to Limestone Truck	2014
A03-004	6-0352	Truck to Primary Hopper	2014
Sources Subje	ect to NSPS 40 C	FR 60, Subpart OOO Requirements	
A03-005	6-0352	Primary Crusher for calcium, silica, alumina, and iron bearing raw materials  – Baghouse A03-007	2014
A03-006	6-0352	Primary Crusher for to Belt #1 – Baghouse A03-007	2014
A03-008	6-0352	Belt #1 to Belt #2 Transfer – Baghouse	2014, Modified

Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation
		A03-007	2020
A03-010	6-0352	Transfer from Belt #2 to Belt #3 or to Masonry Pile – Baghouse A03-011	2014
SP10	6-0352	New Windsor Storage Pile	2014
SP12	6-0352	Masonry Storage Pile	2014
A03-012	6-0352	Belt #2 to Limestone Overland Conveyor (Belt #4) – Baghouse A03- 013	2014, Modified 2020
A03-014	6-0352	Overland Conveyor (Belt #4) Transfer to Belt #5 to New Transfer Tower – Baghouse A03-015	2014
A03-016	6-0352	New Transfer Tower – Baghouse A03- 017	2014
A03-018	6-0352	Masonry Transfer to Crusher	2014, Modified 2020
A03-019	6-0352	Masonry Portable Crusher	2014, Modified 2020
A03-020	6-0352	Transfer from Masonry Crusher to Truck	2014, Modified 2020
A03-021	6-0352	Masonry Hauling at New Windsor (unpaved)	2014, Modified 2020

# Emission Unit Table 2: Area B – Raw Material Transport and Storage (SCC 3-05-006-12)

Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation	
Sources Not S	<b>Subject to MACT</b>	Requirements		
TU1	6-0327	Iron and Silica Truck Unloading	2002	
SP4	6-0327	Silica Storage Pile	2002	
SP5	6-0327	Iron Storage Pile	2002	
B03-031	6-0256	Activated Carbon Injection (ACI) system	2011	
		tank controlled by a bin vent		
Sources Subje	ect to MACT Rec	<u>quirements</u>		
B01-011	6-0327	Enclosed Limestone Dome	2001	
B02-007	6-0327	Belt Conveyor – Baghouse B02-008	2001	
B02-011	6-0327	Silica Bearing Material Bin – Baghouse B02-008	2001	

Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation
B02-012	6-0327	Iron Bearing Material Bin – Baghouse B02-008	2001
B02-017	6-0327	Reversible Belt Conveyor – Baghouse B02-008	2001
B03-004	6-0327	Fly Ash Blending Silo System - Baghouse B03-008	2002
B04-019	6-0327	Limestone Bin - Baghouse B04-016	2002
TT3	6-0327	Transfer Tower #3 – Baghouses B04- 011, B04-016	2002
TT4	6-0327	Transfer Tower #4 - Baghouse B02-019)	2002

# Emission Unit Table 3: Area C – Raw Grinding (SCC 3-05-006-13)

300 3-03-000-	10)					
Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation			
Sources Subje	Sources Subject to MACT Requirements					
C01-002	6-0328	Limestone Weighfeeder- Baghouse C01-007	2001			
C01-004	6-0328	Iron Weighfeeder - Baghouse C01-007	2001			
C01-006	6-0328	Silica Weighfeeder - Baghouse C01-007	2001			
C01-011	6-0328	Belt Conveyor – Baghouse C01-007, C02-021	2001			
C01-015	6-0328	Fly Ash Weigh Bin – Baghouse C01-019	2001			
C02-001	6-0328	Bucket Elevator – Baghouse C02-011, C02-021	2001			
C02-006	6-0328	100 Ton Bin – Baghouse C02-011	2001			
C04-068	6-0328	Airslide – Baghouse C04-050, C04-075	2002			
C04-070	6-0328	Airslide – Baghouse C04-075	2002			
C04-072	6-0328	Airslide – Baghouse C04-075	2002			
C04-074	6-0328	Airslide – Baghouse C04-075	2002			
C04-037	6-0328	Bucket Elevator – Baghouses C04-050, C04-075	2002			
C04-038	6-0328	600 Ton Bin – Baghouse C04-075, C04- 050	2002			
C02-038	6-0328	Rejects Belt Conveyor - Baghouse C02- 021	2001			
C02-060	6-0328	Reversible Belt Conveyor (to Raw Mill) - Baghouse C02-011	2001			
C03-034	6-0328	Airslide – Baghouse C03-001	2002			
C03-035	6-0328	Airslide – Baghouse C03-001	2002			
C03-040	6-0328	Airslide – Baghouse C03-001	2002			

Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation
C03-042	6-0328	Airslide – Baghouse C03-001	2002
C03-045	6-0328	Airslide – Baghouses C03-047, C03-050	2002
C03-008	6-0328	Airslide – Baghouse C03-050	2002
C03-054	6-0328	Airslide – Baghouse C03-050	2002
C03-046	6-0328	Bucket Elevator – Baghouse C03-030, D01-037	2002
C03-017	6-0328	Airslide – D01-037	2002
C03-010	6-0328	Airslide – Baghouse C03-030	2002
C03-013	6-0328	Airslide – Baghouse C03-030	2002
C02-025	6-0328	Raw Mill – Baghouse C04-014	2001
C04-066	6-0328	Airslide – C03-050	2002

Emission Unit Table 4: Area D – Raw Meal – Kiln Feed (SCC 3-05-006-23)

Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation
Sources Subje	ect to MACT Red	quirements	
D01-001	6-0329	Blending Silo – Baghouse D01-037	2002
D01-002	6-0329	Recirculation Airslide – Baghouse D01- 037	2002
D01-003	6-0329	Recirculation Airslide – Baghouse D01- 037	2002
D01-020	6-0329	185 Metric Ton Feed Bin – Baghouse D01-034	2002
D02-004	6-0329	Airslide – Baghouse D01-034	2002
D02-006	6-0329	Flow Meter – Baghouse D01-034	2002
D02-017	6-0329	Airslide – Baghouse D01-034	2002
D02-019	6-0329	Flow Meter – Baghouse D01-034	2002
D01-023	6-0329	Airslide – Baghouse D01-040	2002
D01-026	6-0329	Airslide – Baghouse D01-040	2002
D02-007	6-0329	Airslide – Baghouse D01-040	2002
D02-020	6-0329	Airslide – Baghouse D01-040	2002
D02-010	6-0329	Airslide – Baghouse D02-041	2002
D02-023	6-0329	Airslide – Baghouse D02-041	2002
D02-049	6-0329	Airslide – Baghouse D02-041	2002
D02-025	6-0329	Bucket Elevator – Baghouse D02-041, D02-027	2002
D02-026	6-0329	Bucket Elevator – Baghouse D02-041, D02-027	2002
D02-033	6-0329	Airslide – Baghouse D02-027	2002

Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation
D02-045	6-0329	Airslide – Baghouse D02-027	2002
D02-047	6-0329	Airslide – Baghouse D02-027	2002

# Emission Unit Table 5: Area E – Kiln and Clinker Cooler (SCC 3-05-006-23)

Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation
Sources Subje	ect to MACT Rec	<u>quirements</u>	
E01-001	6-0256	Kiln – Baghouse C04-014	2001
E02-001	6-0256	Preheater / Precalciner – baghouse C04-	2001, modified
		014	2023
E03-001	6-0256	Clinker Cooler – Baghouse E04-016	2001

# Emission Unit Table 6: Area F – Coal Grinding Mill for Kiln (SCC 3-05-006-21)

000 3-03-000-21)						
Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation			
Sources Not S	Subject to MACT	Requirements				
F01-034	6-0330	Belt Conveyor #11/14	1970			
F01-037	6-0330	Belt Conveyor #11/14	1970			
SP2	6-0330	Coal Storage Pile	2002			
SP3	6-0330	Coal Storage Pile	2002			
TT2	6-0330	Transfer Tower #2	2002			
TU2	6-0330	Truck Unloading	2002			
F02-006	6-0330	Reclaim Elevator	2002			
F02-018	6-0330	Belt Conveyor	2002			
F03-001	6-0330	Belt Conveyor	2002			
F03-002	6-0330	Coal Bin Weighfeeder	2002			
F03-003	6-0330	Coke Bin Weighfeeder	2002			
Sources Subje	ect to MACT Rec	<u>quirements</u>				
F02-007	6-0330	Belt Conveyor	2002			
F03-016	6-0330	Coal Mill System – Baghouses F03-	2001			
		028,F03-032, F03-036, F03-040, F03-				
		044, F03-048 (Associated with kiln)				
F04-009	6-0330	Pneumatic Pump for Fine Coal Dust Bin 2002				
		– Baghouse F04-010				
F04-018	6-0330	Kiln Fuel Bin Pressure Relief - Baghouse 2002				

Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation
		C04-014	
F04-026	6-0330	Calciner Fuel Bin Pressure Relief - Baghouse C04-014	2002
TT5	6-0330	Transfer Tower #5 – baghouse F02-027	2002

Emission Unit Table 7: Area G - Clinker Transport & Storage - Craneway Building (SCC 3-05-006-16)

Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation
	ect to MACT Rec		
TT8/9	6-0125	Transfer Tower #8/9 – Baghouse G02- 041, Baghouse B01-018	2004
TT6	6-0125	Transfer Tower #6 – Baghouse G02- 025	2004
G01-001	6-0125	Main Pan Conveyor – Baghouse E04- 016	2001
G03-010	6-0125	Clinker into Craneway – Baghouse G03-011	2001
CWAY	6-0125	Craneway	1970
SP6	6-0125	Gypsum Stockpile	2015
TU3	6-0125	Gypsum Truck Unloading	2004
G04-014	6-0125	450 Metric Ton Clinker Bin – Baghouse G04-011	2001
G04-020	6-0125	Belt Conveyor - Baghouse G04-011	2001
G04-010	6-0125	Bucket Elevator - Baghouse G04-011	2001
G04-009	6-0125	Belt Conveyor - Baghouse G04-034	2002
G04-016	6-0125	Belt Feeder – Baghouse G04-034	2002
G04-056	6-0125	Belt Feeder – Baghouse G04-034	2002
G04-058	6-0125	Clinker Bin, H01-006 Belt - Baghouse H01-210	2002
G04-059	6-0125	H01-015 Clinker Feeder, G04-018 Belt  – Baghouse H01-210	2002
G01-012	6-0125	Clinker Storage Silo – Baghouse G01- 009	2002
G02-002	6-0125	Transfer Tower #11, #12, #13 Belt Conveyors – Baghouse G02-047, G02- 044, G02-021	2002
G04-018	6-0125	Belt Conveyor – Baghouse G04-037	2004
G04-019	6-0125	CE2 Bucket Elevator – Baghouse G04- 037	1970

Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation
G04-031	6-0125	Drag Conveyor B3 – Baghouse H09- 073	1970
G05	6-0125	Off Loading Trucks Preheater Dust Silo	2004
TL1	6-0125	Clinker Truck/Rail Loadout – Baghouse G02-053	2004
TT7	6-0125	Transfer Tower #7 – Baghouse G03- 004	2004
TT9/10	6-0125	Transfer Tower #9/10 – Baghouse G03-011	2004

# Emission Unit Table 8: Area H – Clinker Finish Mills

(SCC 3-05-006-17)

(300 3-00-000-	11)		Τ
Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation
Sources Subje	ect to MACT Req	uirements	
H04-001	6-0331	Gypsum Bin 409	2002
H04-003	6-0331	Limestone Tank 416	2002
H05-001	6-0331	Gypsum Bin 509	2002
H06-001	6-0331	Gypsum Bin 609	2002
H07-001	6-0331	Gypsum Bin	2002
H08-001	6-0331	Gypsum Bin	2002
H04-004	6-0331	Clinker Bin 403	1970
H05-004	6-0331	Gypsum Bin 503	1970
H06-004	6-0331	Clinker Bin 603	1970
H07-004	6-0331	Gypsum Bin	2004
H01-040	6-0331	Finish Mill #1 – Baghouse H01-070	2002
H01-061	6-0331	Cyclone and Belts – Baghouse H01-070	2002
H01-063	6-0331	Cyclone and Belts – Baghouse H01-070	2002
H01-080	6-0331	Elevator and Tipping Valves – Baghouse H01-230	2002
H01-090	6-0331	Finish Mill #1 Burner – Baghouse H01- 070	2002
H01-105	6-0331	Belt Conveyor and Tipping Valves – Baghouse H01-210	2002
H01-110	6-0331	Bin – Baghouse H01-210	2002
H01-112	6-0331	Belt Conveyor and Tipping Valves – Baghouse H01-210	2002
H07-015	6-0331	Cement to Cement Cooler – Finish Mill #7 – Baghouse H01-240	2002
H07-016	6-0331	Airslide – Baghouse H01-240	2002

Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation
H04-006	6-0331	Belt Conveyor – Finish Mill #4 System – Baghouse H04-044	1970
H04-014	6-0331	Finish Mill #4 System – Baghouse H04- 044	1970
H05-014	6-0331	Finish Mill #5 System – Baghouse H05- 044	1970
H06-014	6-0331	Finish Mill #6 System – Baghouse H06- 044	1970
H06-017	6-0331	Cyclone 642 – Finish Mill #6 System - Baghouse H06-044	1970
H06-037	6-0331	Separator 627 – Finish Mill #6 System - Baghouse H06-044	1970
H07-014	6-0331	Finish Mill #7 System – Baghouses H07-056, H07-057	2002
H07-018	6-0331	Finished Cement Transfer System – Baghouses H07-056, H07-057	2001
H07-068	6-0331	Finished Cement Transfer System – Baghouses H07-056, H07-057	2001
H07-040	6-0331	Cement Cooler – Baghouse H10-113	2002
H07-070	6-0331	Airslide – Baghouses H07-056, H07- 057	2001
H07-071	6-0331	Airslide – Baghouse H10-113	2002
H08-014	6-0331	Finish Mill #8 System – Baghouse H08- 056	2002
H08-017	6-0331	Separator – Finish Mill #8 System – Baghouse H08-056	2002
H08-037	6-0331	Cyclone – Finish Mill #8 System – Baghouse H08-056	2002
H08-038	6-0331	Cyclone – Finish Mill #8 System – Baghouse H08-056	2002
H08-040	6-0331	Cement Cooler – Baghouse H10-113	2002
H08-064	6-0331	Airslide – Baghouse H10-113	2002
H09-000	6-0331	Semi Finishing Grinding System – Baghouse H09-059	2001
H09-019	6-0331	Weighfeeder (from 750 ton Clinker Bin)  – Baghouse H09-025	2001
H09-020	6-0331	100 Metric Ton Slag/Clinker Bin Weighfeeder – Baghouse H09-082	2002
H09-021	6-0331	100 Metric Ton Clinker Bin Weighfeeder  – Baghouse H09-082	2002
H09-023	6-0331	100 Metric Ton Gypsum Bin Weighfeeder – Baghouse H09-025	2001
H09-024	6-0331	Belt Conveyor (from weigh feeders) –	2001

Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation
		Baghouse H09-025	
H09-028	6-0331	Bucket Elevator – Baghouse H09-051	2000
H09-031	6-0331	Belt Conveyor – Baghouses H09-051, H09-033	2000
H09-036	6-0331	Bin – Baghouses H09-059, H09-033	2004
H09-041	6-0331	Roll Press – Baghouse H09-033	2004
H09-046	6-0331	Belt Conveyor – Baghouse H09-033	2002
H09-047	6-0331	Bucket Elevator – Baghouse H09-059	2000
H09-058	6-0331	Belt Conveyor to 90 Metric Ton Bin - Baghouse H09-073, H09-059	2000
H09-062	6-0331	Reversible Belt Conveyor – Baghouse H09-051, H09-082	2000
H09-066	6-0331	Belt Conveyor – Baghouse H09-082 2002	
H09-075	6-0331	90 Ton Bin – Baghouse H09-073 2000	
H09-091	6-0331	Clinker Belt – Baghouse H09-094 2000	
H10-001	6-0331	Airslide – Baghouse H10-113	2002
H10-006	6-0331	Bucket Elevator – Baghouse H10-113	2002
H10-007	6-0331	Airslide – Baghouse H10-119	2001
H10-010	6-0331	Bucket Elevator – Baghouse H10-119	2001
H10-124	6-0331	Airslide – Baghouse H10-119	2001
H10-125	6-0331	Airslide – Baghouse H10-119	2001
H10-167	6-0331	Airslide – Baghouse H10-181	2002
H10-176	6-0331	Bucket Elevator – Baghouse H10-181	2002
H10-177	6-0331	Airslide – Baghouse H10-179	2002

# Emission Unit Table 9: Area I – Cement Storage and Shipping with Bag Packing *(SCC 3-05-006-18)*

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Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation	
Sources Subje	ect to MACT Requir	<u>ements</u>		
101-033	6-0039	Day Tank – Baghouse H10-179	2002	
102-289	6-0039	Feed Bin – Baghouse I02-290	2002	
103/104	6-0039	Packaging and Palletizing – Pack house Collector	1970	
TL2	6-0039	Truck Day Tank Loadout – Baghouse I02-290	2002	
102-001 to	6-0039	Product Silos – Baghouses H10-224,	1970 and	
102-032		H10-252, H10-254, H10-221,	2003	
TL4 (F6/F5/H7/J6/ J3/J4/E7/H3)	6-0039	Bulk Loadout System – Baghouses I11-180, I11-190, I12-180, I12-190, I13-180, I13-190, I14-180, I14-190	1970 and 2003	

Emission Unit Table 10: Dried BioSolids (DBS) Related Processes

Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation
Sources Not S	Subject to MACT	Requirements	
F04-058	6-0330	DBS Storage Tank (Fluidized Coke Storage Tank) – Baghouses F04-062 & F04-064	2007
F05-049	6-0330	Rotary Air Lock for Feeding DBS from Silo – Baghouses F04-062, F04-064	2007
F05-050	6-0330	Scale, Pfister Dosing System – Baghouses F04-062, F04-064	2007
F05-051	6-0337	Mobile DBS Conveyor	2007
F05-055	6-0330	Diverter Valve to Calciner – Baghouses F04-062, F04-064	2007
F05-056	6-0330	Diverter Valve to Main Kiln Burner – Baghouses F04-062, F04-064	2007
G05-001	6-0331	Pneumatic baghouse dust (BD) transfer system – Baghouse G05-003	2009

**Emission Unit Table 11: Emergency Generator** 

Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation
J08-532	9-0186	Caterpillar 2520 horsepower emergency generator	2001

# **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.

# REGULATORY REVIEW/TECHNICAL REVIEW/COMPLIANCE METHODOLOGY

#### Overview

#### Portland Cement MACT- 40 CFR Part 63 Subpart LLL

The Heidelberg – Union Bridge 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 was finalized February 12, 2013, with Final Technical Amendments published July 27, 2015, corrections to the Final Technical Amendments published on September 11, 2015, and Final Risk and Technology Review Rule published in July 25, 2018. 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, except for kilns that burn hazardous waste and are subject to and regulated under 40 CFR 63 subpart EEE;
- (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.

The first affected source in the material handling sequence, at a plant with on-site mineral processing, is the first transfer point associated with the conveyor transferring material from the raw material storage bins immediately prior to the raw mill. Crushers and any other equipment which precede the raw material storage are not subject to this rule. The first affected source at the plant is the transfer of material from the 100-ton bin (C02-006) to the belt conveyor (C02-060) that brings the material to the raw mill, controlled by dust collector C02-011. The first conveyor system transfer point subject to the MACT is the transfer point associated with the conveyor that transfers material from the raw material storage to the raw mill. Conveyor system transfer points prior to this conveyor are not affected sources. The MACT does not apply to emissions from cement kiln dust storage facilities and coal conveyance equipment before the coal mill. Heidelberg has on-site mineral processing (the quarry). Operations at the quarry are not subject to the MACT.

Under the MACT, Heidelberg was required to prepare for each affected source, a written operations and maintenance plan and include it in the Title V permit application.

Portland cement plants (constructed or reconstructed after March 24, 1998) must demonstrate compliance with Subpart LLL. Heidelberg is an existing source with respect to Subpart LLL. The compliance date for existing sources with the PM, mercury, THC, and HCl emission limits in 63.1343(b) which became effective in February 12, 2013 was September 9, 2015.

Heidelberg is required to continuously monitor the emissions of mercury, total hydrocarbons, and particulate matter. The amended rules also establish methods and

criteria for installing and certifying the accuracy of continuous emissions monitoring systems for mercury. 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.

#### New Source Performance Standards (NSPS)

Certain raw material handling units constructed or modified after August 31, 1983, which are not subject to the Portland cement MACT, are subject to Subparts OOO- Standards of Performance for Nonmetallic Mineral Processing Plant. The raw material storage equipment constructed or modified after August 17, 1971 is subject to Subparts F - Standards of Performance for Portland Cement Plant. Under 40 CFR §63.1356, the coal feed system including the coal mill is subject to Subpart Y of Part 60 - Standards of Performance for Coal Preparation Plants.

Most of the operations at the Union Bridge quarry are not subject to the NSPS requirements of Subpart OOO (nonmetallic mineral processing plants) since these standards only apply to facilities which commenced construction, reconstruction, or modification after August 31, 1983. The Union Bridge quarry operations date back to the 1950's. However, the bottom ash screener, installed in 2022 and located near the dome and fly ash storage, is subject to the NSPS. The New Windsor quarry is subject to the more stringent requirements under Subpart OOO applicable to any affected facility commenced construction, reconstruction, or modification on or after April 22, 2008.

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))

# <u>Prevention of Significant Deterioration (PSD)/Non-Attainment New Source Review</u> (NSR) Approvals

On April 8, 1999, the Department issued Permit to Construct #06-6-0256, PSD Approval #PSD-97-01, and NSR Approval #97-02 to Heidelberg for the modernization and expansion of the Heidelberg facility. The PSD Approval and the permit to construct were modified on June 7, 2000. Conditions from these permits are included in the Title V operating permit.

The modernization and expansion project triggered PSD for carbon monoxide (CO) and triggered non-attainment major NSR for volatile organic compounds (VOC). Heidelberg submitted a netting analysis for PM, PM<sub>10</sub>, SO<sub>2</sub>, and NOx that demonstrated that the net increase in emissions of these pollutants did not exceed the PSD/NSR significant level. In addition, the potential emissions of lead and fluorides were less than the PSD significance level.

#### **COMPLIANCE ASSURANCE MONITORING (CAM) REQUIREMENTS**

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:

- 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.

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.

#### **Emission Units Subject to CAM Requirements**

Finish mills - Although the finish mills are subject to MACT requirements for opacity limit only, they are also subject to the particulate emission limit, 0.01 grains per standard cubic foot of dry air under Permit to Construct #06-6-0256 issued in 1999 to preclude applicability of a PSD review, which is more stringent than the MACT requirements. Therefore, the finish mills are subject to the CAM requirements.

#### Other Potential Emission Units Not Subject to CAM Requirements

The preheater/precalciner kiln, the in-line raw mill and the in-line coal mills are all exhausted through a common stack and their potential emissions exceed the CAM triggering levels for PM<sub>10</sub>, NOx, VOC and SO<sub>2</sub>. But they are not subject to the CAM requirements for the following reasons:

- (1) The continuous emission monitoring system have been implemented to monitor NOx, VOC and SO₂ emissions; and
- (2) As to PM<sub>10</sub> emission, they are subject to MACT emission limits which are more stringent than all applicable emission standards including the limit under Permit to Construct #06-6-0256 issued in 1999 to escape PSD review. In addition, the Permittee had implemented CPMS for PM compliance demonstration.
- (3) The clinker cooler is a potential major PM<sub>10</sub> emission unit and is subject to a MACT PM<sub>10</sub> standard that is more stringent than all other applicable standards including the limit under Permit to Construct #06-6-0256 issued in 1999 to escape PSD review. In addition, the Permittee had implemented CPMS for PM compliance demonstration. Therefore, the clinker cooler is exempt from the CAM requirements.

#### REGULATORY REVIEW/TECHNICAL REVIEW/COMPLIANCE METHODOLOGY

#### **Compliance Tables of Section IV of the Part 70 permit:**

### 1. Quarry Fugitive Sources (Not subject to MACT Requirements)

A. The Union Bridge quarry located in Frederick County

HR1- Quarry Haul Roads

SP1- Limestone Storage Pile

TLU1- Limestone truck loading/unloading

TLU2- Truck loading/unloading

SP8 – Iron B01-001 Surge Storage Pile

SP9 - Silica B02-001 Storage Pile

SP11 – Overburden Storage Pile

A03-022 Masonry Hauling at Union Bridge (paved)

B. The New Windsor quarry located in Carroll County

A03-001A - Waste Rock Hauling

A03-001B - Waste Rock Hauling

A03-001C - Waste Rock Hauling

A03-002A - Limestone Hauling

A03-002C - Limestone Hauling

A03-003 - Front End Loader to Limestone Truck

A03-004 - Truck to Primary Hopper

SP10 – New Windsor Storage Pile

SP12 - Masonry Storage Pile

A03-018- Masonry Transfer to Crusher

A03-019- Masonry Portable Crusher

A03-020- Transfer from Masonry Crusher to Truck

A03-021- Masonry Hauling at New Windsor (unpaved)

#### **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) **COMAR 26.11.06.12**, which states that a person may not construct modify, or operate, or cause to be constructed, modified, or operated, a New Source Performance Standard (NSPS) source in a manner which results or will result in violation of the provisions of 40 CFR, Part 60.
- (3) New Source Performance Standards (NSPS) for nonmetallic mineral processing plants **40 CFR 60 Subpart OOO** (New Windsor Quarry Only) -
  - (a) The fugitive emissions from crushers at which a capture system is not used shall not exceed 12% opacity; [Reference 40 CFR §60.672(b) & (e)(2)]

- (b) The fugitive emissions from each vent or each transfer point on a belt conveyor shall not exceed 7% opacity; and [Reference 40 CFR §60.672(b) & (e)(2)]
- (c) Fugitive emissions from the building openings (except for vents as defined in 40 CFR §60.671) shall not exceed 7% opacity. [Reference 40 CFR §60.672(e)(1)]
- (4) Permit to Construct Conditions, PTC No. 013-0012-6-0352 (New Windsor Quarry Only) -
  - (a) Wet suppression systems shall be used whenever they are needed to comply with all applicable visible emissions and opacity limits. [Reference Permit to Construct No. 013-0012-6-0352 Issued January 11, 2021]
  - (b) The Permittee shall control fugitive dust from plant roads and stockpiles by using water, chemical dust suppressants, or a combination of both, as needed. [Reference Permit to Construct #013-0012-6-0352 Issued January 11, 2021]

#### **Compliance Demonstration**

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 onsite and maintain records to demonstrate compliance with the procedures outlined in the plan. In addition, for the New Windsor Quarry, the Permittee shall comply with the initial opacity testing requirements within 180 days of start-up and perform monthly wet suppression system inspections as required by NSPS 40 CFR 60, Subpart OOO. All NSPS requirements should be incorporated into the best management plan.

#### **Rationale for Compliance Demonstration**

The best management plan is 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. Documentation that the procedures in the plan are followed is sufficient to demonstrate that the Permittee is using reasonable precautions to minimize fugitive emissions.

# 2. Union Bridge Quarry - Point Sources (Area A-1)

note:	rne	Union	Briage	quarry	' is iocated	ın Freaerick	County
wote.	me	Utiloti	briage	quarry	is localed	in Frederick	Courtly

Baghouse Emiss	<u>ion Unit</u>
A01-012	A01-009- Gyratory Crusher; A01-018- Belt Conveyor #1
A01-025	A01-021- Surge Bin
A02-008	A02-005- Belt Conveyor #2; A02-006- Secondary Crusher; A02-
	010- Belt Conveyor #3; A02-017-Belt; Conveyor #6; A02-018- Belt
	Conveyor #5; A02-019- Tertiary Crusher and A02-021- Belt
	Conveyor #4
A02-012 & 015	A02-011; A02-022 and A02-023 - Vibrating Screens and Transfer
	Systems and A02-024- Belt Conveyor #7
A02-025	A02-011; A02-022; and A02-023 - Vibrating Screens and Transfer
	Systems and B01-017- Belt Conveyor #8
A02-025	A02-011; A02-022; and A02-023 - Vibrating Screens and Transfer

# **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) Permit to Construct #06-6-0256N dated April 8, 1999 and revised June 7, 2000 The following equipment shall be equipped with a dust collector designed to reduce particulate matter emissions to 0.01 gr/SCFD (22.9 mg/dscm):
  - (a) A01-021 Surge Bin;
  - (b) A02-024 & B01-017 Raw Material Transfer; and
  - (c) A02-011, A02-023, and A02-022 Vibrating Screens and Transfer System.
- (4) Permit to Construct #06-6-0256N dated April 8, 1999 and revised June 7, 2000 The following equipment shall be equipped with a dust collector designed to reduce particulate matter emissions to 0.015 gr/SCFD (34.3 mg/dscm):
  - (a) A01-009- Gyratory Crusher;
  - (b) A01-018- Belt Conveyor #1;
  - (c) A02-005- Belt Conveyor #2;
  - (d) A02-006- Secondary Crusher;
  - (e) A02-010- Belt Conveyor #3;
  - (f) A02-017-Belt Conveyor #6;
  - (g) A02-018- Belt Conveyor #5;
  - (h) A02-019- Tertiary Crusher; and
  - (i) A02-021- Belt Conveyor #4.

#### **Compliance Demonstration**

- (1) The Permittee shall conduct a monthly 1-minute visible emissions test of the exhaust stack of each emission unit in accordance with Method 22 of Appendix A to part 60. The frequency of the tests may be reduced to semiannually or annually as specified in the permit.
- (2) The exhaust gas from each equipment shall vent through a dust collector designed to meet the particulate matter emissions before discharging into the atmosphere. [Reference Permit to Construct #06-6-0256N dated April 8, 1999 and revised June 7, 2000]
- (3) The Permittee shall comply with and update, as needed, the preventative maintenance plan for each baghouse that describes the maintenance activity and time schedule for completing each activity. [Reference COMAR 26.11.03.06C]
- (4) The Permittee shall maintain records of the results of the monthly inspections 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. [Reference COMAR 26.11.03.06C]

The log of inspection and maintenance records shall be kept for at least five (5) years and shall be made 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:**

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 tests and results.

#### 3. New Windsor Quarry - Point Sources (Area A-2)

Note: The New Windsor quarry is located in Carroll County

Bagnouse	Emission Unit
A03-007	A03-005- P

A03-007	A03-005- Primary Crusher for Ca, silica, alumina, and Fe bearing raw
	materials
	A03-006- Primary Crusher to Belt #1
A03-007	A03-008- Belt #1 to Belt #2 Transfer
A03-011	A03-010-Transfer from Belt #2 to Belt #3 or to Masonry Pile
A03-013	A03-012- Belt #2 to Limestone Overland Conveyor (Belt #4)
A03-015	A03-014-Overland Conveyor (Belt #4) Transfer to Belt #5 to New
	Transfer Tower
A03-017	A03-016- New Transfer Tower

The New Windsor quarry commenced construction, modification, or reconstruction after August 31, 1983, and is subject to New Source Performance Standards (NSPS) for nonmetallic mineral processing plants 40 CFR 60 Subpart OOO. The affected equipment is subject to more stringent standards of 40 CFR 60 Subpart OOO for equipment constructed on or after April 22, 2008. The New Windsor quarry is covered by Permit to Construct #013-0012-6-0352 issued March 14, 2014 and updated January 11, 2021.

# Applicable Standards and Regulations

- (1) COMAR 26.11.30.05(B)(2), 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 visible to human observers.
- (2) COMAR 26.11.06.02C(2), which prohibits visible emissions other than uncombined water from any installation or building.

Exceptions. The visible emissions standard in COMAR 26.11.06.02C(2) does not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if: (i) the visible emissions are not greater than 40 percent opacity; and (ii) the visible emissions do not occur for more than 6 consecutive minutes in any 60 minute period.

- (3) **COMAR 26.11.30.04(B)(2)**, which states that a person may not cause or permit particulate matter to be discharged from any installation in excess of 0.03 grains per standard cubic foot of dry exhaust gas.
- (4) Particulate matter emissions from each baghouse shall not exceed 0.014 grains per standard cubic foot of dry air (0.014 gr/dscf). [Reference 40 CFR §60.672(a)]
- (5) Except as otherwise provided in this part, the New Windsor Quarry, including the modification of the Masonry limestone operation to increase the masonry limestone crushing throughput limit to 160,000 short tons per year, shall be operated in accordance with specifications included in the application and any operating procedures recommended by equipment vendors unless the Permittee obtains from the Department written authorization for alternative operating procedures. [Reference Permit to Construct #013-0012-6-0352 Issued January 11, 2021]
- (6) The masonry portable crusher A03-019 shall not crush more than 160,000 short tons of limestone in any rolling 12-month period. [Reference Permit to Construct #013-0012-6-0352 Issued January 11, 2021]
- (7) Particulate matter emissions from each bag filter shall not exceed 0.010 grains per standard cubic foot of dry air (0.010 gr/dscf). [Reference Permit to Construct #013-0012-6-0352 Issued January 11, 2021]
- (8) The limestone mined from both the Union Bridge Quarry and the New Windsor Quarry shall be used only to support the Union Bridge Portland Cement Plant. [Reference Permit to Construct #013-0012-6-0352 Issued January 11, 2021]
- (9) The limestone crushing throughput from the New Windsor Quarry is limited to 3.65 million short tons for any rolling 12-month period. [Reference Permit to Construct #013-0012-6-0352 Issued January 11, 2021]
- (10) The combined limestone crushing throughput from the Union Bridge Quarry and the New Windsor Quarry is limited to 3.70 million short tons for any rolling 12-month period. [Reference Permit to Construct #013-0012-6-0352 Issued January 11, 2021]

- (11) The Union Bridge Quarry crushing system and the New Windsor Quarry crushing system shall not operate at the same time. [Reference Permit to Construct #013-0012-6-0352 Issued January 11, 2021]
- (12) A combined annual hours of operation, on a calendar year basis, for Union Bridge Quarry crushing system and the New Windsor Quarry crushing system is limited to 3,952 hours. [Reference Permit to Construct #013-0012-6-0352 Issued January 11, 2021]
- (13) The limestone withdrawal rate from the Union Bridge Limestone Storage Dome is limited to 3.53 million short tons for any rolling 12-month period. [Reference Permit to Construct #013-0012-6-0352 Issued January 11, 2021]
- (14) Beginning with the calendar month in which the New Windsor Quarry crushing system produces 811,100 annual short tons of limestone, when rolled monthly, the Union Bridge Quarry crushing system shall be limited to 2,615,942 short tons for any rolling 12-month period. The production of limestone from the Union Bridge Quarry crushing system shall be permanently reduced from the 2,615,942 short ton limit by at least 0.9 short tons for every short ton produced by the New Windsor Quarry crushing system above 811,100 annual short tons, rolled monthly. [Reference Permit to Construct #013-0012-6-0352 Issued January 11, 2021]
- (15) The exhaust gases from the following operations shall vent through a bag filter prior to discharging to the atmosphere to meet all applicable particulate matter emissions limits: [Reference Permit to Construct #013-0012-6-0352 Issued January 11, 2021]
  - (a) Primary Crusher operations to Belt Conveyor #1, and limestone transport operations from Belt Conveyor #1 to Belt Conveyor #2;
  - (b) limestone transport operations from Belt Conveyor #2 to the New Windsor Transfer Tower and from the New Windsor Transfer Tower to Belt Conveyor #3;
  - (c) limestone transport operations from the New Windsor Transfer Tower to Belt Conveyor #4 (the Overland Conveyor);
  - (d) limestone transport operations from Belt Conveyor #4 (the Overland Conveyor) to Belt Conveyor #5 at the Union Bridge Portland Cement Plant; and
  - (e) limestone transport operations from Belt Conveyor #5 to the Union Bridge Transfer Tower and from the Union Bridge Transfer Tower to the modified Belt Conveyor B01-002.

#### **Compliance Demonstration**

The Permittee shall comply with the following testing and monitoring requirements:

(1) The Permittee must conduct an initial stack emissions test to demonstrate compliance with all applicable particulate matter emissions limits within 60 days after

achieving the maximum hourly production rate at which the affected facility will be operated, but not later than 180 days after initial startup. [Reference 40 CFR § 60.672(a)]

On May 29-31, 2019, and June 3-6, 2019, Heidelberg conducted particulate matter stack testing on the New Windsor primary crusher baghouse and (3) Transfer Tower Baghouses (#16, 17, & 18) as required by 40 CFR 60 Subpart OOO for initial NSPS start-up compliance. The Test report was received on June 27, 2019. On October 12, 2018, MDE granted Heidelberg an extension to June 15, 2019 to perform the test due the broken 4.5 mile conveyor belt

<u>Source</u> Primary Crusher	Results 0.0004 gr/dscf	Standard 0.014gr/dscf
Transfer Tower #16	0.0010 gr/dscf	0.014gr/dscf
Transfer Tower #17	0.0010 gr/dscf	0.014gr/dscf
Transfer Tower #18	0.0004 gr/dscf	0.014gr/dscf

(2) The Permittee must conduct initial opacity observations using EPA Method 9 as specified in 40 CFR 60, Subpart OOO. For continuous compliance, the Permittee must conduct quarterly 30-minute visible emissions inspections using EPA Method 22 [40 CFR Part 60 Appendix A-7] in accordance with Subpart OOO.

As an alternative to the periodic Method 22 visible emissions inspections specified in 40 CFR §60.674(c), any affected facility that uses a bag filter to control emissions may use a bag leak detection system, which must meet the specifications and requirements of 40 CFR §60.674(d), including the site-specific monitoring plan. The bag leak detection system must be operated and maintained according to the site specific monitoring plan at all times. [Reference: 40 CFR §60.674(d)]

#### Record Keeping and Reporting

The Permittee shall comply with the following record keeping and reporting requirements:

- (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 minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. [Reference COMAR 26.11.03.06C]
- (2) At least 30 days prior to initial operation of the New Windsor Quarry expansion project, the Permittee must submit the operation and maintenance plan for the Union Bridge Portland Cement Plant revised to include:
  - The New Windsor Quarry expansion project,
  - The preventative maintenance plan for the Union Bridge Portland Cement Plant revised to include each bag filter for the New Windsor Quarry expansion project, and

 The best management plan for fugitive emissions for the Union Bridge Portland Cement Plant revised to include fugitive sources from the New Windsor Quarry expansion project.

These submittals are for the review and approval by the Department. If applicable, each of these plans shall be updated to reflect the modification of the masonry limestone operation increasing the throughput limit to 160,000 short tons per year: [Reference Permit to Construct #013-0012-6-0352 Issued January 11, 2021]

#### Updated plans were received by the Department on February 3, 2017.

(3) The Permittee must comply with the federal reporting and recordkeeping requirements under **40 CFR Part 60 Subpart A and Subpart OOO**. Records must be kept on site for a minimum of five (5) years and be made available to the Department and EPA upon request.

The records must include the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility, any malfunction of the air pollution control equipment, each periodic inspection required under §60.674(b) or (c), and records pertaining to each bag leak detection system should that alternate compliance method be selected.

Reporting must include notification of the actual date of initial startup of the Windsor Mill quarry, the results of all compliance performance tests conducted, reports of opacity observations made using EPA Method 9, notification of any physical or **operational** change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted and notification of the anticipated date for conducting the opacity observations required by 40 CFR §60.11(e)(1).

# On January 6, 2022 the Permittee notified the Department that the initial operation of the New Windsor quarry occurred on June 1, 2018.

(4) Records of the operating data required by **Permit to Construct #013-0012-6-0352 Issued January 11, 2021** must be kept at the site for at least five (5) years and be made available to the Department upon request.

The records must include the amount of limestone processed in the New Windsor Quarry crushing system each month and for any 12-month period rolling monthly, the amount of limestone processed in the Union Bridge Quarry crushing system each month and for any 12-month period rolling monthly, the exact times when the New Windsor Quarry crushing system was operated and the total annual operating hours on a calendar year basis, the exact times when the Union Bridge Quarry crushing system was operated and the total annual operating hours on a calendar year basis; the total annual operating hours, on a calendar year basis, for the New Windsor Quarry crushing system and the Union Bridge Quarry crushing system, combined, the amount of limestone withdrawn from the Union Bridge Limestone Storage Dome each month and for any 12-month period rolling monthly, and the amount of masonry limestone processed by the portable crusher A03-019 in the New Windsor Quarry each month and for any 12-month period rolling monthly.

#### **Rationale for Compliance Demonstration:**

The New Windsor quarry is subject to post-April 2008 NSPS Subpart OOO requirements.

Each emission unit is controlled by a bag filter which is the most effective control for visible emissions and particulate matter. Subsequent quarterly 30-minute visible emissions inspections using Method 22 observations as specified in Subpart OOO are sufficient to ensure that the baghouses are operating properly to ensure continuous compliance with applicable particulate matter standards.

The operation and maintenance plan including each bag filter and best management plan for fugitive emissions updated to include New Windsor Quarry operation will minimize the emissions from Quarry operation.

The record keeping and reporting requirements for throughput and annual hours of operation of both Union Bridge and New Windsor Quarry are to ensure the facility is in compliance with operating requirements specified in Permit to Construct #013-0012-6-0352 dated March 13, 2014, and updated January 11, 2021.

#### 4. Material Handling - Fugitive Sources (Not subject to MACT Requirements)

# Area A - Union Bridge Quarry Operations

SP13 – Bottom Ash Storage Pile A02-026 – Screen

#### Area B - Raw Material Transport and Storage

TU1- Iron and silica truck unloading

SP4- Silica Storage Pile

SP5- Iron Ore Storage Pile

#### Area F - Coal Grinding Mill for Kiln

F01-034 – Belt Conveyor #11

F01-037 – Belt Conveyor #14

SP2 – Coal Storage Pile

SP3 – Coal Storage Pile

TT2 – Transfer Tower #2

TU2 – Truck Unloading

F02-018 - Belt Conveyor

F03-001 - Belt Conveyor

F03-002 - Coal Weigh feeder

F03-003 - Coke Weigh feeder

#### **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

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.

#### **Rationale for Compliance Demonstration**

The best management plan is reviewed and approved by the Department and contains the methods and procedures that the Permittee uses to minimize particulate matter from these fugitive 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.

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

#### Area B - Raw Material Transport and Storage

B01-011 - Enclosed Limestone Dome

#### **Area F – Coal Grinding Mill for Kiln**

F02-007 – Belt Conveyor

#### Area G - Clinker Transport & Storage - Craneway Building

CWAY - Craneway

TU3 – Gypsum Truck Unloading

#### Area H - Clinker Finish Mill

H04-001 – Gypsum Bin 409

H04-003 – Limestone Tank 416

H04-004 - Clinker Bin 403

H05-001 – Gypsum Bin 509

H05-004 – Clinker Bin 503

H06-001 – Gypsum Bin 609

H06-004 - Clinker Bin 603

H07-001 – Gypsum Bin

H07-004 – Clinker Bin

H08-001 – Gypsum Bin

#### Applicable Standards/Limits:

(1) 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.

(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**

The Permittee must comply with and update as necessary, an opacity monitoring plan to demonstrate continuous compliance as specified in 40 CFR 63, Subpart LLL. The plan shall be incorporated into the required Operations and Maintenance Plan for Subpart LLL affected sources. The Permittee shall keep the plan on-site and maintain records to demonstrate compliance with the procedures outlined in the plan.

### Rationale for Compliance Demonstration

The operations and maintenance plan is 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. 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.

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

# Area B - Raw Material Transport and Storage

Bagnouse Em	nission Unit	
B02-008	B02-007- Belt Conveyor; B02-011- Silica Bearing Material Bin;	
	B02-012- Iron Bearing Material Bin; and B02-017- Reversible Belt	
	Conveyor	
B03-008	B03-004- Fly ash Blending System	
B04-016	TT3- Transfer Tower #3	
B04-011	TT3- Transfer Tower #3	
B04-016	B04-019 Limestone bin	
B02-019	TT4- Transfer Tower #4	

#### Area C - Raw Grinding

ambauga Emigaian Unit

Baghouse	Emission Unit
C02-021	C02-038- Rejects Belt Conveyor
C02-011	C02-060- Reversible Belt Conveyor (to Raw Mill)
C03-001	C03-034, C03-035, C03-040, & C03-042 - Airslides
C03-047	C03-045- Airslides
C03-050	C03-008, C03-045, C03-054, & C04-066 - Airslides
C03-030	C03-010 & C03-013 - Airslides and C03-046- Bucket Elevator
C01-007	C01-002- Limestone Weighfeeder; C01-004- Iron Weighfeeder; C01-006-
	Silica Weighfeeder; and C01-011- Belt Conveyor
C01-019	C01-015- Fly ash Weigh bin
C02-011	C02-001- Bucket elevator
C02-011	C02-006- 100 T Bin

C04-050	C04-037- Bucket Elevator
C04-075	C04-037- Bucket Elevator
C04-050	C04-038- 600T Bin and C04-068- Airslide
C04-075	C04-070, C04-072, and C04-074- Airslide

#### Area D - Raw Meal - Kiln Feed

<b>Baghouse</b>	Emission Unit
D01-037	C03-046- Bucket Elevator; C03-017-Airslide; D01-001- Blending Silo; and
	D01-003 & D01-002 - Recirculation Airslides
D01-034	D01-020- 185 MT Feed Bin; D02-004 & D02-017- Airslides and
	D02-006 & D02-019- Flow Meters
D01-040	D01-023, D01-026, D02-007, & D02-020 - Airslides
D02-041	D02-010, D02-023, & D02-049 - Airslides
D02-041	D02-025- Bucket Elevator and D02-026- Bucket Elevator
D02-027	D02-033, D02-045 & D02-047 - Air Slides

# Area F - Coal Grinding Mill for Kiln

Baghouse	Emission Unit
F02-027	TT5- Transfer Tower #5
	F02-006 Reclaim Elevator
	F02-007 Belt Conveyor

### Area G - Clinker Transport & Storage - Craneway Building

<u>Baghouse</u>	Emission Unit
B01-018	TT8/9- Transfer Tower #8/9
G02-041	TT8/9- Transfer Tower #8/9
G02-025	TT6 – Transfer Tower #6
G04-037	G04-018 – Belt Conveyor

#### Area H - Clinker Finish Mill

Baghouse	Emission Unit
G05-003	G05-001 Dust System
H10-113	H07-040- Cement Cooler; H07-071- Airslide; H08-040-Cement Cooler; H08-064- Airslide; H10-001- Airslide; and H10-006- Bucket Elevator
H10-119	H10-007, H10-124, and H10-125- Airslides; and H10-010 - Bucket
	Elevator
H10-181	H10-167- Airslide; and H10-176- Bucket Elevator
H10-179	H10-177- Airslide

#### Area I – Cement Storage and Shipping with Bag Packing

<u>Baghouse</u>	Emission Unit
H10-179	H10-177
	l01-033- Day Tank
102-290	102-289 – Feed Bin
	TL2 – Truck Day Tank Loadout
H10-221	Product Silos (I02-001 to I02-032)
H10-224	Product Silos (102-001 to 102-032)
H10-252	Product Silos (102-001 to 102-032)

H10-254 Product Silos (I02-001 to I02-032)
Pack house I03/I04 - Packaging and Palletizing

I11-180; -190 TL4 - Truck/ Rail and Bulk Loadout System – (F6/F5/H7/J6/J3/J4/E7/H3)

(1) I12-180; -190 TL4 - Truck/ Rail and Bulk Loadout System - (F6/F5/H7/J6/J3/J4/E7/H3)

I13-180; -190 TL4 - Truck/ Rail and Bulk Loadout System - (F6/F5/H7/J6/J3/J4/E7/H3)

I14-180; -190 TL4 - Truck/ Rail and Bulk Loadout System – (F6/F5/H7/J6/J3/J4/E7/H3)

# **Applicable Standards and Regulations**

- (1) COMAR 26.11.30.05(B)(2), 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 visible to human observers.
- (2) 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.
- (3) 40 CFR Part 60, Subpart Y, §60.254(a) which limits coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, reconstructed, or modified on or before April 28, 2008 to 20 percent opacity.
- (4) 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. [Reference: §63.1345]
- (5) COMAR 26.11.30.04B(2) Particulate Matter Emissions. A person may not cause or permit to be discharged in to the outdoor atmosphere from any other installation, particulate matter in excess of 0.03 gr/SCFD (68.7 mg/dscm).
- (6) Permit to Construct #06-6-0256N dated April 8, 1999 and revised June 7, 2000 Each equipment shall be equipped with a dust collector designed to reduce particulate matter emissions to 0.01 gr/SCFD (22.9 mg/dscm).

#### **Compliance Demonstration**

(1) The Permittee must comply with and update as necessary, an opacity monitoring plan to demonstrate continuous compliance as specified in 40 CFR 63, Subpart LLL. The plan shall be incorporated into the required Operations and Maintenance Plan

for Subpart LLL affected sources. The Permittee shall keep the plan on-site and maintain records to demonstrate compliance with the procedures outlined in the plan.

- (2) The exhaust gases from each emissions unit shall vent through a dust collector designed to meet the particulate matter emissions limit before discharging into the atmosphere.
  - [Permit to Construct #06-6-0256N dated April 8, 1999 and revised June 7, 2000]
- (3) The Permittee shall comply with and update, as needed, the preventative maintenance plan for each baghouse that describes the maintenance activity and time schedule for completing each activity. [COMAR 26.11.03.06C]

#### **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.

# 7. Material Handling – Fugitive Sources (Area B), Subject to NSPS Requirements Note: Located near the Kiln in Carroll County.

Registration No. 6-0327 – Bottom Ash Screener consisting of one (1) MGL EX1 Scalper Screener, powered by an electric Cummins 74 HP engine, Emissions Unit Number C0-0001.

This bottom ash screener, which commenced construction, modification, or reconstruction after August 31, 1983, is subject to New Source Performance Standards (NSPS) for nonmetallic mineral processing plants 40 CFR 60 Subpart OOO.

#### **Applicable Standards and Regulations**

- (1) **40 CFR Part 60 Subpart OOO**, which states that the Permittee shall comply with a standard of no more than 7 percent opacity from this screener.
- (2) **COMAR 26.11.06.03C and D**, which states that the Permittee take reasonable precautions to prevent particulate matter from unconfined sources and materials handling and construction operations from becoming airborne.

# **Compliance Demonstration**

- (1) Within 180 days after initial startup of the screener, visible emissions observations shall be conducted to demonstrate compliance with the opacity standard specified in 40 CFR Part 60 Subpart OOO. [Reference: Table 3 to 40 CFR Part 60 Subpart OOO, as a modification that has occurred after April 22, 2008]
- (2) After the initial visible emissions observation is performed, repeat observations shall be performed within every 5 years from the previous observation.

# [Reference: Table 3 to 40 CFR Part 60 Subpart OOO, as a modification that has occurred after April 22, 2008]

- (3) The screener shall be operated at 90% or higher of its rated capacity during visible emissions observations.
- (4) In determining compliance with the opacity standard under 40 CFR Part 60 Subpart OOO, 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) The duration of the Method 9 observations must be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limit in Table 3 of 40 CFR Part 60 Subpart OOO must be based on the average of the five 6-minute averages.
- (5) The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, records of the following information:
  - (a) Records of all visible emissions observations conducted on the screener. [Reference: Table 3 to 40 CFR Part 60 Subpart OOO, as a modification that has occurred after April 22, 2008]
  - (b) The total surface area of the screen. [Reference: 40 CFR Part 60 Subpart OOO(a)(2)]
  - (c) Records of the occurrence and duration of any startup, shutdown, or malfunction of the operation of the screener. [Reference: 40 CFR §60.7b]
  - (d) Records of the amount of material processed in the screener each month.
- (6) The Permittee shall submit written reports of the results of all visible emissions observations conducted to demonstrate compliance with the opacity standard set forth in 40 CFR Part 60 Subpart OOO within 45 days after the visible emission observation was performed.

#### **Rationale for Compliance Demonstration:**

This unit is expected to have minimal fugitive emissions due to the moisture content of the material being processed. Additionally, Method 9 observations will be used to monitor the operation and ensure that opacity limitations are complied with. Reporting and record keeping requirements provide sufficient documentation of the visible emissions observations.

## 8. Kiln, Raw and Coal Mills - (Subject to MACT requirements)

# Area C - Raw Grinding

Baghouse Emission Unit

C04-014 C02-025- Raw Mill

#### Area E – Clinker Burning and Cooling with Preheater Kiln

Baghouse Emission Unit

C04-014 E01-001/E02-001- Preheater-Precalciner/Kiln System

#### Area F - Coal Grinding Mill for Kiln

Baghouse Er	mission Unit
F03-028	F03-016- Coal Mill
F03-032	F03-016- Coal Mill
F03-036	F03-016- Coal Mill
F03-040	F03-016- Coal Mill
F03-044	F03-016- Coal Mill
F03-048	F03-016- Coal Mill
F04-010	F04-009-Pneumatic Pump for Fine Coal Dust Bin
C04-014	F04-018-Kiln Fuel Pressure Relief
C04-014	F04-026-Calciner Fuel Bin Pressure Relief
Made. There	

Note: These emission units discharge through a common stack.

The pyroprocessing system consists of an in-line raw mill and 5-stage preheater kiln system. The kiln line consists of an in-line raw mill, preheater-precalciner, kiln, clinker cooler, baghouse, stack and associated duct work. 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 Preheater-Precalciner/Kiln system because they utilize the exhaust gases from the Preheater-Precalciner/Kiln system for coal drying and the exhaust gases vent through the main stack. The startup and shutdown work practices - 40 CFR 63.1346(g) are listed separately in section 14.1 Applicable standards /Limits and operating conditions on Table IV-14 Facility Wide-MACT sources only.

#### **Applicable Regulations and Standards**

#### A&B

#### Visible and Particulate Matter Emissions

- (1) COMAR 26.11.30.05(B)(2), 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 visible to human observers.
- (2) 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. [Reference: §63.1345]

- (3) The Permittee shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, reconstructed, or modified on or before April 28, 2008, gases which exhibit 20 percent opacity or greater. [Reference: §60.254(a)]
- (4) **COMAR 26.11.30.04B(2)** A person may not cause or permit particulate matter to be discharged from any installation in excess of 0.03 gr/SCFD (68.7 mg/dscm).
- (5) The Permittee may not discharge particulate matter (PM) into the atmosphere from the kiln in excess of 0.07 pound per ton of clinker. [Reference: §60.62(a)(1)(iii)] and Table 1-1 of §63.1343(b)(1)]
- (6) If the Permittee has an affected source subject to 40 CFR 60, Subpart F with a different emissions limit or requirement for the same pollutant under another regulation in Title 40, the Permittee must comply with the most stringent emissions limit or requirement and is not subject to the less stringent requirement. [Reference: §60.62(d)]
- (7) Permit to Construct #06-6-0256 dated April 8, 1999 and revised June 7, 2000 which limits particulate matter emissions from the main exhaust stack to 0.0158 gr/scfd (36.2 mg/dscm).

# **Compliance** Demonstration

- (1) The Permittee shall comply with and update, as needed, the preventative maintenance plan for each baghouse that describes the maintenance activity and time schedule for completing each activity. **[COMAR 26.11.03.06C]**
- (2) For affected sources subject to opacity requirements under §63.1345, the Permittee must develop an opacity monitoring plan in accordance with §63.1350(p)(1) through (4) and (o)(5), if applicable, and conduct required opacity monitoring in accordance with the plan and the requirements listed in 40 CFR 64.1350(f)(1)(i)-(iv). For a raw mill or finish mill, the Permittee must monitor opacity in accordance with 40 CFR 64.1350(f)(2)(i)-(iii) [Reference: §63.1350(f)]
- (3) The Permittee shall, for Cement Kilns and Clinker Coolers, uses a PM continuous parametric monitoring system (CPMS) to establish a site-specific operating parameter limit for continuous visible emissions and particulate matter compliance determinations in accordance with COMAR 26.11.30.04C(1) and .05C(2).
- (4) For the PM CPMS, the Permittee will establish a site-specific operating limit in accordance with §60.63(c)(2) through (5) and §63.1349(b)(1)(i) through (iv). The Permittee shall conduct annual performance tests to reassess and adjust the site-specific operating limit as necessary. The Permittee shall follow the procedures in

40 CFR §63.1350(b)(iii) and (iv) for any exceedance of the established operating parameter limit of COMAR 26.11.30.04(C)(1) on a 30 process operating day basis. [Reference: COMAR 26.11.30.04(C)(5)] [Reference: COMAR 26.11.30.04B(3), §60.63(c)(2) and §63.1349(b)(1)]

The most recent MACT PM Stack Test of the kiln and clinker cooler was performed on May 3-5, 2021. The Results are as follows:

Kiln (Raw Mill Off) – 0.0065 lb/ton of clinker (30-day rolling MACT standard of 0.07 lb/ton of clinker)

Kiln (Raw Mill On) – 0.0045 lb/ton of clinker (30-day rolling MACT standard of 0.07 lb/ton of clinker)

The Permittee performed PSD PM stack testing on April 21-22, 2020 and May 19, 2020. Test results are as follows:

Kiln (Raw Mill OFF) 0.0024 gr/dscf (PSD Std.- 0.0158 gr/dscf)

Kiln (Raw Mill ON) 0.0010 gr/dscf (PSD Std.- 0.0158 gr/dscf)

- (5) The Permittee shall maintain all records collected from both testing and monitoring requirements 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 on microfiche. [40 CFR §63.1355]
- (6) 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)]
- (7) The Company shall submit to the Department semiannually a Summary Report Gaseous and Opacity Excess Emissions and Continuous Monitoring System (CMS) Performance on January 31<sup>st</sup> and July 31<sup>st</sup> of each year. The Summary Report shall include the information specified in the permit. [40 CFR §63.1354b(9) and §63.10(e)(3)(vi)]
- (8) The Permittee shall submit a quarterly summary report of all emissions which exceed the applicable emission standards 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 information specified in the permit. [COMAR 26.11.01.11A(3) and COMAR 26.11.01.10G(2)(d)]

- (9) The Permittee shall submit the results of performance tests before the close of business on the 60<sup>th</sup> day following the completion of the performance test. [40 CFR §63.1354(b)(1)] & [40 CFR §63.10(d)(2)]
- (10) At least 30 days prior to each stack emissions testing, the Permittee shall submit to the Department a stack test protocol for review and approval. [Part D(7) of Permit to Construct #06-6-0256 issued April 8, 1999 and revised June 7, 2000]

#### Rationale of Compliance Demonstration

The kiln and coal mills are controlled by baghouses which are the most effective control for visible emissions and particulate matter. In accordance with its O & M plan and SSP plan, Heidelberg calibrates, operates and maintains its CPMS in a manner consistent with good air pollution control. 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 each stack. 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. Heidelberg will perform preventative maintenance on each baghouse as specified in the baghouse preventive maintenance 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)

- (1) 40 CFR §63.1343(b)(1) which prohibits D/F in excess of:
  - (a) 0.2 ng per dscm (8.7 X 10  $^{-11}$  gr per dscf)(TEQ) corrected to seven percent oxygen; or
  - (b) 0.4 ng per dscm (1.7 x 10<sup>-10</sup> 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.
- (2) 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) does not exceed the applicable temperature limit specified in paragraph (b) of §63.1346. The Permittee must operate the in-line kiln/raw mill as specified in the permit. [Reference: §63.1346(a)]

#### Compliance Demonstration

(1) The Permittee must conduct a performance test using Method 23 of appendix A-7 to 40 CFR, Part 60. Subsequent performance tests must be performed within 30 months of the last performance test. [Reference: §63.1349(b)(3)]

Dioxin / furan stack testing was performed on Sept 25-26, 2019. The stack test results are as follows:

#### **Test Results for Raw Mill OFF:**

0.0043 ng/DSCM TEQ corrected to 7% O2 (MACT standard- 0.40 ng/DSCM TEQ corrected to 7% O2 @ < 204 °C)

#### **Test Results for Raw Mill ON:**

0.0052 ng/DSCM TEQ corrected to 7% O2 (MACT standard- 0.40 ng/DSCM TEQ corrected to 7% O2 @ < 204 °C)

- (2) The Permittee shall comply with the monitoring requirements of (g)(1) through (g)(6) and (m)(1) through (m)(4) of §63.1350 to demonstrate continuous compliance with the D/F emissions standard. The Permittee shall also develop an emissions monitoring plan in accordance with (p)(1) through (p)(4) of §63.1350. [Reference: §63.1350(g)]
- (3) The Permittee shall calibrate, maintain, and continuously operate a CMS to record the temperature of the exhaust gases from the kiln at the inlet to, or upstream of, the kiln PMCDs. [Reference: §63.1350(q)(1)]
- (4) The Permittee shall maintain all records collected from both testing and monitoring requirements 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 on microfiche. [40 CFR §63.1355]
- (5) 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 information specified in the permit. [40 CFR §63.1354b(9) and §63.10(e)(3)(vi)]

#### Rationale for Compliance Demonstration

The Permittee has demonstrated initial compliance with the D/F emission limits. The CMS with a data acquisition system (DAS) is used to monitor the flue gas temperature entering the baghouse and 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. All periods of CMS downtime, QA/QC activities and corrective measures are recorded and reported to show compliance status. Subsequent performance tests will ensure continuous compliance.

#### D to G

#### NOx, SOx, CO, and VOC/THC Emissions

(1) **Permit to Construct #06-6-0256, 0331, and 0337 September 21, 2009** - NOx emission limits shall not exceed 3.85 pounds per tons of clinker on a monthly average only if the number of hours of the Pyroprocessing Portland cement plant burning DBS is greater than 25% of the kiln operating hours during the month.

- (2) The Permittee shall operate the Selective Non-catalytic Reduction System (SNCR) to reduce NOx emissions in order to comply with a NOx emission limit of 2.4 pounds per ton of clinker produced on a 30-day rolling average in accordance with COMAR 26.11.30.07C(2) & 26.11.30.07D.
- (3) **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.
- (4) **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.
- (5) Prevention of Significant Deterioration (PSD) Approval #PSD-97-01R dated April 8, 1999 and revised June 7, 2000 which states that the premises-wide carbon monoxide (CO) emissions from the Pyroprocessing Portland cement plant and the existing Portland cement plant shall not exceed 3,328 tons for any 12month period, rolling monthly.
- (6) The emissions limits of total hydrocarbons (THC) is 24 parts per million by volume dry (ppmvd) measured as propane and corrected to 7% O<sub>2</sub>. 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)]

#### **Compliance Demonstration**

- (1) The Permittee must operate, calibrate, and maintain CEMs to continuously monitor and record the emissions of NO<sub>X</sub>, CO, SO<sub>2</sub> and VOC/THC emissions into the atmosphere for the kiln as specified in the permit. [Reference: Permit to construct and Prevention of Significant Deterioration (PSD) Approval #PSD-97-01 issued April 8, 1999 and revised June 7, 2000 and COMAR 26.11.01.11C]
- (2) The Permittee shall monitor NOx emissions, pounds per ton of clinker, on a monthly average, the total operating hours of the kiln, and the total operating hour of the Pyroprocessing Portland cement plant burning DBS for each month. [Permit to Construct #06-6-0256 dated April 8, 1999 and revised June 7, 2000, August 7, 2009, and September 21, 2009]
- (3) The Permittee shall operate the Selective Non-catalytic Reduction System (SNCR) to reduce NOx emissions in order to comply with a NOx emission limit of 2.4 pounds per ton of clinker produced on a 30-day rolling average. [COMAR 26.11.30.07C(2) & 26.11.30.07D]
- (4) 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 or use an alternative method approved by the Department and the EPA for compliance determination. [COMAR 26.11.30.08A & B]

- (5) The Permittee shall maintain all records collected from both testing and monitoring requirements 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. [COMAR 26.11.03.06C]
- (6) 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)]
- (7) For THC Emission, the Permittee must demonstrate comply with the information specified in 40 CFR §63.1349(b)(4)(i), (ii), (iii), (iv) and (v), §63.1350(i) and §63.1350(i)(1) and (2).
- (8) The information with supporting documentation specified in the permit shall be maintained for at least 5 years and made available to the Department upon request. [New Source Review Approval #NSR-97-02 issued April 8, 1999 and Prevention of Significant Deterioration (PSD) Approval #PSD-97-01 issued April 8, 1999 and revised June 7, 2000]
- (9) 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 information specified in the permit. [New Source Review Approval #NSR-97-02 issued April 8, 1999 and Prevention of Significant Deterioration (PSD) Approval #PSD-97-01 issued April 8, 1999 and revised June 7, 2000 ] and [COMAR 26.11.03.06C]

#### Rationale of Compliance Demonstration

The Permittee has demonstrated initial compliance with the emission limits for NOx, SO<sub>2</sub>, CO and VOC through the use of continuous emission monitoring systems (CEMs). The add-on control devices are used to control NOx (Non-selective catalytic convertor) and SO<sub>2</sub> (controlled by the lime raw material with additional lime injected if needed) emissions. The SO<sub>2</sub> standard is more stringent than the limits of the content of sulfuric acid, sulfur trioxide, or any combination, therefore as long as the facility meet the SO<sub>2</sub> requirement, 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 VOC emission. All emissions are continuously monitored by CEMs. In accordance with the O & M plan and SSMP, 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.

#### H. Lead Emissions

Permit to Construct #06-6-0256 dated April 8, 1999 and revised June 7, 2000 which states that the emissions from the entire premises, including the existing Portland cement plant and the Pyroprocessing Portland cement plant, shall not exceed 0.6 tons of lead for any 12-month period, rolling monthly.

Note: The majority of facility's lead emissions are exhausted through the main kiln stack. Since 12-month rolling lead emissions are about 0.02 tons per year, well below the PSD significant net emission increase of 0.6 tons per year, any further lead emission testing is not meaningful.

#### Compliance Demonstration

The Permittee shall follow the required compliance demonstration for visible and particulate matters emissions to also demonstrate compliance with the lead emissions limit.

The Permittee performed Hazardous Air Pollutant stack testing on August 3-10, 2021. This program included lead. Test results are as follows:

Kiln (Raw Mill OFF) 2.48 E-6 lb/ton clinker

Kiln (Raw Mill ON) 1.94 E-6 lb/ton clinker

#### Rationale for Compliance Demonstration

The Permittee has demonstrated initial compliance with the lead emission limit through stack testing. As long as the Permittee complies with the requirements for visible emissions and particulate matter, the Permittee will not exceed the lead emission limit.

#### I. Fluoride Emissions

- (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. (For the compliance demonstration, see the discussion below.) Since 12- month rolling fluoride emissions are about 1.5 tons per year, well below the PSD significant net emission increase of 3.0 tons per year, any further fluoride emission testing is not meaningful.

#### **Compliance Demonstration**

The Permittee shall maintain the records of 12-month rolling fluoride emissions for at least 5 years and shall make them available to the Department upon request and include fluoride emissions in its annual emission certification.

The Permittee performed Hazardous Air Pollutant stack testing on August 3-10, 2021. This program included hydrogen fluoride. Test results are as follows:

Kiln (Raw Mill OFF) 7.75 E-5 lb/ton clinker

Kiln (Raw Mill ON) 1.00 E-4 lb/ton clinker

#### Rationale of Compliance Demonstration

The kiln stack baghouse would reduce fluoride emissions to an insignificant level and the Permittee had demonstrated compliance with premises-wide emission limits through stack emissions testing. Since 12- month rolling fluoride emissions are about 1.5 tons per year, well below the PSD significant net emission increase of 3.0 tons per year, any further fluoride emission testing is not meaningful. The record keeping requirements and annual emission certification are sufficient for compliance demonstration.

#### J. Mercury Emissions

The mercury emissions limit is 55 pounds per million tons (lb/MM tons) of clinker on a 30-day rolling basis. [Reference: Table 1-1. of §63.1343(b)(1)]

#### Compliance Demonstration

- (1) The Permittee must operate a mercury CEMs or a sorbent trap monitoring system in accordance with the requirements of §63.1350(k). The initial compliance test must be based on the first 30 kiln operating days in which the affected source operates using a mercury CEMs or a sorbent trap monitoring system after the compliance date of the rule (See §63.1348(a)). [Reference: §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). [Reference: §63.1349(b)(5)(i)]
- (3) The Permittee shall monitor the following operating data: [Permit to Construct No. 013-0012-6-0256, 0331, and 0337 issued March 1, 2013]
  - (a) Mercury emissions in pounds per million tons of clinker produced based on a 30-day rolling average during normal operation by using the mercury CEMs; and
  - (b) Work Practices required under §63.1346(g) during periods of startup and shutdown.

- (4) The Permittee shall maintain all records collected from both testing and monitoring requirements 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. [COMAR 26.11.03.06C]
- (5) 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(3)]
- (6) The information with supporting documentation specified in the permit shall be maintained for at least 5 years and made available to the Department upon request. [New Source Review Approval #NSR-97-02 issued April 8, 1999 and Prevention of Significant Deterioration (PSD) Approval #PSD-97-01 issued April 8, 1999 and revised June 7, 2000]
- (7) 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 information specified in the permit. **[COMAR 26.11.03.06C]**

#### Rationale for Compliance Demonstration

The Permittee has demonstrated initial compliance with the emission limit for mercury through the use of continuous emission monitoring systems (CEMs). Mercury is controlled through the use of an activated carbon injection system and baghouse dust removal and finish mill reuse process. Mercury emissions are continuously monitored by a CEMs. In accordance with the O & M plan and SSMP, the 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.

#### K. Hydrogen Chloride (HCI) Emissions

The emissions limit for hydrogen chloride (HCI) is 3 parts per million by volume dry (ppmvd) measured as propane and corrected to 7% O2. [Reference: Table 1 of §63.1343(b)(1)]

#### Compliance Demonstration

The Permittee has installed a CEMs to continuously monitor and record HCl emissions. The initial certification compliance date for the CEMs has been extended until September 6, 2016.

The Permittee must conduct performance testing using Method 321 of appendix A to Part 63 unless the Permittee have installed a CEMs that meets the requirements

§63.1350(I)(1). For kilns with inline raw mills, testing should be conducted for the raw mill on and raw mill off conditions. [Reference: §63.1349(b)(6)(i)(A)]

- (1) If the CPMS is chosen instead of a CEM, for a dry scrubber, the Permittee must measure and record the sorbent injection rate in intervals of no more than 15 minutes during the HCl test. Compute and record the 24-hour average sorbent injection rate and average sorbent injection rate for each sampling run in which the applicable emissions limit is met. [Reference: §63.1349(b)(6)(i)(B)]
- (2) The initial compliance test must be based on the 30 kiln operating days that occur after the compliance date of this rule in which the affected source operates using a HCl CEMs. Hourly HCl concentration data must be obtained according to §63.1350(I). [Reference: §63.1349(b)(6)(ii)(B)]
- (3) As an alternative to §63.1349(b)(6)(i)(B), the Permittee may choose to monitor SO<sub>2</sub> emissions using a CEMs in accordance with the requirements of §63.1350(I)(3). The Permittee must establish an SO<sub>2</sub> operating limit equal to the average recorded during the HCl stack test where the HCL stack test run result demonstrate compliance with the emission limit. This operating limit will apply only for demonstrating HCl compliance. [Reference: §63.1349(b)(6)(iii)]
- (4) If kiln gases are diverted to a coal mill and exhausted through a separate stack, the Permittee must calculate a kiln-specific HCl limit using Equation 11of §63.1349(b)(6)(iv). [Reference: §63.1349(b)(6)(iv)]

On June 29-20, 2016, the HCL CEM passed its RATA with NIST certified calibration gasses. On December 2016, Heidelberg completed the 30-day HCL CEM compliance demonstration, within the 180-day MACT compliance demonstration period.

#### Rationale for Compliance Demonstration

Upon certification, the Permittee will demonstrate initial compliance with the emission limit for HCl through the use of continuous emission monitoring systems (CEMs). Heidelberg uses a pre-heater/pre-calciner kiln that inherently controls acid gases prior to discharging to the atmosphere. HCl emissions are continuously monitored by a CEMs. In accordance with the O & M plan and SSMP, the 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.

#### L. Greenhouse Gas (GHG) Emissions

There is no GHG emission limit specified in 40 CFR 98 Subpart H (Cement Production).

#### Compliance Demonstration

For each cement kiln that meets the conditions specified in §98.33(b)(4)(ii) or (b)(4)(iii), the Permittee must calculate and report under this subpart the combined process and combustion CO2 emissions by operating and maintaining a CEMS to measure CO2 emissions according to the Tier 4 Calculation Methodology specified in §98.33(a)(4) and all associated requirements for Tier 4 in subpart C of this part (General Stationary Fuel Combustion Sources). [Reference: 40 CFR 98.83]

If a CEMS is used to measure CO2 emissions, then in addition to the records required by §98.3(g), the Permittee must retain under this subpart the records required for the Tier 4 Calculation Methodology in §98.37. If a CEMS is not used to measure CO2 emissions, then in addition to the records required by §98.3(g), the Permittee must retain the records specified in this paragraph (b) for each portland cement manufacturing facility. The Permittee must keep a record of the file generated by the verification software specified in §98.5(b) for the applicable data specified in paragraphs (c)(1) through (17) of this section. Retention of this file satisfies the recordkeeping requirement for the data in paragraphs (c)(1) through (17) of this section. [Reference: 40 CFR 98.87]

#### Rationale for Compliance Demonstration

While there may be no applicable requirements as a result of PSD, the Permittee shall quantify facility wide GHGs emissions and report them in accordance with 40 CFR 98 Subpart H.

#### 8a. Kiln - (Subject to Federal Consent Decree 5:19-cv-05688)

# Area E - Clinker Burning and Cooling with Preheater Kiln

Baghouse Emission Unit

C04-014 E01-001/E02-001- Preheater-Precalciner/Kiln System

This facility became subject to Federal Consent Decree 5:19-cv-05688 effective November 18, 2020. Emission Units E01-001 and E02-001 Preheater-Precalciner/Kiln System (ARA registration number 6-0256) are subject to the Decree. [Reference: PTC 013-0012-6-0256 Issued March 8, 2022]

#### **Applicable Standards and Regulations**

- (1) The Union Bridge facility owned and operated by the Permittee became subject to Federal Consent Decree 5:19-cv-05688 ("Decree") effective November 18, 2020.
- (2) Emission Units E01-001 and E02-001 Preheater-Precalciner/Kiln System [ARA Registration No. 013-0012-6-0256] are subject to the Decree.
- (3) Beginning on June 16, 2021 the Permittee shall comply with the following:
  - (a) The Union Bridge Kiln shall continuously operate the SNCR NOx control technology at all times of Kiln operation.
  - (b) The Union Bridge Kiln shall comply with a 30-day rolling average emission limit of 2.1 lbs NOx / Ton of Clinker.

- (4) Beginning on February 10, 2021 the Permittee shall comply with the following:
  - (a) The Union Bridge Kiln shall continuously operate its SO2 emission control technology at all times of Kiln operation. The Kiln may rely on inherent SO2 scrubbing properties and/or lime injection to control SO2 emissions.
  - (b) The Union Bridge Kiln shall comply with a 30-day rolling average emission limit of 0.4 lbs SO2 / Ton of Clinker.
- (5) The Permittee is prohibited from generating or using any emission reductions due to compliance with the Decree as netting reductions, emission offsets, or to apply for, obtain, trade, or sell any emission reduction credits.
- (6) Baseline actual emissions for the Kiln during any 24-month period selected by the Permittee shall be adjusted downward to exclude any portion of the baseline emissions that would have been eliminated had the Permittee been complying with the Decree during that 24-month period.
- (7) Any plant-wide applicability limits ("PALs") or PAL-like limits that apply to the Kiln must be adjusted downward to exclude any portion of the baseline emissions used in establishing such limit(s) that would have been eliminated had the Permittee been complying with the Decree during such baseline period.

# **Compliance Demonstration**

- (1) In order to demonstrate compliance with the NOx and SO2 limits defined in the Federal Consent Decree, the Permittee is required to install CEMS in accordance with the requirements of 40 CFR Part 60 on the Kiln stack. The CEMS are required to be in operation during all times that the Kiln is in operation. The CEMS must monitor and record NOx and SO2 emissions in units of parts per million (ppm), lbs of pollutant per hour, and lbs of pollutant per ton of clinker produced. During any time when the CEMS is inoperable or otherwise not measuring emissions from the Kiln, the Permittee shall apply the missing data substitution procedures defined in 40 CFR Part 75, Subpart D.
- (2) For the purposes of this section of the operating permit, an Operating Day shall mean any calendar day on which Kiln operation has occurred.
- (3) A "30-Day Rolling Average Emission Limit" shall mean, with respect to the Kiln complying with an emission limit in this section of the operating permit, the maximum allowable rate of emission of a specified air pollutant from the Kiln, and shall be expressed as pounds (lbs) of such air pollutant emitted per ton of clinker produced. Compliance with the 30-Day Rolling Average Emission Limit shall be determined by calculating the 30-Day Rolling Average Emission Limit.
- (4) The "30-Day Rolling Average Emission Rate" shall mean, with respect to the Kiln, the rate of emission of NOx or SO2, respectively, expressed as pounds (lbs) per ton of clinker produced by the Kiln and calculated in accordance with the following procedure: first, sum the total pounds of the pollutant in question emitted from the

Kiln during an Operating Day and the previous twenty-nine (29) Operating Days, as measured; second, sum the total tons of clinker produced by the Kiln during the same Operating Day and previous twenty-nine (29) Operating Days; and third, divide the total number of pounds of that pollutant emitted from the Kiln during the thirty (30) Operating Days referred to in this paragraph by the total tons of clinker produced at the Kiln during the dame thirty (30) Operating Days. A new 30-Day Rolling Average Emission Rate shall be calculated for each new Operating Day. Only emission data determined to be valid under 40 CFR § 60.13 or during any time when the CEMS is inoperable or otherwise not measuring emissions from the Kiln, the Permittee shall apply the missing data substitution procedures defined in 40 CFR Part 75, Subpart D. In calculating each 30-Day Rolling Average Emission Rate, the total pounds of that pollutant emitted from the Kiln during a specified period (Operating Day or 30-Day Period) shall include all emission s of that pollutant from the Kiln that occur during the specified period, including emissions during each malfunction.

(5) The Permittee shall determine and record the daily clinker production rates by installing, calibrating, maintaining, and operating a permanent weigh scale system to measure and record weight rates of the amount of clinker produced in ton of mass per hour. The system of measuring hourly clinker production must be maintained within ± 5 percent accuracy; or install, calibrate, maintain and operate a permanent weigh scale system to measure and record weigh rates of the amount of feed to the Kiln in tons of mass per hour, the system of measuring feed must be maintained withing ± 5 percent accuracy. If the Permittee chooses to measure and record the production rates at the Kiln, then the Permittee shall calculate the hourly clinker production rate using a kiln-specific feed-to-clinker ration based on the reconciled clinker production determined for accounting purposes and recorded feed rates, this ratio should be updated no less frequently than once per month; if this ratio changes at clinker reconciliation, the new ratio must be used going forward, but shall not be applied retroactively to change clinker production rates previously explained.

#### **Record Keeping and Reporting**

- (1) The Permittee must maintain for at least five (5) years, and shall make available to the Department upon request, all records used to demonstrate compliance with NOx and SO2 emission limits, records demonstrating that the SNCR NOx control technology has been operated as required, and records demonstrating that the SO2 emission control technology has been operated as required.
- (2) The Permittee must submit reports semi-annually until termination of the decree and quarterly thereafter that include a demonstration of compliance with the decree and a description of any non-compliance, with an explanation of the likely cause, corrective, and preventative actions taken to address the non-compliance.

#### **Rationale for Compliance Demonstration:**

The Permittee is subject to the Federal Consent Decree as described. The limitations on NOx and SO2 emission rates will be monitored by CEMS, according to Part 60 rules. The implementation of Part 75 data substitution rules in the case of CEMS downtime incentives uptime. The CEMS data will also be recorded providing verification of

compliance with emission limits. The use of certain control technologies as described in the decree is also required. The CEMS data will reflect the use of those technologies. The Permittee is prohibited using emissions reductions realized from compliance with the decree in a beneficial manner as pertains to PAL or PAL-like limits. The CEMS data will quantify any emissions savings due to compliance with the decree.

## 9. Clinker Cooler and Main Pan Conveyor (Subject to MACT Requirements)

# Area E – Clinker Burning and Cooling with Preheater Kiln

<u>Baghouse</u> <u>Emission Unit</u> E04-016 E03-001 - Clinker Cooler

# Area G - Clinker Transport & Storage - Craneway Building

<u>Baghouse</u> <u>Emission Unit</u> E04-016 G01-001 - Main Pan Conveyor

Majority of the clinker cooler exhaust is used as combustion air for the kiln and the calciner. The rest vents through the clinker cooler baghouse before discharging into the atmosphere.

#### Applicable Regulations and Standards

Visible and Particulate Matter Emissions

- (1) **COMAR 26.11.30.05(B)(2)**, 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 visible to human observers.
- (2) **COMAR 26.11.30.04(B)(2)**, which states that a person may not cause or permit particulate matter to be discharged from any installation in excess of 0.03 grains per standard cubic foot dry.
- (3) The Permittee may not discharge PM into the atmosphere from the clinker cooler in excess of 0.07 pound per ton of clinker. [Reference: §60.62(b)(1)(ii) and Table 1-7. of §63.1343(b)(1)]
- (4) Permit to Construct #06-6-0256N dated April 8, 1999 and revised June 7, 2000, which limits particulate matter from the clinker cooler exhaust stack to 0.0129 gr/scfd (29.5 mg/dscm).

# **Compliance Demonstration**

(1) The Permittee shall conduct particulate matter emissions stack tests using Method 5 of 40 CFR Part 60, Appendix A, for particulate matter on the clinker cooler once per calendar year, allowing at least 180 days between each particulate matter stack test [Consent Decree, August 24, 2009]. 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. **[40 CFR §63.1349(b) and (c)]** 

- (2) The Permittee uses a PM continuous parametric monitoring system (CPMS) to establish a site-specific operating parameter limit for continuous visible emissions and particulate matter compliance determinations in accordance with **COMAR 26.11.30.04C(1) and .05C(2).**
- (3) For the PM CPMS, the Permittee will establish a site-specific operating limit in accordance with §63.1349(b)(1)(i) through (iv). The Permittee shall conduct annual performance tests to reassess and adjust the site-specific operating limit as necessary. The Permittee shall follow the procedures in 40 CFR §63.1350(b)(iii) and (iv) for any exceedance of the established operating parameter limit of COMAR 26.11.30.04(C)(1) on a 30 process operating day basis. [Reference: COMAR 26.11.30.04(C)(5)] [Reference: COMAR 26.11.30.04B(3), §60.63(c)(2) and §63.1349(b)(1)]

The most recent MACT PM Stack Test of the clinker cooler was performed on May 3-5, 2021. The results are as follows:

Clinker Cooler – 0.0012 lb/ton of clinker (30-day rolling MACT standard of 0.07 lb/ton of clinker)

- (4) 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 meet the emission limits and operating limits of §63.1345:
  - (b) Corrective actions to be taken when required by §63.1350(e); and
  - (c) Procedures to be used to periodically monitor affected sources subject to opacity standards under§63.1345.

[40 CFR §63.1350(a) and (b)]

- (5) The exhaust gases from E03-001-Clinker Cooler and G01-001- Main Pan Conveyor shall vent through a dust collector designed to meet the particulate matter emissions limit before discharging into the atmosphere. [COMAR 26.11.03.06C]
- (6) The Permittee shall comply with and update, as needed, the preventative maintenance plan for each baghouse that describes the maintenance activity and time schedule for completing each activity. [COMAR 26.11.03.06C]
- (7) The Permittee shall maintain all records collected from both testing and monitoring requirements 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 on microfiche. [40 CFR §63.1355]

- (8) 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)]
- (9) The Company shall submit to the Department semiannually a Summary Report Gaseous and Opacity Excess Emissions and Continuous Monitoring System (CMS) Performance on January 31<sup>st</sup> and July 31<sup>st</sup> of each year. The Summary Report shall include the information specified in the permit. [40 CFR §63.1354b(9) and §63.10(e)(3)(vi)]
- (10) The Permittee shall submit a quarterly summary report 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 information specified in the permit. [COMAR 26.11.01.11A(3) and COMAR 26.11.01.10G(2)(d)]
- (11) The Permittee shall submit the results of performance tests before the close of business on the 60<sup>th</sup> day following the completion of the performance test.
  [40 CFR §63.1354(b)(1)] & [40 CFR §63.10(d)(2)]
- (12) At least 30 days prior to each stack emissions testing, the Permittee shall submit to the Department a stack test protocol for review and approval. [Part D(7) of Permit to Construct #06-6-0256 issued April 8, 1999 and revised June 7, 2000]
- (13) The Permittee shall 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 as specified in the permit. [Reference: §60.63(b)(1)(i) and (ii) and §63.1350(d)(1)(i) and (ii)]
- (14) The Permittee shall measure the kiln feed rates and calculate clinker production, record the hourly kiln feed and clinker production rates. 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). [Reference: §60.63(b)(2) and §63.1350(d)(2) and (3)]

# Rationale for Compliance Demonstration:

The clinker cooler is controlled by a baghouse which is the most effective control for visible emissions and particulate matter. In accordance with its O & M plan and SSP plan, Heidelberg calibrates, operates and maintains its CPMS in a manner consistent with good air pollution control. 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 each stack. 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. Heidelberg will perform preventative maintenance on each baghouse as specified in the baghouse preventive maintenance plan. All periods of CPMS downtime, QA/QC activities and corrective measures are recorded and reported to show compliance status.

# <u>10. Clinker Handling and Craneway - Point Sources (Subject to MACT Requirements)</u>

#### Area G - Clinker Transport & Storage

Baghouse Emission Unit		
G01-009	G01-012- Clinker Storage Silo	
G02-047	G02-002-Transfer Tower #13 Belt Conveyor	
G02-044	G02-002- Transfer Tower #12 Belt Conveyor	
G02-021	G02-002-Transfer Tower #11 Belt Conveyor	
G02-053	TL1- Clinker Truck/Rail Loadout	
G03-011	TT9/10- Transfer Tower #9/10 and G03-010- Clinker into Craneway	
G03-004	TT7- Transfer Tower #7	
G04-011	G04-010- Bucket Elevator; G04-014- 450 MT Clinker Bin; and	
	G04-020- Belt Conveyor	
G04-034	G04-009 & G04-016 - Belt Conveyor; G04-010- Bucket Elevator; G04-016-	
	Belt Feeder; and G04-056- 100 MT Clinker Bin Weighfeeder	
H01-220	G04-058- Clinker Bin, H01-006 Belt	
(G04-034)	G04-059- H01-015 Clinker Feeder, G04-018 Belt	

# Area H - Clinker Finish Mill

Paghauga Emission Unit

Bagnouse Emission Unit		
H09-051	H09-028- Bucket Elevator and H09-062- Reversible Belt Conveyor	
H09-059	H09-047- Bucket Elevator; H09-058- Belt Conveyor; H09-000- Semifinish	
	Grinding System; and H09-031- Belt Conveyor	
H09-025	H09-019- Weighfeeder; H09-023- 100 MT Gypsum Bin Weighfeeder; and	
	H09-024- Belt Conveyor (from Weighfeeder)	
H09-073H09-075- 90 Ton Bin		
H09-082	H09-021- 100 MT Clinker Bin Weighfeeder; H09-066- Belt Conveyor; and	
	H09-020- 100 MT Slag/Clinker Bin Weighfeeder	
H09-033	H09-031 & H09-046 - Belt Conveyor and H09-036 & H09-041 - Bin & Roll	
	Press	
H09-094H09-091- Metal Reclamation System Belt Conveyor		

# **Applicable Regulations and Standards**

(1) **COMAR 26.11.30.05(B)(2)**, 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 visible to human observers.

- (2) **Portland Cement MACT- 40 CFR §63.1348** 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)(2)**, which states that a person may not cause or permit particulate matter to be discharged from any installation in excess of 0.03 grains per standard cubic foot dry.
- (4) **Permit to Construct #06-6-0256N dated April 8, 1999 and revised June 7, 2000** All emission units shall be equipped with a dust collector designed to reduce particulate matter emissions to 0.01 gr/SCFD (22.9 mg/dscm) except TT9/10 Transfer Tower #9/10 which is required to meet 0.0108 gr/SCFD (24.7 mg/dscm).

# **Compliance Demonstration**

- (1) The Permittee shall conduct a monthly 1-minute visible emissions test of the exhaust stack of each emission unit in accordance with Method 22 of Appendix A to part 60. The frequency of the tests may be reduced to semiannually or annually as specified in the permit.
- (2) 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 meet the emission limits and operating limits of §§63.1348; and
  - (b) Procedures to be used to periodically monitor affected sources. [40 CFR §63.1350(a) and (b)]
- (3) The exhaust gas from each emissions unit shall vent a dust collector designed to reduce particulate matter emissions limits before discharging into the atmosphere. **[COMAR 26.11.03.06C]**
- (4) 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 offsite. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or no 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 under the site specific monitoring plan and the operation and 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.

#### Historical Stack Test Results

Heidelberg conducted compliance testing for particulate matter emissions from Dust Collector #H09-033 (Emission Units #H09-031, #H09-036, #H09-041, and #H09-046) on September 4 and 6, 2002, which indicated a particulate matter emission concentration of 0.0038 gr/dscf. HEIDELBERG conducted compliance testing for particulate matter emissions from Dust Collector #H09-082 (Emission Units #H09-021, #H09-020, #H09-062, and #H09-066) on September 19, 2002, which indicated a particulate matter emission concentration of 0.0004 gr/dscf. These stack tests on this representative set of dust collectors demonstrated that the dust collectors used throughout the plant were all designed to meet the emissions limits of 0.01 gr/dscf.

# 11. Finish Mill Systems (Subject to MACT Requirements)

# Area H - Clinker Finish Mill

Baghouse Emission Unit		
H01-070	H01-040 - Finish Mill #1; H01-061 - Cyclones and Belts; H01-063 -	
	Cyclone and Belts and H01-090 – Finish Mill #1 Burner	
H01-210	H01-105 – Belt Conveyor and Tipping Valves; H01-110 – Bin and	
	H01-112 – Belt Conveyor and Tipping Valves	
H01-230	H01-080 – Elevator and Tipping Valves	
H01-240	H07-015 – Cement to Cement Cooler and H07-016 - Airslide	
H04-044	H04-006- Belt Conveyor and H04-014- Finish Mill #4 System	
H05-044	H05-014- Finish Mill #5 System	
H06-044	H06-014- Finish Mill #6 System; H06-017- Cyclone 642 (FM#6 System);	
	and	
	H06-037- Separator 627 (FM#6 System)	
H07-056	H07-014- Finish Mill #7 System, H07-018, H07-068, H07-070 – Finished	
	Cement Transfer System	
H07-057	H07-018, H07-068, & H07-070 – Finished Cement Transfer System	
H08-056	H08-014- Finish Mill #8 System; H08-017- Separator (FM#8 System);	
	H08-037- Cyclone (FM#8 System) and H08-038 - Cyclone (FM#8	
	System)	

#### Applicable Regulations and Standards

Visible and Particulate Matter Emissions

- (1) **COMAR 26.11.30.05(B)(2)**, 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 visible to human observers.
- (2) Opacity for each finish mill, located at a major source, during all operating mode shall not exceed 10%. [Reference: Table 1-13. of §63.1343(b)(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. [Reference: §63.1345]

- (3) **COMAR 26.11.30.04(B)(2)**, which states that a person may not cause or permit particulate matter to be discharged from any installation in excess of 0.03 grains per standard cubic foot dry.
- (4) Permit to Construct #06-6-0256N dated April 8, 1999 and revised June 7, 2000, which limits particulate matter from each exhaust stack of H04-006 Belt Conveyor, H04-014 Finish Mill #4, H05-014 Finish Mill #5, H06-014 Finish Mill #6, H06-017 Cyclone 642, and H06-037 Separator 627 to 0.0132 gr/scfd (30.2 mg/dscm).
- (5) Permit to Construct #06-6-0256N dated April 8, 1999 and revised June 7, 2000, which limits particulate matter from each exhaust stack of H07-014 Finish Mill #7, H08-014 Finish Mill #8, and H07-018, & H07-070 Finished Cement Transfer System to 0.01 gr/scfd (22.9 mg/dscm).
- (6) **Permit to Construct #013-6-0256M dated February 23, 2005,** which limits particulate matter to 0.0132 gr/scfd (30.2 mg/dscm)

#### **Compliance Demonstration**

(1) 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. At least 30 days prior to each stack emissions testing, the Permittee shall submit to the Department a stack test protocol for review and approval. Within 60 days after each stack emissions testing, the Permittee shall submit to the Department the stack emissions test reports and compliance demonstration with emissions limits.

[Permit to Construct #06-6-0256N dated April 8, 1999 and revised June 7, 2000]

The permittee stack tested Finish Mills #1, #7, and #8 for particulate matter on May 25-26, 2021. The results are as follows:

Finish Mill #1 – 0.0006 gr/dscf TSP Finish Mill #7 – 0.0017 gr/dscf TSP Finish Mill #8 – 0.0024 gr/dscf TSP

Note: Finish Mills 4, 5, and 6 are in operation and as such were not tested.

- (2) The Permittee shall conduct daily visual emissions observations of each mill sweep and air separator PMCDs of each affected source in accordance with Method 22 of Appendix A to part 60. The Method 22 test shall be conducted while the affected source is operating under representative performance conditions in accordance with 40 CFR 63.7(e). The frequency of the tests may be reduced as specified in the permit. [40 CFR §63.1350(f)]
- (3) The Permittee shall comply with and update as needed the written operations and maintenance plan. The plan shall 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 emission limits and operating limits of §63.1347; and
  - (b) Procedures to be used to periodically monitor affected sources. [40 CFR §63.1350(a) and (b)]
- (4) 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]
- (5) The Permittee shall monitor, record, and report GHGs in accordance with 40 CFR 98.34, 98.35, 98.36, and 98.37 for the Finish Mill No. 1 Air Heater.
- (6) The Permittee shall implement and comply with the requirements of the CAM plan as specified in the permit.
- (7) 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]

(8) 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)]

From the historical and recent stack test results (Table 2) for finish mill systems, all the finish mills and finished cement transfer systems have been operated in compliance with the emission limit of 0.0132 gr/scfd (30.2 mg/dscm) for finish mill # 4, 5, and 6 and 0.01 gr/scfd (22.9 mg/dscm) for finish mill #7 and 8 and the finished cement transfer systems.

#### 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. The Permittee shall quantify GHGs emissions and report them in accordance with 40 CFR 98.36. The implementation of the CAM plan would ensure that each piece baghouse functions in accordance with the established operating criteria. Reporting and record keeping requirements are sufficient documentation that the procedures are followed.

# <u>12. Miscellaneous Sources Venting Inside Building (Subject to MACT Requirements)</u>

#### Area G – Clinker Transport & Storage – Craneway Building

Baghouse Emission Unit

G04-037G04-018-Belt Conveyor (Venting Inside Building)
G04-019-CE2 Bucket Elevator (Venting Inside Building)
H09-073G04-031-Drag Conveyor B3 (Venting Inside Building)

#### **Area H – Clinker Finish Mill**

**Baghouse Emission Unit** 

H09-059H09-058-Belt Conveyor (Venting Inside Building)

H09-073 H09-058-Belt Conveyor (Venting Inside Building) & H09-075-90T Bin (Venting Inside Building)

#### **Applicable Standards and Regulations**

- (1) **COMAR 26.11.30.05(B)(2)**, 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 visible to human observers.
- (2) **40 CFR §63.1348** 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)(2)**, which states that a person may not cause or permit particulate matter to be discharged from any installation in excess of 0.03 grains per standard cubic foot dry.
- (4) **Permit to Construct #06-6-0256N dated April 8, 1999 and revised June 7, 2000**-Each emissions unit shall be equipped with a dust collector designed to reduce particulate matter emissions to 0.01 gr/SCFD (22.9 mg/dscm).

#### **Compliance Demonstration**

(1) The Permittee shall conduct a monthly 1-minute visible emissions test of the exhaust stack of each emission unit in accordance with Method 22 of Appendix A to part 60. The frequencies of the test are specified in the permit. [40 CFR §63.1350(a)(4)(i)-(iii) and (I)]

- (2) The Permittee has the option to conduct a Method 22 visible emissions test according to the requirements of 40 CFR §63.1350(a)(4)(i)-(iii) and (I) for each emissions unit located within the building, or for the building itself. If visible emissions from the building are monitored, the requirements of 40 CFR §63.1350(a)(4)(i)-(iii) and (I) apply to monitoring the building, and the Permittee must also test visible emissions from each side, roof, and vent of the building for at least 1 minute. The test must be conducted under normal operating conditions. [40 CFR §63.1350(a)(4)(vi)-(vii)]
- (3) 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 meet the emission limits and operating limits of §§63.1348; and
  - (b) Procedures to be used to periodically monitor affected sources.

[40 CFR §63.1350(a) and (b)]

(4) 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]

(5) 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]

(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)]

#### Rationale for compliance demonstration:

The opacity monitoring plan and preventive maintenance plan under the site specific monitoring plan and the operation and 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.

#### 13. Dried BioSolids (DBS) Related Operations

Product Collectors	Emission Unit
F04-062	F04-058 - DBS Storage Tank (Fluidized Coke Storage Tank); F05-
	049 – Rotary Air Lock for Feeding DBS from Silo; F05-050 –
	Scale, Pfister Dosing System; F05-055 – Diverter Valve to
	Calciner; F05-056 – Diverter Valve to Main Kiln Burner.
F04-064	F04-058 - DBS Storage Tank (Fluidized Coke Storage Tank); F05-049 - Rotary Air Lock for Feeding DBS from Silo; F05-050 - Scale, Pfister Dosing System; F05-055 - Diverter Valve to Calciner; F05-056 - Diverter Valve to Main Kiln Burner.
G05-003	G05-001 - Pneumatic baghouse dust (BD) transfer system F05-051 – Mobile DBS Conveyor for Rail Car Unloading

Dried BioSolids (DBS) system was installed 2009 and updated 2013.

# **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**

The product collectors F04-062, F04-064, and G05-003, either vent through kiln or back to the storage devices to recover products. 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.

#### **Rationale for Compliance Demonstration**

The best management plan is reviewed and approved by the Department and contains the methods and procedures that the Permittee uses to minimize particulate matter from these fugitive sources. Documentation of corrective measures taken in accordance with the plan is sufficient to demonstrate that the Permittee is using reasonable precautions to minimize fugitive particulate matter.

#### 14. Facility-Wide Requirements

## **Applicable Standards/Limits:**

- (1) Permit to Construct #06-6-0256 issued April 8, 1999 and revised June 7, 2000 which states that NOx emissions from the entire premises shall not exceed 4,871 tons for any 12-month period, rolling monthly.
- (2) Particulate Matter Emissions

Permit to Construct #06-6-0256 issued April 8, 1999 and revised June 7, 2000 which states that emissions from the entire premises shall not exceed the following limits for any 12-month period, rolling monthly:

- (a) 925 tons of PM;
- (b) 716 tons of  $PM_{10}$ ; and
- (c) 586 tons of PM<sub>10</sub> stack emissions.
- (3) Permit to Construct #06-6-0256 issued April 8, 1999 and revised June 7, 2000 which states that SO<sub>2</sub> emissions from the entire premises shall not exceed 1,041 tons for any 12-month period, rolling monthly.
- (4) Prevention of Significant Deterioration (PSD) Approval #PSD-97-01R dated April 8, 1999 which states that the premises-wide carbon monoxide (CO) emissions from the Pyroprocessing Portland cement plant shall not exceed 3,328 tons for any 12-month period, rolling monthly.
- (5) New Source Review Approval #NSR-97-02 issued April 8, 1999 which states that premises-wide emissions shall not exceed 165 tons of VOC for any 12-month period, rolling monthly. In determining compliance with VOC emission limits, VOC emissions shall be determined by calculating the numerical difference between the measured values of total hydrocarbon (THC) emissions and non-VOC emissions.
- (6) Permit to Construct #06-6-0256 dated April 8, 1999 and revised June 7, 2000 which states that the lead emissions from the entire premises, including the existing Portland cement plant and the Pyroprocessing Portland cement plant, shall not exceed 0.6 tons of lead for any 12-month period, rolling monthly.
- (7) Permit to Construct #06-6-0256 dated April 8, 1999 and revised June 7, 2000 which states that the emissions from the entire premises shall not exceed 3.0 tons of fluoride for any 12-month period, rolling monthly.

# Compliance Demonstration

(1) The Permittee shall submit quarterly emission reports for emissions of each regulated pollutant on a rolling 12-month basis.

- (2) The Permittee shall submit an annual emission certification report for each regulated pollutant and shall use the premises-wide actual emissions, which does not exceed the allowable emission limits, as its emission baseline for future modifications.
- (3) The Permittee shall not use any alternative kiln raw material, fuel, or additive except the following: [Permit to Construct #06-6-0256, 0331, and 0337 dated March 1, 2013]
  - (a) Quarried stone, sand and shale;
  - (b) Iron-bearing materials, such as pyrites and millscale;
  - (c) Cat fines;
  - (d) Bottom ash and fly ash from coal-fired fuel burning equipment;
  - (e) Natural gas;
  - (f) Coal;
  - (g) Scrap tires;
  - (h) Petroleum coke;
  - (i) Used oil generated on site;
  - (j) Class A Dried BioSolids (DBS); and
  - (k) Other materials which are included in the Permittee's current operating permit or may have been approved by the Department in the past under separate action.

Any alternative kiln raw material, fuel, or additive not approved under authority of this permit or under any previous action may not be used unless it is demonstrated to the Department's satisfaction that the use of any substitute raw material, fuel or additive does not violate the Department's air toxics screening levels and does not increase air emissions beyond the allowable limits stated in the permit to construct, the PSD approval, or the NSR approval.

#### Rationale for Compliance Demonstration

The Permittee has demonstrated compliance with all premises-wide emission limits through stack emissions testing and/or continuous emissions monitoring. As long as the Permittee demonstrates compliance with all requirements for each emission unit, its premises-wide actual emissions will not exceed allowable emission limits. Quarterly emission reports and annual emissions certification reports confirm compliance with the limits.

#### 15. Emergency Generator

#### **Emission Unit**

J08-532 Caterpillar 2520 horsepower (1750 kW) diesel generator, ARMA Reg. No. 013-0012-9-0186, installed in July 2001

This generator was constructed in July 2001, before the applicability date of the NSPS for generators (40 CFR 60, Subpart IIII). This generator is not subject to 40 CFR, Part 63, Subpart ZZZZ since emergency generators at major sources of HAPs are exempt from the requirements of 40 CFR, Part 63, Subpart ZZZZ according to 40 CFR 63.6590(b)(3)(iii). The following requirements have been included in Table IV-18 in the permit.

#### **Applicable Standards and Regulations**

- (1) **COMAR 26.11.09.05E(2)**, which states that "a person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity."
- (2) **COMAR 26.11.09.05E(3)**, which states that "a person may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity."

## Exceptions. COMAR 26.11.09.05E(4) establishes the following:

- (a) Section E(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.
- (b) Section E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods: (i) Engines that are idled continuously when not in service: 30 minutes; and (ii) All other engines: 15 minutes.
- (c) Section E(2) and (3) do not apply while maintenance, repair, or testing is being performed by qualified mechanics.
- (3) **COMAR 26.11.09.07A(2)(b)** which states that "a person may not burn, sell, or make available for sale any distillate fuel oils with a sulfur content by weight in excess of 0.3 percent.
- (4) **COMAR 26.11.09.08G(1)**, which requires that a person who operates fuel burning equipment with a capacity factor (as defined in 40 CFR §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; and
  - (c) at least once every 3 years require each operator of the installation to attend an operator training program on combustion optimization that is sponsored by the Department, the EPA or equipment vendors. In accordance with COMAR 26.11.09.08B(5)(a), the equipment operator to be trained may be

the person who maintains the equipment and makes the necessary adjustments for efficient operation.

# **Compliance Demonstration**

- (1) The Permittee is limited to burning only diesel fuel (No. 2 fuel oil) that meets all applicable federal and state requirements in the generator unless the Permittee obtains an approval from the Department to burn alternate fuels. The Permittee shall obtain a certification from the fuel supplier indicating that the oil complies with the limitation on the sulfur content of the fuel oil. [Reference: COMAR 26.11.03.06C]
- (2) The Permittee performs combustion analyses and training as required by COMAR 26.11.09.08 for the emergency generator.
- (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) Records of the calculated capacity factors. [Reference: COMAR 26.11.03.06C]
  - (b) Records of hours of operation. [Reference: COMAR 26.11.02.19C]
  - (c) Records of combustion analysis performed if the hours of operation exceed 500. [Reference: COMAR 26.11.09.08G(1)(c)]
  - (d) Records of all maintenance/repairs performed [Reference: COMAR 26.11.03.06C]
  - (e) Record of training program attendance for each operator. [Reference: COMAR 26.11.09.08G(1)(e)]
  - (f) Annual records of the quantity and type of fuel combusted in the generator.
  - (g) Fuel supplier certifications. Reference: COMAR 26.11.03.06C]
  - (h) Incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations." [Reference: COMAR 26.11.03.06C]

#### Rationale for Compliance Demonstration

COMAR 26.11.09.08 outlines the methods for compliance with the training and combustion analysis requirements. Compliance with the requirements of COMAR 26.11.09.08 ensures that operators of the generator are properly trained and the generator is properly maintained to not cause emissions in excess of the applicable visible emissions standards. Fuel supplier certification is sufficient to ensure that the fuel used in the emergency generator meets the applicable sulfur content limit. The Permittee shall keep records of all analyses and fuel supplier certifications to confirm compliance.

#### 16. Facility Wide – MACT Sources Only

#### Applicable Standards and Regulations

The Permittee shall comply with the sections of the General Provisions (Table IV-15 to Subpart LLL of Part 63) and facility wide general requirements.

## **COMPLIANCE SCHEDULE**

Heidelberg's Union Bridge facility is currently in compliance with all applicable air quality regulations.

#### TITLE IV - ACID RAIN

Heidelberg is not subject to the Acid Rain Program requirements. The Phase II Acid Rain Permit renewal will be issued in conjunction with this Part 70 permit.

## TITLE VI - OZONE DEPLETING SUBSTANCES

Heidelberg is not subject to Title VI requirements.

#### SECTION 112(r) - ACCIDENTAL RELEASE

Heidelberg is not subject to the requirements of Section 112(r).

#### PERMIT SHIELD

The Heidelberg facility 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. <u>3</u> 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;

The engines 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.
- (2) <u>✓</u> Space heaters utilizing direct heat transfer and used solely for comfort heat;
- (3) \_\_\_\_ Water cooling towers and water cooling ponds unless used for evaporative cooling of water from barometric jets or barometric condensers, or used in conjunction with an installation requiring a permit to operate;
- (4) No. <u>3</u> 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) Containe		s, reservoirs, or tanks used exclusively for:
	(a) <u>√</u>	Storage of butane, propane, or liquefied petroleum, or natural gas;
	(b) No	Storage of lubricating oils;
	(c) No	Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel
(6)	<u> </u>	First aid and emergency medical care provided at the facility, including related activities such as sterilization and medicine preparation used in support of a manufacturing or production process;
(7)	<u>√</u>	Potable water treatment equipment, not including air stripping equipment;
(8)	<u> </u>	Emissions resulting from the use of explosives for blasting at quarrying operations and from the required disposal of boxes used to ship the explosive;
(9)	<u> </u>	Comfort air conditioning subject to requirements of Title VI of the Clean Air Act; and
(10)	<u> </u>	Laboratory fume hoods and vents.

#### STATE ONLY ENFORCEABLE REQUIREMENTS

This section of the permit contain 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, including COMAR 26.04.10.08 Reporting, which states:
  - (a) A generator of coal combustion byproducts shall maintain records of, and deliver to the Department by March 1 of each year an annual report that contains, the following:
    - (i) The name, address, and telephone number of the generator of any coal combustion byproducts:
    - (ii) A description of the process that generates the coal combustion byproducts, including the type of coal or other raw material that generates the coal combustion byproducts;
    - (iii) The annual volume of coal combustion byproducts generated during the last 5 calendar years, including an identification of the different types of coal combustion byproducts generated and the volume of each type generated, except that after a generator has submitted its first annual report, which shall report the information in this subsection for the last 5 calendar years, subsequent annual reports need only provide the information in this subsection for the last calendar year;
    - (iv) Descriptions of any modeling or risk assessments, or both, conducted relating to the coal combustion byproducts or their use:
    - (v) All laboratory reports of all chemical characterizations of the coal combustion byproducts;
    - (vi) Except as provided in §G of this regulation, a description of how the generator disposed of or used its coal combustion byproducts in the last 5 calendar years, identifying:
      - The types and volume of coal combustion byproducts disposed of or used, the location of disposal, mine reclamation and use sites, and the

type and volume of coal combustion byproducts disposed of or used at each site; and

- The different uses by type and volume of coal combustion byproducts;
- (vii) A description of how the generator intends to dispose of or use its coal combustion byproducts in the next 5 years, identifying:
- (viii) The types and volume of coal combustion byproducts intended to be disposed of or used, the location of intended disposal, mine reclamation and use sites, and the type and volume of coal combustion byproducts intended to be disposed of or used at each site; and
- (ix) The different intended uses by type and volume of coal combustion byproducts.
- (b) An authorized official of the generator shall sign the annual report provided under §A of this regulation and certify as to the accuracy and completeness of the information contained in the annual report.
- (c) A generator shall maintain records of the names, addresses, and telephone numbers of the persons to whom the generator sold, transferred, or provided coal combustion byproducts for disposal, storage, use, or recycling; the type and volume of coal combustion byproducts provided to each person; and, if known, how each person disposed of, used, or recycled the coal combustion byproducts.
- (d) The generator shall maintain all records required by §§A and C of this regulation for a minimum of 5 years and shall make the records available to the Department upon request.
- (e) If changes in the raw materials or processes used by a generator result in the identification of new chemical constituents in the coal combustion byproducts, the generator shall submit a report to the Department, identifying the new chemical constituents and the change in raw materials or processes that resulted in the creation of the new chemical constituents.
- (f) Except as otherwise provided by law, the Department may publish on its website or elsewhere, or otherwise make available to the public, any information that it gathers from the annual reports or records provided under this regulation.
- (g) After a generator has submitted its first annual report, which shall report the information in §A(6) of this regulation for the last 5 calendar years, subsequent

## HEIDELBERG MATERIALS US CEMENT LLC 675 QUAKER HILL ROAD, UNION BRIDGE, MARYLAND 21791 PERMIT NO. 24-013-0012 PART 70 OPERATING PERMIT FACT SHEET

annual reports need only provide the information in §A(6) of this regulation for the last calendar year.

- (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.

#### **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:

- (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.

In October 2021, the Permittee submitted a Toxic Air Pollutant (TAP) Assessment based on the August 2021 stack test results.

#### **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.

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# SECTION I SOURCE IDENTIFICATION

#### 1. DESCRIPTION OF FACILITY

Heidelberg Materials US Cement LLC (Heidelberg, formerly Lehigh Cement Company LLC) owns and operates a Portland cement manufacturing plant at 675 Quaker Hill Road in Union Bridge, Maryland 21791. The plant is located in both Carroll and Frederick Counties. The Union Bridge Quarry is located in Frederick County (Maryland Air Quality Region II), while the main part of the Union Bridge Plant, including the New Windsor Quarry, is located in Carroll County (Maryland Air Quality Region III). The original plant at Union Bridge was built in 1910 and has been modernized several times, including the modernization/expansion where the four long-dry kilns were replaced with one pre-heater/pre-calciner kiln system. A permit to construct and New Source Review (NSR) and Prevention of Significant Deterioration (PSD) Approvals were issued on April 8, 1999, and revised on June 7, 2000, for the plant modernization and expansion. The primary SIC code for this facility is 3241.

The following is a description of the processes at the Union Bridge facility.

#### Union Bridge Quarry

The principal raw materials used to manufacture cement at the Union Bridge plant are limestone, sand, mill scale, shale, and power plant fly ash/bottom ash. Sand, mill scale, and fly ash/bottom ash are purchased from outside sources and brought to the plant by trucks for use in the kiln. Limestone is mined from the Union Bridge Quarry site near the crushing plant. Limestone is periodically mined from the Union Bridge Quarry, this quarry serves as backup for the New Windsor Quarry and provides infrastructure stone and masonry stone to the plant.

#### New Windsor Quarry

The New Windsor Quarry began operations on June 1, 2018. A five (5) mile long conveyor system is used to transfer limestone and shale mined from the New Windsor Quarry to the Union Bridge plant, where these raw materials are used to manufacture cement. The New Windsor Quarry has a crushing plant to process limestone.

#### Rock Crushing

Each quarry has its own crushing plant. The crushing plant at the Union Bridge Quarry is periodically operated. At the New Windsor Quarry, trucks dump the rock into the hopper of an apron feeder, which feeds an impact crusher where the limestone it is broken down into fragments less than six inches in size. After the limestone passes through the impact crusher, the material drops onto the long belt conveyor. Particulate emissions at the New Windsor crushing system and the transfer points are controlled by dust collectors.

#### Rock Storage

Rock travels to the plant from the New Windsor Quarry crusher along the 5-mile belt to the Union Bridge dome storage. The dome is 400 feet in diameter and 126 feet high and has a storage capacity of 50,000 metric tons of rock.

#### Raw Material Storage and Handling

Iron and silica-based raw materials are stored in an open area, uncovered. These raw materials are conveyed to a partially enclosed raw material storage barn building. Solid fossil fuels (coal) are located in outdoor storage piles. Alumina-bearing ash (fly ash) raw materials are pneumatically conveyed to a storage silo. There are two (2) covered structures near the kiln for storing Alumina-bearing ash (bottom ash) raw materials. Raw material transfer throughout the plant is done by covered conveyor systems and transfer towers, which have dust collectors venting all transfers.

# Vertical Roller Mill (Raw Mill)

The Heidelberg plant includes an in-line Loesche vertical raw mill system. The in-line raw mill utilizes recycled heated gases from the kiln exhaust to dry the raw material ground into raw meal. The dry raw meal is stored in a blending silo (the Raw Mill Silo). Next, the raw meal is conveyed from the blending silo to the preheater/precalciner and then to the rotary kiln. An additional benefit of a pre-heater tower is that the limestone acts as a scrubber to remove some of the sulfur compounds from the precalciner exhaust gases. The exhaust gases from the raw mill are vented through a main kiln dust collector to the main kiln stack.

#### Blending Silo

In this operation, all the raw materials are blended to the proper proportions for introduction into the preheater tower/kiln system. Particulate emissions from the silos and raw material handling systems are controlled with baghouses.

#### Coal Storage

Coal is one of the primary fuels and is stockpiled outside on the ground near the preheater tower/kiln system. Coal is ground through a vertical coal mill and stored in two silos. Coal is brought in by truck.

# Coal Mill

Heidelberg primarily fires coal and other approved solid fuels in both the kiln and the preheater/precalciner tower. Coal from the stockpiles is ground for use in the preheater tower/kiln system. The coal mill utilizes heated gases from the kiln exhaust to dry and separate the coal. Milled coal is blown into the firing end of the kiln and the preheater/precalciner. Exhaust gases from the coal mill are vented through a coal mill only dust collector and then are exhausted out of the main kiln stack.

# Pyro-Processing / Kiln, Raw Meal Feed, and Coal Mill Feed Systems

Pyro-processing is a process in which materials are subjected to high temperatures (typically over 800°C) in order to bring about a chemical or physical change. The Union Bridge plant's pyroprocessing system consists of a 5-stage pre-heater tower and rotary kiln. The preheater tower contains secondary firing and a rotary kiln. Fuel used in the system may consist of coal, dried biosolids and fuel oil. Energy, in the form of fan-power, is required to draw the kiln combustion gases through the string of cyclones. It is also normal to use the warm exhaust gas to dry the raw materials in the raw-mill and operate the coal mill. The air volume will eventually pass through a dust collector vented to the atmosphere.

Environmental controls installed in the pyro-processing line are SNCR for nitrous oxide reduction, Activated Carbon injection for mercury reduction and a fabric filter dust collector for particulate control.

Heidelberg monitors the emissions of NOx, SO2, CO, THC, CO2, and mercury (Hg), and hydrogen chloride (HCl) with continuous emissions monitors that are installed on the main kiln stack. There are also exhaust gas flow and PM continuous parametric monitoring systems (CPMS) installed in the stack. Particulate matter emissions are controlled by a baghouse, NOx emissions are controlled by urea injection, mercury emissions are controlled by carbon injection with baghouses to control dust at the finish mills, and SO2 emissions are controlled by limestone raw material in the pre-heater tower.

#### Clinker Cooler

As clinker from the kiln drops into reciprocating grate coolers, cooling air blows up through the clinker. The clinker is then transported to the clinker storage silo. A portion of the cooling ambient air after passing through the cooler grates is used for secondary combustion air for the kiln burner. The cooled clinker is loaded into the clinker silo and then conveyed to the crane hall. Emissions are controlled by a baghouse. There is a PM continuous parametric monitoring system (CPMS) installed in the stack from the cooler.

#### Roll Press/ Semi-Finishing Grinding Mill

The roll press is used to pre-grind the clinker for feeding to the finish ball mills. The product from the press is pre-ground cement. The finished product from the roll press is conveyed to the finish mills for final grinding. The system is controlled by baghouses.

#### Finish Mill System

This is the final grinding operation for the cement. Just before the finish grinding, gypsum, grinding aids, and/or limestone are mixed with the cement to control the rate at which the cement will set after it is mixed into concrete. Cement kiln baghouse dust is also mixed in to remove mercury from the kiln system. The finished cement is pneumatically conveyed to the storage silo. The finish mill system includes a semi finishing grinding system, finish mills #1, #4, #5, #6, and #7, in addition to the conversion of the old raw mill system to #8 finish mill. The semi finishing grinding system and the finish mills are controlled by baghouses.

#### Cement Loadout

There are two (2) cement loadout areas at the plant, the 32-silos area and the Day Silo. A total of 32 product silos are used at the plant. There is also a cement bagging operation on-site also. Cement is shipped offsite by trucks and rail. Both packaged and bulk products are shipped.

# 2. FACILITY INVENTORY LIST

Emission Unit Table 1-1: Area A-1 – Union Bridge Quarry Operations (SCC 3-05-006-09)

Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation
Sources Not S	Subject to MACT	and NSPS Requirements	
HR1	6-0027	Quarry haul roads	Modified – 2002
SP1	6-0027	Limestone Storage Pile	Modified – 2002
TLU1	6-0027	Limestone Truck Loading	1970
TLU2	6-0027	Limestone Truck Loading/Unloading	2002
SP8	6-0327	Iron B02-001 Surge Storage Pile	2002
SP9	6-0327	Silica B02-001 Surge Pile	2002
SP11	6-0027	Overburden Storage Pile	1911 & 1957
A01-009	6-0027	Gyratory Crusher – Primary crushing – Baghouse A01-012	1957
B01-017	6-0327	Belt Conveyor #8 - Baghouse A02-025	1970, moved from Area B
A01-018	6-0027	Belt Conveyor #1 – Baghouse A01-012	1957
A01-021	6-0027	Surge Bin/#8 Belt - Baghouse A01-025	1955
A02-005	6-0027	Belt Conveyor #2 - Baghouse A02-008, A02-003	1970
A02-006	6-0027	Secondary Crusher – Baghouse A02-008	1970
A02-010	6-0027	Belt Conveyor #3 – Baghouse A02-008	1970
A02-017	6-0027	Belt Conveyor #6 – Baghouse A02-008	1970
A02-018	6-0027	Belt Conveyor #5 – Baghouse A02-008	1970
A02-019	6-0027	Tertiary Crusher – Baghouse A02-008	1970
A02-021	6-0027	Belt Conveyor #4 – Baghouse A02-008	1970
A02-011	6-0027	Vibrating Screen and Transfer System – Baghouses A02-012, A01-015, A02-025	1970
A02-022	6-0027	Vibrating Screen and Transfer System - Baghouses A02-012. A01-015, A02-025	1970
A02-023	6-0027	Vibrating Screen and Transfer System - Baghouses A02-012, A02-015 and A02-025	1970
A02-024	6-0027	Belt Conveyor #7 – Baghouses A02-012, A02-015	1970
A03-022	6-0352	Masonry Hauling at Union Bridge (paved)	2014, Modified 2020
SP13	6-0327	Bottom Ash Storage Pile	2011
A02-026	6-0327	Screen for processing wet bottom ash	2011
		CFR 60, Subpart OOO Requirements	
C0-001	6-0327	Bottom Ash Screener – one (1) MGL EX1 Scalper Screener, powered by an electric Cummins 74 HP engine	2022

Emission Unit Table 1-2: Area A-2 – New Windsor Quarry Operations

(SCC 3-05-006-09)

Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation
Sources Not S	Subject to NSPS	Requirements	
A03-001A	6-0352	Waste Rock Hauling (Segment A)	2014
A03-001B	6-0352	Waste Rock Hauling (Segment B)	2014
A03-001C	6-0352	Waste Rock Hauling (Segment C)	2014
A03-002A	6-0352	Limestone Hauling (Segment A)	2014
A03-002C	6-0352	Limestone Hauling (Crusher Segment )	2014
A03-003	6-0352	Front End Loader to Limestone Truck	2014
A03-004	6-0352	Truck to Primary Hopper	2014
Sources Subje	ect to NSPS 40 C	FR 60, Subpart OOO Requirements	
A03-005	6-0352	Primary Crusher for calcium, silica, alumina, and iron bearing raw materials  – Baghouse A03-007	2014
A03-006	6-0352	Primary Crusher for to Belt #1 – Baghouse A03-007	2014
A03-008	6-0352	Belt #1 to Belt #2 Transfer – Baghouse A03-007	2014, Modified 2020
A03-010	6-0352	Transfer from Belt #2 to Belt #3 or to Masonry Pile – Baghouse A03-011	2014
SP10	6-0352	New Windsor Storage Pile	2014
SP12	6-0352	Masonry Storage Pile	2014
A03-012	6-0352	Belt #2 to Limestone Overland Conveyor (Belt #4) – Baghouse A03- 013	2014, Modified 2020
A03-014	6-0352	Overland Conveyor (Belt #4) Transfer to Belt #5 to New Transfer Tower – Baghouse A03-015	2014
A03-016	6-0352	New Transfer Tower – Baghouse A03- 017	2014
A03-018	6-0352	Masonry Transfer to Crusher	2014, Modified 2020
A03-019	6-0352	Masonry Portable Crusher	2014, Modified 2020
A03-020	6-0352	Transfer from Masonry Crusher to Truck	2014, Modified 2020
A03-021	6-0352	Masonry Hauling at New Windsor (unpaved)	2014, Modified 2020

Emission Unit Table 2: Area B – Raw Material Transport and Storage (SCC 3-05-006-12)

Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation
Sources Not S	ubject to MACT	Requirements	
TU1	6-0327	Iron and Silica Truck Unloading	2002
SP4	6-0327	Silica Storage Pile	2002
SP5	6-0327	Iron Storage Pile	2002
B03-031	6-0256	Activated Carbon Injection (ACI) system tank controlled by a bin vent	2011
Sources Subje	ct to MACT Red		•
B01-011	6-0327	Enclosed Limestone Dome	2001
B02-007	6-0327	Belt Conveyor – Baghouse B02-008	2001
B02-011	6-0327	Silica Bearing Material Bin – Baghouse B02-008	2001
B02-012	6-0327	Iron Bearing Material Bin – Baghouse B02-008	2001
B02-017	6-0327	Reversible Belt Conveyor – Baghouse B02-008	2001
B03-004	6-0327	Fly Ash Blending Silo System - Baghouse B03-008	2002
B04-019	6-0327	Limestone Bin - Baghouse B04-016	2002
TT3	6-0327	Transfer Tower #3 – Baghouses B04- 011, B04-016	2002
TT4	6-0327	Transfer Tower #4 - Baghouse B02-019)	2002

# Emission Unit Table 3: Area C – Raw Grinding (SCC 3-05-006-13)

Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation
Sources Subje	ect to MACT Rec	<u>quirements</u>	
C01-002	6-0328	Limestone Weighfeeder- Baghouse C01-007	2001
C01-004	6-0328	Iron Weighfeeder - Baghouse C01-007	2001
C01-006	6-0328	Silica Weighfeeder - Baghouse C01-007	2001
C01-011	6-0328	Belt Conveyor – Baghouse C01-007, C02-021	2001
C01-015	6-0328	Fly Ash Weigh Bin – Baghouse C01-019	2001
C02-001	6-0328	Bucket Elevator – Baghouse C02-011, C02-021	2001
C02-006	6-0328	100 Ton Bin – Baghouse C02-011	2001
C04-068	6-0328	Airslide – Baghouse C04-050, C04-075	2002

Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation
C04-070	6-0328	Airslide – Baghouse C04-075	2002
C04-072	6-0328	Airslide – Baghouse C04-075	2002
C04-074	6-0328	Airslide – Baghouse C04-075	2002
C04-037	6-0328	Bucket Elevator – Baghouses C04-050, C04-075	2002
C04-038	6-0328	600 Ton Bin – Baghouse C04-075, C04- 050	2002
C02-038	6-0328	Rejects Belt Conveyor - Baghouse C02- 021	2001
C02-060	6-0328	Reversible Belt Conveyor (to Raw Mill) - Baghouse C02-011	2001
C03-034	6-0328	Airslide – Baghouse C03-001	2002
C03-035	6-0328	Airslide – Baghouse C03-001	2002
C03-040	6-0328	Airslide – Baghouse C03-001	2002
C03-042	6-0328	Airslide – Baghouse C03-001	2002
C03-045	6-0328	Airslide – Baghouses C03-047, C03-050	2002
C03-008	6-0328	Airslide – Baghouse C03-050	2002
C03-054	6-0328	Airslide – Baghouse C03-050	2002
C03-046	6-0328	Bucket Elevator – Baghouse C03-030, D01-037	2002
C03-017	6-0328	Airslide – D01-037	2002
C03-010	6-0328	Airslide – Baghouse C03-030	2002
C03-013	6-0328	Airslide – Baghouse C03-030	2002
C02-025	6-0328	Raw Mill – Baghouse C04-014	2001
C04-066	6-0328	Airslide – C03-050	2002

# Emission Unit Table 4: Area D – Raw Meal – Kiln Feed (SCC 3-05-006-23)

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Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation
Sources Subje	ect to MACT Red	quirements	
D01-001	6-0329	Blending Silo – Baghouse D01-037	2002
D01-002	6-0329	Recirculation Airslide – Baghouse D01- 037	2002
D01-003	6-0329	Recirculation Airslide – Baghouse D01- 037	2002
D01-020	6-0329	185 Metric Ton Feed Bin – Baghouse D01-034	2002
D02-004	6-0329	Airslide – Baghouse D01-034	2002
D02-006	6-0329	Flow Meter – Baghouse D01-034	2002

Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation
D02-017	6-0329	Airslide – Baghouse D01-034	2002
D02-019	6-0329	Flow Meter – Baghouse D01-034	2002
D01-023	6-0329	Airslide – Baghouse D01-040	2002
D01-026	6-0329	Airslide – Baghouse D01-040	2002
D02-007	6-0329	Airslide – Baghouse D01-040	2002
D02-020	6-0329	Airslide – Baghouse D01-040	2002
D02-010	6-0329	Airslide – Baghouse D02-041	2002
D02-023	6-0329	Airslide – Baghouse D02-041	2002
D02-049	6-0329	Airslide – Baghouse D02-041	2002
D02-025	6-0329	Bucket Elevator – Baghouse D02-041, D02-027	2002
D02-026	6-0329	Bucket Elevator – Baghouse D02-041, D02-027	2002
D02-033	6-0329	Airslide – Baghouse D02-027	2002
D02-045	6-0329	Airslide – Baghouse D02-027	2002
D02-047	6-0329	Airslide – Baghouse D02-027	2002

# Emission Unit Table 5: Area E – Kiln and Clinker Cooler (SCC 3-05-006-23)

	T		
Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation
Sources Subje	ect to MACT Re	quirements	
E01-001	6-0256	Kiln – Baghouse C04-014	2001
E02-001	6-0256	Preheater / Precalciner – baghouse C04-014	2001, modified 2023
E03-001	6-0256	Clinker Cooler – Baghouse E04-016	2001

# Emission Unit Table 6: Area F – Coal Grinding Mill for Kiln (SCC 3-05-006-21)

	1		
Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation
Sources Not S	Subject to MACT	Requirements	
F01-034	6-0330	Belt Conveyor #11/14	1970
F01-037	6-0330	Belt Conveyor #11/14	1970
SP2	6-0330	Coal Storage Pile	2002
SP3	6-0330	Coal Storage Pile	2002

Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation		
TT2	6-0330	Transfer Tower #2	2002		
TU2	6-0330	Truck Unloading	2002		
F02-006	6-0330	Reclaim Elevator	2002		
F02-018	6-0330	Belt Conveyor	2002		
F03-001	6-0330	Belt Conveyor	2002		
F03-002	6-0330	Coal Bin Weighfeeder	2002		
F03-003	6-0330	Coke Bin Weighfeeder	2002		
Sources Subje	Sources Subject to MACT Requirements				
F02-007	6-0330	Belt Conveyor	2002		
F03-016	6-0330	Coal Mill System – Baghouses F03- 028,F03-032, F03-036, F03-040, F03- 044, F03-048 (Associated with kiln)	2001		
F04-009	6-0330	Pneumatic Pump for Fine Coal Dust Bin  – Baghouse F04-010	2002		
F04-018	6-0330	Kiln Fuel Bin Pressure Relief - Baghouse C04-014	2002		
F04-026	6-0330	Calciner Fuel Bin Pressure Relief - Baghouse C04-014	2002		
TT5	6-0330	Transfer Tower #5 – baghouse F02-027	2002		

Emission Unit Table 7: Area G – Clinker Transport & Storage – Craneway Building (SCC 3-05-006-16)

Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation
Sources Subje	ect to MACT Req	<u>uirements</u>	
TT8/9	6-0125	Transfer Tower #8/9 – Baghouse G02- 041, Baghouse B01-018	2004
TT6	6-0125	Transfer Tower #6 – Baghouse G02- 025	2004
G01-001	6-0125	Main Pan Conveyor – Baghouse E04- 016	2001
G03-010	6-0125	Clinker into Craneway – Baghouse G03-011	2001
CWAY	6-0125	Craneway	1970
SP6	6-0125	Gypsum Stockpile	2015
TU3	6-0125	Gypsum Truck Unloading	2004
G04-014	6-0125	450 Metric Ton Clinker Bin – Baghouse G04-011	2001
G04-020	6-0125	Belt Conveyor - Baghouse G04-011	2001
G04-010	6-0125	Bucket Elevator - Baghouse G04-011	2001

Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation
G04-009	6-0125	Belt Conveyor - Baghouse G04-034	2002
G04-016	6-0125	Belt Feeder – Baghouse G04-034	2002
G04-056	6-0125	Belt Feeder – Baghouse G04-034	2002
G04-058	6-0125	Clinker Bin, H01-006 Belt - Baghouse H01-210	2002
G04-059	6-0125	H01-015 Clinker Feeder, G04-018 Belt  – Baghouse H01-210	2002
G01-012	6-0125	Clinker Storage Silo – Baghouse G01- 009	2002
G02-002	6-0125	Transfer Tower #11, #12, #13 Belt Conveyors – Baghouse G02-047, G02- 044, G02-021	2002
G04-018	6-0125	Belt Conveyor – Baghouse G04-037	2004
G04-019	6-0125	CE2 Bucket Elevator – Baghouse G04- 037	1970
G04-031	6-0125	Drag Conveyor B3 – Baghouse H09- 073	1970
G05	6-0125	Off Loading Trucks Preheater Dust Silo	2004
TL1	6-0125	Clinker Truck/Rail Loadout – Baghouse G02-053	2004
TT7	6-0125	Transfer Tower #7 – Baghouse G03- 004	2004
TT9/10	6-0125	Transfer Tower #9/10 – Baghouse G03-011	2004

# Emission Unit Table 8: Area H – Clinker Finish Mills (SCC 3-05-006-17)

Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation
Sources Subje	ect to MACT Req	<u>uirements</u>	
H04-001	6-0331	Gypsum Bin 409	2002
H04-003	6-0331	Limestone Tank 416	2002
H05-001	6-0331	Gypsum Bin 509	2002
H06-001	6-0331	Gypsum Bin 609	2002
H07-001	6-0331	Gypsum Bin	2002
H08-001	6-0331	Gypsum Bin	2002
H04-004	6-0331	Clinker Bin 403	1970
H05-004	6-0331	Gypsum Bin 503	1970
H06-004	6-0331	Clinker Bin 603	1970
H07-004	6-0331	Gypsum Bin	2004

Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation
H01-040	6-0331	Finish Mill #1 – Baghouse H01-070	2002
H01-061	6-0331	Cyclone and Belts – Baghouse H01-070	2002
H01-063	6-0331	Cyclone and Belts – Baghouse H01-070	2002
H01-080	6-0331	Elevator and Tipping Valves – Baghouse H01-230	2002
H01-090	6-0331	Finish Mill #1 Burner – Baghouse H01- 070	2002
H01-105	6-0331	Belt Conveyor and Tipping Valves – Baghouse H01-210	2002
H01-110	6-0331	Bin – Baghouse H01-210	2002
H01-112	6-0331	Belt Conveyor and Tipping Valves – Baghouse H01-210	2002
H07-015	6-0331	Cement to Cement Cooler – Finish Mill #7 – Baghouse H01-240	2002
H07-016	6-0331	Airslide – Baghouse H01-240	2002
H04-006	6-0331	Belt Conveyor – Finish Mill #4 System – Baghouse H04-044	1970
H04-014	6-0331	Finish Mill #4 System – Baghouse H04- 044	1970
H05-014	6-0331	Finish Mill #5 System – Baghouse H05- 044	1970
H06-014	6-0331	Finish Mill #6 System – Baghouse H06- 044	1970
H06-017	6-0331	Cyclone 642 – Finish Mill #6 System - Baghouse H06-044	1970
H06-037	6-0331	Separator 627 – Finish Mill #6 System - Baghouse H06-044	1970
H07-014	6-0331	Finish Mill #7 System – Baghouses H07-056, H07-057	2002
H07-018	6-0331	Finished Cement Transfer System – Baghouses H07-056, H07-057	2001
H07-068	6-0331	Finished Cement Transfer System – Baghouses H07-056, H07-057	2001
H07-040	6-0331	Cement Cooler – Baghouse H10-113	2002
H07-070	6-0331	Airslide – Baghouses H07-056, H07- 057	2001
H07-071	6-0331	Airslide – Baghouse H10-113	2002
H08-014	6-0331	Finish Mill #8 System – Baghouse H08- 056	2002
H08-017	6-0331	Separator – Finish Mill #8 System – Baghouse H08-056	2002
H08-037	6-0331	Cyclone – Finish Mill #8 System – Baghouse H08-056	2002

Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation
H08-038	6-0331	Cyclone – Finish Mill #8 System – Baghouse H08-056	2002
H08-040	6-0331	Cement Cooler – Baghouse H10-113	2002
H08-064	6-0331	Airslide – Baghouse H10-113	2002
H09-000	6-0331	Semi Finishing Grinding System – Baghouse H09-059	2001
H09-019	6-0331	Weighfeeder (from 750 ton Clinker Bin)  – Baghouse H09-025	2001
H09-020	6-0331	100 Metric Ton Slag/Clinker Bin Weighfeeder – Baghouse H09-082	2002
H09-021	6-0331	100 Metric Ton Clinker Bin Weighfeeder  – Baghouse H09-082	2002
H09-023	6-0331	100 Metric Ton Gypsum Bin Weighfeeder – Baghouse H09-025	2001
H09-024	6-0331	Belt Conveyor (from weigh feeders) – Baghouse H09-025	2001
H09-028	6-0331	Bucket Elevator – Baghouse H09-051	2000
H09-031	6-0331	Belt Conveyor – Baghouses H09-051, H09-033	2000
H09-036	6-0331	Bin – Baghouses H09-059, H09-033	2004
H09-041	6-0331	Roll Press – Baghouse H09-033	2004
H09-046	6-0331	Belt Conveyor – Baghouse H09-033	2002
H09-047	6-0331	Bucket Elevator – Baghouse H09-059	2000
H09-058	6-0331	Belt Conveyor to 90 Metric Ton Bin - Baghouse H09-073, H09-059	2000
H09-062	6-0331	Reversible Belt Conveyor – Baghouse H09-051, H09-082	2000
H09-066	6-0331	Belt Conveyor – Baghouse H09-082	2002
H09-075	6-0331	90 Ton Bin – Baghouse H09-073	2000
H09-091	6-0331	Clinker Belt – Baghouse H09-094	2000
H10-001	6-0331	Airslide – Baghouse H10-113	2002
H10-006	6-0331	Bucket Elevator – Baghouse H10-113	2002
H10-007	6-0331	Airslide – Baghouse H10-119	2001
H10-010	6-0331	Bucket Elevator – Baghouse H10-119	2001
H10-124	6-0331	Airslide – Baghouse H10-119	2001
H10-125	6-0331	Airslide – Baghouse H10-119	2001
H10-167	6-0331	Airslide – Baghouse H10-181	2002
H10-176	6-0331	Bucket Elevator – Baghouse H10-181	2002
H10-177	6-0331	Airslide – Baghouse H10-179	2002

Emission Unit Table 9: Area I – Cement Storage and Shipping with Bag Packing (SCC 3-05-006-18)

Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation
Sources Subje	ct to MACT Require	<u>ements</u>	
101-033	6-0039	Day Tank – Baghouse H10-179	2002
102-289	6-0039	Feed Bin – Baghouse I02-290	2002
103/104	6-0039	Packaging and Palletizing – Pack house Collector	1970
TL2	6-0039	Truck Day Tank Loadout – Baghouse 102-290	2002
102-001 to	6-0039	Product Silos – Baghouses H10-224,	1970 and
102-032		H10-252, H10-254, H10-221,	2003
TL4	6-0039	Bulk Loadout System – Baghouses	1970 and
(F6/F5/H7/J6/		I11-180, I11-190, I12-180, I12-190,	2003
J3/J4/E7/H3)		I13-180, I13-190, I14-180, I14-190	

Emission Unit Table 10: Dried BioSolids (DBS) Related Processes

Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation
Sources Not S	Subject to MACT	Requirements	
F04-058	6-0330	DBS Storage Tank (Fluidized Coke Storage Tank) – Baghouses F04-062 & F04-064	2007
F05-049	6-0330	Rotary Air Lock for Feeding DBS from Silo – Baghouses F04-062, F04-064	2007
F05-050	6-0330	Scale, Pfister Dosing System – Baghouses F04-062, F04-064	2007
F05-051	6-0337	Mobile DBS Conveyor	2007
F05-055	6-0330	Diverter Valve to Calciner – Baghouses F04-062, F04-064	2007
F05-056	6-0330	Diverter Valve to Main Kiln Burner – Baghouses F04-062, F04-064	2007
G05-001	6-0331	Pneumatic baghouse dust (BD) transfer system – Baghouse G05-003	2009

**Emission Unit Table 11: Emergency Generator** 

Emissions Unit Number	ARA Registration No.	Emissions Unit Name and Description	Date of Installation
J08-532	9-0186	Caterpillar 2520 horsepower emergency generator	2001

# 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

ARA Air and Radiation 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<sub>x</sub> 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<sub>2</sub> 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.

#### 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:

- 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:
  - 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 permitted 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)]

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

- 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;
- 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 <u>Section VI – State-only Enforceable Conditions</u>:

 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;

- 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:
  - 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;
- 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 Quarry - Fugitive Sources (Area A)

#### 1.0 | Emissions Unit Number(s)

a. The Union Bridge quarry located in Frederick County

HR1- Quarry Haul Roads

SP1- Limestone Storage Pile

TLU1- Limestone truck loading/unloading

TLU2- Truck loading/unloading

SP8 - Iron B01-001 Surge Storage Pile

SP9 - Silica B02-001 Storage Pile

SP11 – Overburden Storage Pile

A03-022 Masonry Hauling at Union Bridge (paved)

b. The New Windsor quarry located in Carroll County

A03-001A - Waste Rock Hauling

A03-001B - Waste Rock Hauling

A03-001C - Waste Rock Hauling

A03-002A - Limestone Hauling

A03-002C - Limestone Hauling

A03-003 - Front End Loader to Limestone Truck

A03-004 - Truck to Primary Hopper

Table IV – 1	
<b>Quarry - Fugitive Sources (Are</b>	a A)

SP10 - New Windsor Storage Pile

SP12 - Masonry Storage Pile

A03-018- Masonry Transfer to Crusher

A03-019- Masonry Portable Crusher

A03-020- Transfer from Masonry Crusher to Truck

A03-021- Masonry Hauling at New Windsor (unpaved)

# 1.1 Applicable Standards/Limits:

#### A. & B.

#### Control of Visible Emissions and Particulate Matters

- (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) **COMAR 26.11.06.12**, which states that a person may not construct modify, or operate, or cause to be constructed, modified, or operated, a New Source Performance Standard (NSPS) source in a manner which results or will result in violation of the provisions of 40 CFR, Part 60.
- (3) New Source Performance Standards (NSPS) for nonmetallic mineral processing plants 40 CFR 60 Subpart OOO (New Windsor Quarry Only):
  - a. The fugitive emissions from crushers at which a capture system is not used shall not exceed 12% opacity; [Reference 40 CFR §60.672(b) & (e)(2)]
  - b. The fugitive emissions from each vent or each transfer point on a belt conveyor shall not exceed 7% opacity; and [Reference 40 CFR §60.672(b) & (e)(2)]
  - c. Fugitive emissions from the building openings (except for vents as defined in 40 CFR §60.671) shall not exceed 7% opacity. [Reference 40 CFR §60.672(e)(1)]
- (4) Permit to Construct Conditions, **PTC No. 013-0012-6-0352** (**New Windsor Quarry Only**)
  - a. Wet suppression systems shall be used whenever they are needed to comply with all applicable visible emissions and opacity limits. [Reference Permit to Construct No. 013-0012-6-0352 Issued January 11, 2021]
  - The Permittee shall control fugitive dust from plant roads and stockpiles by using water, chemical dust suppressants, or a combination of both, as needed. [Reference Permit to Construct #013-0012-6-0352 Issued January 11, 2021]

	Table IV – 1 Quarry - Fugitive Sources (Area A)		
	Quality - Lugitive Cources (Alea A)		
1.2	Testing Requirements:		
	A. & B.     New Windsor Quarry Only:     (1) For each fugitive emissions unit with an applicable opacity limit, the Permittee must conduct opacity observations to demonstrate compliance with applicable opacity		
	limits within 60 days after achieving the maximum hourly production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under 40 CFR §60.11. [Reference 40 CFR §60.672(b)]		
	(2) 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:		
	<ul><li>(a) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).</li></ul>		
	(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.		
	<ul> <li>(e) Method 9 observations for buildings shall be conducted while all affected facilities inside the building are operating.</li> <li>[Reference 40 CFR § 60.675(c)(1) and (d)]</li> </ul>		
1.3	Monitoring Requirements:		
	A. Control of Particulate Matters  (1) 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]		

# Table IV – 1 Quarry - Fugitive Sources (Area A)

- (2) The Permittee shall perform a visual inspection for a minimum of one minute once a month or when weather conditions are favorable to create airborne particulate matter to verify that best management practices are being implemented. [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.
- (4) For each wet suppression system, the Permittee must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The Permittee must initiate corrective action within 24 hours and complete corrective action as expediently as practical if the Permittee finds that water is not flowing properly during an inspection of the water spray nozzles. The Permittee must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under 40 CFR § 60.676(b). [Reference: 40 CFR § 60.674(b)]
- (5) If the Permittee relies on water carryover from upstream water sprays to control fugitive emissions, then that affected facility is exempt from the 5-year repeat testing requirement specified in Table 3 of 40 CFR, Part 60, Subpart OOO provided that the affected facility meets the following criteria in paragraphs 40 CFR §60.676(b)(1)(i) and (ii):
  - (a) The Permittee conducts periodic inspections of the upstream water spray(s) that are responsible for controlling fugitive emissions from the affected facility. These inspections are conducted according to 40 CFR §60.676(b) and 40 CFR §60.676(b); and
  - (b) The Permittee designates which upstream water spray(s) will be periodically inspected at the time of the initial performance test required under 40 CFR §60.11 and 40 CFR §60.675.

[Reference: 40 CFR §60.674(b)(1)]

(6) If an affected facility that routinely uses wet suppression water sprays ceases operation of the water sprays or is using a control mechanism to reduce fugitive emissions other than water sprays during the monthly inspection (for example, water from recent rainfall), the logbook entry required under § 60.676(b) must specify the control mechanism being used instead of the water sprays.

[Reference: 40 CFR §60.674(b)(2)]

Note: (3), (4), (5) and (6) are applicable to the equipment located at the New Windsor Quarry only.

# Table IV – 1 Quarry - Fugitive Sources (Area A)

## 1.4 Record Keeping Requirements:

A. & B.

### Control of Visible Emissions and Particulate Matters

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	
	Union Bridge Quarry - Point Sources (Area A-1)		
	(Not	te: The Union Bridge quarry is located in Frederick County)	
2.0	Emissions l	<u>Jnit Number(s)</u>	
	<u>Baghouse</u>	Emission Unit	
	A01-012	A01-009- Gyratory Crusher	
		A01-018- Belt Conveyor #1	
	A01-025	A01-021- Surge Bin	
	A02-008	A02-005- Belt Conveyor #2	
		A02-006- Secondary Crusher	
		A02-010- Belt Conveyor #3	
		A02-017-Belt Conveyor #6	
		A02-018- Belt Conveyor #5	
		A02-019- Tertiary Crusher	
		A02-021- Belt Conveyor #4	
	A02-012	A02-011- Vibrating Screens and Transfer System	
		A02-022- Vibrating Screens and Transfer System	
		A02-023- Vibrating Screens and Transfer System	
		A02-024- Belt Conveyor #7	
	A02-015	A02-011- Vibrating Screens and Transfer System	
		A02-022- Vibrating Screens and Transfer System	
		A02-023- Vibrating Screens and Transfer System	
		A02-024- Belt Conveyor #7	
	A02-025	A02-011- Vibrating Screens and Transfer System	
		A02-022- Vibrating Screens and Transfer System	
		A02-023- Vibrating Screens and Transfer System	

# Table IV – 2 Union Bridge Quarry - Point Sources (Area A-1) (Note: The Union Bridge quarry is located in Frederick County)

B01-017- Belt Conveyor #8

The Union Bridge quarry, which does not commence construction, modification, or reconstruction after August 31, 1983, is not subject to New Source Performance Standards (NSPS) for nonmetallic mineral processing plants 40 CFR 60 Subpart OOO.

# 2.1 Applicable Standards/Limits:

#### A. Visible Emissions Limitations

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. Control of Particulate Matter

- (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) Permit to Construct #06-6-0256N dated April 8, 1999 and revised June 7, 2000 The following equipment shall be equipped with a dust collector designed to reduce particulate matter emissions to 0.01 gr/SCFD (22.9 mg/dscm):
  - (a) A01-021 Surge Bin;
  - (b) A02-024 & B01-017 Belt Conveyors #7 & #8; and
  - (c) A02-011, A02-023, and A02-022 Vibrating Screens and Transfer System.
- (3) Permit to Construct #06-6-0256N dated April 8, 1999 and revised June 7, 2000 The following equipment shall be equipped with a dust collector designed to reduce particulate matter emissions to 0.015 gr/SCFD (34.3 mg/dscm):
  - (a) A01-009- Gyratory Crusher;
  - (b) A01-018- Belt Conveyor #1;
  - (c) A02-005- Belt Conveyor #2;
  - (d) A02-006- Secondary Crusher;
  - (e) A02-010- Belt Conveyor #3;
  - (f) A02-017- Belt Conveyor #6;
  - (g) A02-018- Belt Conveyor #5;
  - (h) A02-019- Tertiary Crusher; and
  - (i) A02-021- Belt Conveyor #4.

#### 2.2 Testing Requirements:

A & B. Please see the monitoring requirements.

# Table IV – 2 Union Bridge Quarry - Point Sources (Area A-1) (Note: The Union Bridge quarry is located in Frederick County)

# 2.3 Monitoring Requirements:

#### A. Visible Emissions Limitations

The Permittee shall conduct a monthly 1-minute visible emissions test of the exhaust stack of each emission unit in accordance with Method 22 of Appendix A to part 60. The test must be conducted while the emission unit is in operation. If no visible emissions are observed in six consecutive monthly tests for the exhaust stack of any emission unit, the Permittee may decrease the frequency of testing from monthly to semi-annually for the exhaust stack of that emission unit. If visible emissions are observed during any semi-annual test, the Permittee must resume testing of the exhaust stack of that emission unit on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests. If no visible emission unit, the Permittee may decrease the frequency of testing from semi-annually to annually for the exhaust stack of that emission unit. If visible emissions are observed during any annual test, the Permittee must resume testing of the exhaust stack of that emission unit on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

If visible emissions are observed on any stack during any Method 22 test, the Permittee shall initiate, within one hour, the corrective actions specified in the preventive maintenance plan or the best management plan. Within 24 hours at the end of the Method 22 test, the Permittee shall conduct a follow-up Method 22 test of any stack from which visible emissions were observed during the previous Method 22 test. If visible emissions are still observed, conduct a visual opacity test in accordance with Method 9 of Appendix A of 40 CFR Part 60. The Method 9 test shall be conducted within one-hour of the end of the follow-up Method 22 test and the duration of the Method 9 test shall be at least six minutes. **[COMAR 26.11.03.06C]** 

#### A & B.

- (1) 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. [Permit to Construct #06-6-0256N dated April 8, 1999 and revised June 7, 2000]
- (2) The Permittee shall comply with and update, as needed, the preventative maintenance plan for each baghouse that describes the maintenance activity and time schedule for completing each activity. **[COMAR 26.11.03.06C]**

#### 2.4 Record Keeping Requirements:

#### A. Visible Emissions Limitations

The Permittee shall maintain records of the results of the monthly inspections 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

# Table IV – 2 Union Bridge Quarry - Point Sources (Area A-1) (Note: The Union Bridge quarry is located in Frederick County)

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]** 

#### A & B

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]** 

## 2.5 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 – 3
		New Windsor Quarry - Point Sources (Area A-2)
	(No	te: The New Windsor quarry is located in Carroll County)
3.0	<b>Emissions</b>	Unit Number(s)
	<u>Baghouse</u>	Emission Unit
	A03-007	A03-005- Primary Crusher for Ca, silica, alumina, and Fe bearing
		raw materials
		A03-006- Primary Crusher for to Belt #1
	A03-007	A03-008- Belt #1 to Belt #2 Transfer
	A03-011	A03-010- Transfer from Belt #2 to Belt #3 or to Masonry Pile
	A03-013	A03-012- Belt #2 to Limestone Overland Conveyor (Belt #4)
	A03-015	A03-014- Overland Conveyor (Belt #4) Transfer to Belt #5 to New
	100 047	Transfer Tower
	A03-017	A03-016- New Transfer Tower
	TI NI \ \ \ / \ / \	
		indsor quarry, which commenced construction, modification, or
		on after August 31, 1983, is subject to New Source Performance Standards
	(NSPS) 101 1	nonmetallic mineral processing plants 40 CFR 60 Subpart OOO.
3.1	Applicable	Standards/Limits:
	A. Visible E	missions Limitations
	(1)	COMAR 26.11.30.05(B)(2), 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 visible to human observers.

# Table IV – 3 New Windsor Quarry - Point Sources (Area A-2) (Note: The New Windsor quarry is located in Carroll County)

(2) **COMAR 26.11.06.02C(2)**, which prohibits visible emissions other than uncombined water from any installation or building.

Exceptions. The visible emissions standard in COMAR 26.11.06.02C(2) does not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if: (i) the visible emissions are not greater than 40 percent opacity; and (ii) the visible emissions do not occur for more than 6 consecutive minutes in any 60 minute period.

#### B. Control of Particulate Matter

- (1) **COMAR 26.11.30.04(B)(2),** which states that a person may not cause or permit particulate matter to be discharged from any installation in excess of 0.03 grains per standard cubic foot of dry exhaust gas.
- (2) **COMAR 26.11.06.03D**, which requires that the Permittee take reasonable precautions to prevent particulate matter from materials handling and construction operations from becoming airborne.
- (3) **COMAR 26.11.06.12**, which states that a person may not construct modify, or operate, or cause to be constructed, modified, or operated, a New Source Performance Standard (NSPS) source in a manner which results or will result in violation of the provisions of 40 CFR, Part 60.
- (4) Particulate matter emissions from each baghouse shall not exceed 0.014 grains per standard cubic foot of dry air (0.014 gr/dscf). [Reference 40 CFR §60.672(a)]
- (5) The fugitive emissions from crushers at which a capture system is not used shall not exceed 12% opacity. [Reference 40 CFR §60.672(b) & (e)(2)]
- (6) The fugitive emissions from each vent or each transfer point on a belt conveyor shall not exceed 7% opacity. [Reference 40 CFR §60.672(b) & (e)(2)]
- (7) Fugitive emissions from the building openings (except for vents as defined in 40 CFR §60.671) shall not exceed 7% opacity. [Reference 40 CFR §60.672(e)(1)]
- (8) Except as otherwise provided in this part, the New Windsor Quarry, including the modification of the Masonry limestone operation to increase the masonry limestone crushing throughput limit to 160,000 short tons per year, shall be operated in accordance with specifications included in the application and any operating procedures recommended by equipment

# Table IV – 3 New Windsor Quarry - Point Sources (Area A-2) (Note: The New Windsor quarry is located in Carroll County)

vendors unless the Permittee obtains from the Department written authorization for alternative operating procedures. [Reference Permit to Construct #013-0012-6-0352 Issued January 11, 2021]

- (9) The masonry portable crusher A03-019 shall not crush more than 160,000 short tons of limestone in any rolling 12-month period. [Reference Permit to Construct #013-0012-6-0352 Issued January 11, 2021]
- (10) Particulate matter emissions from each bag filter shall not exceed 0.010 grains per standard cubic foot of dry air (0.010 gr/dscf). [Reference Permit to Construct #013-0012-6-0352 Issued January 11, 2021]
- (11) The limestone mined from both the Union Bridge Quarry and the New Windsor Quarry shall be used only to support the Union Bridge Portland Cement Plant. [Reference Permit to Construct #013-0012-6-0352 Issued January 11, 2021]
- (12) The limestone crushing throughput from the New Windsor Quarry is limited to 3.65 million short tons for any rolling 12-month period. [Reference Permit to Construct #013-0012-6-0352 Issued January 11, 2021]
- (13) The combined limestone crushing throughput from the Union Bridge Quarry and the New Windsor Quarry is limited to 3.70 million short tons for any rolling 12-month period. [Reference Permit to Construct #013-0012-6-0352 Issued January 11, 2021]
- (14) The Union Bridge Quarry crushing system and the New Windsor Quarry crushing system shall not operate at the same time. [Reference Permit to Construct #013-0012-6-0352 Issued January 11, 2021]
- (15) A combined annual hours of operation, on a calendar year basis, for Union Bridge Quarry crushing system and the New Windsor Quarry crushing system is limited to 3,952 hours. [Reference Permit to Construct #013-0012-6-0352 Issued January 11, 2021]
- (16) The limestone withdrawal rate from the Union Bridge Limestone Storage Dome is limited to 3.53 million short tons for any rolling 12-month period. [Reference Permit to Construct #013-0012-6-0352 Issued January 11, 2021]
- (17) Beginning with the calendar month in which the New Windsor Quarry crushing system produces 811,100 annual short tons of limestone, when rolled monthly, the Union Bridge Quarry crushing system shall be limited to 2,615,942 short tons for any rolling 12-month period. The production of limestone from the Union Bridge Quarry crushing system shall be

# Table IV – 3 New Windsor Quarry - Point Sources (Area A-2) (Note: The New Windsor quarry is located in Carroll County)

permanently reduced from the 2,615,942 short ton limit by at least 0.9 short tons for every short ton produced by the New Windsor Quarry crushing system above 811,100 annual short tons, rolled monthly. [Reference Permit to Construct #013-0012-6-0352 Issued January 11, 2021]

- (18) The exhaust gases from the following operations shall vent through a bag filter prior to discharging to the atmosphere to meet all applicable particulate matter emissions limits: [Reference Permit to Construct #013-0012-6-0352 Issued January 11, 2021]
  - (a) Primary Crusher operations to Belt Conveyor #1, and limestone transport operations from Belt Conveyor #1 to Belt Conveyor #2;
  - (b) limestone transport operations from Belt Conveyor #2 to the New Windsor Transfer Tower and from the New Windsor Transfer Tower to Belt Conveyor #3;
  - (c) limestone transport operations from the New Windsor Transfer Tower to Belt Conveyor #4 (the Overland Conveyor);
  - (d) limestone transport operations from Belt Conveyor #4 (the Overland Conveyor) to Belt Conveyor #5 at the Union Bridge Portland Cement Plant; and
  - (e) limestone transport operations from Belt Conveyor #5 to the Union Bridge Transfer Tower and from the Union Bridge Transfer Tower to the modified Belt Conveyor B01-002.

#### 3.2 Testing Requirements:

A & B.

- (1) The Permittee shall demonstrate compliance with all applicable particulate matter and opacity emissions limits within 60 days after achieving the maximum hourly production rate at which the masonry limestone crusher and associated equipment are allowed to increase the throughput, but not later than 180 days after initial start-up. [Reference 40 CFR § 60.672(a)]
- (2) During each stack emissions test or opacity observation, the affected equipment shall be operated at 90% or higher of its rated capacity.
- (3) 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

# Table IV – 3 New Windsor Quarry - Point Sources (Area A-2) (Note: The New Windsor quarry is located in Carroll County)

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)]

- (4) 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.
- (5) For each fugitive emissions unit with an applicable opacity limit, the Permittee must conduct opacity observations to demonstrate compliance with applicable opacity limits within 60 days after achieving the maximum hourly production rate at which the affected facility will be operated, but not later than 180 days after initial start-up as required under 40 CFR §60.11. [Reference 40 CFR §60.672(b)]
- (6) 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:
- (7) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).
- (8) 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.
- (9) 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.
- (10) 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.
- (11) Method 9 observations for buildings shall be conducted while all affected facilities inside the building are operating.

		Table IV – 3
		New Windsor Quarry - Point Sources (Area A-2)
	(Not	te: The New Windsor quarry is located in Carroll County)
		[Reference 40 CFR § 60.675(c)(1) and (d)]
	(12)	Within 45 days after the last day of any required stack emissions test or opacity observation, the Permittee shall submit the results to the Department.
3.3	Monitoring I	Requirements:
	A & B. (1)	For each wet suppression system, the Permittee must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The Permittee must initiate corrective action within 24 hours and complete corrective action as expediently as practical if the Permittee finds that water is not flowing properly during an inspection of the water spray nozzles.
		The Permittee must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under 40 CFR § 60.676(b). [Reference: 40 CFR § 60.674(b)]
	(1)	If the Permittee relies on water carryover from upstream water sprays to control fugitive emissions, then that affected facility is exempt from the 5-year repeat testing requirement specified in Table 3 of 40 CFR, Part 60, Subpart OOO provided that the affected facility meets the following criteria in paragraphs 40 CFR §60.676(b)(1)(i) and (ii):
		(a) The Permittee conducts periodic inspections of the upstream water spray(s) that are responsible for controlling fugitive emissions from the affected facility. These inspections are conducted according to 40 CFR §60.676(b) and 40 CFR §60.676(b); and (b) The Permittee designates which upstream water spray(s) will be periodically inspected at the time of the initial performance test required under 40 CFR §60.11 and 40 CFR §60.675. [Reference: 40 CFR §60.674(b)(1)]
	(2)	If an affected facility that routinely uses wet suppression water sprays ceases operation of the water sprays or is using a control mechanism to reduce fugitive emissions other than water sprays during the monthly inspection (for example, water from recent rainfall), the logbook entry required under § 60.676(b) must specify the control mechanism being used instead of the water sprays. [Reference: 40 CFR §60.674(b)(2)]
	(3)	Except as specified in 40 CFR §60.674(d), any affected facility that uses a bag filter to control emissions must conduct quarterly 30-minute visible emissions inspections using EPA Method 22 (40 CFR, Part 60, Appendix

# Table IV – 3 New Windsor Quarry - Point Sources (Area A-2) (Note: The New Windsor quarry is located in Carroll County)

A-7). The Method 22 (40 CFR, Part 60, Appendix A-7) test shall be conducted while the bag filter is operating. The test is successful if no visible emissions are observed. If any visible emissions are observed, the Permittee must initiate corrective action within 24 hours to return the bag filter to normal operation. The Permittee must record each Method 22 test, including the date and any corrective actions taken, in the logbook required under 40 CFR §60.676(b).

The Permittee may establish a different bag filter-specific success level for the visible emissions test (other than no visible emissions) by conducting a PM performance test according to 40 CFR §60.675(b) simultaneously with Method 22 to determine what constitutes normal visible emissions from that affected facility's bag filter when it is in compliance with the applicable PM concentration limit in Table 2 of 40 CFR 60, Subpart OOO. The revised visible emissions success level must be incorporated into the permit for the affected facility. [Reference: 40 CFR §60.674(c)]

- (4) As an alternative to the periodic Method 22 visible emissions inspections specified in 40 CFR §60.674(c), any affected facility that uses a bag filter to control emissions may use a bag leak detection system. [Reference: 40 CFR § 60.674(d)]
- (5) Each bag leak detection system must meet the following specifications and requirements:
  - (a) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 1 milligram per dry standard cubic meter (0.00044 grains per actual cubic foot) or less.
  - (b) The bag leak detection system sensor must provide the output of relative PM loadings. The Permittee shall continuously record the output from the bag leak detection system using electronic or other means (e.g., using a strip chart recorder or a data logger).
  - (c) The bag leak detection system must be equipped with an alarm system that will sound when the system detects an increase in relative particulate loading over the alarm set point established according to 40 CFR §60.674(d)(1)(iv), and the alarm must be located such that it can be heard by the appropriate plant personnel.
  - (d) In the initial adjustment of the bag leak detection system, the Permittee must establish, at a minimum, the baseline output by adjusting the sensitivity (range) and the averaging period of the device, the alarm set points, and the alarm delay time.

# Table IV – 3 New Windsor Quarry - Point Sources (Area A-2) (Note: The New Windsor quarry is located in Carroll County)

- (e) Following initial adjustment, the Permittee shall not adjust the averaging period, alarm setpoint, or alarm delay time without approval from the Administrator or delegated authority except as provided in 40 CFR §60.674 (d)(1)(vi).
- (f) Once per quarter, the Permittee may adjust the sensitivity of the bag leak detection system to account for seasonal effects, including temperature and humidity, according to the procedures identified in the site-specific monitoring plan required by 40 CFR §60.674 (d)(2).
- (g) The Permittee must install the bag leak detection sensor downstream of the fabric filter.
- (h) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

  [Reference: 40 CFR §60.674(d)(1)]
- (6) The Permittee shall update the site-specific monitoring plan to reflect the modification of the Masonry limestone operation to increase the masonry limestone crushing throughput limit to 160,000 short tons per year. The Permittee must operate and maintain the bag leak detection system according to the site specific monitoring plan at all times. Each monitoring plan must describe the following items: [Reference: 40 CFR §60.674(d)(2)]
  - (a) Installation of the bag leak detection system;
  - (b) Initial and periodic adjustment of the bag leak detection system, including how the alarm setpoint will be established;
  - (c) Operation of the bag leak detection system, including quality assurance procedures;
  - (d) How the bag leak detection system will be maintained, including a routine maintenance schedule and spare parts inventory list;
  - (e) How the bag leak detection system output will be recorded and stored; and
  - (f) Corrective action procedures as specified in 40 CFR §60.674(d)(3) of §60.674. In approving the site-specific monitoring plan, the Administrator or delegated authority may allow owners and operators more than 3 hours to alleviate a specific condition that causes an alarm if the Permittee identifies in the monitoring plan this specific

Table IV – 3
New Windsor Quarry - Point Sources (Area A-2)
(Note: The New Windsor quarry is located in Carroll County)

condition as one that could lead to an alarm, adequately explains why it is not feasible to alleviate this condition within 3 hours of the time the alarm occurs and demonstrates that the requested time will ensure alleviation of this condition as expeditiously as practicable.

- (7) For each bag leak detection system, the Permittee must initiate procedures to determine the cause of every alarm within 1 hour of the alarm. Except as provided in §60.674(d)(2)(vi), the Permittee must alleviate the cause of the alarm within 3 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to, the following:
  - (a) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions;
  - (b) Sealing off defective bags or filter media;
  - (c) Replacing defective bags or filter media or otherwise repairing the control device;
  - (d) Sealing off a defective fabric filter compartment;
  - (e) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; or
  - (f) Shutting down the process producing the PM emissions. [Reference 40 CFR § 60.674(d)(3)

# 3.4 Record Keeping Requirements:

#### A. Visible Emissions Limitations

The Permittee shall maintain records of the results of the monthly inspections 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. [Reference COMAR 26.11.03.06C]

#### 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 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

# Table IV – 3 New Windsor Quarry - Point Sources (Area A-2) (Note: The New Windsor quarry is located in Carroll County)

disks, on magnetic tape, or on microfiche. [Reference COMAR 26.11.03.06C]

- (2) The Permittee shall update the following if applicable to reflect the modification of the masonry limestone operation to increase the masonry limestone crushing throughput limit to 160,000 short tons per year:

  [Reference Permit to Construct #013-0012-6-0352 Issued January 11, 2021]
  - (a) The operation and maintenance plan for the Union Bridge Portland Cement Plant including the New Windsor Quarry;
  - (b) The preventative maintenance plan for the Union Bridge Portland Cement Plant including each bag filter for the New Windsor Quarry; And
  - (c) The best management plan for fugitive emissions for the Union Bridge Portland Cement Plant including fugitive sources from the New Windsor Quarry.
- (3) The Permittee shall comply with the federal recordkeeping requirements under 40 CFR §60.7, §60.19 and §60.676, which include the following and the records shall be kept on-site for at least five years and shall be made available to the EPA Region III and the Department upon request:
  - (a) Records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility and any malfunction of the air pollution control equipment. [Reference: 40 CFR §60.7 and §60.676]
  - (b) Records of each periodic inspection required under §60.674(b) or (c), including dates and any corrective actions taken, in a logbook (in written or electronic format). [Reference: 40 CFR § 60.676(b)(1)]
  - (c) The following records for each bag leak detection system installed and operated according to §60.674(d):
    - (i) Records of the bag leak detection system output;
    - (ii) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings; and

		Table IV – 3 New Windsor Quarry - Point Sources (Area A-2)
	(No	te: The New Windsor quarry is located in Carroll County)
		(iii) The date and time of all bag leak detection system alarms, the time that procedures to determine the cause of the alarm were initiated, the cause of the alarm, an explanation of the actions taken, the date and time the cause of the alarm was alleviated, and whether the cause of the alarm was alleviated within 3 hours of the alarm. [Reference: 40 CFR §60.676(b)(2)]
	(4)	Records of the following operating data shall be kept at the site for at least five (5) years and shall be made available to the Department upon request: [Reference Permit to Construct #013-0012-6-0352 Issued January 11, 2021]
		<ul> <li>(a) The amount of limestone processed in the New Windsor Quarry crushing system each month and for any 12-month period rolling monthly;</li> </ul>
		(b) The amount of limestone processed in the Union Bridge Quarry crushing system each month and for any 12-month period rolling monthly;
		(c) Records to demonstrate compliance with Part D(2)(j) of this permit;
		(d) The exact times when the New Windsor Quarry crushing system was operated and the total annual operating hours on a calendar year basis;
		<ul> <li>(e) The exact times when the Union Bridge Quarry crushing system was operated and the total annual operating hours on a calendar year basis;</li> </ul>
		(f) The total annual operating hours, on a calendar year basis, for the New Windsor Quarry crushing system and the Union Bridge Quarry crushing system, combined.
		(g) The amount of limestone withdrawn from the Union Bridge Limestone Storage Dome each month and for any 12-month period rolling monthly; and
		(h) The amount of masonry limestone processed by the portable crusher A03-019 in the New Windsor Quarry each month and for any 12- month period rolling monthly.
3.5	Reporting F	Requirements:
	A & B.	
3.5		month period rolling monthly.

# Table IV – 3 New Windsor Quarry - Point Sources (Area A-2) (Note: The New Windsor quarry is located in Carroll County)

- (1) The Permittee shall comply with the federally reporting requirements under 40 CFR §60.7, §60.19 and §60.676, which include the following:
  - (a) A notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.

On January 6, 2022 the Permittee notified the Department that the initial operation of the New Windsor quarry occurred on June 1, 2018.

- (b) The Permittee shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in 40 CFR §60.672, including reports of opacity observations made using Method 9 (40 CFR, Part 60, Appendix A-4) to demonstrate compliance with 40 CFR §60.672(b) and (e).
- (c) A notification of any physical or **operational** change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR §60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Department may request additional relevant information subsequent to this notice.
- (d) A notification of the anticipated date for conducting the opacity observations required by 40 CFR §60.11(e)(1). The notification shall also include, if appropriate, a request for the Department to provide a visible emissions reader during a performance test. The notification shall be postmarked not less than 30 days prior to such date.
- (2) At least 30 days prior to initial operation of the New Windsor Quarry expansion project, the Permittee shall submit to the Department the following for review and approval:
  - (a) The operation and maintenance plan for the Union Bridge Portland Cement Plant revised to include the New Windsor Quarry expansion project;
  - (b) The preventative maintenance plan for the Union Bridge Portland Cement Plant revised to include each bag filter for the New Windsor Quarry expansion project; and

# Table IV – 3 New Windsor Quarry - Point Sources (Area A-2) (Note: The New Windsor quarry is located in Carroll County)

(c) The best management plan for fugitive emissions for the Union Bridge Portland Cement Plant revised to include fugitive sources from the New Windsor Quarry expansion project.

Updated plans were received by the Department on February 3, 2017.

(3) All notifications required under 40 CFR 60, Subparts A and Subpart OOO shall be submitted to both of the following:

The Administrator
Compliance Program
Maryland Department of the Environment
Air and Radiation Management Administration
1800 Washington Boulevard, STE 715
Baltimore MD 21230

and

United States Environmental Protection Agency Region III, Enforcement & Compliance Assurance Division Air, RCRA and Toxics Branch (3ED21) Four Penn Center 1600 John F. Kennedy Boulevard Philadelphia, PA 19103-2852

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 - Not subject to MACT Requirements

#### 4.0 **Emissions Unit Numbers**

#### **Area A – Union Bridge Quarry Operations**

SP13 – Bottom Ash Storage Pile A02-026 – Screen

#### Area B - Raw Material Transport and Storage

TU1- Iron and silica truck unloading

SP4- Silica Storage Pile

SP5- Iron Ore Storage Pile

# Table IV – 4 Material Handling - Fugitive Sources - Not subject to MACT Requirements

### **Area F - Coal Grinding Mill for Kiln**

F01-034 - Belt Conveyor #11

F01-037 – Belt Conveyor #14

SP2 – Coal Storage Pile

SP3 – Coal Storage Pile

TT2 – Transfer Tower #2

TU2 - Truck Unloading

F02-018 - Belt Conveyor

F03-001 - Belt Conveyor

F03-002 - Coal Weigh feeder

F03-003 – Coke Weigh feeder

#### 4.1 **Applicable Standards/Limits**:

#### Control of Particulate Matters

**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:

Please see the monitoring requirements.

#### 4.3 | Monitoring Requirements:

### Control of Particulate Matters

- (1) 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]
- (2) The Permittee shall perform an inspection at a minimum of one minute once a month or when weather conditions are favorable to create particulate matter becoming airborne to verify that best management practices are being implemented. [COMAR 26.11.03.06C]

## 4.4 Record Keeping Requirements:

#### **Control of Particulate Matters**

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.

Table IV – 4
<b>Material Handling - Fugitive Sources - Not subject to MACT Requirements</b>

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]

## 4.5 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 – 5 Material Handling - Fugitive Sources - Subject to MACT Requirements

### 5.0 Emissions Unit Numbers

#### Area B - Raw Material Transport and Storage

B01-011 - Enclosed Limestone Dome

### Area F - Coal Grinding Mill for Kiln

F02-007 – Belt Conveyor

### Area G - Clinker Transport & Storage - Craneway Building

CWAY - Craneway

TU3 - Gypsum Truck Unloading

#### Area H – Clinker Finish Mill

H04-001 – Gypsum Bin 409

H04-003 - Limestone Tank 416

H04-004 - Clinker Bin 403

H05-001 - Gypsum Bin 509

H05-004 - Clinker Bin 503

H06-001 - Gypsum Bin 609

H06-004 - Clinker Bin 603

H07-001 - Gypsum Bin

H07-004 - Clinker Bin

H08-001 - Gypsum Bin

#### 5.1 Applicable Standards/Limits:

### A. Visible Emissions Limitations

**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

# Table IV – 5 Material Handling - Fugitive Sources - Subject to MACT Requirements

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. [Reference: §63.1345]

### B. Control of Particulate Matter

**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.

# 5.2 **Testing Requirements**:

A & B. Please see the monitoring requirements.

#### 5.3 | Monitoring Requirements:

#### A. Visible Emissions Limitations

(1) Opacity monitoring requirements. If you are subject to a limitation on opacity under 40 CFR §63.1345, you 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). 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)]

#### A & B

The Permittee shall comply with and update as needed the written operations and maintenance plan [40 CFR §63.1347] which includes the following information:

- (1) 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
- (2) Procedures to be used to periodically monitor affected sources. **[COMAR 26.11.03.06C]**

# 5.4 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]** 

	Table IV – 5  Material Handling - Fugitive Sources - Subject to MACT Requirements
5.5	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)]

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

		Table IV – 6
	Material H	andling - Point Sources - Subject to MACT requirements
6.0	Emissions U	Jnit Numbers
		Area B - Raw Material Transport and Storage
	Baghouse	Emission Unit
	B02-008	B02-007- Belt Conveyor
		B02-011- Silica Bearing Material Bin
		B02-012- Iron Bearing Material Bin B02-017- Reversible Belt Conveyor
	B03-008	B03-004- Fly ash Blending System
	B04-016	TT3- Transfer Tower #3
	B04-011	TT3- Transfer Tower #3
	B04-016	B04-019 Limestone bin
	B02-019	TT4- Transfer Tower #4
		Area C – Raw Grinding
	<u>Baghouse</u>	Emission Unit
	C02-021	C02-038- Rejects Belt Conveyor
	C02-011	C02-060- Reversible Belt Conveyor (to Raw Mill)
	C03-001	C03-034, C03-035, C03-040, & C03-042 - Airslides
	C03-047	C03-045- Airslides
	C03-050	C03-008, C03-045, C03-054, & C04-066 - Airslides
	C03-030	C03-010 & C03-013 - Airslides and C03-046- Bucket Elevator
	C01-007	C01-002- Limestone Weighfeeder
		C01-004- Iron Weighfeeder
		C01-006- Silica Weighfeeder
	004.040	C01-011- Belt Conveyor
	C01-019	C01-015- Fly ash Weigh bin
	C02-011	C02-001- Bucket elevator
	C02-011 C04-050	C02-006- 100 T Bin C04-037- Bucket Elevator
	C04-050	C04-037- Bucket Elevator
	C04-075	C04-037- Bucket Elevator C04-038- 600T Bin and C04-068- Airslide

Material H	Table IV – 6 landling - Point Sources - Subject to MACT requirements
C04-075	C04-070, C04-072, and C04-074- Airslide
	Area D – Raw Meal - Kiln Feed
<u>Baghouse</u>	Emission Unit
D01-037	C03-046- Bucket Elevator
	C03-017-Airslide
	D01-001- Blending Silo
Do. / 00 /	D01-003 & D01-002 - Recirculation Airslides
D01-034	D01-020- 185 MT Feed Bin
	D02-004 & D02-017- Airslides
D01-040	D02-006 & D02-019- Flow Meters D01-023, D01-026, D02-007, & D02-020 - Airslides
D01-040 D02-041	D01-023, D01-020, D02-007, & D02-020 - Airsildes D02-010, D02-023, & D02-049 - Airsildes
D02-041	D02-010, B02-023, & B02-043 - All slides D02-025- Bucket Elevator and D02-026- Bucket Elevator
D02-027	D02-033, D02-045 & D02-047 – Air Slides
302 02.	
	Area F - Coal Grinding Mill for Kiln
F02-027	TT5 – Transfer Tower #5
	F02-006 Reclaim Elevator
	F02-007 Belt Conveyor
	Area G – Clinker Transport & Storage – Craneway Building
<u>Baghouse</u>	Emission Unit
B01-018	TT8/9- Transfer Tower #8/9
G02-041	TT8/9- Transfer Tower #8/9
G02-025	TT6 – Transfer Tower #6
G04-037	G04-018 – Belt Conveyor
	Area H – Clinker Finish Mill
<u>Baghouse</u>	Emission Unit
G05-003	G05-001 Dust System
H10-113	H07-040- Cement Cooler
	H07-071- Airslide
	H08-040-Cement Cooler
	H08-064- Airslide
	H10-001- Airslide
H40 440	H10-006- Bucket Elevator
H10-119	H10-007, H10-124, and H10-125- Airslides H10-010- Bucket Elevator
H10-181	H10-167- Airslide
1110-101	H10-176- Bucket Elevator
H10-179	H10-177- Airslide
	Area I – Cement Storage and Shipping with Bag Packing

Table IV – 6
Material Handling - Point Sources - Subject to MACT requirements

Baghouse	Emission Unit
H10-179	H10-177
	I01-033- Day Tank
102-290	102-289 – Feed Bin
	TL2 – Truck Day Tank Loadout
H10-221	Product Silos (I02-001 to I02-032)
H10-224	Product Silos (I02-001 to I02-032)
H10-252	Product Silos (I02-001 to I02-032)
H10-254	Product Silos (I02-001 to I02-032)
Pack house	I03/I04 - Packaging and Palletizing
I11-180	TL4 - Truck/ Rail and Bulk Loadout System – (F6/F5/H7/J6/J3/J4/E7/H3)
I11-190	TL4 - Truck/ Rail and Bulk Loadout System – (F6/F5/H7/J6/J3/J4/E7/H3)
I12-180	TL4 - Truck/ Rail and Bulk Loadout System – (F6/F5/H7/J6/J3/J4/E7/H3)
I12-190	TL4 - Truck/ Rail and Bulk Loadout System – (F6/F5/H7/J6/J3/J4/E7/H3)
I13-180	TL4 - Truck/ Rail and Bulk Loadout System – (F6/F5/H7/J6/J3/J4/E7/H3)
I13-190	TL4 - Truck/ Rail and Bulk Loadout System – (F6/F5/H7/J6/J3/J4/E7/H3)
I14-180	TL4 - Truck/ Rail and Bulk Loadout System – (F6/F5/H7/J6/J3/J4/E7/H3)
I14-190	TL4 - Truck/ Rail and Bulk Loadout System – (F6/F5/H7/J6/J3/J4/E7/H3)
1	

# 6.1 Applicable Standards/Limits:

#### A. Visible Emissions Limitations

- (1) **COMAR 26.11.30.05(B)(2)**, 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 visible to human observers.
- (2) **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.

- (3) **40 CFR Part 60, Subpart Y, §60.254(a)** which limits coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, reconstructed, or modified on or before April 28, 2008 to 20 percent opacity.
- (4) **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

# Table IV – 6 Material Handling - Point Sources - Subject to MACT requirements

must not cause to be discharged any gases from these affected sources which exhibit opacity in excess of 10 percent. [Reference: §63.1345]

## B. Control of Particulate Matters

- (1) **COMAR 26.11.30.04(B)(2)**, which states that a person may not cause or permit particulate matter to be discharged from any installation in excess of 0.03 grains per standard cubic foot dry.
  - (2) Permit to Construct #06-6-0256N dated April 8, 1999 and revised June 7, 2000 - Each emissions unit shall be equipped with a dust collector designed to reduce particulate matter emissions to 0.01 gr/SCFD (22.9 mg/dscm).

(3)

#### 6.2 Testing Requirements:

A & B. Please see the monitoring requirements.

### 6.3 **Monitoring Requirements:**

#### A. Visible Emissions Limitations

Opacity monitoring requirements. If you are subject to a limitation on opacity under 40 CFR §63.1345, you 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). 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)]

#### A & B

- (1) The Permittee shall comply with and update as needed the written operations and maintenance plan which includes the following information: [40 CFR §63.1350(a) and (b)]
  - (a) Procedures for proper operation and maintenance of the affected source and air pollution control devices in order to meet the emission limits and operating limits of §§63.1345; and
  - (b) Procedures to be used to periodically monitor affected sources.
- (2) 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.

[Permit to Construct #06-6-0256N dated April 8, 1999 and revised June 7, 2000]

# Table IV – 6 Material Handling - Point Sources - Subject to MACT requirements

- (3) Each railcar shall be inspected upon completion of filling to determine spillage or dust on top of the railcar. **[COMAR 26.11.03.06C]**
- (4) The Permittee shall monitor the amount of fly ash in the fly ash silo and shall use an alarm to warn the Central Control Operators when the level of the fly ash in the silo reaches a height of 25 meters (90% full) and 26 meters (93% full). When the 26 meter alarm sounds the Process Control Supervisor shall lock the unloading valves out until the level reaches 25 meters. [COMAR 26.11.03.06C]

# 6.4 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 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]** 

If spillage or dust is observed on top of a railcar, the Permittee shall log the incident into the Railcar Vacuuming Logbook by recording the car number, the time of the spill, the operator's name, and that the spill has been cleaned up. The records in the Railcar Vacuuming Logbook and records of the weekly inspections of the railcar vacuuming system shall be kept on site for at least five years and shall be made available to the Department upon request. [COMAR 26.11.03.06C]

#### 6.5 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)]

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

#### Table IV - 7

Union Bridge Quarry - Point Sources (Area A-1) Subject to NSPS Requirements (Note: The Union Bridge quarry is located in Frederick County)

#### 7.0 Emissions Unit Number(s)

Registration No. 6-0327 – Bottom Ash Screener consisting of one (1) MGL EX1 Scalper Screener, powered by an electric Cummins 74 HP engine, Emissions Unit Number C01-001.

# Table IV - 7 Union Bridge Quarry - Point Sources (Area A-1) Subject to NSPS Requirements (Note: The Union Bridge quarry is located in Frederick County) This bottom ash screener, which commenced construction, modification, or reconstruction after August 31, 1983, is subject to New Source Performance Standards (NSPS) for nonmetallic mineral processing plants 40 CFR 60 Subpart OOO. 7.1 **Applicable Standards/Limits:** A. Visible Emissions Limitations 40 CFR Part 60 Subpart OOO, which states that the Permittee shall comply with a standard of no more than 7 percent opacity from this screener. B. Control of Particulate Matter COMAR 26.11.06.03C and D, which states that the Permittee take reasonable precautions to prevent particulate matter from unconfined sources and materials handling and construction operations from becoming airborne. 7.2 **Testing Requirements:** A & B. Please see the monitoring requirements. 7.3 **Monitoring Requirements:** A. Visible Emissions Limitations (1) Within 180 days after initial startup of the screener, visible emissions observations shall be conducted to demonstrate compliance with the opacity standard specified in 40 CFR Part 60 Subpart OOO. [Reference: Table 3 to 40 CFR Part 60 Subpart OOO, as a modification that has occurred after April 22, 2008] (2) After the initial visible emissions observation is performed, repeat observations shall be performed within every 5 years from the previous observation. [Reference: Table 3 to 40 CFR Part 60 Subpart OOO, as a modification that has occurred after April 22, 2008] (3) The screener shall be operated at 90% or higher of its rated capacity during visible emissions observations. (4) In determining compliance with the opacity standard under 40 CFR Part 60 Subpart OOO, 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: The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).

The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust).

		Table IV – 7	
		Bridge Quarry - Point Sources (Area A-1) Subject to NSPS Requirements	
	(N	ote: The Union Bridge quarry is located in Frederick County)	
		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)	The duration of the Method 9 observations must be 30 minutes (five	
	(0)	6-minute averages). Compliance with the applicable fugitive	
		emission limit in Table 3 of 40 CFR Part 60 Subpart OOO must be	
		based on the average of the five 6-minute averages.	
		ŭ ŭ	
7.4	Record Keeping Requirements:		
	Λ \/:a:lala	Environie na Lineitationa	
		<u>Emissions Limitations</u> ermittee shall maintain for at least five (5) years, and shall make	
		ble to the Department upon request, records of the following information:	
	avallak	bic to the Department apon request, records of the following information.	
	(1) F	Records of all visible emissions observations conducted on the screener.	
		Reference: Table 3 to 40 CFR Part 60 Subpart OOO, as a modification that	
	r	nas occurred after April 22, 2008]	
	(0) T	The total confess area of the consent (Defendance 40 CED Deut CO Colonset	
		The total surface area of the screen. [Reference: 40 CFR Part 60 Subpart DOO(a)(2)]	
		500(a)(2)]	
	(3) F	Records of the occurrence and duration of any startup, shutdown, or malfunction	
		of the operation of the screener. [Reference: 40 CFR §60.7b]	
	(4) F	Records of the amount of material processed in the screener each month	
7.5	Reporting	Requirements:	
	- toporting	1 Nogali olilollo	
		Emissions Limitations	
		ermittee shall submit written reports of the results of all visible emissions	
		vations conducted to demonstrate compliance with the opacity standard	
		th in 40 CFR Part 60 Subpart OOO within 45 days after the visible	
	emissi	on observation was performed	

	Kil	Table IV – 8 n, Raw and Coal Mills - (Subject to MACT requirements)	
8.0	Emissions Unit Numbers		
		Area C – Raw Grinding	
	<u>Baghouse</u>	Emission Unit	
	C04-014	C02-025- Raw Mill	

Table IV – 8
Kiln, Raw and Coal Mills - (Subject to MACT requirements)

	Area E – Clinker Burning and Cooling with Preheater Kiln
Baghouse	Emission Unit
C04-014	E01-001/E02-001- Preheater-Precalciner/Kiln System
	·
	Area F - Coal Grinding Mill for Kiln
<b>Baghouse</b>	Emission Unit
F03-028	F03-016- Coal Mill
F03-032	F03-016- Coal Mill
F03-036	F03-016- Coal Mill
E03-040	F03_016_ Coal Mill

F03-040 F03-016- Coal Mill F03-044 F03-016- Coal Mill F03-048 F03-016- Coal Mill F04-010 F04-009-Pneumatic Pump for Fine Coal Dust Bin

C04-014 F04-018-Kiln Fuel Pressure Relief

C04-014 F04-026-Calciner Fuel Bin Pressure Relief

Note: These emission units discharge through a common stack.

Lime injection has inherent acid gas scrubbing properties.

Selective Non-Catalytic Reduction (SNCR) system (6-0256) was installed 2010 and modified 2013.

Powered Activated Carbon (PAC) system was installed 2011, modified 2013.

## 8.1 Applicable Standards/Limits:

#### A. & B. Visible and Particulate Matter Emissions

- (1) COMAR 26.11.30.05(B)(2), 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 visible to human observers.
- (2) 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. [Reference: §63.1345]
- (3) The Permittee shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, reconstructed, or modified on

# Table IV – 8 Kiln, Raw and Coal Mills - (Subject to MACT requirements)

or before April 28, 2008, gases which exhibit 20 percent opacity or greater. [Reference: §60.254(a)]

- (4) **COMAR 26.11.30.04B(2)** A person may not cause or permit particulate matter to be discharged from any installation in excess of 0.03 gr/SCFD (68.7 mg/dscm).
- (5) The Permittee may not discharge particulate matter (PM) into the atmosphere from the kiln in excess of 0.07 pound per ton of clinker. [Reference: §60.62(a)(1)(iii)] and Table 1-1 of §63.1343(b)(1)]
- (6) If the Permittee has an affected source subject to 40 CFR 60, Subpart F with a different emissions limit or requirement for the same pollutant under another regulation in Title 40, the Permittee must comply with the most stringent emissions limit or requirement and is not subject to the less stringent requirement. [Reference: §60.62(d)]
- (7) Existing kilns that combine the clinker cooler exhaust and/or coal mill exhaust with the kiln exhaust and send the combined exhaust to the PM control device as a single stream may meet an alternative PM emissions limit. This limit is calculated using the following equation:

$$PM_{alt} = (0.0060 \text{ x } 1.65) \text{ x } (Q_k + Q_c + Q_{ab} + Q_{cm})/7000$$

Where:

PM<sub>alt</sub> = Alternative PM emission limit for commingled sources.

0.006 = The PM exhaust concentration (gr/dscf) equivalent to 0.070 lb per ton clinker where clinker cooler and kiln exhaust gas are not combined.

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

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

Q<sub>c</sub> = The exhaust flow of the clinker cooler (dscf/ton feed).

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

Q<sub>cm</sub> = The exhaust flow of the coal mill (dscf/ton feed).

7000 = The conversion factor for grains (gr) per lb.

- (8) Permit to Construct #06-6-0256 dated April 8, 1999 and revised June 7, 2000, which limits particulate matter emissions from the main exhaust stack to 0.0158 gr/scfd (36.2 mg/dscm).
- C. Dioxins/Furans (D/F)
  - (1) Dioxins and furans (D/F) emissions limits of 0.2 nanograms per dry standard cubic meter (ng/dscm) (TEQ) corrected to 7% O<sub>2</sub>. If the average temperature at the inlet to the first PM control device (fabric filter or electrostatic precipitator)

# Table IV – 8 Kiln, Raw and Coal Mills - (Subject to MACT requirements)

during the D/F performance test is 400 °F or less, this limit is changed to 0.40 ng/dscm (TEQ). TEQ means the international method of expressing toxicity equivalents for dioxins and furans as defined in U.S. EPA, Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzop-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 Update, March 1989. **[Reference: Table 1-1. of §63.1343(b)(1)]** 

- (2) 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) does not exceed the applicable temperature limit specified in paragraph (b) of §63.1346. The Permittee must operate the in-line kiln/raw mill, such that: [Reference: §63.1346(a)]
  - (a) When the raw mill of the in-line kiln/raw mill is operating, the applicable temperature limit for the main in-line kiln/raw mill exhaust, specified in paragraph (b) of §63.1346 and established during the performance test when the raw mill was operating, is not exceeded, except during periods of startup and shutdown when the temperature limit may be exceeded by no more than 10 percent. [Reference: §63.1346(a)(1)]
  - (b) When the raw mill of the in-line kiln/raw mill is not operating, the applicable temperature limit for the main in-line kiln/raw mill exhaust, specified in paragraph (b) of §63.1346 and established during the performance test when the raw mill was not operating, is not exceeded, except during periods of startup/shutdown when the temperature limit may be exceeded by no more than 10 percent. [Reference: §63.1346(a)(2)]
  - (c) 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 in accordance with §63.1349(b)(3)(iv). [Reference: §63.1346(b)]

#### D. Control of Nitrogen Oxides

- (1) **Permit to Construct #06-6-0256, 0331, and 0337 September 21,** 2009 NOx emission limits shall not exceed 3.85 pounds per tons of clinker on a monthly average only if the number of hours of the Pyroprocessing Portland cement plant burning DBS is greater than 25% of the kiln operating hours during the month.
- (2) The Permittee shall operate the Selective Non-catalytic Reduction System (SNCR) to reduce NOx emissions in order to comply with a NOx emission limit of 2.4 pounds per ton of clinker produced on a 30-day rolling average in accordance with COMAR 26.11.30.07C(2) & 26.11.30.07D.

# Table IV – 8 Kiln, Raw and Coal Mills - (Subject to MACT requirements)

Note: The Permittee shall comply with 2.1 pounds of NOx per ton of clinker per Table 8a.1 condition (3)(b) in this permit.

#### E. SO<sub>x</sub> 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.

#### F. CO Emissions

Prevention of Significant Deterioration (PSD) Approval #PSD-97-01R dated April 8, 1999 and revised on June 7, 2000 which states that the premises-wide carbon monoxide (CO) emissions from the Pyroprocessing Portland cement plant and the existing Portland cement plant shall not exceed 3,328 tons for any 12-month period, rolling monthly.

#### G. VOC Emissions (THC)

The emissions limits of total hydrocarbons (THC) is 24 parts per million by volume dry (ppmvd) measured as propane and corrected to 7% O<sub>2</sub>. 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). [Reference: Table 1-1. of §63.1343(b)(1)]

#### H. Lead Emissions

Permit to Construct #06-6-0256 dated April 8, 1999 and revised June 7, 2000 which states that the emissions from the entire premises, including the existing Portland cement plant and the Pyroprocessing Portland cement plant, shall not exceed 0.6 tons of lead for any 12-month period, rolling monthly.

## I. Fluoride Emissions

- (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.

# Table IV – 8 Kiln, Raw and Coal Mills - (Subject to MACT requirements)

(3) 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

The Permittee shall operate the PAC injection system to reduce mercury emissions in order to comply with the following mercury emission limits in accordance with §63.1343(b):

- (1) During normal operation, the mercury emission limit is 55 lbs per million tons of clinker based on a 30-day rolling average. The 30-day period means 30 consecutive kiln operating days excluding periods of startup and shutdown; and
- (2) During periods of startup and shutdown, the Permittee shall comply with the work practice requirements in accordance with §63.1343(g).

<u>Startup and shutdown work practices</u> - 40 CFR 63.1346(g) or see Table IV-15 Facility wide 15.1 Applicable standards /Limits and operating conditions.

[References: Permit to Construct No. 013-0012-6-0256, 0331, and 0337 issued March 1, 2013]

#### K. <u>Hydrogen Chloride</u> (HCI)

HCl emissions of 3 parts per million by volume dry (ppmvd) corrected to 7% O<sub>2</sub> for any major source. [Reference: Table 1-2. of §63.1343(b)(1)]

L. <u>Greenhouse</u> Gas (GHG) Emissions – There is no GHG emission limit specified in 40 CFR 98 Subpart H (Cement Production).

Note: The final rules for the National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry (40 CFR part 63 subpart LLL) effective on February 12, 2013. The compliance date for the new limits in 63.1343(b) is September 9, 2015.

#### 8.2 Testing Requirements:

#### A. & B. Visible Emissions and Particulate Matter Emissions

(1) If the source subject to the opacity limits under 40 CFR 63, Subpart LLL, 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), except that the duration of the Method 9 performance test may be reduced to 1 hour if the following conditions apply. For batch

# Table IV – 8 Kiln, Raw and Coal Mills - (Subject to MACT requirements)

processes that are not run for 3-hour periods or longer, compile observations totaling 3 hours when the unit is operating. [Reference: §63.1349(b)(2)]

- (a) There are no individual readings greater than 10 percent opacity.
- (b) There are no more than three readings of 10 percent for the first 1-hour period.
- (2) The Permittee shall conduct stack emissions tests on the main kiln stack. 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 demonstrate initial compliance by conducting 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) [Reference: §60.63(c)(1) and §63.1349(b)(1)]
  - (b) For the PM CPMS, the Permittee will establish a site-specific operating limit in accordance with §60.63(c)(2) through (5) and §63.1349(b)(1)(i) through (iv). [Reference: §60.63(c)(2) and §63.1349(b)(1)]
  - (c) To determine continuous operating compliance, 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. [Reference: §60.63(c)(6) and §63.1349(b)(1)(v)]
  - (d) 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 needs not determine the particulate matter collected in the impingers ("back half") of the Method 5 or Method 51 particulate sampling train to demonstrate compliance with the PM standards

# Table IV – 8 Kiln, Raw and Coal Mills - (Subject to MACT requirements)

of this subpart. This shall not preclude the permitting authority from requiring a determination of the "back half" for other purposes. [Reference: §60.63(c)(7) and §63.1349(b)(1)(vi)]

- (e) 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 or digit equivalent to the instrument zero output, technique by which this zero value was determined, and the average milliamp or digit equivalent signals corresponding to each PM compliance test run. [Reference: §60.63(c)(8) and §63.1349(b)(1)(vii)]
- (f) The Permittee shall demonstrate initial compliance by conducting separate performance tests while the raw mill is under normal operating conditions and while the raw mill is not operating, and calculate the time weighted average emissions. The operating limit will then be determined using §63.1349(b)(1)(i) of this section. [Reference: §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. [Reference: §63.1349(b)(3)]
- (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). [Reference: §63.1349(b)(3)(i)]
- (3) The temperature at the inlet to the kiln or in-line kiln/raw mill 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. [Reference: §63.1349(b)(3)(ii)]
- (4) Average temperatures must be calculated for each run of the performance test. [Reference: §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). [Reference: §63.1349(b)(3)(iv)]

#### G. VOC/THC Emissions

(1) 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

# Table IV – 8 Kiln, Raw and Coal Mills - (Subject to MACT requirements)

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. [Reference: §63.1349(b)(4)(i))

- (2) The Permittee must use the THC CEMs to conduct the initial compliance test for the first 30 kiln operating days of kiln operation after the compliance date of the rule. See §63.1348(a). [Reference: §63.1349(b)(4)(ii)]
- (3) THC must be measured either upstream of the coal mill or the coal mill stack. [Reference: §63.1349(b)(4)(iv)]
- (4) Instead of conducting the performance test specified in paragraph (b)(4) of §63.1349, the Permittee may conduct a performance test to determine emissions of total organic HAP by following the procedures of §63.1349(b)(7). [Reference: §63.1349(b)(4)(v)]

#### 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

- (1) The Permittee must operate a mercury CEMs or a sorbent trap monitoring system in accordance with the requirements of §63.1350(k). The initial compliance test must be based on the first 30 kiln operating days in which the affected source operates using a mercury CEMs or a sorbent trap monitoring system after the compliance date of the rule (See §63.1348(a)). [Reference: §63.1349(b)(5)]
- (2) The Permittee must install, 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). [Reference: §63.1349(b)(5)(i)]
- (3) The Permittee must calculate the mercury emission rate using Equation 10 of §63.1349(b)(5)(ii). [Reference: §63.1349(b)(5)(ii)]

#### K. Hydrogen Chloride (HCI)

(1) The Permittee must conduct performance testing using Method 321 of appendix A to Part 63 unless the Permittee have installed a CEMs that meets the requirements §63.1350(I)(1). For kilns with inline raw mills, testing should be conducted for the raw mill on and raw mill off conditions. [Reference: §63.1349(b)(6)(i)(A)]

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- (2) The initial compliance test must be based on the 30 kiln operating days that occur after the compliance date of this rule in which the affected source operates using a HCl CEMs. Hourly HCl concentration data must be obtained according to §63.1350(l). [Reference: §63.1349(b)(6)(ii)(B)]
- (3) If kiln gases are diverted to a coal mill and exhausted through a separate stack, the Permittee must calculate a kiln-specific HCl limit using Equation 11of §63.1349(b)(6)(iv).

D through F. Please see the monitoring requirements.

## 8.3 **Monitoring Requirements:**

#### A. Visible Emissions Limitations

- (1) **COMAR 26.11.30.05(B)(3)**, which states that compliance with the visibility standards of COMAR 26.11.30.05(B)(2) shall be demonstrated by a visible emission observation using Method 9 of 40 CFR Part 60.
- (2) **COMAR 26.11.30.05(C)**, which states that the owner or operator of a cement kiln at a Portland cement manufacturing plant shall either:
  - (a) Use a COM in accordance with the requirements of COMAR 26.11.01.10; or
  - (b) Use a PM continuous parametric monitoring system (CPMS) to establish a site-specific operating parameter limit for continuous visible emission compliance determinations in accordance with Regulation .04C of this chapter.
- (3) For affected **sources** subject to opacity requirements under §63.1345, the Permittee must develop an opacity monitoring plan in accordance with §63.1350(p)(1) through (4) and (o)(5), if applicable, and conduct required opacity monitoring in accordance with the plan and the following requirements [Reference: §63.1350(f)]:
  - (a) The Permittee must conduct a monthly 10-minute visible emissions test of each affected source subject to opacity requirements under §63.1345 in accordance with Method 22 of appendix A-7 to part 60 of CFR 40. The performance test must be conducted while the affected source is in operation. [Reference: §63.1350(f)(1)(i)]
  - (b) If no visible emissions are observed in six consecutive monthly tests for any affected source, the Permittee may decrease the frequency of performance testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, the Permittee must

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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. [Reference: §63.1350(f)(1)(ii)]

- (c) If no visible emissions are observed during the semi-annual test for any affected source, the Permittee may decrease the frequency of performance testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual performance test, the Permittee 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. [Reference: §63.1350(f)(1)(iii)]
- (d) If visible emissions are observed during any Method 22 performance test, of appendix A-7 to part 60 of CFR 40, 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 CFR 40. 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. [Reference: §63.1350(f)(1)(iv)]
- (e) 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. 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. [Reference: §63.1350(f)(1)(v)]
- (f) 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, according to the requirements of (f)(1)(i) through (iv) of §63.1350 for each such conveying system transfer point located within the building, or for the building itself, according to (f)(1)(vii) of §63.1350. [Reference: §63.1350(f)(1)(vi)]
- (g) If visible emissions from a building are monitored, the requirements of (f)(1)(i) through (f)(1)(iv) of §63.1350 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. [Reference: §63.1350(f)(1)(vii)]
- (4) For a raw mill or **finish** mill, the Permittee must monitor opacity in accordance with the following unless it is equipped with a continuous opacity monitoring system (COMS) or a bag leak detection system (BLDS): **[Reference:** §63.1350(f)(2) & (4)]

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- (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. [Reference: §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. [Reference: §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. [Reference: §63.1350(f)(2)(iii)]
- (5) 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. [Reference: §63.1350(f)(3)]
- (6) If the Permittee chooses to install a COMS in lieu of **conducting** the daily visible emissions testing required under (f)(2) of §63.1350, then the COMS must be installed at the outlet of the PM control device of the raw mill or finish mill and the COMS must be installed, maintained, calibrated, and operated as required by the general provisions in subpart A of Part 60 and according to PS-1 of appendix B to Part 60. [Reference: §63.1350(f)(4)(i)]
- (7) If the Permittee choose to install a **BLDS** in lieu of conducting the daily visible emissions testing required under (f)(2) of §63.1350, the requirements in (m)(1) through (m)(4), (m)(10) and (m)(11) of §63.1350 apply. [Reference: §63.1350(f)(4)(ii)]
- B. Control of Particulate Matters
  - (1) The exhaust gas from each emission 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]

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- (2) COMAR 26.11.30.04(B)(3), which states that compliance with the particulate matter standards of COMAR 26.11.30.04(B)(1) shall be demonstrated by a 3-run stack test using Method 5 or Method 5I of 40 CFR Part 60.
- (3) COMAR 26.11.30.04(C) which states that by September 1, 2016, the owner or operator of a cement kiln or clinker cooler at a Portland cement manufacturing plant shall:
  - (i) use a PM continuous parametric monitoring system (CPMS) to establish a site-specific operating parameter limit corresponding to the results of the performance test as required in COMAR 26.11.30.04(B)(3) demonstrating compliance with the PM limits in COMAR 26.11.30.04(B)(1); [reference COMAR 26.11.30.04(C)(1)]
  - (ii) conduct the performance test as required in COMAR 26.11.30.04(B)(3) using Method 5 or Method 5I of 40 CFR part 60; [Reference: COMAR 26.11.30.04(C)(2)]
  - (iii) use the PM CPMS to demonstrate continuous compliance with the site-specific operating parameter limit established in COMAR 26.11.30.04(C)(1); [Reference: COMAR 26.11.30.04(C)(3)]
  - (iv) repeat the performance test as required in COMAR 26.11.30.04(B)(3) annually and reassess and adjust the site-specific operating parameter limit of COMAR 26.11.30.04(C)(1) in accordance with the results of the performance test using the procedures in 40 CFR §63.1349(b)(1)(i)—(ix); [Reference: COMAR 26.11.30.04(C)(4)] and
  - (v) follow the procedures in 40 CFR §63.1350(b)(iii) and (iv) for any exceedance of the established operating parameter limit of COMAR 26.11.30.04(C)(1) on a 30 process operating day basis. [Reference: COMAR 26.11.30.04(C)(5)]
- (4) If the Permittee will use the PM CPMS to demonstrate continuous compliance with this operating limit, 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. [Reference: §63.1350(b)(1)(i)]

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- (5) 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. [Reference: §63.1350(b)(1)(ii)]
- (6) For any exceedance of the 30 process operating day PM CPMS average value from the established operating parameter limit, the Permittee must: [Reference: §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 test, whichever comes first, conduct a PM emissions compliance test to determine compliance with the PM emissions limit and to verify or reestablish 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.
- (7) 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. [Reference: §63.1350(b)(1)(iv)]

#### C. D/F Emissions

- (1) If the Permittee is subject to an emissions limitation on D/F emissions, the Permittee must comply with the monitoring requirements of (g)(1) through (g)(6) and (m)(1) through (m)(4) of this §63.1350 to 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. [Reference: §63.1350(g)]
- (2) The Permittee must install, calibrate, maintain, and continuously operate a continuous monitoring system (CMS) to record the temperature of the exhaust

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gases from the kiln at the inlet to, or upstream of, the kiln PMCDs. [Reference: §63.1350(g)(1)]

- (3) 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). [Reference: §63.1350(g)(1)(i)]
- (4) 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. [Reference: §63.1350(g)(1)(ii) & (iii)]
- (5) The Permittee must monitor and continuously record the temperature of the exhaust gases from the kiln at the inlet to the kiln PMCD. The required minimum data collection frequency must be one minute. [Reference: §63.1350(g)(2) & (3)]
- (6) 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). [Reference: §63.1350(g)(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. [Reference: §63.1350(g)(5)]

#### D & E NO<sub>x</sub> & Sulfur Oxide Emissions

- (1) The Permittee must install, operate, calibrate, and maintain a CEMs continuously monitoring and recording the concentration by volume of NO<sub>X</sub> emissions into the atmosphere for the kiln.
- (2) The Permittee must install, operate, calibrate, and maintain a CEMs for continuously monitoring and recording the concentration by volume of SO<sub>2</sub> emissions into the atmosphere for the kiln.
- (3) The NO<sub>X</sub> and SO<sub>2</sub> CEMs must be installed, operated and maintained according to Performance Specification 2 of Appendix B of 40 CFR, Part 60.
- (4) 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.

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(5) The Permittee shall use a continuous emissions monitoring system, (CEM) to monitor NOx emissions from the main exhaust stack. The Permittee shall install, operate, maintain, and calibrate the CEM in accordance with Performance Specification 2 under 40 CFR Part 60, Appendix B and the Quality Assurance Procedures under 40 CFR Part 60, Appendix F.

[Permit to Construct #06-6-0256 issued April 8, 1999 and revised June 7, 2000]

- (6) The Permittee shall monitor NOx emissions, pounds per ton of clinker, on a monthly average, the total operating hours of the kiln, and the total operating hour of the Pyroprocessing Portland cement plant burning DBS for each month. [Permit to Construct #06-6-0256 dated April 8, 1999 and revised June 7, 2000, August 7, 2009, and September 21, 2009]
- (7) 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 or use an alternative method approved by the Department and the EPA for compliance determination. **[COMAR 26.11.30.08A & B]**
- (8) The Permittee shall use a continuous emissions monitoring system, (CEM) to monitor SO₂ emissions from the main exhaust stack. The Permittee shall install, 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 #06-6-0256 issued April 8, 1999 and revised June 7, 2000] and [COMAR 26.11.01.11C]

(9) The daily amount of reagent used in the SNCR system is required to be monitored.

[Permit to Construct #013-0012-6-026, 0331, and 0037, Section E.1(I) issued August 31, 2010]

## F. Carbon Monoxide Emissions

The Permittee shall use a CEM to monitor CO emissions from the main exhaust stack. The Permittee shall install, 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. [Prevention of Significant Deterioration (PSD) Approval #PSD-97-01 issued April 8, 1999 and revised June 7, 2000 and COMAR 26.11.01.11C]

#### G. VOC /THC Emissions

(1) The Permittee must comply with the monitoring requirements of (i)(1) and (i)(2) and (m)(1) through (m)(4) of §63.1350. The Permittee must also develop an

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emissions monitoring plan in accordance with (p)(1) through (p)(4) of §63.1350. [Reference: §63.1350(i)]

- (2) The Permittee must install, 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.[Reference: §63.1350(i)(1)]
- (3) The Permittee shall use continuous emission monitoring system (CEM) to monitor total hydrocarbon (THC) emissions from the main exhaust stack. The Permittee shall install, operate, maintain, and calibrate the CEM in accordance with the Performance Specifications 8A of Appendix B to Part 60 and comply with all of the requirements from CEM found in the general provisions, subpart A of this part.

[New Source Review Approval #NSR-97-02 issued April 8, 1999 and COMAR 26.11.01.11C]

#### D. through G.

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)]

#### H. <u>Lead</u>

The Permittee shall follow the particulate matters emission monitoring requirements.

#### Mercury

- (1) The Permittee shall monitor the following operating data: [Permit to Construct No. 013-0012-6-0256, 0331, and 0337 issued March 1, 2013]
  - (a) Mercury emissions in pounds per million tons of clinker produced based on a 30-day rolling average during normal operation by using the mercury CEMs: and

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- (b) Work Practices required under §63.1346(g) during periods of startup and shutdown.
- (2) The Permittee must install and operate a mercury continuous emissions monitoring system (Hg CEMs) in accordance with Performance Specification 12A (PS 12A) of appendix B to Part 60 or an integrated sorbent trap monitoring system in accordance with Performance Specification 12B (PS 12B) of appendix B to Part 60. The Permittee must monitor mercury continuously according to (k)(1) through (5) of §63.1350. The Permittee must also develop an emissions monitoring plan in accordance with (p)(1) through (4) of §63.1350. [Reference: §63.1350(k)]
- (3) The Permittee must operate and maintain each Hg CEMs or an integrated sorbent trap monitoring system according to the quality assurance requirements in Procedure 5 of appendix F to Part 60. During the RATA of integrated sorbent trap monitoring systems required under Procedure 5, the Permittee may apply the following appropriate exception for sorbent trap section 2 breakthrough in accordance with (k)(3)(i) through (iv) of §63.1350: [Reference: §63.1350(k)(3)]
  - (a) For stack Hg concentrations >1 μg/dscm, ≤10% of section 1 mass;
  - (b) For stack Hg concentrations ≤1 μg/dscm and >0.5 μg/dscm, ≤20% of section 1 mass;
  - (c) For stack Hg concentrations ≤0.5 μg/dscm and >0.1 μg/dscm, ≤50% of section 1 mass; and
  - (d) For stack Hg concentrations ≤0.1 μg/dscm, no breakthrough criterion assuming all other QA/QC specifications are met.
- (4) Relative accuracy testing of mercury monitoring systems under PS 12A, PS 12B, or Procedure 5 must be conducted at normal operating conditions. If a facility has an inline raw mill, the testing must occur with the raw mill on. [Reference: §63.1350(k)(4)]
- (5) If the Permittee use a Hg CEMs or an integrated sorbent trap monitoring system, the Permittee must install, operate, calibrate, and maintain an instrument for continuously measuring and recording the exhaust gas flow rate to the atmosphere according to the requirements in (n)(1) through (10) of §63.1350.

If kiln gases are diverted to a coal mill and exhausted through separate stacks, the Permittee must account for the mercury emitted from those stacks by complying with the following procedures in accordance with (k)(5)(i) through (iv) of §63.1350: [Reference: §63.1350(k)(5)]

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- (a) Develop a mercury hourly mass emissions rate by conducting annual, within 11 to 13 calendar months after the previous performance test, performance tests using Method 29, or Method 30B, to measure the concentration of mercury in the gases exhausted from the coal mill.
- (b) On a continuous basis, determine the mass emissions of mercury in lb/hr from the coal mill exhausts by using the mercury hourly emissions rate, the exhaust gas flow rate and hourly mercury emission rate to calculate hourly mercury emissions in lb/hr.
- (c) Sum the hourly mercury emissions from the kiln and coal mill to determine total mercury emissions. Using hourly clinker production, calculate the hourly emissions rate in pounds per ton of clinker to determine the 30 day rolling average.
- (d) If mercury emissions from the coal mill are below the method detection limit for two consecutive annual performance tests, the Permittee may reduce the frequency of the performance tests of coal mills to once every 30 months. If the measured mercury concentration exceeds the method detection limit, the Permittee must revert to testing annually until two consecutive annual tests are below the method detection limit.
- (6) If the Permittee operate an integrated sorbent trap monitoring system conforming to PS 12B, the Permittee may use a monitoring period at least 24 hours but no longer than 168 hours in length. The Permittee should use a monitoring period that is a multiple of 24 hours (except during relative accuracy testing as allowed in PS 12B). [Reference: §63.1350(k)(6)]

#### K. Hydrogen Chloride (HCI)

- (1) The Permittee must monitor HCl emissions continuously according to (I)(1) or (2) and (m)(1) through (4) of §63.1350. [Reference: §63.1350(I)]
- (2) If the Permittee monitors compliance with the HCl emissions limit by operating an HCl CEMs, the Permittee must do so in accordance with Performance Specification 15 (PS 15) of appendix B to Part 60, or, upon promulgation, in accordance with any other performance specification for HCl CEMs in appendix B to Part 60. The Permittee must operate, maintain, and quality assure a HCl CEMs installed and certified under PS 15 according to the quality assurance requirements in Procedure 1 of appendix F to Part 60 except that the Relative Accuracy Test Audit requirements of Procedure 1 must be replaced with the validation requirements and criteria of sections 11.1.1 and 12.0 of PS 15. When promulgated, if the Permittee chooses to install and operate an HCl CEMs in accordance with PS 18 of appendix B to part 60 of this chapter, the Permittee

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must operate, maintain and quality assure the HCL CEMS using the associated Procedure 6 of appendix F to part 60 of this chapter. For any performance specification that the Permittee uses, the Permittee must use Method 321 of appendix A to part 63 of this chapter as the reference test method for conducting relative accuracy testing. The span value and calibration requirements in paragraph (I)(1)(i) and (ii) of this section apply to HCL CEMS other than those installed and certified under PS 15. [Reference: §63.1350(I)(1)]

- (3) If the Permittee chooses to monitor SO<sub>2</sub> emissions, monitor SO<sub>2</sub> emissions continuously according to the requirements of §60.63(e) through (f) of Part 60 Subpart F. If SO<sub>2</sub> levels increase above the 30-day rolling average SO<sub>2</sub> operating limit established during the performance test, the Permittee must: [Reference: §63.1350(I)(3)]
  - (a) As soon as possible but no later than 48 hours after the Permittee exceed the established SO<sub>2</sub> value conduct an inspection and take corrective action to return the SO<sub>2</sub> emissions to within the operating limit; and
  - (b) Within 60 days of the exceedance or at the time of the next compliance test, whichever comes first, conduct an HCl emissions compliance test to determine compliance with the HCl emissions limit and to verify or reestablish the SO<sub>2</sub> CEMs operating limit.

#### L. GHG Emissions

- (1) For each cement kiln that meets the conditions specified in §98.33(b)(4)(ii) or (b)(4)(iii), you must calculate and report under this subpart the combined process and combustion CO2 emissions by operating and maintaining a CEMS to measure CO2 emissions according to the Tier 4 Calculation Methodology specified in §98.33(a)(4) and all associated requirements for Tier 4 in subpart C of this part (General Stationary Fuel Combustion Sources). [Reference: 40 CFR 98.83]
- (2) A complete record of all measured parameters used in the GHG emissions calculations in §98.83 is required. Therefore, whenever a quality-assured value of a required parameter is unavailable, a substitute data value for the missing parameter shall be used in the calculations. The owner or operator must document and keep records of the procedures used for all such estimates.
  - (a) If the CEMS approach is used to determine combined process and combustion CO2 emissions, the missing data procedures in §98.35 apply.

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- (b) For CO2 process emissions from cement manufacturing facilities calculated according to §98.83(d), if data on the carbonate content (of clinker or CKD), noncalcined content (of clinker or CKD) or the annual organic carbon content of raw materials are missing, facilities must undertake a new analysis.
- (c) For each missing value of monthly clinker production the substitute data value must be the best available estimate of the monthly clinker production based on information used for accounting purposes, or use the maximum tons per day capacity of the system and the number of days per month.
- (d) For each missing value of monthly raw material consumption the substitute data value must be the best available estimate of the monthly raw material consumption based on information used for accounting purposes (such as purchase records), or use the maximum tons per day raw material throughput of the kiln and the number of days per month.[Reference: 40 CFR 98.85]

## 8.4 Record Keeping Requirements:

#### A, B, and C.

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 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]** 

#### D & E.

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 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]** 

#### F. & G.

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

- (1) Emissions for each calendar month and each rolling 12-month period;
- (2) Monthly usage of each raw material and each type of fuel used in the pyroprocessing plant;
- (3) All required stack emission test reports:
- (4) All processed CEM emission monitoring data;
- (5) All CEM certification and calibration results; and

# Table IV – 8 Kiln, Raw and Coal Mills - (Subject to MACT requirements)

(6) Records of any repairs made to equipment affecting CO or THC emissions and to CEM for CO or THC.

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. [New Source Review Approval #NSR-97-02 issued April 8, 1999 and Prevention of Significant Deterioration (PSD) Approval #PSD-97-01 issued April 8, 1999 and revised June 7, 2000 ]

#### H. & I.

The Permittee shall maintain the records for at least 5 years to support compliance with the emission limits and shall make them available to the Department upon request.

- L. GHG- Records that must be retained:
  - (1) If a CEMS is used to measure CO2 emissions, then in addition to the records required by §98.3(g), you must retain under this subpart the records for the Tier 4 Calculation Methodology in §98.37.
  - (2) If a CEMS is not used to measure CO2 emissions, then in addition to the records required by §98.3(g), you must retain the records specified in this paragraph (b) for each portland cement manufacturing facility.
  - (a) Documentation of monthly calculated kiln-specific clinker CO2 emission factor.
  - (b) Documentation of quarterly calculated kiln-specific CKD CO2 emission factor.
  - (c) Measurements, records and calculations used to determine reported parameters.
  - (3) Verification software records. You must keep a record of the file generated by the verification software specified in §98.5(b) for the applicable data specified in paragraphs (c)(1) through (17) of this section. Retention of this file satisfies the recordkeeping requirement for the data in paragraphs (c)(1) through (17) of this section.

#### 8.5 Reporting Requirements:

#### A. Visible Emissions Limitations

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

# Table IV – 8 Kiln, Raw and Coal Mills - (Subject to MACT requirements)

emissions and continuous monitoring system performance report along with the summary report.

[40 CFR §63.1354(b)(10)]

#### A & C.

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:

- (1) Company name and address;
- (2) "Regulated Portland Cement MACT/NESHAP" pollutants;
- (3) A brief description of the process;
- (4) The emissions limit;
- (5) Name, title and signature of responsible party;
- (6) Date of report;
- (7) All exceedances of the three hour average inlet temperature limit to the Particulate matter control device;
- (8) All failures to calibrate thermocouples;
- (9) Per Portland Cement MACT annual combustion system inspection performed;
- (10) All failures to comply with the operations and maintenance plan:
- (11) The date of the latest CMS certification or audit;
- (12) The total operating time of the affected source during the reporting period; and
- (13) A CMS performance summary, including:
  - (a) the total CMS downtime during the operating period (in minutes);
  - (b) the total CMS downtime expressed as a percent of the total operating time; and
  - (c) a breakdown of total CMS downtime into periods due to:
    - i. Monitoring equipment malfunctions,
    - ii. Non monitoring equipment malfunctions,
    - iii. Quality assurance/quality control calibrations,
    - iv. Other known causes, and
    - v. Other unknown causes.

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

#### D thru G.

- (1) 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

# Table IV – 8 Kiln, Raw and Coal Mills - (Subject to MACT requirements)

notify the Department by telephone when an out-of-service CEM is back in 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.

- (2) 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;
  - 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 guarterly 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

# Table IV – 8 Kiln, Raw and Coal Mills - (Subject to MACT requirements)

minimum of 2 years from the time the report is submitted. **[COMAR 26.11.01.11E(2)]** 

#### B & C.

- (1) The Permittee shall submit the results of performance tests before the close of business on the 60<sup>th</sup> day following the completion of the performance test.

  [40 CFR §63.1354(b)(1)] & [40 CFR §63.10(d)(2)]
- (2) At least 30 days prior to each stack emissions testing, the Permittee shall submit to the Department a stack test protocol for review and approval.

  [Part D(7) of Permit to Construct #06-6-0256 issued April 8, 1999 and revised June 7, 2000]
- (3) The Permittee shall submit particulate matter stack test result to the Department within 45 days following the date of the stack test. [Consent Decree, August 24, 2009 & COMAR 26.11.03.06]

#### D. NOx Emissions

- (1) The Permittee shall submit the NOx emissions data to the Department for each control period by November 30 beginning with the 2002 control period. [COMAR 26.11.29.04A(3)]
- (2) The Permittee shall include the following information in the quarterly emissions report submitted to the Department for the Union Bridge Plant: [Permit to Construct #06-6-0256 dated April 8, 1999 and revised June 7, 2000, August 7, 2009, and September 21, 2009]
  - (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 Hg 30-day rolling averages are routinely reported in the quarterly CEM report and the PC MACT semi-annual reports.

#### D & E.

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 for each calendar month and each rolling 12-month period;
- (2) All required stack emission test reports;
- (3) All processed CEM emission monitoring data; and
- (4) All CEM certification and calibration results.

[COMAR 26.11.03.06C]

#### F & G.

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:

# Table IV – 8 Kiln, Raw and Coal Mills - (Subject to MACT requirements)

- (1) Emissions for each calendar month and each rolling 12-month period;
- (2) All required stack emission test reports;
- (3) All processed CEM emission monitoring data; and
- (4) All CEM certification and calibration results.

[New Source Review Approval #NSR-97-02 issued April 8, 1999 and Prevention of Significant Deterioration (PSD) Approval #PSD-97-01 issued April 8, 1999 and revised June 7, 2000 ]

#### H & I.

The Permittee shall include the following records in the quarterly emissions report submitted to the Department: Mercury emissions in pounds of mercury per million tons of clinker produced based on a 30-day rolling average during normal operation.

#### L. GHG

The Permittee shall quantify facility wide GHGs emissions and report them in accordance with 40 CFR 98.86.

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

## Table IV – 8a Kiln (Subject to Federal Consent Decree 5:19-cv-05688)

# 8a.0 Emissions Unit Numbers Area E - Clinker Burning and Cooling with Preheater Kiln Baghouse C04-014 Emission Unit E01-001/E02-001- Preheater-Precalciner/Kiln System

This facility became subject to Federal Consent Decree 5:19-cv-05688 effective November 18, 2020. Emission Units E01-001 and E02-001 Preheater-Precalciner/Kiln System (ARA registration number 6-0256) are subject to the Decree. [Reference: PTC 013-0012-6-0256 Issued March 8, 2022]

#### 8a.1 | Applicable Limits and Operating Conditions:

- (1) The Union Bridge facility owned and operated by the Permittee became subject to Federal Consent Decree 5:19-cv-05688 ("Decree") effective November 18, 2020.
- (2) Emission Units E01-001 and E02-001 Preheater-Precalciner/Kiln System [ARA Registration No. 013-0012-6-0256] are subject to the Decree.

Table IV – 8a
Kiln (Subject to Federal Consent Decree 5:19-cv-05688)

- (3) Beginning on June 16, 2021 the Permittee shall comply with the following:
  - (a) The Union Bridge Kiln shall continuously operate the SNCR NOx control technology at all times of Kiln operation.
  - (b) The Union Bridge Kiln shall comply with a 30-day rolling average emission limit of 2.1 lbs NOx / Ton of Clinker.
- (4) Beginning on February 10, 2021 the Permittee shall comply with the following;
  - (a) The Union Bridge Kiln shall continuously operate its SO2 emission control technology at all times of Kiln operation. The Kiln may rely on inherent SO2 scrubbing properties and/or lime injection to control SO2 emissions.
  - (b) The Union Bridge Kiln shall comply with a 30-day rolling average emission limit of 0.4 lbs SO2 / Ton of Clinker.

## [Reference: PTC 013-0012-6-0256 Issued March 8, 2022]

## 8a.2 **Prohibited Activities**:

- (1) The Permittee is prohibited from generating or using any emission reductions due to compliance with the Decree as netting reductions, emission offsets, or to apply for, obtain, trade, or sell any emission reduction credits.
- (2) Baseline actual emissions for the Kiln during any 24-month period selected by the Permittee shall be adjusted downward to exclude any portion of the baseline emissions that would have been eliminated had the Permittee been complying with the Decree during that 24-month period.
- (3) Any plant-wide applicability limits ("PALs") or PAL-like limits that apply to the Kiln must be adjusted downward to exclude any portion of the baseline emissions used in establishing such limit(s) that would have been eliminated had the Permittee been complying with the Decree during such baseline period.

#### [Reference: PTC 013-0012-6-0256 Issued March 8, 2022]

## 8a.3 | Monitoring Requirements:

(1) In order to demonstrate compliance with the NOx and SO2 limits defined in the Federal Consent Decree, the Permittee is required to install CEMS in accordance with the requirements of 40 CFR Part 60 on the Kiln stack. The CEMS are required to be in operation during all times that the Kiln is

## Table IV – 8a Kiln (Subject to Federal Consent Decree 5:19-cv-05688)

in operation. The CEMS must monitor and record NOx and SO2 emissions in units of parts per million (ppm), lbs of pollutant per hour, and lbs of pollutant per ton of clinker produced. During any time when the CEMS is inoperable or otherwise not measuring emissions from the Kiln, the Permittee shall apply the missing data substitution procedures defined in 40 CFR Part 75, Subpart D.

- (2) For the purposes of this section of the operating permit, an Operating Day shall mean any calendar day on which Kiln operation has occurred.
- (3) A "30-Day Rolling Average Emission Limit" shall mean, with respect to the Kiln complying with an emission limit in this section of the operating permit, the maximum allowable rate of emission of a specified air pollutant from the Kiln, and shall be expressed as pounds (lbs) of such air pollutant emitted per ton of clinker produced. Compliance with the 30-Day Rolling Average Emission Limit shall be determined by calculating the 30-Day Rolling Average Emission Limit.
- (4) The "30-Day Rolling Average Emission Rate" shall mean, with respect to the Kiln, the rate of emission of NOx or SO2, respectively, expressed as pounds (lbs) per ton of clinker produced by the Kiln and calculated in accordance with the following procedure: first, sum the total pounds of the pollutant in question emitted from the Kiln during an Operating Day and the previous twenty-nine (29) Operating Days, as measured; second, sum the total tons of clinker produced by the Kiln during the same Operating Day and previous twenty-nine (29) Operating Days; and third, divide the total number of pounds of that pollutant emitted from the Kiln during the thirty (30) Operating Days referred to in this paragraph by the total tons of clinker produced at the Kiln during the dame thirty (30) Operating Days. A new 30-Day Rolling Average Emission Rate shall be calculated for each new Operating Day. Only emission data determined to be valid under 40 CFR § 60.13 or during any time when the CEMS is inoperable or otherwise not measuring emissions from the Kiln, the Permittee shall apply the missing data substitution procedures defined in 40 CFR Part 75, Subpart D. In calculating each 30-Day Rolling Average Emission Rate. the total pounds of that pollutant emitted from the Kiln during a specified period (Operating Day or 30-Day Period) shall include all emission s of that pollutant from the Kiln that occur during the specified period, including emissions during each malfunction.

## Table IV – 8a Kiln (Subject to Federal Consent Decree 5:19-cv-05688)

(5) The Permittee shall determine and record the daily clinker production rates by installing, calibrating, maintaining, and operating a permanent weigh scale system to measure and record weight rates of the amount of clinker produced in ton of mass per hour. The system of measuring hourly clinker production must be maintained within + 5 percent accuracy; or install, calibrate, maintain and operate a permanent weigh scale system to measure and record weigh rates of the amount of feed to the Kiln in tons of mass per hour, the system of measuring feed must be maintained withing + 5 percent accuracy. If the Permittee chooses to measure and record the production rates at the Kiln, then the Permittee shall calculate the hourly clinker production rate using a kiln-specific feed-to-clinker ration based on the reconciled clinker production determined for accounting purposes and recorded feed rates, this ratio should be updated no less frequently than once per month; if this ratio changes at clinker reconciliation, the new ratio must be used going forward, but shall not be applied retroactively to change clinker production rates previously explained.

## [Reference: PTC 013-0012-6-0256 Issued March 8, 2022]

#### 8a.4 Record Keeping and Reporting Requirements:

- (1) The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, all records used to demonstrate compliance with the conditions in Part C of this permit; and other information as deemed relevant by the Department.
- (2) Until the Decree is terminated, the Permittee shall submit to the Department, within 30 days after the end of each half calendar year, a semi-annual compliance report for the immediately preceding half calendar year.
- (3) Upon termination of the Decree, the Permittee shall submit to the Department, within 30 days after the end of each calendar quarter, a quarterly compliance report for the immediately preceding quarter.
- (4) Compliance reports shall:
  - (a) Demonstrate compliance with the conditions in Part C of this permit.

## Table IV – 8a Kiln (Subject to Federal Consent Decree 5:19-cv-05688)

- (b) Describe any non-compliance with this permit and an explanation of the likely cause, corrective, and preventative actions taken to address the non-compliance.
- (c) Each report submitted shall be signed by a company official and include the following certification:

"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."

(d) All compliance reports shall be submitted to the following:

The Administrator
Compliance Program
Maryland Department of the Environment
Air and Radiation Administration

1800 Washington Boulevard, STE 715 Baltimore MD 21230

OR as otherwise designated by the Department.

(5) 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 Administration.

[Reference: PTC 013-0012-6-0256 Issued March 8, 2022]

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

Table IV – 9
Clinker Cooler and Main Pan Conveyor - (Subject to MACT requirements)

### 9.0 Emissions Unit Numbers

Area E – Clinker Burning and Cooling with Preheater Kiln

Baghouse Emission Unit

Area G - Clinker Transport & Storage - Craneway Building

Baghouse Emission Unit

E04-016 G01-001 - Main Pan Conveyor

The clinker cooler is used to cool the kiln product and exhaust from the clinker cooler is passed through the clinker cooler baghouse then to the cooler exhaust stack.

## 9.1 Applicable Standards/Limits:

#### A. Visible Emissions Limitations

- (1) **COMAR 26.11.30.05(B)(2)**, 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 visible to human observers.
- (2) On and after the date on which the performance test required to be conducted by §60.8 is completed, the Permittee may not discharge gases which exhibit 10 percent opacity or greater for clinker coolers constructed, reconstructed, or modified after August 17, 1971, but on or before June 16, 2008, except that this opacity limit does not apply to any clinker cooler subject to a PM limit in paragraph (b)(1) of this section that uses a PM continuous parametric monitoring system (CPMS). [Reference: §60.62(b)(1)(iv)]

#### B. Control of Particulate Matter

- (1) **COMAR 26.11.30.04(B)(2)**, which states that a person may not cause or permit particulate matter to be discharged from any installation in excess of 0.03 grains per standard cubic foot dry.
- (2) On and after the date on which the performance test required to be conducted by §60.8 is completed, the Permittee may not discharge PM into the atmosphere from the clinker cooler, which undergone a modification, in excess of 0.07 pound per ton of clinker. [Reference: §60.62(b)(1)(ii)]
- (3) Permit to Construct #06-6-0256N dated April 8, 1999 and revised June 7, 2000, which limits particulate matter from the clinker cooler exhaust stack to 0.0129 gr/scfd (29.5 mg/dscm).
- (4) The particulate matter emissions from the clinker cooler that has been constructed or reconstructed on or before May 6, 2009 during normal operation

# Table IV – 9 Clinker Cooler and Main Pan Conveyor - (Subject to MACT requirements)

shall not exceed 0.07 pounds per tons of clinker. [Reference: Table 1-7. of §63.1343(b)(1)]

## 9.2 Testing Requirements:

A. Please see the monitoring requirements

#### B. Control of Particulate Matters

The Permittee shall conduct particulate matter emissions stack tests using Method 5 of 40 CFR Part 60, Appendix A, for particulate matter on the clinker cooler once per calendar year, allowing at least 180 days between each particulate matter stack test **[Consent Decree, August 24, 2009].** 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.

[40 CFR §63.1349(b) and (c)]

#### C. Performance testing requirements [40 CFR §63.1349(a)]

The Permittee must 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. A brief description of the process and the air pollution control system;

- (1) Sampling location description(s);
- (2) A description of sampling and analytical procedures and any modifications to standard procedures;
- (3) Test results:
- (4) Quality assurance procedures and results;
- (5) Records of operating conditions during the performance test, preparation of standards, and calibration procedures:
- (6) Raw data sheets for field sampling and field and laboratory analyses;
- (7) Documentation of calculations:
- (8) All data recorded and used to establish parameters for monitoring; and
- (9) Any other information required by the performance test method.

**PM emissions tests.** The owner or operator of a kiln subject to limitations on PM emissions shall demonstrate initial compliance by conducting a performance test

# Table IV – 9 Clinker Cooler and Main Pan Conveyor - (Subject to MACT requirements)

using Method 5 or Method 5I at appendix A-3 to part 60 of this chapter. You must also monitor continuous performance through use of a PM continuous parametric monitoring system (PM CPMS). [40 CFR §63.1349(b)(1)]

- (i) For your PM CPMS, you will establish a site-specific operating limit. If your PM performance test demonstrates your PM emission levels to be below 75 percent of your emission limit you will use the average PM CPMS value recorded during the PM compliance test, the milliamp equivalent of zero output from your PM CPMS, and the average PM result of your compliance test to establish your operating limit. If your PM compliance test demonstrates your PM emission levels to be at or above 75 percent of your emission limit you will use the average PM CPMS value recorded during the PM compliance test to establish your operating limit. You will use the PM CPMS to demonstrate continuous compliance with your operating limit. You must repeat the performance test annually and reassess and adjust the site-specific operating limit in accordance with the results of the performance test.
- (A) Your PM CPMS must provide a 4-20 milliamp output and the establishment of its relationship to manual reference method measurements must be determined in units of milliamps.
- (B) Your PM CPMS operating range must be capable of reading PM concentrations from zero to a level equivalent to three times your allowable emission limit. If your PM CPMS is an auto-ranging instrument capable of multiple scales, the primary range of the instrument must be capable of reading PM concentration from zero to a level equivalent to three times your allowable emission limit.
- (C) During the initial performance test or any such subsequent performance test that demonstrates compliance with the PM limit, record and average all milliamp output values from the PM CPMS for the periods corresponding to the compliance test runs (e.g., average all your PM CPMS output values for three corresponding 2-hour Method 5I test runs).
- (ii) Determine your operating limit as specified in paragraphs (b)(1)(iii) through (iv) of this section. If your PM performance test demonstrates your PM emission levels to be below 75 percent of your emission limit you will use the average PM CPMS value recorded during the PM compliance test, the milliamp equivalent of zero output from your PM CPMS, and the average PM result of your compliance test to establish your operating limit. If your PM compliance test demonstrates your PM emission levels to be at or above 75 percent of your emission limit you will use the average PM CPMS value recorded during the PM compliance test to establish your operating limit. You must verify an existing or establish a new operating limit after each repeated performance test. You must repeat the performance test at

# Table IV – 9 Clinker Cooler and Main Pan Conveyor - (Subject to MACT requirements)

least annually and reassess and adjust the site-specific operating limit in accordance with the results of the performance test.

- (iii) If the average of your three Method 5 or 5I compliance test runs is below 75 percent of your PM emission limit, you must calculate an operating limit by establishing a relationship of PM CPMS signal to PM concentration using the PM CPMS instrument zero, the average PM CPMS values corresponding to the three compliance test runs, and the average PM concentration from the Method 5 or 5I compliance test with the procedures in (a)(1)(iii)(A) through (D) of this section.
- (A) Determine your PM CPMS instrument zero output with one of the following procedures.
- (1) Zero point data for in-situ instruments should be obtained by removing the instrument from the stack and monitoring ambient air on a test bench.
- (2) Zero point data for extractive instruments should be obtained by removing the extractive probe from the stack and drawing in clean ambient air.
- (3) The zero point may also be established by performing manual reference method measurements when the flue gas is free of PM emissions or contains very low PM concentrations (e.g., when your process is not operating, but the fans are operating or your source is combusting only natural gas) and plotting these with the compliance data to find the zero intercept.
- (4) If none of the steps in paragraphs (a)(1)(iii)(A)(1) through (3) of this section are possible, you must use a zero output value provided by the manufacturer.
- (B) Determine your PM CPMS instrument average in milliamps, and the average of your corresponding three PM compliance test runs, using equation 3.

$$\bar{x} = \frac{1}{n} \sum_{i=1}^{n} X_{1}, \bar{y} = \frac{1}{n} \sum_{i=1}^{n} Y_{1}$$
(Eq. 3)

Where:

 $X_1$  = The PM CPMS data points for the three runs constituting the performance test.

 $Y_1$  = The PM concentration value for the three runs constituting the performance test.

n = The number of data points.

# Table IV – 9 Clinker Cooler and Main Pan Conveyor - (Subject to MACT requirements)

(C) With your instrument zero expressed in milliamps, your three run average PM CPMS milliamp value, and your three run PM compliance test average, determine a relationship of lb/ton-clinker per milliamp with Equation 4.

$$R = \frac{Y_1}{(X_1 - z)} \tag{Eq. 4}$$

Where:

R = The relative lb/ton-clinker per milliamp for your PM CPMS.

 $Y_1$  = The three run average lb/ton-clinker PM concentration.

 $X_1$  = The three run average milliamp output from you PM CPMS.

z =The milliamp equivalent of your instrument zero determined from (b)(1)(iii)(A).

(D) Determine your source specific 30-day rolling average operating limit using the lb/ton-clinker per milliamp value from Equation 4 in Equation 5, below. This sets your operating limit at the PM CPMS output value corresponding to 75 percent of your emission limit.

$$o_l = z + \frac{0.75(L)}{R}$$
 (Eq. 5)

Where:

 $O_1$  = The operating limit for your PM CPMS on a 30-day rolling average, in milliamps.

L = Your source emission limit expressed in lb/ton clinker.

z = Your instrument zero in milliamps, determined from (1)(i).

R = The relative lb/ton-clinker per milliamp for your PM CPMS, from Equation 4.

(iv) If the average of your three PM compliance test runs is at or above 75 percent of your PM emission limit you must determine your operating limit by averaging the PM CPMS milliamp output corresponding to your three PM performance test runs that demonstrate compliance with the emission limit using Equation 6.

$$O_{\mathbf{h}} = \frac{1}{n} \sum_{i=1}^{n} X_1$$
 (Eq. 6)

Where:

# Table IV – 9 Clinker Cooler and Main Pan Conveyor - (Subject to MACT requirements)

 $X_1$  = The PM CPMS data points for all runs i.

n = The number of data points.

 $O_h$  = Your site specific operating limit, in milliamps.

(v) To determine continuous operating compliance, you 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. You 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. Use Equation 7 to determine the 30 kiln operating day average.

$$30 \text{kiln operating day} = \frac{\sum_{i=1}^{n} Hpw}{n}$$
(Eq. 7)

Where:

Hpvi = The hourly parameter value for hour i.

n = The number of valid hourly parameter values collected over 30 kiln operating days.

- (vi) For each performance test, conduct at least three separate test runs under the conditions that exist when the affected source is operating at the highest load or capacity 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 average of the results from three consecutive runs, including applicable sources as required by (D)(viii), to determine compliance. You 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.
- (vii) 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

# Table IV – 9 Clinker Cooler and Main Pan Conveyor - (Subject to MACT requirements)

this zero value was determined, and the average milliamp signals corresponding to each PM compliance test run.

- (viii) The owner or operator of a kiln with an in-line raw mill and subject to limitations on PM emissions shall demonstrate initial compliance by conducting separate performance tests while the raw mill is under normal operating conditions and while the raw mill is not operating.
- (c) **Performance Test Frequency**. Tests for PM are repeated every 12 months.
- (d) Performance Test Reporting Requirements. (1) You must submit the information specified in paragraphs (d)(1) and (2) of this section no later than 60 days following the initial performance test. All reports must be signed by a responsible official.
  - (i) The initial performance test data as recorded under paragraph (b) of this section.
  - (ii) The values for the site-specific operating limits or parameters established pursuant to paragraphs (b)(1), (3), (6), and (7) of this section, as applicable, and a description, including sample calculations, of how the operating parameters were established during the initial performance test.
  - (2) As of December 31, 2011 and within 60 days after the date of completing each performance evaluation or test, as defined in §63.2, conducted to demonstrate compliance with any standard covered by this subpart, you must submit the relative accuracy test audit data and performance test data, except opacity data, to the EPA by successfully submitting the data electronically to the EPA's Central Data Exchange (CDX) by using the Electronic Reporting Tool(ERT) (see <a href="http://www.epa.gov/ttn/chief/ert/ert\_tool.html/">http://www.epa.gov/ttn/chief/ert/ert\_tool.html/</a>).
- (e) Conditions of performance tests. Conduct performance tests under such conditions as the Administrator specifies to the owner or operator based on representative performance of the affected source for the period being tested. Upon request, you must make available to the Administrator such records as may be necessary to determine the conditions of performance tests.
- 9.3 Monitoring Requirements:
  - A. Visible Emissions Limitations
    - (1) **COMAR 26.11.30.05(D)**, which states that the owner or operator of a clinker cooler at a Portland cement manufacturing plant shall either:

# Table IV – 9 Clinker Cooler and Main Pan Conveyor - (Subject to MACT requirements)

- (a) Use a COM in accordance with the requirements of COMAR 26.11.01.10; or
- (b) Use a PM continuous parametric monitoring system (CPMS) to establish a site-specific operating parameter limit for continuous visible emission compliance determinations in accordance with Regulation COMAR 26.11.30.04C;
- (2) 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 meet the emission limits and operating limits of §63.1345;
  - (b) Corrective actions to be taken when required by §63.1350(e); and
  - (c) Procedures to be used to periodically monitor affected sources subject to opacity standards under§63.1345.

[40 CFR §63.1350(a) and (b)]

#### B. Control of Particulate Matters

- (1) The exhaust gases from E-03-001-Clinker Cooler and G01-001- Main Pan Conveyor shall vent through a dust collector designed to meet the particulate matter emissions limit before discharging into the atmosphere. [COMAR 26.11.03.06C]
- (2) On or after September 1, 2016, the owner or operator of a cement kiln or clinker cooler at a Portland cement manufacturing plant shall:
  - (a) Use a PM continuous parametric monitoring system (CPMS) to establish a site specific operating parameter limit corresponding to the results of the performance test as required in §B(3) of this regulation demonstrating compliance with the PM limits in §B(1) and (2) of this regulation;
  - (b) Conduct the performance test as required in §B(3) of this regulation using Method 5 or Method 5I of 40 CFR part 60;
  - (c) Use the PM CPMS to demonstrate continuous compliance with the sitespecific operating parameter limit established in §C(1) of this regulation;
  - (d) Repeat the performance test as required in §B(3) of this regulation annually and reassess and adjust the site-specific operating parameter

# Table IV – 9 Clinker Cooler and Main Pan Conveyor - (Subject to MACT requirements)

limit of C(1) of this regulation in accordance with the results of the performance test using the procedures in 40 CFR 63.1349(b)(1)(i)—(ix); and

- (e) Follow the procedures in 40 CFR §63.1350(b)(iii) and (iv) for any exceedance of the established operating parameter limit of §C(1) of this regulation on a 30 process operating day basis [COMAR 26.11.30.04(C)]
- (3) For the PM CPMS, the Permittee will establish a site-specific operating limit in accordance with §63.1349(b)(1)(i) through (iv). The Permittee shall conduct annual performance tests to reassess and adjust the site-specific operating limit as necessary. The Permittee shall follow the procedures in 40 CFR §63.1350(b)(iii) and (iv) for any exceedance of the established operating parameter limit of COMAR 26.11.30.04(C)(1) on a 30 process operating day basis. [Reference: COMAR 26.11.30.04(C)(5)] [Reference: COMAR 26.11.30.04B(3), §60.63(c)(2) and §63.1349(b)(1)]
- (4) 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 meet the emission limits and operating limits of §63.1345;
  - (b) Corrective actions to be taken when required by §63.1350(e); and
  - (c) Procedures to be used to periodically monitor affected sources subject to opacity standards under§63.1345.

[40 CFR §63.1350(a) and (b)]

#### **Clinker Production Monitoring Requirements**

- (1) The Permittee shall determine hourly clinker production by one of two methods: [Reference: §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; : [Reference: §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

# Table IV – 9 Clinker Cooler and Main Pan Conveyor - (Subject to MACT requirements)

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. : [Reference: §60.63(b)(1)(ii) and §63.1350(d)(1)(ii)]

- (2) 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). [Reference: §60.63(b)(2) and §63.1350(d)(2)]
- (3) 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. [Reference: §60.63(b)(3) and §63.1350(d)(3)]
- (4) The Permittee shall develop an emissions monitoring plan in accordance with (p)(1) through (p)(4) of §63.1350(p). [Reference: §63.1350(d)(4)]

### 9.4 Record Keeping Requirements:

#### A & B.

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. **I40 CFR §63.1355]** 

### 9.5 Reporting Requirements:

### A. Visible Emissions Limitations

(1) 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 owner or operator shall submit an excess emissions and continuous monitoring system performance report along with the summary report. [40 CFR §63.1354(b)(10)]

Table IV – 9
Clinker Cooler and Main Pan Conveyor - (Subject to MACT requirements)

- (2) 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;
  - (d) All CEM certification and calibration results[COMAR 26.11.03.06]
- (3) 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)]

#### B. Control of Particulate Matters

- (1) The Permittee shall submit the results of performance tests in accordance with the following:
  - (a) before the close of business on the 60<sup>th</sup> day following the completion of the performance test. **[40 CFR §63.1354(b)(1)] & [40 CFR §63.10(d)(2)]**
  - (b) within 45 days following the date of the stack test. [Consent Decree, August 24, 2009 & COMAR 26.11.03.06C]
- (2) At least 30 days prior to each stack emissions testing, the Permittee shall submit to the Department a stack test protocol for review and approval. [Part D(7) of Permit to Construct #06-6-0256 issued April 8, 1999 and revised June 7, 2000]
- (3) 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.

# Table IV – 10 Clinker Handling and Craneway - Point Sources - (Subject to MACT requirements)

10.0	Emissions Unit Numbers		
		Area G - Clinker Transport & Storage	
	Baghouse	Emission Unit	
	G01-009	G01-012- Clinker Storage Silo	
	G02-047	G02-002-Transfer Tower #13	
		Belt Conveyor	
	G02-044	G02-002- Transfer Tower #12	
		Belt Conveyor	

		Table IV – 10
Cli	inker Handlir	ng and Craneway - Point Sources - (Subject to MACT requirements)
	G02-021	G02-002-Transfer Tower #11
		Belt Conveyor
	G02-053	TL1- Clinker Truck/Rail Loadout
	G03-011	TT9/10- Transfer Tower #9/10
		G03-010- Clinker into Craneway
	G03-004	TT7- Transfer Tower #7
	G04-011	G04-010- Bucket Elevator
		G04-014- 450 MT Clinker Bin
	004004	G04-020- Belt Conveyor
	G04-034	G04-009 & G04-016 - Belt Conveyor
		G04-010- Bucket Elevator
		G04-016- Belt Feeder
	1104 000	G04-056- 100 MT Clinker Bin Weighfeeder
	H01-220	G04-058- Clinker Bin, H01-006 Belt
	(G04-034)	G04-059- H01-015 Clinker Feeder, G04-018 Belt
		Area H – Clinker Finish Mill
	<u>Baghouse</u>	Emission Unit
	H09-051	H09-028- Bucket Elevator
		H09-062- Reversible Belt Conveyor
	1100 050	H09-031- Belt Conveyor
	H09-059	H09-047- Bucket Elevator
		H09-058- Belt Conveyor to 90 metric ton bin H09-000- Semifinish Grinding System
	H09-025	H09-019- Weighfeeder
	1109-023	H09-023- 100 MT Gypsum Bin Weighfeeder
		H09-024- Belt Conveyor (from Weighfeeder)
	H09-073	H09-075- 90 Ton Bin
	H09-082	H09-021- 100 MT Clinker Bin Weighfeeder
	1100 002	H09-066- Belt Conveyor
		H09-020- 100 MT Slag/Clinker Bin Weighfeeder
	H09-033	H09-031 & H09-046 - Belt Conveyor
		H09-036 & H09-041 - Bin & Roll Press
	H09-094	H09-091- Metal Reclamation System Belt Conveyor
10.1	Applicable \$	Standards/Limits:
	A Visible Fr	missions Limitations
		IAR 26.11.30.05(B)(2), which states that a person may not cause or permit
	` '	lischarge of emissions from any installation or building, other than water in
		ncombined form, which is visible to human observers.
	(2) <b>Port</b>	land Cement MACT- 40 CFR §63.1348 which limits opacity to 10% or less
		ach new or existing raw material, clinker, or finished product storage bin;

# Table IV – 10 Clinker Handling and Craneway - Point Sources - (Subject to MACT requirements)

conveying system transfer point; bagging system; and bulk loading or unloading system.

Note: The Portland Cement MACT was revised effective November 8, 2010. The new citation for the above requirement is §63.1345.

### B. Control of Particulate Matters

- (1) **COMAR 26.11.30.04(B)(2)**, which states that a person may not cause or permit particulate matter to be discharged from any installation in excess of 0.03 grains per standard cubic foot dry.
- (2) Permit to Construct #06-6-0256N dated April 8, 1999 and revised June 7, 2000 All emission units shall be equipped with a dust collector designed to reduce particulate matter emissions to 0.01 gr/SCFD (22.9 mg/dscm) except TT9/10 Transfer Tower #9/10 which is required to meet 0.0108 gr/SCFD (24.7 mg/dscm).

# 10.2 **Testing Requirements**:

A & B. Please see the monitoring requirements.

## 10.3 | Monitoring Requirements:

#### A. Visible Emissions Limitations

(1) The Permittee shall conduct a monthly 1-minute visible emissions test of the exhaust stack of each emission unit in accordance with Method 22 of Appendix A to part 60. The test must be conducted while the emission unit is in operation. If no visible emissions are observed in six consecutive monthly tests for the exhaust stack of any emission unit, the Permittee may decrease the frequency of testing from monthly to semi-annually for that emission unit. If visible emissions are observed during any semi-annual test, the Permittee must resume testing of the exhaust stack of that emission unit on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests. If no visible emissions are observed during the semi-annual test for the exhaust stack of any emission unit, the Permittee may decrease the frequency of testing from semi-annually to annually for the exhaust stack of that emission unit. If visible emissions are observed during any annual test, the Permittee must resume testing of the exhaust stack of that emission unit on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

If visible emissions are observed during any Method 22 test, the owner or operator must conduct a 6-minute test of opacity in accordance with Method 9

# Table IV – 10 Clinker Handling and Craneway - Point Sources - (Subject to MACT requirements)

of appendix A to part 60 of this chapter. The Method 9 test must begin within one hour of any observation of visible emissions.

[40 CFR §63.1350(a)(4)(i)-(iv)]

- (2) 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 meet the emission limits and operating limits of §§63.1348; and
  - (b) Procedures to be used to periodically monitor affected sources. [40 CFR §63.1350(a) and (b)]

## B. Control of Particulate Matters

The exhaust gas from each emissions unit shall vent a dust collector designed to reduce particulate matter emissions limits before discharging into the atmosphere. **[COMAR 26.11.03.06C]** 

## 10.4 Record Keeping Requirements:

#### A & B.

The Permittee shall maintain needed 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 offsite. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or no microfiche. [40 CFR §63.1355]

## 10.5 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)]

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

# Table IV – 11 Finish Mill Systems - (Subject to MACT requirements)

11.0	Emissions U	nit Numbers	
	Area H – Clinker Finish Mill		
	<u>Baghouse</u>	Emission Unit	
	H01-070	H01-040 – Finish Mill #1	
		H01-061 – Cyclones and Belts	
		H01-063 – Cyclone and Belts	
		H01-090 – Finish Mill #1 Burner	
	H01-210	H01-105 – Belt Conveyor and Tipping Valves	
		H01-110 – Bin	
		H01-112 – Belt Conveyor and Tipping Valves	
	H01-230	H01-080 – Elevator and Tipping Valves	
	H01-240	H07-015 – Cement to Cement Cooler	
		H07-016 - Airslide	
	H04-044	H04-006- Belt Conveyor	
		H04-014- Finish Mill #4 System	
	H05-044	H05-014- Finish Mill #5 System	
	H06-044	H06-014- Finish Mill #6 System	
		H06-017- Cyclone 642 (FM#6 System)	
	1107.050	H06-037- Separator 627 (FM#6 System)	
	H07-056	H07-014- Finish Mill #7 System, H07-018, H07-068, H07-070 – Finished	
	1107.057	Cement Transfer System	
	H07-057	H07-018, H07-068, & H07-070 – Finished Cement Transfer System	
	H08-056	H08-014- Finish Mill #8 System	
		H08-017- Separator (FM#8 System) H08-037- Cyclone (FM#8 System)	
		H08-038 – Cyclone (FM#8 System)	
		1100-000 - Cyclotte (Fivi#0 System)	

## 11.1 Applicable Standards/Limits:

## A. Visible Emissions Limitations

- (1) **COMAR 26.11.30.05(B)(2)**, 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 visible to human observers.
- (2) Opacity for each finish mill, located at a major source, during all operating mode shall not exceed 10%. [Reference: Table 1-13. of §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

# Table IV – 11 Finish Mill Systems - (Subject to MACT requirements)

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. [Reference: §63.1345]

### B. Control of Particulate Matters

- (1) **COMAR 26.11.30.04(B)(2)**, which states that a person may not cause or permit particulate matter to be discharged from any installation in excess of 0.03 grains per standard cubic foot dry.
- (2) Permit to Construct #06-6-0256N dated April 8, 1999 and revised June 7, 2000, which limits particulate matter from each exhaust stack of H04-006 Belt Conveyor, H04-014 Finish Mill #4, H05-014 Finish Mill #5, H06-014 Finish Mill #6, H06-017 Cyclone 642, and H06-037 Separator 627 to 0.0132 gr/scfd (30.2 mg/dscm).
- (3) Permit to Construct #06-6-0256N dated April 8, 1999 and revised June 7, 2000, which limits particulate matter from each exhaust stack of H07-014 Finish Mill #7, H08-014 Finish Mill #8, and H07-018, & H07-070 Finished Cement Transfer System to 0.01 gr/scfd (22.9 mg/dscm).
- (4) **Permit to Construct #013-6-0256M dated February 23, 2005,** which limits particulate matter to 0.0132 gr/scfd (30.2 mg/dscm).
- C. <u>Greenhouse Gas (GHG) Emissions</u> There is no GHG emission limit specified in 40 CFR 98 Subpart H (Cement Production).

### 11.2 Testing Requirements:

A. Please see the monitoring requirements.

#### B. Control of Particulate Matters

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 condition s 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.

[Part D(6) of Permit to Construct #06-6-0256N dated April 8, 1999 and revised June 7, 2000]

B. Please see the monitoring requirements.

# Table IV – 11 Finish Mill Systems - (Subject to MACT requirements)

#### 11.3 | Monitoring Requirements:

### A. <u>Visible Emissions Limitations</u>

- (1) The Permittee shall conduct daily visual emissions observations of each mill sweep and air separator PMCDs of each affected source in accordance with Method 22 of Appendix A to part 60. The Method 22 test shall be conducted while the affected source is operating under representative performance condition s in accordance with 40 CFR 63.7(e). The duration of the Method 22 test shall be six minutes. If visible emissions are observed during any Method 22 test, the Permittee shall:
  - (a) Initiate, within one-hour, the corrective actions specified in the site specific written operations and a maintenance plan required under 40 CFR §63.1350(a);
  - (b) Within 24 hours of the end of the Method 22 test in which visible emissions were observed, conduct a follow-up Method 22 test of any stack from which visible emissions were observed during the previous Method 22 test; and
  - (c) If visible emissions are observed during the follow-up Method 22 test, conduct a visual opacity test of any stack from which visible emissions were observed in accordance with Method 9 of appendix A of 40 CFR Part 60. The Method 9 test shall be conducted within one-hour of the end of the follow-up Method 22 test and the duration of the Method 9 test shall be at least thirty minutes.

[40 CFR §63.1350(f)]

- (2) The Permittee shall comply with and update as needed the written operations and maintenance plan. The plan shall 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 emission limits and operating limits of §63.1347; and
  - (b) Procedures to be used to periodically monitor affected sources. [40 CFR §63.1350(a) and (b)]

#### B. Control of Particulate Matters

(1) 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]

# Table IV – 11 Finish Mill Systems - (Subject to MACT requirements)

(2) The Permittee shall implement and comply with the requirements of the CAM plan submitted with the permit application. The compliance requirements are summarized in **Table IV-10a Finish Mill Systems CAM Plan.** [40 CFR §64.7]

### C. Greenhouse Gases

GHG monitoring requirements specified in 40 CFR 98.34 and 98.35 for the Finish Mill No. 1 Air Heater are applicable.

## 11.4 Record Keeping Requirements:

### A. <u>Visible Emissions Limitations</u>

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]** 

## B. Control of Particulate Matters

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]

#### C. Greenhouse Gases

GHG recordkeeping requirements specified in 40 CFR 98.37 for the Finish Mill No. 1 Air Heater are applicable.

### **Reporting Requirements:**

## 11.5

#### A. Visible Emissions Limit

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)]

#### B. Control of Particulate Matters

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

# Table IV – 11 Finish Mill Systems - (Subject to MACT requirements)

(2) Within 60 days after each stack emissions testing, the Permittee shall submit to the Department the stack emissions test reports and compliance demonstration with emissions limits.

[Permit to Construct #06-6-0256N dated April 8, 1999 and revised June 7, 2000]

C. Greenhouse Gases

GHG reporting requirements specified in 40 CFR 98.36 for the Finish Mill No. 1 Air Heater are applicable.

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

Table IV-11a Finish Mill Systems CAM Plan		
11a.0 - Emission Units: H01-040 Finish Mill #1 System H04-014 Finish Mill #4 System H05-014 Finish Mill #5 System H06-014 Finish Mill #6 System H07-014 Finish Mill #7 System H08-014 Finish Mill #8 System		
11a.1 – Monitoring Approach 11a.1-A – Indicator #1	Stack performance test	
11a.1-A – Indicator #1  11a.1-B – Measurement Approach	Stack performance test  PM emissions from the baghouses' exhaust will be tested in accordance with AMA Technical Memorandum 91-01 or using Method 5 of 40 CFR Part 60, Appendix A.	
11a.1-C – Indicator Range	An excursion is defined as the test result is greater than the PM standard for individual stack specified in Table IV-10 10.1. Excursions trigger an inspection of the baghouse, corrective action, and a reporting requirement	
11a.1-D - Performance Criteria		
Data Representativeness:	Measurements are made at the baghouse exhaust while the finish mills are operating.	
QA/QC Practices and Criteria:	Stack test proposal will be sent to the Department for approval before test.	
Monitoring Frequency and Data Collection Procedure:	Each mill at least once every 5-year period. Test results will be documented and reports submitted to the Department.	

Table IV-11a	a Finish Mill Systems CAM Plan
11a.2-A – Indicator #2	Visible emissions
11a.2-B – Measurement Approach	Visible emissions from the baghouses' exhaust will be monitored daily using and EPA Reference Method 22 procedures.
11a.2-C – Indicator Range	An excursion is defined as the presence of visible emissions. Excursions trigger an inspection of the baghouse, corrective action, and a reporting requirement
11a.2-D – Performance Criteria	
Data Representativeness:	Measurements are made at the baghouse exhaust while the finish mills are operating.
QA/QC Practices and Criteria:	The observer will be familiar with Reference Method 22 and will follow Method 22 procedures.
Monitoring Frequency and Data	A 6-minute Method 22 observation is performed daily. A follow-up six minutes Method 22 test will be performed within 24 hours of the end of the six-minute test in which the visible emission was observed. If visible emissions are observed during the follow-up Method 22 test, a 30-minute Method 9 test must be performed.
Collection Procedure:	The VE observation is documented by the observer.
11a.3-A – Indicator #3	Inspection/Maintenance
11a.3-B - Measurement Approach	
	Daily inspection according to checklist and
	maintenance performed in accordance with
	manufacturer's recommendations or as needed.
11a.3-C – Indicator Range	N/A

Table IV-11a	Finish Mill Systems CAM Plan
11a.3-D – Performance Criteria	
Data Representativeness:	Inspections are performed on the baghouses: H01-070, H04-044, H05-044, H06-044, H07-056 & 057, and H08-014.
QA/QC Practices and Criteria:	Qualified personnel perform inspections and maintenance.
Monitoring Frequency and Data Collection Procedure:	Daily  Records are maintained to document daily inspections and dates of the completion of any required maintenance.

Table IV – 12 Miscellaneous Sources Venting Inside Building – Subject to MACT requirements		
12.0	Emissions Unit Numbers	
	Area G – Clinker Transport & Storage – Craneway Building	
	Baghouse Emission Unit	
	G04-037 G04-018-Belt Conveyor (Venting Inside Building) G04-019-CE2 Bucket Elevator (Venting Inside Building)	
	H09-073 G04-031-Drag Conveyor B3 (Venting Inside Building)	
	Area H – Clinker Finish Mill	
	Baghouse Emission Unit	
	H09-059 H09-058-Belt Conveyor (Venting Inside Building) H09-073 H09-058-Belt Conveyor and H09-075-90T Bin (Venting Inside Building)	
	The ore the cost beneather and the ore con bin (venting menas banding)	
12.1	Applicable Standards/Limits:	
	A. <u>Visible Emissions Limitations</u>	
	(1) <b>COMAR 26.11.30.05(B)(2)</b> , 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 visible to human observers.	
	(2) Portland Cement MACT- 40 CFR §63.1348 which limits opacity to 10% or less	
	for each new or existing raw material, clinker, or finished product storage bin;	

# Table IV – 12 Miscellaneous Sources Venting Inside Building – Subject to MACT requirements

conveying system transfer point; bagging system; and bulk loading or unloading system.

Note: The Portland Cement MACT was revised effective November 8, 2010. The new citation for the above requirement is §63.1345.

### B. Control of Particulate Matters

- (1) **COMAR 26.11.30.04(B)(2)**, which states that a person may not cause or permit particulate matter to be discharged from any installation in excess of 0.03 grains per standard cubic foot dry.
- (2) Permit to Construct #06-6-0256N dated April 8, 1999 and revised June 7, 2000- Each emissions unit shall be equipped with a dust collector designed to reduce particulate matter emissions to 0.01 gr/SCFD (22.9 mg/dscm).

### 12.2 | Testing Requirements:

A & B. Please see the monitoring requirements.

## 12.3 **Monitoring Requirements:**

## A. Visible Emissions Limitations

(1) The Permittee shall conduct a monthly 1-minute visible emissions test of the exhaust stack of each emission unit in accordance with Method 22 of Appendix A to part 60. The test must be conducted while the emission unit is in operation. If no visible emissions are observed in six consecutive monthly tests for the exhaust stack of any emission unit, the Permittee may decrease the frequency of testing from monthly to semi-annually for the exhaust stack of that emission unit. If visible emissions are observed during any semi-annual test, the Permittee must resume testing of the exhaust stack of that emission unit on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests. If no visible emissions are observed during the semi-annual test for the exhaust stack of any emission unit, the Permittee may decrease the frequency of testing from semi-annually to annually for the exhaust stack of that emission unit. If visible emissions are observed during any annual test, the Permittee must resume testing of the exhaust stack of that emission unit on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

If visible emissions are observed during any Method 22 test, the owner or operator must conduct a 6-minute test of opacity in accordance with Method 9 of appendix A to part 60 of this chapter. The Method 9 test must begin within one hour of any observation of visible emissions.

[40 CFR §63.1350(a)(4)(i)-(iv)]

# Table IV – 12 Miscellaneous Sources Venting Inside Building – Subject to MACT requirements

The Permittee have the option to conduct a Method 22 visible emissions test according to the requirements of 40 CFR §63.1350(a)(4)(i)-(iv) for each emissions unit located within the building, or for the building itself. If visible emissions from the building are monitored, the requirements of 40 CFR §63.1350(a)(4)(i)-(iii) and (l) apply to monitoring the building, and the Permittee must also test visible emissions from each side, roof, and vent of the building for at least 1 minute. The test must be conducted under normal operating conditions.

## [40 CFR §63.1350(a)(4)(vi)-(vii)]

- (2) 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 meet the emission limits and operating limits of §§63.1348; and
  - (b) Procedures to be used to periodically monitor affected sources. [40 CFR §63.1350(a) and (b)]

# B. Control of Particulate Matters

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]

#### 12.4 | 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 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]

### 12.5 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)]

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

	Dr	Table IV – 13 ied BioSolids (DBS) Related Operations
13.0	Emissions Unit Nur	
	Product Collectors	Emission Unit
	F04-062 F04-064	F04-058 - DBS Storage Tank (Fluidized Coke Storage Tank) F04-058 - DBS Storage Tank (Fluidized Coke Storage Tank)
	F04-062 F04-064	F05-055 – Diverter Valve to Calciner F05-055 – Diverter Valve to Calciner
	F04-062 F04-064	F05-056 – Diverter Valve to Main Kiln Burner F05-056 – Diverter Valve to Main Kiln Burner
	F04-062 F04-064	F05-049 – Rotary Air Lock for Feeding DBS from Silo F05-049 – Rotary Air Lock for Feeding DBS from Silo
	F04-062 F04-064	F05-050 – Scale, Pfister Dosing System F05-050 – Scale, Pfister Dosing System
	G05-003	G05-001 – Pneumatic baghouse dust (BD) transfer system F05-051 – Mobile DBS Conveyor for Rail Car Unloading
	Dried BioSolids (DBS	S) system - installed 2009, updated 2013
13.1	Applicable Standar	ds/Limits:
	Control of Particulate Matters  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.	
13.2	Testing Requireme	<u>nts</u> :
	Please see the moni	
13.3	Monitoring Require	ments:
		orepare and update as needed the best management plan that dures and methods that will be used to take reasonable R 26.11.03.06C]
13.4	Record Keeping Re	equirements:

# Table IV – 13 Dried BioSolids (DBS) Related Operations

The Permittee shall maintain the best management plan and all supporting documentation of procedures and methods required in the plan 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]

## 13.5 Reporting Requirements:

Please see 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 – 14 Facility Wide Requirements

## 14.0 Emissions Units

Facility Wide

## 14.1 **Applicable Standards/Limits**:

#### A. NOx Emissions

Permit to Construct #06-6-0256 issued April 8, 1999 and revised June 7, 2000 which states that NOx emissions from the entire premises shall not exceed 4,871 tons for any 12-month period, rolling monthly.

#### B. Particulate Matter Emissions

Permit to Construct #06-6-0256 issued April 8, 1999 and revised June 7, 2000 which states that emissions from the entire premises shall not exceed the following limits for any 12-month period, rolling monthly:

- (1) 925 tons of PM;
- (2) 716 tons of PM<sub>10</sub>; and
- (3) 586 tons of PM<sub>10</sub> stack emissions.

#### C. Sulfur Emissions

Permit to Construct #06-6-0256 issued April 8, 1999 and revised June 7, 2000 which states that SO<sub>2</sub> emissions from the entire premises shall not exceed 1,041 tons for any 12-month period, rolling monthly.

## D. Carbon Monoxide Emissions

Prevention of Significant Deterioration (PSD) Approval #PSD-97-01R dated April 8, 1999 which states that the premises-wide carbon monoxide (CO) emissions

# Table IV – 14 Facility Wide Requirements

from the Pyroprocessing Portland cement plant and the existing Portland cement plant shall not exceed 3,328 tons for any 12-month period, rolling monthly.

### E. VOC Emissions

**New Source Review Approval #NSR-97-02 issued April 8, 1999** which states that premises-wide emissions shall not exceed 165 tons of VOC for any 12-month period, rolling monthly. In determining compliance with VOC emission limits, VOC emissions shall be determined by calculating the numerical difference between the measured values of total hydrocarbon (THC) emissions and non-VOC emissions.

#### F. Lead Emissions

Permit to Construct #06-6-0256 dated April 8, 1999 and revised June 7, 2000 which states that the emissions from the entire premises, including the existing Portland cement plant and the Pyroprocessing Portland cement plant, shall not exceed 0.6 tons of lead for any 12-month period, rolling monthly.

#### G. Fluoride Emissions

- (1) Permit to Construct #06-6-0256 dated April 8, 1999 and revised June 7, 2000 which states that the emissions from the entire premises, including the existing Portland cement plant and the Pyroprocessing Portland cement plant, shall not exceed 3.0 tons of fluoride for any 12-month period, rolling monthly.
- (2) **COMAR 26.11.03.06C** which prevents the discharge of fluorides into the atmosphere that causes a violation of any applicable ambient air quality standards for fluorides set forth in COMAR 26.11.04.

#### 14.2 Testing Requirements:

General Testing Requirements:

- (1) The Permittee shall comply with the testing requirements of §60.8, §60.64, §60.255, §60.257, §60.675, and §63.7.
- (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). [Reference: 40 CFR §60.64(a) and §60.675(a)]
- (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 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. [Reference: 40 CFR §60.64(b)]

# Table IV – 14 Facility Wide Requirements

- (4) Unless being specified in other appropriate requirements, the Permittee must conduct stack emissions tests to demonstrate compliance with all applicable particulate matter emissions limits under 40 CFR 60, Subpart OOO within 60 days after achieving the maximum hourly production rate at which the affected facility will be operated, but not later than 180 days after initial startup. [Reference: 40 CFR §60.672(a)]
- (5) Unless being specified in other appropriate requirements, for each fugitive emissions unit, the Permittee must conduct opacity observations to demonstrate compliance with applicable opacity limits under 40 CFR 60, Subpart OOO within 60 days after achieving the maximum hourly production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under 40 CFR §60.11. [Reference: 40 CFR §60.672(b)]
- (6) 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.

A. through G. Please see the monitoring requirements.

# 14.3 **Monitoring Requirements:**

#### A. through G.

- (1) The Permittee shall calculate premises-wide emissions for each month and each 12-month period, rolling monthly, to demonstrate compliance with the emissions limits. [COMAR 26.11.03.06C]
- (2) The Permittee shall not use any alternative kiln raw material, fuel, or additive except the following:
  - (a) Quarried stone, sand and shale;
  - (b) Iron-bearing materials, such as pyrites and millscale;
  - (c) Cat fines;
  - (d) Bottom ash and fly ash from coal-fired fuel burning equipment;
  - (e) Natural gas;
  - (f) Coal;
  - (g) Scrap tires;
  - (h) Petroleum coke;
  - (i) Used oil generated on site;
  - (i) Class A Dried BioSolids (DBS); and
  - (k) Other materials which are included in the Permittee's current operating permit or may have been approved by the Department in the past under separate action.

# Table IV – 14 Facility Wide Requirements

Any alternative kiln raw material, fuel, or additive not approved under authority of this permit or under any previous action may not be used unless it is demonstrated to the Department's satisfaction that the use of any substitute raw material, fuel or additive does not violate the Department's air toxics screening levels and does not increase air emissions beyond the allowable limits stated in the permit to construct, the PSD approval, or the NSR approval.

[Permit to Construct #06-6-0256, 0331, and 0337 dated March 1, 2013, Permit to Construct # 013-0012-6-0256 Issued November 15, 2023]

## 14.4 Record Keeping Requirements:

### A. through G.

The Permittee shall maintain the following records with supporting documentation for at least five years and make these records available to the Department upon request:

- (1) Premises-wide emissions for each month and each 12-month period, rolling monthly; and
- (2) Any violation of any emission limit required for each rolling 12-month period.
- (3) Alternative kiln raw material, fuel, or additive used.

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]

#### 14.5 | Reporting Requirements:

## A. through G.

- (1) The Permittee shall include the emissions of NOx, Particulate matter, SO<sub>2</sub>, CO, VOC, Lead, and Fluoride for each month and each 12-month period, rolling monthly, in the required quarterly report, the semiannual summary report, and the annual emission certification.
- (2) The Permittee shall submit to the Department a written report, no later than 30 days after a detection of any violation of any emission limit required for each rolling 12-month period.

#### [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 – 15
45.0	Emergency Generator
15.0	Emissions Unit Number: J08-532
	One (1) Caterpillar diesel fired emergency generator rated at 2520 hp, 1750 kilowatts
	(ARMA Registration No. 013-0012-9-0186), installed in July 2001.
	( a and thought and the control of t
15.1	Applicable Standards/Limits:
	A. <u>Visible Emissions</u>
	(1) The Permittee may not cause or permit the discharge of emissions from
	any engine, operating at idle, greater than 10 percent opacity. [Reference: COMAR 26.11.09.05E(2)]
	COMAR 20.11.03.03E(2)]
	(2) 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. [Reference: COMAR 26.11.09.05E(3)]
	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:  (i) Engines that are idled continuously when not in service: 30 minutes
	(ii) All other engines: 15 minutes
	(ii) 7 iii outor originos. To minutos
	COMAR 26.11.09.05E(2) and (3) do not apply while maintenance, repair, or testing
	is being performed by qualified mechanics.
	B. Control of Sulfur Oxides
	The Permittee shall not burn any distillate fuel oil with a sulfur content of greater than
	0.3% by weight. [Reference: COMAR 26.11.09.07A(1)(c)]
	, , , , , , , , , , , , , , , , , , , ,

(b) For fuel-burning equipment that operates more than 500 hours during a

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

A person who owns or operates fuel-burning equipment with a capacity

C. Control of NOx – NOx RACT Requirements

Department in writing;

# Table IV – 15 Emergency Generator

- (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. [Reference: COMAR 26.11.09.08G]
- (2) 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. [Reference: COMAR 26.11.09.08B(5)]

## D. Operational Limit

The Permittee shall burn only diesel fuel (No. 2 fuel oil) that meets all applicable federal and state requirements in the generator unless the Permittee obtains an approval from the Department to burn alternate fuels. [Reference: COMAR 26.11.02.09A]

# 15.2 **Testing Requirements**:

## A. Visible Emissions

See Monitoring, Record Keeping and Reporting Requirements.

### B. Control of Sulfur Oxides

See Monitoring, Record Keeping and Reporting Requirements.

### C. Control of NOx – NOx RACT Requirements

The Permittee shall perform combustion analysis and optimize combustion once each year, for each year that the emission unit operates more than 500 hours. [Reference: COMAR 26.11.09.08G(1)(b)]

### D. Operational Limit

See Record Keeping and Reporting Requirements.

## 15.3 Monitoring Requirements:

#### A. Visible Emissions

The Permittee shall properly operate and maintain the emergency generator to minimize visible emissions. [Reference: COMAR 26.11.03.06C]

#### B. Control of Sulfur Oxides

## Table IV – 15 Emergency Generator

The Permittee shall obtain a certification from the fuel supplier indicating that the oil complies with the limitation on the sulfur content of the fuel oil. [Reference: COMAR 26.11.03.06C]

## C. Control of NOx – NOx RACT Requirements

Once every three years, each operator of the installation shall attend operator training programs on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors. [Reference: COMAR 26.11.09.08E(4)]

## D. Operational Limit

See Record Keeping and Reporting Requirements.

## 15.4 Record Keeping Requirements:

### A. Visible Emissions

The Permittee shall maintain records at the premises of maintenance/repairs performed that relate to combustion performance. [Reference: COMAR 26.11.03.06C]

### B. Control of Sulfur Oxides

The Permittee shall retain fuel supplier certifications at the premises stating that the fuel is in compliance with this regulation. [Reference: COMAR 26.11.03.06C]

### C. Control of NOx – NOx RACT Requirements

The Permittee shall maintain the following records at the premises:

- (1) Records of the calculated capacity factors. [Reference: COMAR 26.11.03.06C]
- (2) Records of hours of operation. [Reference: COMAR 26.11.02.19C]
- (3) Records of combustion analysis performed if the hours of operation exceed 500. [Reference: COMAR 26.11.09.08G(1)(c)]
- (4) Record of training program attendance for each operator. **[Reference: COMAR 26.11.09.08G(1)(e)]**

## D. Operational Limits

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. [Reference: COMAR 26.11.03.06C]

#### 15.5 | Reporting Requirements:

#### A. Visible Emissions

The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations." [Reference: COMAR 26.11.03.06C]

## Table IV – 15 Emergency Generator

## B. Control of Sulfur Oxides

The Permittee shall report fuel supplier certification records to the Department upon request. [Reference: COMAR 26.11.03.06C]

### C. Control of NOx – NOx RACT Requirements

The Permittee shall make all records (combustion analyses, emissions unit hours of operation, and training program attendance) to meet the NOx RACT requirements, available to the Department upon request. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 emissions certification report. [Reference: COMAR 26.11.09.08G, COMAR 26.11.02.19C, and COMAR 26.11.03.06C]

### D. Operational Limits

The Permittee shall submit records of the quantity and type of fuels burned with the annual emissions certification report. **[Reference: COMAR 26.11.02.19C&D]** 

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

# Table IV – 16 Facility Wide – MACT Sources Only

### 16.0 Emissions Unit Number(s)

Facility Wide- MACT Sources Only

### **16.1** 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: [Reference: §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, 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.

# Table IV – 16 Facility Wide – MACT Sources Only

- (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. [Reference: §63.1347(b)]
- (3) In order to demonstrate continuous compliance during startup and shutdown, all air pollution control devices must be operating. [Reference: §63.1348(b)(9)]
- (4) During periods of startup and shutdown, the kiln shall meet the following requirements: [Reference: §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; [Reference: §63.1346(g)(1)]
  - (b) Combustion of the primary kiln fuel may commence once the kiln temperature reaches 1200 degrees Fahrenheit; [Reference: §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; [Reference: §63.1346(g)(3)] and
  - (d) The Permittee must keep records as specified in §63.1355 during periods of startup and shutdown. [Reference: §63.1346(g)(4)]

#### 16.2 Testing Requirements

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). [Reference: 40 CFR §60.64(a) and §60.675(a)]
- (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 5l and use Method 9 and the procedures in §60.11 to determine opacity. For any sources other than kilns (including associated clinker cooler) that are subject to the 10 percent

# Table IV – 16 Facility Wide – MACT Sources Only

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. [Reference: 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. [Reference: §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 30<sup>th</sup> 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) **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.
  - (b) **40 CFR 63.1349(d)** 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.
  - (c) 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.

# Table IV – 16 Facility Wide – MACT Sources Only

(d) 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; [Reference: §63.1351(c)] The Department has extended the compliance date of HCl to September 9, 2016. [Reference: Department Letter dated July 15, 2015]
  - (b) The compliance date for new sources is February 12, 2013, or startup, whichever is later; [Reference: §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; [Reference: §63.1351(e)] and
  - (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.

### [Reference: §63.1343(d); Department Letter dated May 22, 2014]

(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. [Reference: §63.1356]

### **16.3** 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. [Reference: §63.1350(m)]

# Table IV – 16 Facility Wide – MACT Sources Only

- (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. [Reference: §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. [Reference: §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. [Reference: §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. [Reference: §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 expected exhaust flow rate to a value of at least 20 percent greater than the highest expected exhaust flow rate. [Reference: §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. [Reference: §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. [Reference: §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. [Reference: §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

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appendix B to Part 60 for a discussion of CD), including the following: **[Reference:** §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: [Reference: §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. [Reference: §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). [Reference: §63.1350(n)(10)]

## 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. [Reference: §63.1350(o)]

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### D. <u>Development and submittal (upon request) of monitoring plans</u>

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. [Reference: §60.63(i) and §63.1350(p)]

#### E. Operation and maintenance requirements

At all times, including periods of startup, shutdown, and malfunction, the Permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions to the levels required by the relevant standards, i.e., meet the emission standard or comply with the start-up, shutdown, and malfunction plan. Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan. To the extent that an unexpected event arises during a start-up, shutdown, and malfunction, the Permittee shall comply by minimizing emissions during such a startup, shutdown, or malfunction event consistent with safety and good air pollution control practices.

[40 CFR §63.6(e)(1)(i -ii)]

#### 16.4 | 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, on a computer, on floppy disks, on magnetic tape, or on microfiche. [Reference: §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: [Reference: §63.1355(b)]
  - (a) All documentation supporting initial notifications and notifications of compliance status under §63.9;

		Table IV – 16 Facility Wide – MACT Sources Only
		(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). [Reference: §63.1355(c)]
	(5)	The Permittee must keep records of the daily clinker production rates and kiln feed rates. [Reference: §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. [Reference: §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. [Reference: §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. [Reference: §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. [Reference: §63.1355(h)]
16.5	(1)	orting Requirements The Permittee shall comply with the reporting requirements of §60.19, §60.65, §60.258, §60.676, §63.10, and §63.1354.

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- (2) The Permittee shall comply with the following requirements: [Reference: §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

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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.
- (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. **[Reference: §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 deenergization of any device controlling kiln emissions or in the venting of emissions directly to the atmosphere. [Reference: §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. [Reference: §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. [Reference: §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. [Reference: §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. [Reference: §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

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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). [Reference: §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 emission limitation or operating parameter limit. [Reference: §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: [Reference: §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, HCI, Hg, and THC CEMS, D/F temperature monitoring system, or Hg sorbent trap monitoring system, within 60 days after the reporting periods, you must report all of the calculated 30operating 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;

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- (h) Within 60 days after the date of completing each CEMS performance evaluation test as defined in §63.2, you 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, you 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 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. [Reference: §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

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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. [Reference: §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.

### **16.6** Notification Requirements

- (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. [Reference: §63.9(e) and §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 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. [Reference: §63.9(f) and §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: [Reference: §63.9(g) and §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

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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: [Reference: §63.9(h)(2)(i) and §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;
  - (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;

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- (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. [Reference: §63.9(h)(2)(ii) and §63.1353(b)(5)]
- (7) Any change in the information already provided under §63.9 shall be provided to the Department in writing within 15 calendar days after the change. [Reference: §63.9(j) and §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. [Reference: §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, wwhich do not apply, have been deleted.

Table IV-15a to Subpart LLL of Part 63—Applicability of General Provisions

General Provisions	irt LLL of Part 63—Applicability of General	TOVISIONS
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(I).

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.

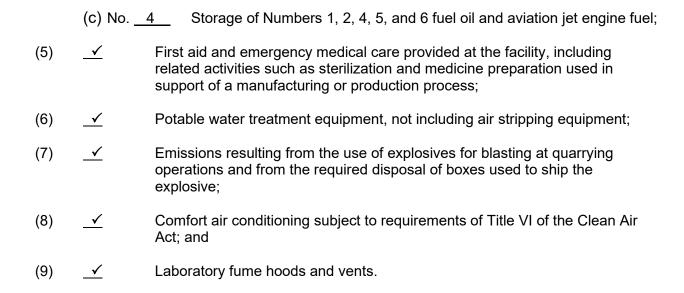
- (1) <u>✓</u> Space heaters utilizing direct heat transfer and used solely for comfort heat;
- (2) <u>✓</u> Water cooling towers and water cooling ponds unless used for evaporative cooling of water from barometric jets or barometric condensers, or used in conjunction with an installation requiring a permit to operate;
- (3) No. <u>3</u> 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.
- (4) Containers, reservoirs, or tanks used exclusively for:
  - (a) <u>✓</u> Storage of butane, propane, or liquefied petroleum, or natural gas;
  - (b) No. 2 Storage of lubricating oils;



### SECTION VI STATE-ONLY ENFORCEABLE CONDITIONS

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

### 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.

#### **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:

- (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.

### 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.



# Title V Permit Renewal Application for

Part 70 Operating Permit No. 24-013-00012

# **Prepared For:**

Lehigh Cement Company LLC
Union Bridge Plant
675 Quaker Hill Road
Union Bridge, Maryland 21791

# Mr. Kent Martin, Plant Manager

Phone: 410-386-1210 24 Hour Phone: 410-386-1225

# **Prepared By:**

Spectrum Environmental Sciences, Inc. 97 Thomas Johnson Drive, Suite 200 Frederick, MD 21702

August 2020

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#### Introduction

Lehigh Cement Company, LLC (Lehigh) owns and operates a Portland cement manufacturing plant and quarry (Plant) located in Frederick and Carroll Counties in Maryland. As designated in COMAR 26.11.01.03, the Union Bridge Quarry is located primarily in Area II (Frederick County), while the main part of the Union Bridge Plant, including the New Windsor Quarry, is located in Area III (Carroll County). The Plant's current Title V Permit No. 24-013-00012 expires on September 30, 2021. Per COMAR 26.11.03.028(3) and COMAR 26.11.03.02E, a Title V Renewal Application (Application) for the Plant must be submitted to the Maryland Department of the Environment (MDE) at least twelve months prior to the Permit's expiration, or by October 1, 2020.

This Application provides Certification Statements (Section 1); a Facility Description Summary (Section 2); Emission Unit Descriptions (Section 3A); Citation to and Description of Applicable Federally Enforceable Requirements (Section 3B); Obsolete, Extraneous, or Insignificant Permit Conditions (Section 3C); Alternate Operating Scenarios (Section 3D); Citation to and Description of Applicable Federally Enforceable Requirements for an Alternate Operating Scenario (Section 3E); Control Equipment (Section 4); Summary of Potential Emissions (Section 5); Explanation of Proposed Exemptions From Otherwise Applicable Federally Enforceable Requirements (Section 6); and Compliance Schedule for Non-Complying Emission Units (Section 7).

Appendices include a Compliance Assurance Monitoring Plan (Appendix A); State-Only Enforceable Requirements (Appendix B); Check-off List of Emissions Units and Activities Exempt from the Part 70 Permit Application (Appendix C); PC MACT Operation and Maintenance Plan (Appendix D); Application Completeness Checklist (Appendix E); and an electronic copy of the Application including the 2019 Annual Emissions Certification Report and the 2019 Annual Compliance Certification Report (Appendix F).

This Introduction section includes the applicable MDE Application Renewal Form (MDE/ARMA/PER.020 Page 1 of 16). Also included is a list of the changes that are being requested by Lehigh to be incorporated into the next issuance of Title V Permit No. 24-013-00012. These changes have been incorporated into this Title V Permit Renewal Application.

1800 Washington Boulevard ● Baltimore MD 21230 (410) 537-3000 ● 1-800-633-6101 ● http://www.mde.state.md.us

### PART 70 PERMIT APPLICATION FOR RENEWAL

AIR AND RADIATION ADMINISTRATION

Facilities required to obtain a Part 70 permit under COMAR 26.11.03.01 must complete and return this form. Applications are incomplete unless all applicable information required by COMAR 26.11.03.03 and 26.11.03.13 is supplied. Failure to supply additional information required by the Department to enable it to act on the application may result in loss of the application shield and denial of this application.

### **Owner and Operator:**

Name of Owner or Operator: Lehigh Cement Company LLC		
Street Address:		
675 Quaker Hill Road		
City:	State:	Zip Code:
Union Bridge	Maryland	21791
Telephone Number		Fax Number
410-386-1210		410-386-1296

### **Facility Information:**

Name of Facility:		
Union Bridge Plant		
Street Address:		
675 Quaker Hill Road		
City	State:	Zip Code:
City:	~	-
Union Bridge	Maryland	21791
Plant Manager:	Telephone Number:	Fax Number:
Kent Martin	410-386-1210	410-386-1296
24-Hour Emergency Telephone Num	nber for Air Pollution Ma	tters:
410-386-1225		

List, on a separate page, the names and telephone numbers of other facility owners and persons with titles.

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Revision Date 4/29/03 TTY Users 1-800-735-2258 <u>1</u> of <u>1</u>

Recycled Paper

# List of Requested Changes for the Title V Permit Renewal

Lehigh is requesting the following changes be incorporated into the next issuance of the Plant's Title V Permit.

#### **Requested Minor Changes to Permit Condition Language:**

Lehigh is requesting the following minor changes to permit condition language be incorporated into the next issuance of the Plant's Title V Permit in order to allow for more specificity and greater flexibility with respect to the quarries.

#### Condition 3.1(B)(1)(c):

Table IV-3 for the New Windsor Quarry Point Sources (Page 47 of 136 in the Title V Permit), Condition 3.1(B)(1) currently states in subpart (c):

(c) The limestone mined from both the Union Bridge Quarry and the New Windsor Quarry shall be used only to support the Union Bridge Portland Cement Plant.

Lehigh requests that additional language be added to specify for subpart (c) that this limitation is applicable to clinker production grade limestone mined for use by the Union Bridge Cement Plant and not other forms of limestone (e.g. dolomite) that cannot be used for cement manufacturing but could be recovered and used for other applications, like aggregate. This change would allow for the possibility of a separate entity to be permitted to mine the non-clinker production grade limestone from the Union Bridge Quarry or the New Windsor Quarry. Lehigh requests that Condition 3.1(B)(1)(c) be modified to include the new language shown in blue font below:

(c) The clinker production grade limestone mined by, or for, the Union Bridge Cement Plant from both the Union Bridge Quarry and the New Windsor Quarry shall be used only to support the Union Bridge Portland Cement Plant.

### *Condition 3.1(B)(1)(f):*

Table IV-3 for the New Windsor Quarry Point Sources (Page 47 of 136 in the Title V Permit), Condition 3.1(B)(1) currently states in subpart (f):

(f) The Union Bridge crushing system and the New Windsor Quarry crushing system shall not operate at the same time.

It is Lehigh's understanding that Condition 3.1(B)(1)(f) was intended to limit the actual crushing of material from occurring simultaneously at the Union Bridge Quarry and the New Windsor Quarry. Lehigh agrees that this restriction should remain in place. However, Lehigh would like the operational flexibility to operate the Union Bridge crushing system equipment when no actual crushing of material is occurring at the same time that the actual crushing of material is occurring at the New Windsor quarry. This need is associated with the introduction of crushed masonry limestone, which requires the Union Bridge crushing system to act as a pass-through system utilizing conveyor belts to the masonry storage area.

The Plant currently has three ways of introducing masonry limestone into the cement production system. First, the masonry limestone can by mined in the Union Bridge Quarry, transported to and crushed within the Union Bridge crushing system, and then transported through a series of belt conveyors to the Crane Hall. Second, crushed masonry limestone can be trucked on-site by a supplier and dumped into the Primary Crusher apron feeder. When crushed masonry limestone is introduced to the apron feeder, the primary and secondary crushing operations are turned off and only the belt conveying systems are used to convey the crushed masonry limestone to the Crane Hall. However, all associated baghouses are operational to provide the necessary dust control. Third, as part of the New Windsor Quarry Permit, a portable masonry limestone crushing system was permitted along with additional sources associated with the transport of the masonry limestone to the Crane Hall at the Union Bridge Plant.

Due to Condition 3.1(B)(1)(f), which broadly refers to the operation of the Union Bridge crushing system rather than actual crushing of material within the crushing system, the Plant is currently restricted such that crushed masonry limestone purchased from suppliers can only be unloaded into the Primary Crusher apron feeder during periods of time when the New Windsor Quarry crushing system is not operational. The Plant would like to modify Condition 3.1(B)(1)(f), to allow for the operational flexibility to unload crushed masonry limestone using the Union Bridge crushing system as a conveying system at the same time that the New Windsor Quarry crushing system is operating. No crushing equipment within the Union Bridge crushing system would be allowed to be operated at the same time as the New Windsor Quarry crushing system. In addition, all operating time of the Union Bridge crushing system (with or without crushing equipment being operational) would contribute towards the combined 3,952 hours of operation limit specified in Condition 3.1(B)(1)(g) for both the Union Bridge crushing system and the New Windsor Quarry crushing system.

Lehigh requests that Condition 3.1(B)(1)(f) be modified to include the new language shown in blue font below:

(f) The Union Bridge crushing system and the New Windsor Quarry crushing system shall not operate at the same time. Except that the Union Bridge crushing system may operate as a feed system for already-crushed limestone at the same time as the New Windsor Quarry crushing system, provided that the primary and secondary gyratory crushers do not operate within the Union Bridge crushing system.

### **Requested Correction to Baghouse Numbers:**

Lehigh is requesting that the following corrections be made to Table IV-3 Section 3 (page 46 of 136) of the existing Title V Permit. It appears that incorrect baghouse numbers were included for the New Windsor Quarry Point sources. Lehigh requests that the correct baghouse numbers shown in blue font below be listed in Table IV-3.

<b>Baghouse</b>	Emission Unit
A03-007	A03-005- Primary Crusher for Ca, silica, alumina, and Fe bearing raw materials
	A03-006- Primary Crusher to Belt #1
A03-009	A03-008- Belt #1 to Belt #2 Transfer
A03-011	A03-010- Transfer from Belt #2 to Belt #3 or to Masonry Pile
A03-013	A03-012- Belt #2 to Limestone Overland Conveyor (Belt #4)
A03-015	A03-014- Overland Conveyor (Belt #4) Transfer to Belt #5 to New Transfer Tower
A03-017	A03-016- New Transfer Tower

The correct baghouse numbers are also reflected on all applicable forms within this Application.

# **SECTION 1.0** Certification Statements

The following forms are included in this section and have been signed by a responsible official:

- MDE/ARMA/PER.020 Page 2 of 16 Section 1. Certification Statements
- Maryland House Bill 935

#### SECTION 1. CERTIFICATION STATEMENTS

# 1. Compliance Status with Applicable Enhanced Monitoring and Compliance Certification Requirements

The emissions units identified in this application are in compliance with applicable enhanced monitoring and compliance certification requirements.

# 2. Certification of Current Compliance with All Applicable Federally Enforceable Requirements

Except for the requirements identified in Section 7 of this application, for which compliance is not achieved, I hereby certify, based on information and belief formed after reasonable inquiry, that the facility is currently in compliance with all applicable federally enforceable requirements and agree that the facility will continue to comply with those requirements during the permit term.

You must complete a Section 7 form for each non-complying emissions unit.

# 3. Statement of Compliance with Respect to All New Applicable Requirements Effective During the Permit Term

I hereby state, based on information and belief formed after reasonable inquiry, that the facility agrees to meet, in a timely manner, all applicable federally enforceable requirements that become effective during the permit term, unless a more detailed schedule is expressly required by the applicable requirement.

### 4. Risk Management Plan Compliance

I hereby certify that, based on information and belief formed after reasonable inquiry, that a Risk Management Plan as required under 112(r) of the Clean Air Act:

[X] has been submitted;
[ ] will be submitted at a future date; or
does not need to be submitted.

Form Number: MDE/ARMA/PER.020 Page 2 of 16

### 5. Statement of Truth, Accuracy, and Completeness

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision and 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(s) 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."

RESPONSIBLE OFFICIAL X	" Kent Dr Mark	8/7/20
SIGNATURE	D	ATE
	Kent Martin PRINTED NAME	
	Plant Manager	<u>r</u>

1

Form Number: MDE/ARMA/PER.020 Page 3 of 16 Revision Date 4/29/03 TTY Users 1-800-735-2258

<u>2</u> of <u>2</u>

1800 Washington Boulevard • Suite 720 • Baltimore, Maryland 21230-1720 410-537-3000 • 800-633-6101 • http://www.mde.maryland.gov

Air and Radiation Administration • Air Quality Permits Program

# **Budget Reconciliation and Financing Act of 2003** (Commonly referred as Maryland House Bill 935)

On July 1, 2003, House Bill 935, Chapter 203 amended § 1-203 of the Environment Article, <u>Annotated</u> Code of Maryland, as follows:

Section 1-203(b).

Current MDE License/Permit No.:

- (1) A license or permit is considered renewed for purposes of this subsection if the license or permit is issued by a unit of State government to a person for the period immediately following a period for which the person previously possessed the same or a substantially similar license.
- (2) Before any license or permit may be renewed under this article, the issuing authority shall verify through the office of the Comptroller (emphasis added) that the applicant has paid all undisputed taxes and the unemployment insurance contributions payable to the Comptroller or the Secretary of Labor, Licensing, and Regulation or that the applicant has provided for payment in a manner satisfactory to the unit responsible for collection.

In order for the Maryland Department of the Environment (MDE) to verify this compliance, we would need you to provide the following information before we can process or issue your renewal license, permit, or certification:

24-013-00012

Contact Name: Kent Martin  Title: Plant Manager  Contact Telephone Number: 410-386-1210  Privacy Act Notice: This Notice is provided pursuant to the Federal Privacy Act of 1974, 5 U.S.C. § 552a. Disclosure of Social Security or Federal Tax Identification on this form is mandatory pursuant to the provisions of § 1-203 (2003) of Environment Article, Annotated Code of Maryland, which requires MDE to verify that an applicant for a permit or licen paid all undisputed taxes and unemployment insurance. Social Security and Federal Tax Identification Nos. will not be any purposes other than those described in this Notice.  Federal Employer Identification Number (FEIN): 23-0797050  Certification: I certify that the above information is true and correct to the best of my know & 7-20	Current MIDE E	Techbert of fill 1 to	24-013-00012
Contact Telephone Number: 410-386-1210  Privacy Act Notice: This Notice is provided pursuant to the Federal Privacy Act of 1974, 5 U.S.C. § 552a. Disclosure of Social Security or Federal Tax Identification on this form is mandatory pursuant to the provisions of § 1-203 (2003) of Environment Article, Annotated Code of Maryland, which requires MDE to verify that an applicant for a permit or licen paid all undisputed taxes and unemployment insurance. Social Security and Federal Tax Identification Nos. will not be any purposes other than those described in this Notice.  Federal Employer Identification Number (FEIN): 23-0797050  Certification: I certify that the above information is true and correct to the best of my know & 7-20	Name of License	e or Permit Holder:	Lehigh Cement Company, LLC
Contact Telephone Number: 410-386-1210  Privacy Act Notice: This Notice is provided pursuant to the Federal Privacy Act of 1974, 5 U.S.C. § 552a. Disclosure of Social Security or Federal Tax Identification on this form is mandatory pursuant to the provisions of § 1-203 (2003) of Environment Article, Annotated Code of Maryland, which requires MDE to verify that an applicant for a permit or licen paid all undisputed taxes and unemployment insurance. Social Security and Federal Tax Identification Nos. will not be any purposes other than those described in this Notice.  Federal Employer Identification Number (FEIN): 23-0797050  Certification: I certify that the above information is true and correct to the best of my know & 7-20	Address: 675 C	Quaker Hill Road, Unio	on Bridge, MD 21791
Certification: I certify that the above information is true and correct to the best of my know 8-7-20	Contact Name:	Kent Martin	Title: Plant Manager
Social Security or Federal Tax Identification on this form is mandatory pursuant to the provisions of § 1-203 (2003) of Environment Article, Annotated Code of Maryland, which requires MDE to verify that an applicant for a permit or licen paid all undisputed taxes and unemployment insurance. Social Security and Federal Tax Identification Nos. will not be any purposes other than those described in this Notice.  Federal Employer Identification Number (FEIN): 23-0797050  Certification: I certify that the above information is true and correct to the best of my know \$-7-20	Contact Telepho	one Number: <u>410-38</u>	36-1210
Certification: I certify that the above information is true and correct to the best of my know 8-7-20	Social Security or Fede Environment Article, <u>A</u> paid all undisputed taxo any purposes other than	eral Tax Identification on this Annotated Code of Maryland, es and unemployment insurand n those described in this Notice	form is mandatory pursuant to the provisions of § 1-203 (2003) of which requires MDE to verify that an applicant for a permit or license has ce. Social Security and Federal Tax Identification Nos. will not be used for see.
Signature Date			
	Signature		Date

Complete and return this form to <u>Sena Harlley</u> at the above address. If you have any questions, please contact Ms. Harlley at (410) 537-3251.

Date: August 1, 2017 TTY Users: 800-201-7165

# **SECTION 2.0** Facility Description

In accordance with MDE's Part 70 Renewal Application instructions for Section 2, Facility Description Summary, flow diagrams must be submitted if there has been a change from the ones submitted with the previous Title V Application. There has been no change to the process flow diagrams previously submitted in the September 2015 Title V Permit Renewal Application, therefore no process flow diagrams are included in this section.

Section 2 of this Application contains the following information:

• MDE/ARMA/PER.020 Page 4 of 16 – Section 2. Facility Description Summary

A copy of the 2019 Emission Certification Report is provided on the electronic copy of this Application.

#### SECTION 2. FACILITY DESCRIPTION SUMMARY

### 1. Major Activities of Facility

Briefly describe the major activities, including the applicable SIC Code(s) and end product(s).

Lehigh Cement Company LLC (LCC), SIC Code 3241, owns and operates the Union Bridge Portland cement manufacturing Plant (Plant) at 675 Quaker Hill Road in Union Bridge, Maryland 21791. The Plant is located in both Carroll and Frederick Counties. The Union Bridge Quarry is located primarily in Frederick County (Maryland Air Quality Region II), while the main part of the Plant and part of the Union Bridge Quarry are located in Carroll County (Maryland Air Quality Region III). The original plant at Union Bridge was built in 1910 and has been modernized several times including the recent modernization/expansion where the four existing long-dry kilns were replaced with one preheater/pre-calciner kiln system. A permit to construct and New Source Review (NSR) and Prevention of Significant Deterioration (PSD) Approvals were issued on April 8, 1999 and revised on June 7, 2000 for the plant modernization and expansion.

On March 14, 2014 LCC was issued by MDE Construction Permit No. 013-0012-6-0352 for the installation of quarrying operations consisting of crushers, conveyors, and transfer towers associated with the expansion of operations at the existing LCC New Windsor Quarry which is located in New Windsor, Carroll County, Maryland. The expanded use of the New Windsor Quarry will support future cement production at the Plant. The New Windsor Quarry will ultimately replace the majority of limestone used by the Plant to produce Portland cement.

#### 2. Facility-Wide Emissions

A.	This facility is required to obtain a Part 70 Operating Permit because it is: Check appropriate box:
	<ul> <li>[ ] Actual Major</li> <li>[X] Potential Major</li> <li>[ ] Solid Waste Incineration Unit Requiring Permit Under § 129(e) of CAA</li> </ul>
В.	List the actual facility-wide emissions below: Per the 2019 AEI (tons):
	PM10 <u>65.58</u> NOx <u>2,614</u> VOC <u>43.7</u> SOx <u>22.9</u> CO <u>1,812.4</u> HAPs <u>21.49</u>

#### 3. Include With the Application:

Flow Diagrams showing all emissions units, emission points, and control devices; Emissions Certification Report (copy of the most recent submitted to the Department.)

Form Number: MDE/ARMA/PER.020 Page 4 of 16

# **SECTION 3A Emission Unit Descriptions**

This section includes all information pertinent to the MDE Title V Renewal Application form MDE/ARMA/PER.020 Page 5 of 16.

Since the current Title V Permit was issued on January 1, 2017 there have been no Construction Permits issued to the Plant for the addition of new emissions sources or modifications to any existing emissions sources. Therefore, all emission source's information as provided in the following forms remains unchanged from the current Title V Permit, with the exception of an updated "Date of Installation" being provided for those sources associated with the New Windsor Quarry Operations.

# SECTION 3A-1. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>HR1</i>		2. MDE Registration No.:(if a	pplicable)
1a. Date of installation (month/year): Mo	odified 2002	6-0027	
3. Detailed description of the emissions of the Quarry Haul Roads are used for d	•	• ,,	` ´
clinker, gypsum, limestone, clinker bea	_	-	<del>-</del>
4. Endamally Enforceable Limit on the On	a anatin a Cabadula far	this Emissions Unit. N/4	
4. Federally Enforceable Limit on the Op	perating Schedule for	this Emissions Unit: <i>N/A</i>	
4. Federally Enforceable Limit on the Op General Reference:  Continuous Processes:			
General Reference:	perating Schedule for hours/day hours/batch	this Emissions Unit: <i>N/A</i> days/yearbatches/day	
General Reference:  Continuous Processes:	hours/day	days/year	
General Reference:  Continuous Processes:  Batch Processes:	hours/day hours/batch	days/year	
General Reference:  Continuous Processes:	hours/day hours/batch	days/year	specify units)
General Reference:  Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A  Type(s) of Fuel  1.	hours/day hours/batch days/year % Sulfur	days/yearbatches/day Annual Usage (s	specify units)
General Reference:  Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A  Type(s) of Fuel  1.  2.	hours/day hours/batch days/year % Sulfur	days/yearbatches/day Annual Usage (s	specify units)
General Reference:  Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A  Type(s) of Fuel  1.	hours/day hours/batch days/year % Sulfur	days/yearbatches/day Annual Usage (s	specify units)
General Reference:  Continuous Processes:  Batch Processes:  5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.  3.  6. Emissions in Tons: <i>Refer to Emission</i>	hours/dayhours/batchdays/year  % Sulfur	days/yearbatches/day Annual Usage (s	cation
General Reference:  Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A	hours/dayhours/batchdays/year % Sulfur  ss Certification Repor_ Potential Major:	days/yearbatches/day Annual Usage (s	cation trol device)

Form Number: MDE/ARMA/PER.020 Page 5 of 16



# SECTION 3A-2. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: SP1		2. MDE Registration No.:(if a 6-0027	applicable)
1a. Date of installation (month/year): <i>Mod</i>	ified 2002	0 0027	
3. Detailed description of the emissions un	it, including all em	ission point(s) and the assigned	d number(s):
Limestone Storage Pile.			
4. Federally Enforceable Limit on the Open	rating Schedule for	this Emissions Unit: <i>N/A</i>	
General Reference:			
Continuous Processes:	hours/day	days/year	
Batch Processes:	hours/batch	batches/day	
	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel	% Sulfur	Annual Usage (s	specify units)
2			
3			
6. Emissions in Tons: <i>Refer to Emissions</i> 6. Actual Major:	_		
		(note: before con VOCPM10HA	
b. Metaal Elilissions. NOA	50/\	TIVITOTIA	

Form Number: MDE/ARMA/PER.020 Page 5 of 16



# SECTION 3A-3. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: TLU1		2. MDE Registration No.:(if applicable) 6-0027	
1a. Date of installation (month/year): 1970		0 002/	
3. Detailed description of the emissions unit, ir	ncluding all emi	ission point(s) and the assigned number(s):	
The primary use of Limestone Truck Loading	g is transferrin	ng of limestone.	
4. Federally Enforceable Limit on the Operating	ng Schedule for	this Emissions Unit: <i>N/A</i>	
General Reference:	1 /1		
Continuous Processes:	_hours/day	• •	
Batch Processes:	_hours/batch	batches/day	
	_days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel %	% Sulfur	Annual Usage (specify units	)
2			_
3			
J			
6. Emissions in Tons: Refer to Emissions Cert	tification Repo	ort on electronic copy of Application	
		(note: before control device)	
B. Actual Emissions: NOx	_SOx	VOCPM10HAPs	

Form Number: MDE/ARMA/PER.020 Page 5 of 16



# SECTION 3A-4. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>TLU2</i>		2. MDE Registration N 6-0027	o.:(if applicable)
1a. Date of installation (month/year	r): <b>2002</b>	0 0027	
3. Detailed description of the emiss	ions unit, including all em	nission point(s) and the as	signed number(s):
The primary use of Limestone Tru	ick Loading/Unloading i	s transferring of limesto	ne.
4. Federally Enforceable Limit on the	he Operating Schedule for	this Emissions Unit: <i>N</i>	'A
General Reference:			
Continuous Processes:	hours/day		
Batch Processes:	hours/batch	batches/da	ny
-	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel	% Sulfur	Annual U	sage (specify units)
2			
J			
6. Emissions in Tons: Refer to Emi			Application
-		ort on electronic copy of	

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# SECTION 3A-5. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: SP8	2. MDE Registration No.:(if applicable) 6-0327
1a. Date of installation (month/year): 2002	0-0327
3. Detailed description of the emissions unit, including	all emission point(s) and the assigned number(s):
Iron B02-001 Surge Storage Pile.	
	1 C 4: E : 11 : 1//4
4. Federally Enforceable Limit on the Operating Schedu	lle for this Emissions Unit: IVA
General Reference:	
Continuous Processes: hours/d	
Batch Processes:hours/ba	atchbatches/day
days/yea	r
5. Fuel Consumption: <i>N/A</i>	
Type(s) of Fuel % Sulfur	Annual Usage (specify units)
1	
2	
3	
( Full in the Trans But to Full in Could the	
6. Emissions in Tons: Refer to Emissions Certification	Report on electronic copy of Application
· ·	Report on electronic copy of Application  ujor:(note: before control device)
A. Actual Major: Potential Ma	

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# SECTION 3A-6. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: SP9		2. MDE Registration No 6-0327	::(if applicable)
1a. Date of installation (month/year): 26	002	0 002/	
3. Detailed description of the emissions <i>Silica B02-001 Surge Pile</i> .	unit, including all em	nission point(s) and the ass	igned number(s):
4. Federally Enforceable Limit on the O General Reference:	perating Schedule for	this Emissions Unit: <i>N/A</i>	1
Continuous Processes:	hours/day	days/year	
Batch Processes:	hours/batch	batches/day	7
	days/year		
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.	% Sulfur		nge (specify units)
3			
6. Emissions in Tons: Refer to Emission	ns Certification Repo	ort on electronic copy of A	pplication
A. Actual Major:	Potential Major:	(note: before	e control device)
B. Actual Emissions: NOx	sOx	VOCPM10	_ HAPs

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# SECTION 3A-7. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: SP11		2. MDE Regis	tration No.:(if applicable)
1a. Date of installation (month/year): 1911	& 1957		
3. Detailed description of the emissions unit <i>Overburden Storage Pile</i> .	it, including all em	ission point(s) a	and the assigned number(s):
4. Federally Enforceable Limit on the Oper General Reference:	rating Schedule for	this Emissions	Unit: <i>N/A</i>
Continuous Processes:	hours/day	da	nys/year
Batch Processes:	hours/batch	1	patches/day
	days/year		
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.	% Sulfur		Annual Usage (specify units)
3			
6. Emissions in Tons: Refer to Emissions	Certification Repo	rt on electronic	c copy of Application
A. Actual Major:	Potential Major:	(1	note: before control device)
B. Actual Emissions: NOx	SOx	VOCP	M10HAPs

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# SECTION 3A-8. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>A01-009</i>	2. MDE Registration No.:(if applicable)
1a. Date of installation (month/year): 1957	6-0027
3. Detailed description of the emissions unit, including all e	- ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '
The primary use of the Gyratory Crusher is primary crush materials: calcium bearing, silica bearing, alumina beari	
Emission Point No. A01-012	ng, and tron bearing raw materials.
Linession I out 110. 2101-012	
4. Federally Enforceable Limit on the Operating Schedule for	or this Emissions Unit: <i>N/A</i>
General Reference:	_
Continuous Processes: hours/day	days/year
Batch Processes: hours/batch	batches/day
days/year	
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel % Sulfur	Annual Usage (specify units)
1	Aimuai Osage (speetly units)
2	
3	
<u> </u>	
6. Emissions in Tons: Refer to Emissions Certification Rep	oort on electronic copy of Application
6. Emissions in Tons: <i>Refer to Emissions Certification Rep</i> A. Actual Major: Potential Major:	20 0 22
-	(note: before control device)

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# SECTION 3A-9. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b>B01-017</b>		2. MDE Registration No.:(if applicable) 6-0327
1a. Date of installation (month/year): 1970		U-U3#/
3. Detailed description of the emissions unit.  The primary use of Belt Conveyor #8 is training materials: calcium bearing, silica bear Emission Point No. A02-025	insferring raw m	naterials. This unit processes the following
4. Federally Enforceable Limit on the Opera	ting Schedule for	this Emissions Unit: <i>N/A</i>
General Reference:		
Continuous Processes:	hours/day	
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.	% Sulfur	Annual Usage (specify units)
2		
3		
6. Emissions in Tons: <i>Refer to Emissions C</i>	ertification Reno	ort on electronic conv of Annlication
· ·	-	(note: before control device)
		VOCPM10HAPs
	<u> </u>	

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# SECTION 3A-10. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b>A01-018</b>	2. MDE Registration No.:(if applicable)
1a. Date of installation (month/year): 1957	6-0027
3. Detailed description of the emissions unit, including all em The primary use of the Belt Conveyor #1 is to transfer raw n raw materials: calcium bearing, silica bearing, alumina bear Emission Point No. A01-012	naterials. This unit processes the following
4. Federally Enforceable Limit on the Operating Schedule for General Reference:	this Emissions Unit: <i>N/A</i>
Continuous Processes: hours/day	days/year
Batch Processes: hours/batch	batches/day
days/year	
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel % Sulfur  1	Annual Usage (specify units)
2. <u> </u>	
3	
6. Emissions in Tons: Refer to Emissions Certification Repo	rt on electronic copy of Application
A. Actual Major: Potential Major:	(note: before control device)
B. Actual Emissions: NOxSOx	VOCPM10HAPs

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# SECTION 3A-11. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>A01-021</i>	2. MDE Registration No.:(if applicable)
1a. Date of installation (month/year): 1955	6-0027
3. Detailed description of the emissions unit, including all em	ission point(s) and the assigned number(s):
The primary use of the Surge Bin is to transfer raw materia	als. This unit processes the following raw
materials: calcium bearing, silica bearing, alumina bearing	g, and iron bearing raw materials
Emission Point No. A01-025	
4. Federally Enforceable Limit on the Operating Schedule for	this Emissions Unit: <i>N/A</i>
General Reference:	
Continuous Processes:hours/day	days/year
Batch Processes: hours/batch	batches/day
days/year	
5. Fuel Consumption: <i>N/A</i>	
Type(s) of Fuel % Sulfur	Annual Usage (specify units)
1	
2	
3	
6. Emissions in Tons: Refer to Emissions Certification Repo	art on electronic conv of Application
A. Actual Major: Potential Major:	
B. Actual Emissions: NOxSOx	
D. Tettal Linissions. IVOASOA	11/11011/113

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## SECTION 3A-12. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b>A02-005</b>	2. MDE Registration No.:(if applicable)
1a. Date of installation (month/year): 1970	6-0027
3. Detailed description of the emissions unit, including all em	ission point(s) and the assigned number(s):
The primary use of Belt Conveyor #2 is transferring raw m raw materials: calcium bearing, silica bearing, alumina be Emission Point No. A02-008 and A02-003	
4. Federally Enforceable Limit on the Operating Schedule for	this Emissions Unit: <i>N/A</i>
General Reference:	
Continuous Processes:hours/day	days/year
Batch Processes:hours/batch	batches/day
days/year	
5. Fuel Consumption: N/A Type(s) of Fuel % Sulfur  1. 2. 3.	
<u> </u>	
6. Emissions in Tons: Refer to Emissions Certification Repo	27 7 22
A. Actual Major: Potential Major:	
B. Actual Emissions: NOxSOx	VOCPM10HAPs

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## SECTION 3A-13. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>A02-006</i>	2. MDE Registration No.:(if applicable)			
1a. Date of installation (month/year): 1970	6-0027			
3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):  The primary use of the Secondary Crusher is secondary crushing. This unit processes the following raw materials: calcium bearing, silica bearing, alumina bearing, and iron bearing raw materials.  Emission Point No. A02-008  4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: N/A				
4. Federally Enforceable Limit on the Operating Schedule for General Reference:	this Emissions Unit: <i>N/A</i>			
Continuous Processes:hours/day	days/year			
Batch Processes:hours/batch	batches/day			
days/year				
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel % Sulfur  1.  2.  3.				
6. Emissions in Tons: <i>Refer to Emissions Certification Repo</i> A. Actual Major: Potential Major:  B. Actual Emissions: NOx SOx	(note: before control device)			

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## SECTION 3A-14. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b>A02-010</b>		2. MDE Registration No.:(if applicable) 6-0027
1a. Date of installation (month/year): 197	0	0-0027
	transferring raw m	ission point(s) and the assigned number(s): aterials. This unit processes the following ring, and iron bearing raw materials.
4. Federally Enforceable Limit on the Ope General Reference:	erating Schedule for	this Emissions Unit: <i>N/A</i>
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.	% Sulfur	Annual Usage (specify units)
2		
3		
6. Emissions in Tons: <i>Refer to Emissions</i>	Certification Repa	ort on electronic copy of Application
·	-	(note: before control device)
		VOCPM10HAPs

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## SECTION 3A-15. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>A02-017</i>	2. MDE Registration No.:(if applicable) 6-0027
1a. Date of installation (month/year): 1970	0-0027
3. Detailed description of the emissions unit, including all The primary use of Belt Conveyor #6 is transferring raraw materials: calcium bearing, silica bearing, alumin Emission Point No. A02-008	w materials. This unit processes the following
4. Federally Enforceable Limit on the Operating Schedule	for this Emissions Unit: <i>N/A</i>
4. Federally Enforceable Limit on the Operating Schedule General Reference:	e for this Emissions Unit: <i>N/A</i>
General Reference:	days/year
General Reference:hours/day	days/year
General Reference:  Continuous Processes: hours/day  Batch Processes:hours/batch	days/year
General Reference:  Continuous Processes:  Batch Processes:  hours/day hours/batch days/year  5. Fuel Consumption: N/A Type(s) of Fuel  % Sulfur  1	days/year  batches/day  Annual Usage (specify units)
General Reference:  Continuous Processes:  Batch Processes:  hours/day hours/batc days/year  5. Fuel Consumption: N/A	days/year  batches/day  Annual Usage (specify units)
General Reference:  Continuous Processes:  Batch Processes:  hours/day hours/batch days/year  5. Fuel Consumption: N/A Type(s) of Fuel  7. Yes Sulfur 1	days/year  batches/day  Annual Usage (specify units)
General Reference:  Continuous Processes:  Batch Processes:	days/year  batches/day  Annual Usage (specify units)

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## SECTION 3A-16. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b>A02-018</b>		2. MDE Registration No.:(if applicable)
1a. Date of installation (month/year): 197	70	6-0027
The primary use of Belt Conveyor #5 is	s transferring raw n	nission point(s) and the assigned number(s): naterials. This unit processes the following earing, and iron bearing raw materials.
4. Federally Enforceable Limit on the Op	erating Schedule for	this Emissions Unit: <i>N/A</i>
General Reference:		
General Reference:  Continuous Processes:	hours/day	days/year
	hours/day	days/year batches/day
Continuous Processes:		
Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A Type(s) of Fuel  1.	hours/batchdays/year  % Sulfur	batches/day  Annual Usage (specify units)
Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A Type(s) of Fuel	hours/batchdays/year  % Sulfur	batches/day  Annual Usage (specify units)
Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A Type(s) of Fuel  1. 2.	hours/batchdays/year  % Sulfur	batches/day Annual Usage (specify units)
Continuous Processes:  Batch Processes:  5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.  3.  6. Emissions in Tons: <i>Refer to Emission</i>	hours/batchdays/year % Sulfur s Certification Repo	batches/day Annual Usage (specify units)

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## **SECTION 3A-17. EMISSIONS UNIT DESCRIPTIONS**

1. Emissions Unit No.: <b>A02-019</b>		2. MDE Registration No.:(if applicable) 6-0027
1a. Date of installation (month/year): 197	0	0 0027
*	er is tertiary crushin	ission point(s) and the assigned number(s):  ng. This unit processes the following raw  ng, and iron bearing raw materials.
4. Federally Enforceable Limit on the Operation General Reference:	erating Schedule for	this Emissions Unit: <i>N/A</i>
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.	% Sulfur	Annual Usage (specify units)
2		
3		
6. Emissions in Tons: Refer to Emissions	s Certification Repo	rt on electronic copy of Application
A. Actual Major:	Potential Major:	(note: before control device)
B. Actual Emissions: NOx_	SOx	VOCPM10HAPs

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## **SECTION 3A-18. EMISSIONS UNIT DESCRIPTIONS**

1. Emissions Unit No.: <i>A02-021</i>		2. MDE Registration No	o.:(if applicable)
1a. Date of installation (month/year): 197	70	6-0027	
3. Detailed description of the emissions was The primary use of Belt Conveyor #4 is raw materials: calcium bearing, silica Emission Point No. A02-008	s transferring raw n	naterials. This unit proce	esses the following
4. Federally Enforceable Limit on the Op General Reference:	erating Schedule for	this Emissions Unit: N/2	4
Continuous Processes:	hours/day	days/year	
Batch Processes:	hours/batch	batches/da	y
	days/year		
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.	% Sulfur		age (specify units)
3			
6. Emissions in Tons: <i>Refer to Emissions</i>	s Certification Reno	rt on electronic conv of	Application
A. Actual Major:	-		
B. Actual Emissions: NOx_			

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## **SECTION 3A-19. EMISSIONS UNIT DESCRIPTIONS**

1a. Date of installation (month/year): 1970  3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): The primary use of the Vibrating Screen and Transfer System is screening. This unit processes the following raw materials: calcium bearing, silica bearing, alumina bearing, and iron bearing raw materials. Emission Point No. A02-012, A01-015, and A02-025  4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: N/A  General Reference:  Continuous Processes:  hours/day  days/year  Batch Processes: hours/batch days/year
The primary use of the Vibrating Screen and Transfer System is screening. This unit processes the following raw materials: calcium bearing, silica bearing, alumina bearing, and iron bearing raw materials. Emission Point No. A02-012, A01-015, and A02-025  4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: N/A  General Reference:  Continuous Processes: hours/daydays/year  Batch Processes:hours/batchbatches/day
General Reference:  Continuous Processes:  hours/day  days/year  Batch Processes:  hours/batch  batches/day
General Reference:  Continuous Processes:  hours/day  days/year  Batch Processes:  hours/batch  batches/day
General Reference:  Continuous Processes:  hours/day  days/year  Batch Processes:  hours/batch  batches/day
General Reference:  Continuous Processes:  hours/day  days/year  Batch Processes:  hours/batch  batches/day
Continuous Processes: hours/day days/year  Batch Processes: hours/batch batches/day
days/year
5. Fuel Consumption: N/A Type(s) of Fuel % Sulfur Annual Usage (specify units)  1
3
6. Emissions in Tons: Refer to Emissions Certification Report on electronic copy of Application
A. Actual Major: Potential Major:(note: before control device)
Type(s) of Fuel % Sulfur Annual Usage (specify units)

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## **SECTION 3A-20. EMISSIONS UNIT DESCRIPTIONS**

1. Emissions Unit No.: <i>A02-022</i>		2. MDE Registration No.:(if applicable) 6-0027
1a. Date of installation (month/year): 197	70	0 0027
<u> </u>	en and Transfer Sys ing, silica bearing, o	
4. Federally Enforceable Limit on the Op General Reference:	erating Schedule for	this Emissions Unit: <i>N/A</i>
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.	% Sulfur	Annual Usage (specify units)
2		
3		
6. Emissions in Tons: <i>Refer to Emissions</i>	_	
		(note: before control device)
D. Actual Ellissions. NOX_	SOX	VOCPM10HAPs

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### SECTION 3A-21. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>A02-023</i>		2. MDE Registration No.:(if applicable) 6-0027
1a. Date of installation (month/year): 19	970	0-0027
3. Detailed description of the emissions	unit, including all em	ission point(s) and the assigned number(s):
The primary use of the Vibrating Scre following raw materials: calcium bear materials. Emission Point No. A02-01	ring, silica bearing, a	
4. Federally Enforceable Limit on the O General Reference:	perating Schedule for	this Emissions Unit: <i>N/A</i>
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1	% Sulfur	Annual Usage (specify units)
2		
6. Emissions in Tons: Refer to Emission	ns Certification Repo	ort on electronic copy of Application
A. Actual Major:	Potential Major:	(note: before control device)
B. Actual Emissions: NO	x SOx	VOCPM10HAPs

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### SECTION 3A-22. EMISSIONS UNIT DESCRIPTIONS

er(s): pwing ls.
units)
units)
units)
units)

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## SECTION 3A-23. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>A03-022</i>		2. MDE Registration No.:(if a <b>6-0352</b>	applicable)
1a. Date of installation (month/year): <i>July</i>	2020	0 0002	
3. Detailed description of the emissions un	it, including all em	ission point(s) and the assigne	d number(s):
Masonry Hauling at Union Bridge.			
4. Federally Enforceable Limit on the Open	rating Schedule for	this Emissions Unit: <i>N/A</i>	
General Reference:	1 /1	1 /	
Continuous Processes:	hours/day	• •	
Batch Processes:	hours/batch	batches/day	
	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel	% Sulfur	Annual Usage (	specify units)
2			
3			
6. Emissions in Tons: <i>Refer to Emissions</i>			cation
	_	(note: before cor	
		VOCPM10HA	

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## **SECTION 3A-24. EMISSIONS UNIT DESCRIPTIONS**

1. Emissions Unit No.: SP13	2. MDE Registration No.:(if applicable)
1a. Date of installation (month/year): 2011	
3. Detailed description of the emissions unit, including all en Bottom Ash Storage Pile.	mission point(s) and the assigned number(s):
4. Federally Enforceable Limit on the Operating Schedule for General Reference:	or this Emissions Unit: <i>N/A</i>
Continuous Processes:hours/day	days/year
Batch Processes: hours/batch	batches/day
days/year	
5. Fuel Consumption: N/A Type(s) of Fuel % Sulfur 1. 2.	Annual Usage (specify units)
3	
6. Emissions in Tons: No emissions are associated with this	storage pile due to its inherent high
moisture content and location within an enclosed structure	re.
A. Actual Major: Potential Major:	(note: before control device)
B. Actual Emissions: NOxSOx	VOCPM10HAPs

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## **SECTION 3A-25. EMISSIONS UNIT DESCRIPTIONS**

1. Emissions Unit No.: <i>A02-026</i>	2. MDE Registration No.:(if applicable)
1a. Date of installation (month/year): 2011	
3. Detailed description of the emissions unit, including all em	ission point(s) and the assigned number(s):
Screen. This unit processes bottom ash.	
4. Federally Enforceable Limit on the Operating Schedule for	this Emissions Unit: <i>N/A</i>
General Reference:	
Continuous Processes: hours/day	days/year
Batch Processes: hours/batch	batches/day
days/year	
5. Fuel Consumption: <i>N/A</i>	
Type(s) of Fuel % Sulfur	Annual Usage (specify units)
2	
3	
6. Emissions in Tons: <i>No emissions are associated with this a</i>	emissions unit due to the inherent high
moisture content of the material is processes.	(note, hefere entire 1 1-2°)
A. Actual Major: Potential Major: B. Actual Emissions: NOx SOx	
D. Actual Ellipsiolis. NOXSOX	VOCFIVIIU NATS

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# **SECTION 3A-26. EMISSIONS UNIT DESCRIPTIONS**

1. Emissions Unit No.: <i>A03-001A</i>		2. MDE Registration No.:(if applicable 6-0352		
1a. Date of installation (month/year): Ju	ine 2018	0 0002		
3. Detailed description of the emissions waste Rock Hauling (Segment A).	unit, including all em	ission point(s)	and the ass	igned number(s):
4. Federally Enforceable Limit on the Op General Reference:	perating Schedule for	this Emission	s Unit: <i>N/A</i>	1
Continuous Processes:	hours/day		days/year	
Batch Processes:	hours/batch		_batches/day	7
	days/year			
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.	% Sulfur		Annual Usa	age (specify units)
3				
6. Emissions in Tons: <i>Refer to Emission</i>	s Certification Repo	ort on electron	ic copy of A	pplication
A. Actual Major:	_ Potential Major:		(note: before	e control device)
B. Actual Emissions: NOx	SOx	VOCI	PM10	_HAPs

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## **SECTION 3A-27. EMISSIONS UNIT DESCRIPTIONS**

1. Emissions Unit No.: <i>A03-001B</i>		2. MDE Registration No.:(if applicable 6-0352		::(if applicable)
1a. Date of installation (month/year): <i>Jun</i>	ee 2018	0 0332		
3. Detailed description of the emissions un Waste Rock Hauling (Segment B).	nit, including all em	ission point(s)	and the ass	igned number(s):
4. Federally Enforceable Limit on the Ope General Reference:	erating Schedule for	this Emission	s Unit: <i>N/A</i>	
Continuous Processes:	hours/day	(	lays/year	
Batch Processes:	hours/batch		batches/day	1
	days/year			
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.	% Sulfur		Annual Usa	nge (specify units)
3				
6. Emissions in Tons: Refer to Emissions	Certification Repo	ort on electron	ic copy of A	pplication
A. Actual Major:	Potential Major:	(	(note: before	e control device)
B. Actual Emissions: NOx_	SOx	VOCF	PM10	_HAPs

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## **SECTION 3A-28. EMISSIONS UNIT DESCRIPTIONS**

1. Emissions Unit No.: <i>A03-001C</i>		2. MDE Registration No.:(if applicable 6-0352		:(if applicable)
1a. Date of installation (month/year): <i>Jun</i>	ne 2018	0 0332		
3. Detailed description of the emissions u Waste Rock Hauling (Segment C).	nit, including all em	ission point(s)	and the ass	igned number(s):
4. Federally Enforceable Limit on the Operation of the Op	erating Schedule for	this Emissions	s Unit: <i>N/A</i>	
Continuous Processes:	hours/day	d	lays/year	
Batch Processes:	hours/batch		batches/day	7
	days/year			
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.	% Sulfur		Annual Usa	age (specify units)
3				
6. Emissions in Tons: <i>Refer to Emissions</i>	S Certification Repo	ort on electroni	ic copy of A	pplication
A. Actual Major:	Potential Major:	(	note: before	e control device)
B. Actual Emissions: NOx_	SOx	VOCP	PM10	_ HAPs

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## **SECTION 3A-29. EMISSIONS UNIT DESCRIPTIONS**

1. Emissions Unit No.: <i>A03-002A</i>	2. MDE Registration No.:(if applicable) 6-0352
1a. Date of installation (month/year): June 2018	0-0332
3. Detailed description of the emissions unit, including all er	mission point(s) and the assigned number(s):
Limestone Hauling (Segment A).	
4. Federally Enforceable Limit on the Operating Schedule for	or this Emissions Unit: <i>N/A</i>
General Reference:	2 1110 211110010110 0 11111 1 1 1 1 1
Continuous Processes: hours/day	days/year
Batch Processes: hours/batch	batches/day
days/year	,
days/year	
5. Fuel Consumption: <i>N/A</i>	
Type(s) of Fuel % Sulfur	Annual Usage (specify units)
2	
2	
3	
6. Emissions in Tons: Refer to Emissions Certification Rep	ort on electronic copy of Application
A. Actual Major: Potential Major:_	(note: before control device)
B. Actual Emissions: NOxSOx	_VOCPM10HAPs

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## SECTION 3A-30. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>A03-002C</i>		2. MDE Registration No.:(if applicable) 6-0352		
1a. Date of installation (month/year): <i>June</i> 2	2018			
3. Detailed description of the emissions unit,	including all em	ission point(s) and the assigned numbe	r(s):	
Limestone Hauling (Crusher Segment).				
4. Federally Enforceable Limit on the Opera	ting Schedule for	this Emissions Unit: <i>N/A</i>		
General Reference:  Continuous Processes:	hours/day	dayayyaar		
	hours/day	• •		
Batch Processes:	hours/batch	batches/day		
	days/year			
5. Fuel Consumption: <i>N/A</i>				
Type(s) of Fuel	% Sulfur	Annual Usage (specify t	ınits)	
1				
2				
3				
6. Emissions in Tons: Refer to Emissions C	ertification Repo	ort on electronic copy of Application		
A. Actual Major: P	otential Major:	(note: before control dev	ice)	
B. Actual Emissions: NOx	SOx	VOCPM10HAPs		

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## **SECTION 3A-31. EMISSIONS UNIT DESCRIPTIONS**

1. Emissions Unit No.: <b>A03-003</b>		2. MDE Registration No.:(if applicable) 6-0352		
1a. Date of installation (month/year): <i>June</i> 2	2018			
3. Detailed description of the emissions unit	, including all em	nission point(s) and the assigned number(s	s):	
Front End Loader to Limestone Truck.				
4. Federally Enforceable Limit on the Opera	ting Schedule for	this Emissions Unit: <i>N/A</i>		
General Reference:	1 /1	1 /		
Continuous Processes:	hours/day	• •		
Batch Processes:	hours/batch	batches/day		
	days/year			
5. Fuel Consumption: <i>N/A</i>				
Type(s) of Fuel	% Sulfur	Annual Usage (specify uni	ts)	
2				
3				
6. Emissions in Tons: <i>Refer to Emissions C</i>	_			
		(note: before control device		
B. Actual Emissions: NOx	SOx	VOCPM10HAPs	•	

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### SECTION 3A-32. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: A03-004	2. MDE Registration No.:(if applical <b>6-0352</b>	
1a. Date of installation (month/yea	ar): <i>June 2018</i>	0-0332
_	sions unit, including all em	nission point(s) and the assigned number(s):
Truck to Primary Hopper.		
4. Federally Enforceable Limit on	the Operating Schedule for	this Emissions Unit: <i>N/A</i>
General Reference:		
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: <i>N/A</i>		
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)
7		
2		
•	· -	ort on electronic copy of Application
	=	(note: before control device)
B. Actual Emissions:	NOxSOx	VOCPM10HAPs

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## SECTION 3A-33. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b>A03-005</b>	2. MDE Registration No.:(if applicable) 6-0352
1a. Date of installation (month/year): June 2018	0-0332
3. Detailed description of the emissions unit, including all The primary use of the Primary Crusher is Primary Commaterials: calcium bearing, silica bearing, alumina bear Point No. A03-007	rushing. This unit processes the following raw
4. Federally Enforceable Limit on the Operating Schedul General Reference:	e for this Emissions Unit: <i>N/A</i>
Continuous Processes:hours/da	ydays/year
Batch Processes: hours/bat	
days/year	
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel % Sulfur  1	Annual Usage (specify units)
2	
3	
6. Emissions in Tons: Refer to Emissions Certification	Danaut on alastuonis sany of Annlication
•	or:(note: before control device)

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## SECTION 3A-34. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>A03-006</i>		2. MDE Registration No.:(if applicable) 6-0352		
1a. Date of installation (month/year): <i>June</i>				
3. Detailed description of the emissions unit	t, including all em	ission point(s) and th	ne assigned number(s):	
Primary Crusher to Belt #1. Emission Poi	nt No. A03-007			
4. Federally Enforceable Limit on the Opera	ating Schedule for	this Emissions Unit	· N/A	
General Reference:	ating senedate for	tins Limssions Cint	. 17/21	
Continuous Processes:	hours/day	days/ye	ear	
Batch Processes:	hours/batch		es/day	
			J	
	days/year			
5. Fuel Consumption: <i>N/A</i>				
Type(s) of Fuel	% Sulfur	Annu	al Usage (specify units)	
1				
2				
3				
6. Emissions in Tons: Refer to Emissions C	Certification Repo	rt on electronic cop	y of Application	
A. Actual Major: l	-			
B. Actual Emissions: NOx				

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## SECTION 3A-35. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: A03-008		2. MDE Registration No.:(if applicable) 6-0352		
1a. Date of installation (month/year): <i>June</i> 2				
3. Detailed description of the emissions unit,	including all em	ission point(s) and t	he assigned number(s):	
Belt #1 to Belt #2 Transfer. Emission Poin	t No. A03-009			
4. Federally Enforceable Limit on the Opera	ting Schedule for	this Emissions Unit	:: <i>N/A</i>	
General Reference:		<b></b>		
Continuous Processes:	hours/day	days/y	ear	
Batch Processes:	hours/batch		es/day	
	dovidace		·	
	days/year			
5. Fuel Consumption: <i>N/A</i>				
Type(s) of Fuel	% Sulfur	Annu	al Usage (specify units)	
2				
2				
3				
6. Emissions in Tons: Refer to Emissions Co	ertification Repo	rt on electronic cop	y of Application	
A. Actual Major: P	otential Major:	(note:	before control device)	
B. Actual Emissions: NOx	SOx	VOCPM10_	HAPs	

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# SECTION 3A-36. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b>A03-010</b>	2. MDE Registration No.:(if applicable) <b>6-0352</b>
1a. Date of installation (month/year): June 2018	0 0002
3. Detailed description of the emissions unit, including	ng all emission point(s) and the assigned number(s):
Transfer from Belt #2 to Belt #3 or to Masonry Pil	e. Emission Point No. A03-011
4 F 1 11 F C 11 T ' ' 4 O 2' C1	11 C 41' F ' ' 11' A7/4
4. Federally Enforceable Limit on the Operating Sch General Reference:	edule for this Emissions Unit: N/A
	rs/daydays/year
Batch Processes:hours	s/batchbatches/day
days/	year
5. Fuel Consumption: <i>N/A</i>	
Type(s) of Fuel % Sulf	ur Annual Usage (specify units)
2	
3	
6. Emissions in Tons: Refer to Emissions Certificati	ion Report on electronic copy of Application
•	Major:(note: before control device)
B. Actual Emissions: NOxSOx_	VOCPM10HAPs

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## SECTION 3A-37. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: SP10		2. MDE Regi 6-0352	stration No	:(if applicable)
1a. Date of installation (month/year): <i>Jun</i>	ne 2018	0-0332		
3. Detailed description of the emissions us New Windsor Storage Pile.	nit, including all em	ission point(s)	and the ass	igned number(s):
		4. 5	VI NV	
4. Federally Enforceable Limit on the Ope General Reference:	erating Schedule for	this Emission	s Unit: <i>IV/A</i>	
Continuous Processes:	hours/day		lays/year	
Batch Processes:	hours/batch		batches/day	7
	days/year			
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.	% Sulfur		Annual Usa	age (specify units)
3				
6. Emissions in Tons: Refer to Emissions	S Certification Repo	ort on electron	ic copy of A	pplication
A. Actual Major:	Potential Major:	(	note: before	e control device)
B. Actual Emissions: NOx_	SOx	VOCF	PM10	_HAPs

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## SECTION 3A-38. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: SP12		2. MDE Registration No.:(if applicable) 6-0352
1a. Date of installation (month/year): <i>July</i>	, 2020	U-U334
•	orage Pile is for the Masonry Storage F	ission point(s) and the assigned number(s): storage of masonry material. There are two Pile Wind Erosion and Fugitive Dust
4. Federally Enforceable Limit on the Operal Reference:	erating Schedule for	this Emissions Unit: N/A
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.	% Sulfur	Annual Usage (specify units)
2		
3		
6. Emissions in Tons: Refer to Emissions	Certification Repo	rt on electronic copy of Application
A. Actual Major:	Potential Major:	(note: before control device)
B. Actual Emissions: NOx_	SOx	VOCPM10HAPs

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## **SECTION 3A-39. EMISSIONS UNIT DESCRIPTIONS**

. Emissions Unit No.: A03-012		2. MDE Registration No.:(if applicable) 6-0352		
1a. Date of installation (month)	/year): <i>June 2018</i>	0 0332		
3. Detailed description of the en  Belt #2 to Limestone Overland	_	nission point(s) and the assigned number(s): ion Point No. A03-013		
4. Federally Enforceable Limit	on the Operating Schedule for	this Emissions Unit: <i>N/A</i>		
General Reference:				
Continuous Processes:	hours/day	days/year		
Batch Processes:	hours/batch	batches/day		
	days/year			
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.	% Sulfur	Annual Usage (specify units)		
3				
6. Emissions in Tons: Refer to	Emissions Certification Repo	ort on electronic copy of Application		
A. Actual Major:	Potential Major:_	(note: before control device)		
B. Actual Emission	s: NOxSOx	VOCPM10HAPs		

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# SECTION 3A-40. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: A03-014		2. MDE Registration No.:(if applicable) 6-0352		
1a. Date of installation (month/year)	te of installation (month/year): June 2018			
3. Detailed description of the emission	ons unit, including all en	nission point(s) and the assigned number(s)	):	
Overland Conveyor (Belt #4) Trans	sfer to Belt #5 to New T	ransfer Tower. Emission Point No. A03-0	915	
4. Federally Enforceable Limit on th	e Operating Schedule for	r this Emissions Unit: <i>N/A</i>		
4. Federally Enforceable Limit on th General Reference:	e Operating Schedule for	r this Emissions Unit: <i>N/A</i>		
	e Operating Schedule forhours/day	r this Emissions Unit: <i>N/A</i> days/year		
General Reference:				
General Reference:  Continuous Processes:	hours/day	days/year		
General Reference:  Continuous Processes:	hours/day hours/batch	days/year		
General Reference:  Continuous Processes:  Batch Processes:	hours/day hours/batch	days/year	s)	
General Reference:  Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A  Type(s) of Fuel  1.	hours/dayhours/batchdays/year  % Sulfur	days/yearbatches/day  Annual Usage (specify units)	s)	
General Reference:  Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A  Type(s) of Fuel  1.  2.	hours/dayhours/batchdays/year  % Sulfur	days/yearbatches/day  Annual Usage (specify units)	s)	
General Reference:  Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A  Type(s) of Fuel  1.	hours/dayhours/batchdays/year  % Sulfur	days/yearbatches/day  Annual Usage (specify units)	s)	
General Reference:  Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A Type(s) of Fuel  1. 2. 3. 6. Emissions in Tons: Refer to Emis	hours/dayhours/batchdays/year  % Sulfur	days/yearbatches/day Annual Usage (specify units)		
General Reference:  Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A Type(s) of Fuel  1. 2. 3. 6. Emissions in Tons: Refer to Emis A. Actual Major:	hours/dayhours/batchdays/year  % Sulfur  sions Certification Repo	days/yearbatches/day  Annual Usage (specify units		

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## SECTION 3A-41. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>A03-016</i>		2. MDE Regis 6-0352	stration No.	:(if applicable)
1a. Date of installation (month/year): June	e 2018	0-0332		
3. Detailed description of the emissions un	it, including all em	ission point(s)	and the assi	igned number(s):
New Transfer Tower. Emission Point No	o. A03-017			
4. Federally Enforceable Limit on the Ope	rating Schedule for	this Emissions	s Unit: <i>N/A</i>	[
General Reference:				
Continuous Processes:	hours/day	d	ays/year	
Batch Processes:	hours/batch		batches/day	7
	days/year			
5. Fuel Consumption: <i>N/A</i>				
Type(s) of Fuel	% Sulfur		Annual Usa	age (specify units)
2				
3				
6. Emissions in Tons: <i>Refer to Emissions</i>	Certification Rene	ort on electroni	ic conv of 4	nnlication
A. Actual Major:	-			
B. Actual Emissions: NOx_				

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## **SECTION 3A-42. EMISSIONS UNIT DESCRIPTIONS**

1. Emissions Unit No.: <b>A03-018</b>	Emissions Unit No.: $A03-018$ 2. MDE Registration No.:(if 6-0352	
a. Date of installation (month/year): July 2020		0-0332
3. Detailed description of the emissions	unit, including all em	nission point(s) and the assigned number(s):
Masonry Transfer to Crusher.		
4. Federally Enforceable Limit on the O <sub>1</sub>	perating Schedule for	r this Emissions Unit: <i>N/A</i>
General Reference:		
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: <i>N/A</i>		
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)
2		
2		
3		
6. Emissions in Tons: <i>N/A</i>		
A. Actual Major:	_ Potential Major:_	(note: before control device)
B. Actual Emissions: NOx	SOx	VOCPM10HAPs

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## SECTION 3A-43. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>A03-019</i>	2. MDE Registration No.:(if applica 6-0352		tion No.:(if applicable)	
1a. Date of installation (month/year): <i>July</i>	y 2020	0-0332		
3. Detailed description of the emissions us <i>Masonry Portable Crusher</i> .	nit, including all em	nission point(s) and	d the assigned number(s):	
4. Federally Enforceable Limit on the Ope	erating Schedule for	this Emissions U		
General Reference:				
Continuous Processes:	hours/day	days	s/year	
Batch Processes:	hours/batch	bat	ches/day	
	days/year			
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.	% Sulfur	An	nual Usage (specify units)	
2				
3				
6. Emissions in Tons: <i>N/A</i>				
A. Actual Major:	Potential Major:	(not	e: before control device)	
B. Actual Emissions: NOx_				

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## SECTION 3A-44. EMISSIONS UNIT DESCRIPTIONS

Emissions Unit No.: <b>A03-020</b> 2. MDE Registration No.:(if ap. <b>6-0352</b>		ation No.:(if applicable)	
1a. Date of installation (month/year): <i>Jud</i>	ly 2020	0-0332	
3. Detailed description of the emissions u	unit, including all em	nission point(s) and	d the assigned number(s):
Transfer from Masonry Crusher to Tru	ıck.		
4. Federally Enforceable Limit on the Op	perating Schedule for	r this Emissions U	nit: N/A
General Reference:			
Continuous Processes:	hours/day	days	s/year
Batch Processes:	hours/batch	bat	ches/day
	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel	% Sulfur	An	nual Usage (specify units)
2			_
3			
J			_
6. Emissions in Tons: <i>N/A</i>			
<ul><li>A. Actual Major:</li><li>B. Actual Emissions: NOx</li></ul>			

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## SECTION 3A-45. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>A03-021</i>	2. MDE Registration No.:(if appli <b>6-0352</b>		
1a. Date of installation (month/year): Ju	aly 2020	0-0332	
3. Detailed description of the emissions	unit, including all em	nission point(s) and the assigned number(s):	
Masonry Hauling at New Windsor (Un	npaved).		
4. Federally Enforceable Limit on the O	perating Schedule for	r this Emissions Unit: <i>N/A</i>	
General Reference:			
Continuous Processes:	hours/day	days/year	
Batch Processes:	hours/batch	batches/day	
	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)	
1.			
2.			
2			
6. Emissions in Tons: <i>N/A</i>			

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# SECTION 3A-46. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>TU1</i>		2. MDE Registration 6-0327	n No.:(if applicable)
1a. Date of installation (month/yea	ar): <b>2002</b>	0 0327	
3. Detailed description of the emis Iron, Silica, and Alumina Bearin	_		e assigned number(s):
4. Federally Enforceable Limit on General Reference:	the Operating Schedule for	this Emissions Unit:	N/A
Continuous Processes:	hours/day	days/ye	ar
Batch Processes:	hours/batch	batche	s/day
	days/year		
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.	% Sulfur		l Usage (specify units)
2			
6. Emissions in Tons: <i>Refer to En</i>	nissions Certification Repo	ort on electronic copy	of Application
_	Potential Major:_		
	NOxSOx		

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# SECTION 3A-47. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b>SP4</b>	2. MDE Registration No.:(if applicable) 6-0327
1a. Date of installation (month/year): 2002	0-0327
3. Detailed description of the emissions unit, including <i>Silica Storage Pile</i> .	all emission point(s) and the assigned number(s):
4. Federally Enforceable Limit on the Operating Sched	ule for this Emissions Unit: <i>N/A</i>
General Reference:	
Continuous Processes: hours/o	daydays/year
Batch Processes: hours/b	atchbatches/day
days/ye.	ar
5. Fuel Consumption: N/A	A
Type(s) of Fuel % Sulfur 1.	Annual Usage (specify units)
2	
3	
6. Emissions in Tons: Refer to Emissions Certification	n Report on electronic copy of Application
A. Actual Major: Potential M	ajor:(note: before control device)
B. Actual Emissions: NOxSOx	VOCPM10 HAPs

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# SECTION 3A-48. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b>B03-031</b>		2. MDE Registration No <b>6-0256</b>	.:(if applicable)
1a. Date of installation (month/year	): <b>2011</b>	0-0230	
3. Detailed description of the emiss ACI System Tank.	ions unit, including all em	ission point(s) and the ass	signed number(s):
4. Federally Enforceable Limit on the	he Operating Schedule for	this Emissions Unit: N/	4
General Reference:	ere operating senedate for	tins Emissions Chit. 147	•
Continuous Processes:	hours/day	days/year	
Batch Processes:	hours/batch	batches/day	y
-	days/year		
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.	% Sulfur		age (specify units)
3			
6. Emissions in Tons: Refer to Emi	ssions Certification Repo	ort on electronic copy of A	Application
A. Actual Major:	Potential Major:	(note: befor	re control device)
B. Actual Emissions:	NOx SOx	VOCPM10	_ HAPs

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# SECTION 3A-49. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: SP5	2. MDE Registration No.:(if applicable) 6-0327
1a. Date of installation (month/year): 2002	0 0327
3. Detailed description of the emissions unit, including	all emission point(s) and the assigned number(s):
Iron Storage Pile.	
	1 C 4 T 1 T 1 T 1 T 1 T 1 T 1 T 1 T 1 T 1 T
4. Federally Enforceable Limit on the Operating Schedu General Reference:	lle for this Emissions Unit: <i>N/A</i>
Continuous Processes: hours/d	aydays/year
Batch Processes: hours/ba	
days/yea	ur —
5. Fuel Consumption: <i>N/A</i>	
Type(s) of Fuel % Sulfur	Annual Usage (specify units)
2	
3	
<u></u>	
6. Emissions in Tons: Refer to Emissions Certification	
	jor:(note: before control device)
B. Actual Emissions: NOx SOx	VOCPM10 HAPs

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## SECTION 3A-50. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b>B01-011</b>		2. MDE Registration <i>6-0327</i>	No.:(if applicable)
1a. Date of installation (month/yea	ar): <b>2001</b>	0-0327	
3. Detailed description of the emis	ssions unit, including all en	nission point(s) and the	e assigned number(s):
Enclosed Limestone Dome.			
4. Federally Enforceable Limit on	the Operating Schedule for	this Emissions Unit	N/A
General Reference:	the Operating Schedule for	tins Linissions Ont.	IVA
Continuous Processes:	hours/day	days/yea	ar
Batch Processes:	hours/batch	batches	s/day
	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel  1.	% Sulfur	Annua	Usage (specify units)
2			
3			
6. Emissions in Tons: <i>Refer to En</i>	nissions Certification Repo	ort on electronic copy	of Application
A. Actual Major:	Potential Major:	(note: b	efore control device)
B. Actual Emissions:	NOxSOx	VOCPM10	HAPs

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# SECTION 3A-51. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b>B02-007</b>	2. MDE Registration No.:(if applicable) <b>6-0327</b>
1a. Date of installation (month/year): 2001	0-0327
3. Detailed description of the emissions unit, including all em The primary use of the Belt Conveyor is transferring raw materials: calcium bearing, silica bearing, alumina bearingsion Point No. B02-008	aterials. This unit processes the following
4. Federally Enforceable Limit on the Operating Schedule for	this Emissions Unit: N/A
General Reference:	ulis Elliissiolis Oliit. 1974
Continuous Processes: hours/day	days/year
Batch Processes: hours/batch	batches/day
days/year	
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel % Sulfur  1.	Annual Usage (specify units)
2	
3	
6. Emissions in Tons: Refer to Emissions Certification Repo	ort on electronic copy of Application
A. Actual Major: Potential Major:	(note: before control device)
B. Actual Emissions: NOxSOx	VOCPM10HAPs

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# SECTION 3A-52. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b>B02-011</b>	2. MDE Registration No.:(if applicable) 6-0327
1a. Date of installation (month/year): 2001	0-0327
3. Detailed description of the emissions unit, including all earning material Bin is transferring, iron bearing, and alumina bearing raw materials.	ferring raw materials. This unit processes silica
4 Federally Enforceable Limit on the Operation Calcadyle	Canthia Emissiona III.it. N//
4. Federally Enforceable Limit on the Operating Schedule f General Reference:	of this Emissions Omt. IVA
Continuous Processes:hours/day	days/year
Batch Processes: hours/batch	batches/day
days/year	
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel % Sulfur  1	Annual Usage (specify units)
2	
3	
6. Emissions in Tons: Refer to Emissions Certification Re	nort on electronic conv of Annlication
A. Actual Major: Potential Major:	
B. Actual Emissions: NOxSOx	

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# SECTION 3A-53. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b>B02-012</b>		2. MDE Registration No.:(if applicable) <b>6-0327</b>
1a. Date of installation (month/year):	2001	0-0327
±	g Material Bin is transf	ission point(s) and the assigned number(s): Ferring raw materials. This unit processes Perials. Emission Point No. B02-008
4. Federally Enforceable Limit on the General Reference:	Operating Schedule for	this Emissions Unit: <i>N/A</i>
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: N/A Type(s) of Fuel 1. 2. 3.		
	Potential Major:	rt on electronic copy of Application(note: before control device) VOCPM10HAPs

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## SECTION 3A-54. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit N	o.: <i>B02-017</i>		2. MDE Registration 16-0327	No.:(if applicable)
1a. Date of installati	on (month/year): 200	01	0-032/	
The primary use of t	he Reversible Belt ( ials: calcium bearin	Conveyor is transferi 1g, silica bearing, ali	ission point(s) and the a ring raw materials. The umina bearing, and ird	is unit processes the
•	•	perating Schedule for	this Emissions Unit: <i>I</i>	N/A
General Reference:				
Continuous Processe	es:	hours/day	days/year	
Batch Processes:		hours/batch	batches/o	day
		days/year		
5. Fuel Consumption Type(s) of Fi		% Sulfur	Annual U	Jsage (specify units)
2				
6. Emissions in Ton	s: <i>Refer to Emission</i>	s Certification Repo	ort on electronic copy o	f Application
	•		(note: bef	
			VOCPM10	

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# SECTION 3A-55. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b>B03-004</b>	2. MDE Registration No.:(if applicable) 6-0327
1a. Date of installation (month/year): 2002	0-0327
3. Detailed description of the emissions unit, including	
Fly Ash Blending Silo System. Emission Point No. I	803-008
4. Federally Enforceable Limit on the Operating Sched	ule for this Emissions Unit: <i>N/A</i>
General Reference:	
Continuous Processes: hours/o	days/yeardays/year
Batch Processes: hours/b	atchbatches/day
days/yea	ar
5. Fuel Consumption: <i>N/A</i>	
Type(s) of Fuel % Sulfur	Annual Usage (specify units)
2	
3	
6. Emissions in Tons: Refer to Emissions Certification	Report on electronic copy of Application
A. Actual Major: Potential Ma	ajor:(note: before control device)
B. Actual Emissions: NOxSOx	VOCPM10 HAPs

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# SECTION 3A-56. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b>B04-019</b>		2. MDE Reg	istration No.	:(if applicable)
1a. Date of installation (month/year): 2002		0 0027		
3. Detailed description of the emissions unit	_	ission point(s)	and the ass	igned number(s):
Limestone bin. Emission Point No. B04-	016			
4. Federally Enforceable Limit on the Oper	rating Schedule for	this Emission	s Unit: <i>N/A</i>	1
General Reference:				
Continuous Processes:	hours/day		days/year	
Batch Processes:	hours/batch		_batches/day	7
	days/year			
5. Fuel Consumption: <i>N/A</i>				
Type(s) of Fuel 1.	% Sulfur		Annual Usa	age (specify units)
2				
3				
6. Emissions in Tons: Refer to Emissions	Certification Repo	rt on electron	ic copy of A	pplication
A. Actual Major:	Potential Major:		(note: before	e control device)
B. Actual Emissions: NOx	SOx	VOCl	PM10	_HAPs

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# SECTION 3A-57. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: TT3		2. MDE Registration No.:(if applicable) 6-0327
1a. Date of installation (month/year): 2002	,	0-0327
3. Detailed description of the emissions un	it, including all em	nission point(s) and the assigned number(s):
Transfer Tower #3. Emission Point No. E	304-011 and B04-0	016
4. Federally Enforceable Limit on the Open	rating Schedule for	this Emissions Unit: <i>N/A</i>
General Reference:	1 /1	
Continuous Processes:	hours/day	
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: <i>N/A</i>		
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)
2		
3		
J		
6. Emissions in Tons: Refer to Emissions	Certification Repo	ort on electronic copy of Application
		(note: before control device)
B. Actual Emissions: NOx_	SOx	VOCPM10HAPs

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# SECTION 3A-58. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: TT4		2. MDE Registration N 6-0327	o.:(if applicable)
1a. Date of installation (month/year)	: 2002	0 002/	
3. Detailed description of the emission	ons unit, including all em	nission point(s) and the as	ssigned number(s):
Transfer Tower #4. Emission Point	No. B02-019		
4. Federally Enforceable Limit on the	e Operating Schedule for	this Emissions Unit: N	/A
General Reference:			
Continuous Processes:	hours/day	•	
Batch Processes:	hours/batch	batches/da	ay
<u> </u>	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel	% Sulfur	Annual U	sage (specify units)
2			
•			
3			
6. Emissions in Tons: <i>Refer to Emiss</i>			Application
6. Emissions in Tons: <i>Refer to Emis</i> .  A. Actual Major:	sions Certification Repo		ore control device)

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# SECTION 3A-59. EMISSIONS UNIT DESCRIPTIONS

3. Emissions Unit No.: <i>C01-002</i>		2. MDE Registration No.:(if applicable) <b>6-0328</b>
1a. Date of installation (month/year): 2001	,	· · · · · · · · · · · · · · · · · · ·
3. Detailed description of the emissions un The primary use of the Limestone Weigh limestone raw materials. Emission Point	feeder is transferr	1 ()
4. Federally Enforceable Limit on the Ope	rating Schedule for	this Emissions Unit: <i>N/A</i>
General Reference:		
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: N/A Type(s) of Fuel  1  2  3		
6. Emissions in Tons: <i>Refer to Emissions</i>	Certification Repo	rt on electronic copy of Application
		(note: before control device)
		VOCPM10HAPs

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# SECTION 3A-60. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>C01-004</i>		2. MDE Registration No.:(if applicable) <b>6-0328</b>
1a. Date of installation (month/year): 20	901	
	er is transferring raw	tission point(s) and the assigned number(s):  materials. This unit processes silica bearing,  Point No. C01-007
4. Federally Enforceable Limit on the O	perating Schedule for	this Emissions Unit: <i>N/A</i>
General Reference:  Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: N/A Type(s) of Fuel  1  2  3		
	Potential Major:	(note: before control device)
B. Actual Emissions: NO	xSOx	VOCPM10HAPs

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# **SECTION 3A-61. EMISSIONS UNIT DESCRIPTIONS**

1. Emissions Unit No.: <i>C01-006</i>	2. MI <b>6-03</b> 2	DE Registration No.:(if applicable)
1a. Date of installation (month/year): 2		
3. Detailed description of the emissions The primary use of the Silica Weighfee alumina bearing, and silica bearing raw	der is transferring raw mater	rials. This unit processes iron bearing,
4. Federally Enforceable Limit on the C	Decrating Schedule for this E	missions Unit: <i>N/A</i>
General Reference:		
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: <i>N/A</i>	% Sulfur	Annual Usage (specify units)
Type(s) of Fuel 1.	70 Sullul	Timidai esage (speerly dints)
1		Timidal Coage (opecity units)
Type(s) of Fuel  1  2  3		7 minuar esage (speerry units)
1		
1	ons Certification Report on e	

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# SECTION 3A-62. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>C01-011</i>		2. MDE Registration No.:(if applicable)
1a. Date of installation (month/year): 2001	!	6-0328
3. Detailed description of the emissions un The primary use of the Belt Conveyor is tr raw materials: calcium bearing, silica bea Emission Point No. C01-007 and C02-021	ransferring raw mo ering, alumina bea	
4. Federally Enforceable Limit on the Open General Reference:	rating Schedule for	this Emissions Unit: <i>N/A</i>
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.	% Sulfur	Annual Usage (specify units)
2		
3		
6. Emissions in Tons: <i>Refer to Emissions</i>	Certification Repo	ort on electronic copy of Application
A. Actual Major:	Potential Major:	(note: before control device)
B. Actual Emissions: NOx_	SOx	VOCPM10HAPs

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# SECTION 3A-63. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>C01-015</i>		2. MDE Regis 6-0328	stration No.	:(if applicable)
1a. Date of installation (month/year): 200	1	0-0320		
3. Detailed description of the emissions up	nit, including all em	ission point(s)	and the assi	igned number(s):
Fly Ash Weigh Bin. Emission Point No.	C01-019			
4. Federally Enforceable Limit on the Ope	erating Schedule for	this Emissions	s Unit: <i>N/A</i>	
General Reference:				
Continuous Processes:	hours/day	d	ays/year	
Batch Processes:	hours/batch	·	batches/day	7
	days/year			
5. Fuel Consumption: <i>N/A</i>				
Type(s) of Fuel	% Sulfur		Annual Usa	age (specify units)
2				
3				
6. Emissions in Tons: <i>Refer to Emissions</i>	-			
A. Actual Major: B. Actual Emissions: NOx_				
B. Actual Ellissions. NOX_	SOX	VOCP	1V11U	_ 11AIL 9

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# SECTION 3A-64. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>C02-001</i>	2. MDE Registration No.:(if applicable) 6-0328
1a. Date of installation (month/year): 2001	0-0328
3. Detailed description of the emissions unit, including all en The primary use of the Bucket Elevator is transferring raw materials: calcium bearing, silica bearing, alumina bearing, Point No. C02-011 and C02-021	naterials. This unit processes the following raw
4. Federally Enforceable Limit on the Operating Schedule for General Reference:	or this Emissions Unit: <i>N/A</i>
Continuous Processes: hours/day	days/year
Batch Processes: hours/batch	batches/day
days/year	
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel % Sulfur  1.	Annual Usage (specify units)
2	
3	
6. Emissions in Tons: Refer to Emissions Certification Rep	ort on electronic copy of Application
A. Actual Major: Potential Major:	(note: before control device)
B. Actual Emissions: NOxSOx	_ VOCPM10 HAPs

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# SECTION 3A-65. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>C02-006</i>		2. MDE Registration No.:(if applicable) 6-0328
1a. Date of installation (month/year): 2007	1	0-0328
3. Detailed description of the emissions ur The primary use of the 100 Ton Bin is transmaterials: calcium bearing, silica bearing, Emission Point No. C02-011	sferring raw materi	
4. Federally Enforceable Limit on the Ope	rating Schedule for	this Emissions Unit: <i>N/A</i>
General Reference:		
General Reference:  Continuous Processes:	hours/day	days/year
General Reference:		
General Reference:  Continuous Processes:	hours/day	days/year
General Reference:  Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A Type(s) of Fuel	hours/day	days/year
General Reference:  Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A  Type(s) of Fuel  1	hours/dayhours/batchdays/year  % Sulfur	days/yearbatches/day  Annual Usage (specify units)
General Reference:  Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A  Type(s) of Fuel  1.  2.	hours/dayhours/batchdays/year  % Sulfur	days/yearbatches/day  Annual Usage (specify units)
General Reference:  Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A  Type(s) of Fuel  1	hours/dayhours/batchdays/year  % Sulfur	days/yearbatches/day  Annual Usage (specify units)
General Reference:  Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A  Type(s) of Fuel  1.  2.	hours/dayhours/batchdays/year  % Sulfur	days/yearbatches/day  Annual Usage (specify units)
General Reference:  Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A	hours/dayhours/batchdays/year % Sulfur  Certification Repo	days/yearbatches/day  Annual Usage (specify units)

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# SECTION 3A-66. EMISSIONS UNIT DESCRIPTIONS

1a. Date of installation (month/year): 2002	
······································	
3. Detailed description of the emissions unit, including all emission point(s) and the assigned	ed number(s):
Airslide. Emission Point No. C04-050 and C04-075	
4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: <i>N/A</i>	
General Reference:	
Continuous Processes:hours/daydays/year	
Batch Processes: hours/batch batches/day	
days/year	
5. Fuel Consumption: <i>N/A</i>	
Type(s) of Fuel % Sulfur Annual Usage	(specify units)
2	
3	
6. Emissions in Tons: Refer to Emissions Certification Report on electronic copy of Appl	ication
A. Actual Major: Potential Major: (note: before co	

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# SECTION 3A-67. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>C04-070</i>		2. MDE Registration No.:(if applicabl 6-0328	e)
1a. Date of installation (month/year): 2002		0-0320	
3. Detailed description of the emissions uni	t, including all em	nission point(s) and the assigned number	r(s):
Airslide. Emission Point No. C04-075	_	,	, ,
4. Federally Enforceable Limit on the Oper	ating Schedule for	r this Emissions Unit: N/A	
General Reference:	ating Senedure for	tins Emissions one. 1771	
Continuous Processes:	hours/day	days/year	
Batch Processes:	hours/batch	batches/day	
	days/year		
5. Fuel Consumption: <i>N/A</i>			
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel		Annual Usage (specify u	nits)
Type(s) of Fuel  1	days/year % Sulfur	Annual Usage (specify u	nits)
Type(s) of Fuel  1  2	days/year % Sulfur	Annual Usage (specify u	nits)
Type(s) of Fuel  1	days/year % Sulfur	Annual Usage (specify u	nits)
Type(s) of Fuel  1  2	days/year % Sulfur	Annual Usage (specify u	nits)
Type(s) of Fuel  1  2  3  6. Emissions in Tons: <i>Refer to Emissions</i> (	days/year % Sulfur Certification Repo	Annual Usage (specify u	
Type(s) of Fuel  1. 2. 3. 6. Emissions in Tons: <i>Refer to Emissions</i> (A. Actual Major:	days/year % Sulfur Certification Repo Potential Major:	Annual Usage (specify u	ce)

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# **SECTION 3A-68. EMISSIONS UNIT DESCRIPTIONS**

1. Emissions Unit No.: <i>C04-072</i>		2. MDE Registration No 6-0328	o.:(if applicable)
1a. Date of installation (month/year): 2	002	0 0020	
3. Detailed description of the emissions	s unit, including all em	ission point(s) and the as	signed number(s):
Airslide. Emission Point No. C04-075	ī		
4. Federally Enforceable Limit on the O	Operating Schedule for	this Emissions Unit: N/2	4
General Reference:			
Continuous Processes:	hours/day	days/year	
Batch Processes:	hours/batch	batches/da	У
	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel	% Sulfur	Annual Us	· · · · · · · · · · · · · · · · · · ·
1.		7 Himaar Oc	sage (specify units)
1			age (specify units)
1			age (specify units)
1			
1	ons Certification Repo		Application

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# SECTION 3A-69. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>C04-074</i>		2. MDE Registration N 6-0328	o.:(if applicable)
1a. Date of installation (month/year): 200	2	0 0020	
3. Detailed description of the emissions un	nit, including all em	ission point(s) and the a	ssigned number(s):
Airslide. Emission Point No. C04-075			
		4. 5	.,,
4. Federally Enforceable Limit on the Ope General Reference:	erating Schedule for	this Emissions Unit: N	/A
Continuous Processes:	hours/day	dovelvoor	
Batch Processes:	hours/batch		0.77
Datch Flocesses.		batches/d	ay
	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel	% Sulfur	Annual U	sage (specify units)
1			
2			
3			_
6. Emissions in Tons: Refer to Emissions	Certification Repo	rt on electronic copy of	Application
A. Actual Major:	Potential Major:	(note: befo	ore control device)
B. Actual Emissions: NOx_	SOx	VOCPM10	HAPs

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## SECTION 3A-70. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>C04-037</i>	2. MDE Registration No.:(if applicable) 6-0328
1a. Date of installation (month/year): 2002	0-0320
3. Detailed description of the emissions unit, including all e The primary use of the Bucket Elevator is transferring mater materials: calcium bearing, silica bearing, alumina bearing Emission Point No. C04-075 and C04-050	rials. This unit processes the following raw
4. Federally Enforceable Limit on the Operating Schedule for General Reference:	or this Emissions Unit: <i>N/A</i>
Continuous Processes:hours/day	days/year
Batch Processes: hours/batch	batches/day
days/year	
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel % Sulfur  1	Annual Usage (specify units)
2	
3	
6. Emissions in Tons: Refer to Emissions Certification Rep	port on electronic copy of Application
A. Actual Major: Potential Major:	(note: before control device)
B. Actual Emissions: NOxSOx	VOCPM10HAPs

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# SECTION 3A-71. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>C04-038</i>		2. MDE Registration No.:(if applicable) <b>6-0328</b>
1a. Date of installation (month/year):	2002	0 0020
3. Detailed description of the emission	ns unit, including all em	ission point(s) and the assigned number(s):
600 Ton Bin. Emission Point No. Co	04-075 and C04-050	
4. Federally Enforceable Limit on the	Operating Schedule for	this Emissions Unit: <i>N/A</i>
General Reference:		
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
<del></del>	days/year	
5. Fuel Consumption: <i>N/A</i>		
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel 1.	days/year % Sulfur	Annual Usage (specify units)
Type(s) of Fuel  1	% Sulfur	
	% Sulfur	
Type(s) of Fuel  1  2  3	% Sulfur	
Type(s) of Fuel  1  2  3  6. Emissions in Tons: <i>Refer to Emission</i>	% Sulfur  ions Certification Repo	

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# SECTION 3A-72. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Uni	t No.: <i>C02-038</i>		2. MDE Registration No.:(if applicab 6-0328	le)
1a. Date of instal	lation (month/year):	2001	0-0320	
The primary use following raw mo	of the Rejects Belt	Conveyor is transferrin aring, silica bearing, al	nission point(s) and the assigned number graw materials. This unit processes a dumina bearing, and iron bearing raw	the
4 Endorally Enfo	araaahla Limit on the	Operating Schadula for	r this Emissions Unit: <i>N/A</i>	
General Reference			ulis Emissions Omt. 1va	
Continuous Proce	·	hours/day	days/year	
Batch Processes:	_	hours/batch	batches/day	
		days/year		
5. Fuel Consump Type(s) o		% Sulfur	Annual Usage (specify t	units)
2				
3				
6. Emissions in T	Cons: Refer to Emiss	sions Certification Repo	ort on electronic copy of Application	
	•		(note: before control dev	rice)
			VOCPM10HAPs	

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# SECTION 3A-73. EMISSIONS UNIT DESCRIPTIONS

1. Emissions U	nit No.: <b>C02-060</b>		2. MDE Registration No.:(if applicable) 6-0328
1a. Date of insta	allation (month/year	r): <b>2001</b>	0-0323
The primary use unit processes the	e of the Reversible I	Belt Conveyor (to Raw M naterials: calcium bearing	mission point(s) and the assigned number(s):  Aill) is transferring raw materials. This  g, silica bearing, alumina bearing, and iron
4. Federally End General Referen		the Operating Schedule for	or this Emissions Unit: <i>N/A</i>
Continuous Pro		hours/day	- days/year
Batch Processes		hours/batch	batches/day
		days/year	
5. Fuel Consum Type(s)	•	% Sulfur	Annual Usage (specify units)
2			
3			
6. Emissions in	Tons: Refer to Em	issions Certification Rep	ort on electronic copy of Application
	, and the second	-	(note: before control device)
			VOCPM10HAPs

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# **SECTION 3A-74. EMISSIONS UNIT DESCRIPTIONS**

1. Emissions Unit No.: <i>C03-034</i>		2. MDE Regi 6-0328	stration No.	:(if applicable)
1a. Date of installation (month/year): 200	92	0 0320		
3. Detailed description of the emissions was Airslide. Emission Point No. C03-001	nnit, including all em	ission point(s)	and the ass	igned number(s):
4. Federally Enforceable Limit on the Op	perating Schedule for	this Emissions	s I Init· N/4	1
General Reference:	erating Schedule for	tins Limssion	3 CIIIt. 14/21	•
Continuous Processes:	hours/day	d	lays/year	
Batch Processes:	hours/batch		batches/day	7
	days/year			
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.			Annual Usa	age (specify units)
3				
6. Emissions in Tons: Refer to Emission.	s Certification Repo	ort on electroni	ic copy of A	pplication
A. Actual Major:	-			
B. Actual Emissions: NOx	SOx	VOCP	PM10	_ HAPs

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# SECTION 3A-75. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>C03-035</i>		2. MDE Registratio <b>6-0328</b>	n No.:(if applicable)
1a. Date of installation (month/year): 20	02	0 0020	
3. Detailed description of the emissions u	unit, including all em	ission point(s) and th	ne assigned number(s):
Airslide. Emission Point No. C03-001			
4. Federally Enforceable Limit on the Op	perating Schedule for	this Emissions Unit:	: N/A
General Reference:			
Continuous Processes:	hours/day	days/ye	ear
Batch Processes:	hours/batch	batche	es/day
	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel	% Sulfur	Annua	al Usage (specify units)
2			
3			
6. Emissions in Tons: <i>Refer to Emission</i> A. Actual Major:			
B. Actual Emissions: NOx			

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# **SECTION 3A-76. EMISSIONS UNIT DESCRIPTIONS**

1. Emissions Unit No.: <i>C03-040</i>	2. MDE Registration No.:(if applicable) 6-0328
1a. Date of installation (month/year): 2002	0-0320
3. Detailed description of the emissions unit, including all Airslide. Emission Point No. C03-001	emission point(s) and the assigned number(s):
4. Federally Enforceable Limit on the Operating Schedule General Reference:	for this Emissions Unit: <i>N/A</i>
Continuous Processes: hours/day	days/year
Batch Processes: hours/batc	hbatches/day
days/year	
5. Fuel Consumption: N/A Type(s) of Fuel % Sulfur  1  2  3	
	eport on electronic copy of Application ::(note: before control device)  VOCPM10HAPs

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## SECTION 3A-77. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>C03-042</i>		2. MDE Registration No.:(if applicable) 6-0328
1a. Date of installation (month/year): 2	2002	0-0328
3. Detailed description of the emission Airslide. Emission Point No. C03-00	_	ission point(s) and the assigned number(s):
4. Federally Enforceable Limit on the G	Operating Schedule for	this Emissions Unit: <i>N/A</i>
General Reference:	_	
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.  3.		
6. Emissions in Tons: <i>Refer to Emission</i>	ons Certification Repo	rt on electronic copy of Application
·	•	(note: before control device)
	_	VOCPM10 HAPs

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## SECTION 3A-78. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>C03-045</i>		2. MDE Registration No	o.:(if applicable)
1a. Date of installation (month/year): 20	902	6-0328	
3. Detailed description of the emissions  Airslide. Emission Point No. C03-047	_	ission point(s) and the as	signed number(s):
4. Federally Enforceable Limit on the C General Reference:	Operating Schedule for	this Emissions Unit: <i>N/</i> 2	4
Continuous Processes:	hours/day	days/year	
Batch Processes:	hours/batch	batches/da	у
	days/year		
5. Fuel Consumption: N/A Type(s) of Fuel  1  2  3			rage (specify units)
6. Emissions in Tons: Refer to Emissio	ns Certification Repo	rt on electronic copy of A	Application
A. Actual Major:	Potential Major:	(note: before	re control device)
B. Actual Emissions: NO	xSOx	VOCPM10	HAPs

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# SECTION 3A-79. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>C03-008</i>		2. MDE Registration N 6-0328	Io.:(if applicable)
1a. Date of installation (month/year): 2002		0 0020	
3. Detailed description of the emissions un	it, including all em	ission point(s) and the a	ssigned number(s):
Airslide. Emission Point No. C03-050			
4. Federally Enforceable Limit on the Open	rating Schedule for	this Emissions Unit: A	/A
General Reference:  Continuous Processes:	hours/day	dovis/voor	
	hours/day	days/year	
Batch Processes:	hours/batch	batches/d	ay
	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel	% Sulfur	Annual U	Jsage (specify units)
1			
2			-
3			
6. Emissions in Tons: Refer to Emissions	Certification Repo	rt on electronic copy of	Application
A. Actual Major:	Potential Major:	(note: befo	ore control device)
B. Actual Emissions: NOx	SOx	VOCPM10	HAPs

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## SECTION 3A-80. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>C03-054</i>		2. MDE Registration No <b>6-0328</b>	o.:(if applicable)
1a. Date of installation (month/year): 200	02	0 0320	
3. Detailed description of the emissions un Airslide. Emission Point No. C03-050	unit, including all em	nission point(s) and the ass	signed number(s):
4. Federally Enforceable Limit on the Op General Reference:	erating Schedule for	this Emissions Unit: <i>N</i> /2	4
Continuous Processes:	hours/day	days/year	
Batch Processes:	hours/batch	batches/da	у
	days/year		
5. Fuel Consumption: N/A Type(s) of Fuel 1. 2. 3.			rage (specify units)
6. Emissions in Tons: <i>Refer to Emissions</i> A. Actual Major:		<del>-</del>	
B. Actual Emissions: NOx_	SOx	VOCPM10	HAPs

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# **SECTION 3A-81. EMISSIONS UNIT DESCRIPTIONS**

1. Emissions Unit No.: <i>C03-046</i>	2. MDE Registration No.:(if applicable) 6-0328
1a. Date of installation (month/year): 2002	0-0320
3. Detailed description of the emissions unit, including all em	nission point(s) and the assigned number(s):
The primary use of the Bucket Elevator is transferring mater D01-037	
4. Federally Enforceable Limit on the Operating Schedule for General Reference:	this Emissions Unit: <i>N/A</i>
Continuous Processes:hours/day	days/year
Batch Processes:hours/batch	batches/day
days/year	
5. Fuel Consumption: N/A Type(s) of Fuel % Sulfur  1  2 3	
6. Emissions in Tons: <i>Refer to Emissions Certification Repo</i> A. Actual Major: Potential Major:  B. Actual Emissions: NOx SOx	(note: before control device)

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# SECTION 3A-82. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>C03-017</i>		2. MDE Registration No. <i>6-0328</i>	:(if applicable)
1a. Date of installation (month/year): 2002		0-0320	
3. Detailed description of the emissions un	it, including all em	ission point(s) and the assi	gned number(s):
Airslide. Emission Point No. D01-037			
4. Federally Enforceable Limit on the Open	rating Schedule for	this Emissions Unit: N/A	
General Reference:			
Continuous Processes:	hours/day	days/year	
Batch Processes:	hours/batch	batches/day	
	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel	% Sulfur	Annual Usa	ge (specify units)
2			
2			
3			
6. Emissions in Tons: Refer to Emissions	Certification Repo	rt on electronic copy of A	pplication
A. Actual Major:	Potential Major:	(note: before	control device)
B. Actual Emissions: NOx_	SOx	VOCPM10	HAPs

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# **SECTION 3A-83. EMISSIONS UNIT DESCRIPTIONS**

1. Emissions Unit No.: <i>C03-010</i>		2. MDE Registration No.:(if applicabl 6-0328	e)
1a. Date of installation (month/year):	: 2002		
3. Detailed description of the emission	ons unit, including all en	nission point(s) and the assigned number	r(s):
Airslide. Emission Point No. C03-0	930		
4. Federally Enforceable Limit on the	e Operating Schedule for	r this Emissions Unit: <i>N/A</i>	
General Reference:			
General Reference:  Continuous Processes:	hours/day	days/year	
General Reference:			
General Reference:  Continuous Processes:	hours/day	days/year	
General Reference:  Continuous Processes:  Batch Processes:	hours/day hours/batch days/year	days/year batches/day	
General Reference:  Continuous Processes:  Batch Processes:	hours/day hours/batch	days/year	nits)
General Reference:  Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A  Type(s) of Fuel  1.	hours/day hours/batch days/year  % Sulfur	days/yearbatches/day  Annual Usage (specify u	nits)
General Reference:  Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A Type(s) of Fuel  1. 2.	hours/day hours/batch days/year % Sulfur	days/yearbatches/day  Annual Usage (specify u	nits)
General Reference:  Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A Type(s) of Fuel 1. 2. 3.	hours/day hours/batch days/year % Sulfur	days/yearbatches/day  Annual Usage (specify u	nits)
General Reference:  Continuous Processes:  Batch Processes:  5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.  3.  6. Emissions in Tons: <i>Refer to Emiss</i>	hours/dayhours/batchdays/year  % Sulfur	days/yearbatches/day  Annual Usage (specify u	
General Reference:  Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A	hours/dayhours/batchdays/year  % Sulfur  sions Certification Repo	days/yearbatches/day  Annual Usage (specify u	ce)

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## **SECTION 3A-84. EMISSIONS UNIT DESCRIPTIONS**

1. Emissions Unit No.: <i>C03-013</i>		2. MDE Registration No.:(if applicable) <b>6-0328</b>	
1a. Date of installation (month/year): 2002		0-0320	
3. Detailed description of the emissions unit	, including all em	ission point(s) and the assigned number(s):	:
Airslide. Emission Point No. C03-030	_		
4. Federally Enforceable Limit on the Opera	ting Schedule for	this Emissions Unit: N/A	
General Reference:	unig sonodulo lei	VIII EIIII EIII EIII IVII	
Continuous Processes:	hours/day	days/year	
Batch Processes:	hours/batch	batches/day	
	days/year		
5. Fuel Consumption: <i>N/A</i>	days/year		
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel		Annual Usage (specify units	)
Type(s) of Fuel 1	days/year % Sulfur	Annual Usage (specify units	)
Type(s) of Fuel  1  2	days/year % Sulfur	Annual Usage (specify units	) 
Type(s) of Fuel 1	days/year % Sulfur	Annual Usage (specify units	) 
Type(s) of Fuel  1  2	days/year % Sulfur	Annual Usage (specify units	 
Type(s) of Fuel  1  2  3  6. Emissions in Tons: <i>Refer to Emissions C</i>	days/year % Sulfur Sertification Repo	Annual Usage (specify units	——————————————————————————————————————
Type(s) of Fuel  1.  2.  3.  6. Emissions in Tons: <i>Refer to Emissions C</i> A. Actual Major: F	days/year % Sulfur Sertification Reportential Major:	Annual Usage (specify units	(i) ————————————————————————————————————

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### SECTION 3A-85. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>C02-025</i>		2. MDE Registration No.:(if applicable)
1a. Date of installation (month/year): 2001	t	6-0328
The primary use of the Raw Mill is prepro	ocessing raw mater es the following rav	w materials: calcium bearing, silica bearing,
4. Federally Enforceable Limit on the Ope General Reference:	rating Schedule for	this Emissions Unit: <i>N/A</i>
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.	% Sulfur	Annual Usage (specify units)
2		-
3		
6. Emissions in Tons: Refer to Emissions	Certification Repo	ort on electronic copy of Application
A. Actual Major:	Potential Major:_	(note: before control device)
B. Actual Emissions: NOx_	SOx	VOCPM10HAPs

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# SECTION 3A-86. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>C04-066</i>		2. MDE Regis 6-0328	stration No.	:(if applicable)
1a. Date of installation (month/year): 20	02	0 0320		
3. Detailed description of the emissions of Airslide. Emission Point No. C03-050	unit, including all em	ission point(s)	and the assi	gned number(s):
4. Federally Enforceable Limit on the Option General Reference:	perating Schedule for	this Emissions	Unit: N/A	
Continuous Processes:	hours/day	d	ays/year	
Batch Processes:	hours/batch	1	oatches/day	,
	days/year			
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.			Annual Usa	ge (specify units)
3				
6. Emissions in Tons: Refer to Emission	-			
A. Actual Major:	_ Potential Major:	(1	note: before	e control device)
B. Actual Emissions: NOx	SOx	VOCP	M10	_HAPs

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## **SECTION 3A-87. EMISSIONS UNIT DESCRIPTIONS**

1. Emissions Unit No.: <b><i>D01-001</i></b>		2. MDE Regi 6-0329	stration No.	:(if applicable)
1a. Date of installation (month/year): 20	002	0-0327		
3. Detailed description of the emissions  **Blending Silo. Emission Point No. D0	_	ission point(s)	and the ass	igned number(s):
4. Federally Enforceable Limit on the Operal Reference:	perating Schedule for	this Emissions	s Unit: <i>N/A</i>	
Continuous Processes:	hours/day	ċ	lays/year	
Batch Processes:	hours/batch		batches/day	7
	days/year			
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.	% Sulfur		Annual Usa	age (specify units)
3				
6. Emissions in Tons: Refer to Emission	ns Certification Repo	ort on electroni	ic copy of A	pplication
A. Actual Major:	-			
B. Actual Emissions: NOx	sSOx	VOCF	PM10	_ HAPs

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## SECTION 3A-88. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b>D01-002</b>		2. MDE Registration No. <b>6-0329</b>	:(if applicable)
1a. Date of installation (month/year): 200	92	0 002	
3. Detailed description of the emissions u	ınit, including all em	nission point(s) and the ass	igned number(s):
Recirculation Airslide. Emission Point	No. D01-037		
4. Federally Enforceable Limit on the Op	perating Schedule for	this Emissions Unit: <i>N/A</i>	
General Reference:  Continuous Processes:	hours/day	dovalvoor	
	hours/day	• •	_
Batch Processes:	hours/batch	batches/day	
	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel	% Sulfur	Annual Usa	age (specify units)
1			
2			
3			_
6. Emissions in Tons: Refer to Emission	s Certification Repo	ort on electronic copy of A	pplication
A. Actual Major:	_ Potential Major:	(note: before	e control device)
B. Actual Emissions: NOx	SOx	VOCPM10	_ HAPs

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### **SECTION 3A-89. EMISSIONS UNIT DESCRIPTIONS**

1. Emissions Unit No.: <b><i>D01-003</i></b>		2. MDE Registration <b>6-0329</b>	No.:(if applicable)
1a. Date of installation (month/yea	ar): 2002	0 0327	
3. Detailed description of the emis Recirculation Airslide. Emission	_	L nission point(s) and the	e assigned number(s):
4. Federally Enforceable Limit on General Reference:	the Operating Schedule fo	r this Emissions Unit:	N/A
Continuous Processes:	hours/day	days/yea	ar
Batch Processes:	hours/batch	batches	s/day
	days/year		
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.	% Sulfur		Usage (specify units)
3			
6. Emissions in Tons: Refer to Em	nissions Certification Rep	ort on electronic copy	of Application
A. Actual Major:	Potential Major:	(note: b	efore control device)
B. Actual Emissions:	NOxSOx	VOCPM10	HAPs

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# SECTION 3A-90. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b><i>D01-020</i></b>	2. MDE Registration No.:(if applicable) 6-0329
1a. Date of installation (month/year): 2002	0 0027
3. Detailed description of the emissions unit, including a	ll emission point(s) and the assigned number(s):
185 Metric Ton Feed Bin. Emission Point No. D01-03	34
4. Federally Enforceable Limit on the Operating Schedul	le for this Emissions Unit: <i>N/A</i>
General Reference:	
Continuous Processes:hours/da	aydays/year
Batch Processes:hours/bat	tchbatches/day
days/year	
5. Fuel Consumption: <i>N/A</i>	
Type(s) of Fuel % Sulfur	Annual Usage (specify units)
2	
J	
6. Emissions in Tons: Refer to Emissions Certification	Report on electronic copy of Application
A. Actual Major: Potential Maj	or:(note: before control device)
B. Actual Emissions: NOxSOx	VOCPM10 HAPs
General Reference:  Continuous Processes:  Batch Processes:  days/year  5. Fuel Consumption: N/A  Type(s) of Fuel  7. Sulfur  1. 2.  2. 3.	Annual Usage (specify units)  Report on electronic copy of Application  ior: (note: before control device)

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## SECTION 3A-91. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b>D02-004</b>		2. MDE Regi <b>6-0329</b>	stration No.	:(if applicable)
1a. Date of installation (month/year): 200	2	0 0327		
3. Detailed description of the emissions un Airslide. Emission Point No. D01-034	nit, including all em	ission point(s)	and the ass	igned number(s):
4. Federally Enforceable Limit on the Ope	erating Schedule for	this Emissions	s Unit: <i>N/A</i>	
General Reference:  Continuous Processes:	hours/day	ä	lava/voon	
Batch Processes:	hours/batch		lays/year	
Datcii Flocesses.	nours/batch		batches/day	,
	days/year			
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.	% Sulfur		Annual Usa	age (specify units)
3				
6. Emissions in Tons: <i>Refer to Emissions</i>	Certification Repo	ort on electroni	ic copy of A	pplication
A. Actual Major:	-			
B. Actual Emissions: NOx_				

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### SECTION 3A-92. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b><i>D02-006</i></b>		2. MDE Registratio <b>6-0329</b>	n No.:(if applicable)
1a. Date of installation (month/year): 2	2002	0-0329	
3. Detailed description of the emissions	s unit, including all em	ission point(s) and th	ne assigned number(s):
Flow meter. Emission Point No. D01	<i>1-034</i>		
4. Federally Enforceable Limit on the O	Operating Schedule for	this Emissions Unit:	N/A
General Reference:			
Continuous Processes:	hours/day	days/ye	ear
Batch Processes:	hours/batch	batche	es/day
	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel 1.	% Sulfur	Annua	al Usage (specify units)
2			
3			
J			
6. Emissions in Tons: Refer to Emission	•		• • •
A. Actual Major:			
B. Actual Emissions: NC	Ox SOx	VOCPM10_	HAPs

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## SECTION 3A-93. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b>D02-017</b>	2. MDE Registration No.:(if applicable) <b>6-0329</b>
1a. Date of installation (month/year): 2002	0-0327
3. Detailed description of the emissions unit, including	g all emission point(s) and the assigned number(s):
Airslide. Emission Point No. D01-034	
	11.6.4.5.1.1.1.2.37/4
4. Federally Enforceable Limit on the Operating Scho General Reference:	edule for this Emissions Unit: N/A
	s/daydays/year
	/batchbatches/day
days/y	rear
5. Fuel Consumption: <i>N/A</i>	
Type(s) of Fuel % Sulfi	Annual Usage (specify units)
1	
2	
3	
6. Emissions in Tons: Refer to Emissions Certificati	on Report on electronic copy of Application
A. Actual Major: Potential	Major:(note: before control device)
B. Actual Emissions: NOxSOx_	VOCPM10 HAPs

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## SECTION 3A-94. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b>D02-019</b>		2. MDE Registration No.:(if applicable) 6-0329
1a. Date of installation (month/year): 2002	2	
3. Detailed description of the emissions un	nit, including all em	nission point(s) and the assigned number(s):
Flow meter. Emission Point No. D01-03	84	
4. Federally Enforceable Limit on the Ope	rating Schedule for	this Emissions Unit: N/A
General Reference:  Continuous Processes:	h ours/dox	days/year
	hours/day	• •
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: <i>N/A</i>		
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)
1		
2		
3		
6. Emissions in Tons: Refer to Emissions	Certification Repo	ort on electronic copy of Application
A. Actual Major:	Potential Major:	(note: before control device)
B. Actual Emissions: NOx_	SOx	VOCPM10HAPs

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## SECTION 3A-95. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b>D01-023</b>		2. MDE Registration No.:(if applicable) 6-0329	)
1a. Date of installation (month/year): 2002		0-0327	
3. Detailed description of the emissions unit	t, including all em	nission point(s) and the assigned number(	s):
Airslide. Emission Point No. D01-040			
4. Federally Enforceable Limit on the Opera	ating Schedule for	this Emissions Unit: <i>N/A</i>	
General Reference:			
Continuous Processes:	hours/day	days/year	
Batch Processes:	hours/batch	batches/day	
	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel	% Sulfur	Annual Usage (specify un	its)
2			
2			
3			
6. Emissions in Tons: Refer to Emissions C	Certification Repo	ort on electronic copy of Application	
A. Actual Major: I	Potential Major:	(note: before control device	e)
B. Actual Emissions: NOx	SOx	VOCPM10HAPs	_

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### **SECTION 3A-96. EMISSIONS UNIT DESCRIPTIONS**

1. Emissions Unit No.: <b><i>D01-026</i></b>		2. MDE Registration <b>6-0329</b>	No.:(if applicable)
1a. Date of installation (month/yea	ar): <b>2002</b>	0-0327	
3. Detailed description of the emis Airslide. Emission Point No. D0	_	L nission point(s) and the	e assigned number(s):
4. Federally Enforceable Limit on	the Operating Schedule for	r this Emissions Unit:	N/A
General Reference:			
Continuous Processes:	hours/day	days/yea	
Batch Processes:	hours/batch	batches	s/day
	days/year		
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.	% Sulfur		Usage (specify units)
3			
6. Emissions in Tons: <i>Refer to En</i>	nissions Certification Repo	ort on electronic copy	of Application
A. Actual Major:	Potential Major:	(note: b	efore control device)
B. Actual Emissions:	NOxSOx	VOCPM10	HAPs

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## **SECTION 3A-97. EMISSIONS UNIT DESCRIPTIONS**

1. Emissions Unit No.: <b>D02-007</b>		2. MDE Registration No.:(if applicable) <b>6-0329</b>
1a. Date of installation (month/year): 2002		0-0327
3. Detailed description of the emissions unit	t, including all em	ission point(s) and the assigned number(s):
Airslide. Emission Point No. D01-040	_	-
4. Federally Enforceable Limit on the Opera	ating Schedule for	this Emissions Unit: <i>N/A</i>
General Reference:		
Continuous Processes:	hours/day	a ,
	nours/day	days/year
Batch Processes:	hours/batch	days/year batches/day
	•	
Batch Processes:	hours/batch	
	hours/batch	
5. Fuel Consumption: N/A Type(s) of Fuel 1.	hours/batch days/year % Sulfur	batches/day  Annual Usage (specify units)
Batch Processes:  5. Fuel Consumption: N/A	hours/batch days/year % Sulfur	batches/day  Annual Usage (specify units)
5. Fuel Consumption: N/A Type(s) of Fuel 1.	hours/batch days/year % Sulfur	batches/day  Annual Usage (specify units)
5. Fuel Consumption: N/A Type(s) of Fuel  1. 2.	hours/batchdays/year  % Sulfur	batches/day Annual Usage (specify units)
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1. 2. 3. 6. Emissions in Tons: <i>Refer to Emissions Consumptions (Page 1988)</i>	hours/batchdays/year % Sulfur Certification Repo	batches/day  Annual Usage (specify units)  ort on electronic copy of Application
5. Fuel Consumption: N/A Type(s) of Fuel  1. 2. 3. 6. Emissions in Tons: Refer to Emissions C A. Actual Major:	hours/batchdays/year % Sulfur  Certification Reported Potential Major:	batches/day Annual Usage (specify units)

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### SECTION 3A-98. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b>D02-020</b>		2. MDE Registration N <b>6-0329</b>	No.:(if applicable)
1a. Date of installation (month/year): 2002			
3. Detailed description of the emissions unit.	, including all em	ission point(s) and the a	ssigned number(s):
Airslide. Emission Point No. D01-040			
4. Federally Enforceable Limit on the Opera	ting Schedule for	this Emissions Unit: A	//A
General Reference:  Continuous Processes:	hours/day	dovalvoor	
	hours/day	days/year	lov
Batch Processes:	hours/batch	batches/d	iay
	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel	% Sulfur	Annual U	Jsage (specify units)
2			
2			
3			
6. Emissions in Tons: Refer to Emissions C	ertification Repo	rt on electronic copy o	f Application
A. Actual Major: P			
B. Actual Emissions: NOx	SOx	VOCPM10	HAPs

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# SECTION 3A-99. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b>D02-010</b>		2. MDE Registration No.:(if ap <b>6-0329</b>	oplicable)
1a. Date of installation (month/year): 2002			
3. Detailed description of the emissions unit	t, including all em	ission point(s) and the assigned	number(s):
Airslide. Emission Point No. D02-041			
4. Federally Enforceable Limit on the Opera	ating Schedule for	this Emissions Unit: <i>N/A</i>	
General Reference:  Continuous Processes:	hours/dox	dovalvoor	
	hours/day	• •	
Batch Processes:	hours/batch	batches/day	
	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel	% Sulfur	Annual Usage (sp	pecify units)
2			_
2			_
3			-
6. Emissions in Tons: <i>Refer to Emissions C</i>	Certification Repo	ort on electronic copy of Applic	ation
		(note: before cont	
B. Actual Emissions: NOx	SOx	VOCPM10HAF	Ps

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### SECTION 3A-100. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b>D02-023</b>	2. MDE Registration No.:(if applicable) <b>6-0329</b>
1a. Date of installation (month/year): 2002	0-0327
3. Detailed description of the emissions unit, including	all emission point(s) and the assigned number(s):
Airslide. Emission Point No. D02-041	
4. Federally Enforceable Limit on the Operating Schedu	ule for this Emissions Unit: <i>N/A</i>
General Reference:	
Continuous Processes: hours/o	days/yeardays/year
Batch Processes:hours/b	atchbatches/day
days/yea	nr
5. Fuel Consumption: <i>N/A</i>	
Type(s) of Fuel % Sulfur	Annual Usage (specify units)
2	_
2	
3	
6. Emissions in Tons: Refer to Emissions Certification	Report on electronic copy of Application
A. Actual Major: Potential Ma	ajor:(note: before control device)
B. Actual Emissions: NOxSOx	VOCPM10HAPs

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### SECTION 3A-101. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b><i>D02-049</i></b>		2. MDE Registration N 6-0329	o.:(if applicable)
1a. Date of installation (month/year):	2002	0-0327	
3. Detailed description of the emission Airslide. Emission Point No. D02-04	_	ission point(s) and the as	ssigned number(s):
4. Federally Enforceable Limit on the General Reference:	Operating Schedule for	this Emissions Unit: <i>N</i>	/A
Continuous Processes:	hours/day	days/year	
Batch Processes:	hours/batch	batches/d	ay
	days/year		
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.	% Sulfur	Annual U	sage (specify units)
2			
3			
6. Emissions in Tons: Refer to Emissi			
		(note: befo	
B. Actual Emissions: No	Ox SOx	VOCPM10	HAPs

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### SECTION 3A-102. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b>D02-025</b>		2. MDE Registration No.:(if applicable) <b>6-0329</b>
1a. Date of installation (month/year): 2002		0-0329
3. Detailed description of the emissions unit The primary use of the Bucket Elevator is to D02-027	,	1 ()
4. Federally Enforceable Limit on the Oper General Reference:	rating Schedule for	this Emissions Unit: <i>N/A</i>
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1. 2. 3.		
	Potential Major:	rt on electronic copy of Application  (note: before control device)  VOCPM10HAPs

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## SECTION 3A-103. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b>D02-026</b>		2. MDE Registration No.:(if applicable) 6-0329
1a. Date of installation (month/year): 200.	2	0-0329
3. Detailed description of the emissions un The primary use of the Bucket Elevator is D02-027	_	ission point(s) and the assigned number(s): ials. Emission Point No. D02-041 and
4. Federally Enforceable Limit on the Ope General Reference:	erating Schedule for	this Emissions Unit: <i>N/A</i>
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: N/A Type(s) of Fuel  1. 2. 3.		
6. Emissions in Tons: <i>Refer to Emissions</i> A. Actual Major:	-	nt on electronic copy of Application (note: before control device)
B. Actual Emissions: NOx_	SOx	VOCPM10HAPs

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## SECTION 3A-104. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b>D02-033</b>	2. MDE Registration No.:(if applicable) 6-0329
1a. Date of installation (month/year): 2002	0-032)
3. Detailed description of the emissions unit, including Airslide. Emission Point No. D02-027	g all emission point(s) and the assigned number(s):
4. Federally Enforceable Limit on the Operating Sche	dule for this Emissions Unit: <i>N/A</i>
General Reference:	
Continuous Processes:hours	/daydays/year
Batch Processes: hours/	batchbatches/day
days/y	ear
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel % Sulfu  1.	
2. 3.	
6. Emissions in Tons: Refer to Emissions Certification	on Report on electronic copy of Application
A. Actual Major: Potential N	fajor:(note: before control device)
B. Actual Emissions: NOxSOx_	VOCPM10HAPs

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### SECTION 3A-105. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b>D02-045</b>		2. MDE Regis 6-0329	stration No.	:(if applicable)
1a. Date of installation (month/year): 200	92	0 0327		
3. Detailed description of the emissions to Airslide. Emission Point No. D02-027	unit, including all em	ission point(s)	and the ass	igned number(s):
4. Federally Enforceable Limit on the Op General Reference:	perating Schedule for	this Emissions	Unit: N/A	
Continuous Processes:	hours/day	d	ays/year	
Batch Processes:	hours/batch	1	batches/day	7
	days/year			
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.	% Sulfur		Annual Usa	age (specify units)
3				
6. Emissions in Tons: <i>Refer to Emission</i>	s Certification Repo	ort on electroni	c copy of A	pplication
A. Actual Major:	-			
B. Actual Emissions: NOx	SOx	VOCP	M10	_ HAPs

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## SECTION 3A-106. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b>D02-047</b>		2. MDE Registration <i>6-0329</i>	No.:(if applicable)
1a. Date of installation (month/year): 200	2	0 002/	
3. Detailed description of the emissions un	nit, including all em	ission point(s) and the	assigned number(s):
Airslide. Emission Point No. D02-027			
4. Federally Enforceable Limit on the Ope	erating Schedule for	this Emissions Unit:	N/A
General Reference:			
Continuous Processes:	hours/day	days/yea	r
Batch Processes:	hours/batch	batches	/day
	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel	% Sulfur	Annual	Usage (specify units)
2			_
3			
6. Emissions in Tons: <i>Refer to Emissions</i>	_		
<ul><li>A. Actual Major:</li><li>B. Actual Emissions: NOx_</li></ul>			
B. Actual Limssions. IVOA_	50A	1 1/110	11/11 5

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## SECTION 3A-107. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>E01-001</i>		2. MDE Registration No.:(if applicable)
1a. Date of installation (month/year): 2001		6-0256
3. Detailed description of the emissions unit The Kiln processes the following raw mate iron bearing raw materials. This unit assis	erials: calcium be	earing, silica bearing, alumina bearing, and
Emission Point No. C04-014; Kiln also equ System for mercury control and a SNCR s		, , ,
4. Federally Enforceable Limit on the Opera General Reference:	ting Schedule for	this Emissions Unit: <i>N/A</i>
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: For all Area E source	es, based on actu	al data for 2019
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)
1. Coal	N/A	217,745.9 short tons
2. Oil	N/A	822,970.7 gallons
3. Petroleum Coke	N/A	As needed
4. Used Oil Generated Onsite	N/A	As needed
5. Scrap Tires	N/A	As needed
6. Dupps Material	N/A	As necessary
7. Dried Biosolids	N/A	As needed
6. Emissions in Tons: <i>Refer to Emissions C</i>	ortification Rona	ort on electronic conv of Application
· ·	_	(note: before control device)
		VOCPM10HAPs

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## SECTION 3A-108. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>E02-001</i>		2. MDE Registration No.:(if applicable)
1a. Date of installation (month/year): 200	01	6-0256
3. Detailed description of the emissions u	nit, including all em	nission point(s) and the assigned number(s):
_	•	terials: calcium bearing, silica bearing, it assists in creating clinker as a finished
Emission Point No. C04-014; Kiln also e System for mercury control and a SNCR		· · · · · · · · · · · · · · · · · · ·
System for mercury control and a Siven	system for NOX co.	nu vi.
4. Federally Enforceable Limit on the Op	erating Schedule for	this Emissions Unit: <i>N/A</i>
General Reference:		
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: For all Area E sou	urces, based on actu	nal data for 2019
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)
1. Coal	N/A	217,745.9 short tons
2. Oil	N/A	822,970.7 gallons
3. Petroleum Coke	N/A	As needed
4. <u>Used Oil Generated Onsite</u>	N/A	As needed
5. Scrap Tires	N/A	As needed
<ul><li>6. Dupps Material</li><li>7. Dried Biosolids</li></ul>	N/A N/A	As necessary As needed
6. Emissions in Tons: <i>Refer to Emissions</i>		
		(note: before control device)
D A -41 E11 NO		
B. Actual Emissions: NOx_	SOx	VOCPM10 HAPs
B. Actual Emissions: NOx_	SOx	VOCPM10HAPs

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## SECTION 3A-109. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>E03-001</i>		2. MDE Registration No.:(if applicable) 6-0256
1a. Date of installation (month/year): 20	01	0-0230
3. Detailed description of the emissions u	unit, including all em	nission point(s) and the assigned number(s):
The Clinker Cooler processes clinker fa	rom the Kiln and Pr	eheater/Precalciner System.
Emission Point No. E04-016		
4. Federally Enforceable Limit on the Op	perating Schedule for	this Emissions Unit: <i>N/A</i>
General Reference:		
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: <i>N/A</i>		
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)
2		·
2		
3		
6. Emissions in Tons: Refer to Emission	s Certification Repo	ort on electronic copy of Application
A. Actual Major:	_ Potential Major:	(note: before control device)
B. Actual Emissions: NOx	SOx	VOCPM10HAPs

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## SECTION 3A-110. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>F01-034</i>		2. MDE Reg <b>6-0330</b>	istration No	::(if applicable)
1a. Date of installation (month/year): 197	70	0-0330		
3. Detailed description of the emissions u	_			igned number(s):
The primary use of the Belt Conveyor #11	1/14 is transferring o	clinker and rav	w materials.	
4. Federally Enforceable Limit on the Ope	erating Schedule for	this Emission	ns Unit: <i>N/A</i>	
General Reference:				
Continuous Processes:	hours/day		days/year	
Batch Processes:	hours/batch		_batches/day	7
	days/year			
5. Fuel Consumption: <i>N/A</i>				
Type(s) of Fuel 1.	% Sulfur		Annual Usa	age (specify units)
2				
3				
6. Emissions in Tons: <i>Refer to Emissions</i>	S Certification Repo	ort on electron	ic copy of A	pplication
A. Actual Major:	-			
B. Actual Emissions: NOx_	SOx	VOC	PM10	_HAPs

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## SECTION 3A-111. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>F01-037</i>	2. MDE R <b>6-0330</b>	egistration No.:(if applicable)
1a. Date of installation (month/year): 1970	0-0330	
3. Detailed description of the emissions unit, inc	luding all emission poin	c(s) and the assigned number(s):
The primary use of the Belt Conveyor #11/14 is t	ransferring raw materia	ls.
4. Federally Enforceable Limit on the Operating	Schedule for this Emiss	ions Unit: <i>N/A</i>
General Reference:		
Continuous Processes:	hours/day	_days/year
Batch Processes:	ours/batch	batches/day
d	ays/year	
5. Fuel Consumption: <i>N/A</i>		
Type(s) of Fuel %	Sulfur	Annual Usage (specify units)
1		
2		
3		
6. Emissions in Tons: Refer to Emissions Certif	ication Report on electr	onic copy of Application
	4	
A. Actual Major: Poter	-	(note: before control device)
A. Actual Major: Poter B. Actual Emissions: NOx	tial Major:	

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## SECTION 3A-112. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: SP2		2. MDE Registr <b>6-0330</b>	ation No.:(if applicable)
1a. Date of installation (month/year): 200	92		
3. Detailed description of the emissions u Coal Storage Pile.	nit, including all em	ission point(s) an	nd the assigned number(s):
4. Federally Enforceable Limit on the Operation of the Op	erating Schedule for	this Emissions U	Unit: <i>N/A</i>
Continuous Processes:	hours/day	day	rs/year
Batch Processes:	hours/batch	ba	tches/day
	days/year		
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.	% Sulfur		nnual Usage (specify units)
3			
6. Emissions in Tons: Refer to Emissions	s Certification Repo	ort on electronic o	copy of Application
A. Actual Major:	Potential Major:	(no	te: before control device)
B. Actual Emissions: NOx_	SOx	VOCPM	10HAPs

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## SECTION 3A-113. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: SP3	2. MDE Registration No.:(if applicable) <b>6-0330</b>
1a. Date of installation (month/year): 2002	
3. Detailed description of the emissions unit, including all e <i>Coal Storage Pile</i> .	mission point(s) and the assigned number(s):
4. Federally Enforceable Limit on the Operating Schedule for Canaral References	or this Emissions Unit: <i>N/A</i>
General Reference:  Continuous Processes: hours/day	days/year
Batch Processes: hours/batch	batches/day
days/year	
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel % Sulfur  1	Annual Usage (specify units)
2	
3	
6. Emissions in Tons: Refer to Emissions Certification Rep	oort on electronic copy of Application
A. Actual Major: Potential Major:	(note: before control device)
B. Actual Emissions: NOxSOx	VOCPM10HAPs

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## SECTION 3A-114. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: TT2		2. MDE Regi 6-0330	stration No	:(if applicable)
1a. Date of installation (month/year): 20	002			
3. Detailed description of the emissions <i>Transfer Tower #2</i> .	unit, including all em	ission point(s)	and the ass	igned number(s):
4. Federally Enforceable Limit on the Officeral Reference:	perating Schedule for	this Emissions	s Unit: <i>N/A</i>	1
Continuous Processes:	hours/day	d	lays/year	
Batch Processes:	hours/batch		batches/day	<i>I</i>
	days/year			
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1  2			Annual Usa	nge (specify units)
3				
6. Emissions in Tons: Refer to Emission	ns Certification Repo	ort on electroni	ic copy of A	pplication
A. Actual Major:	_ Potential Major:_	(	note: before	e control device)
B. Actual Emissions: NOx	SOx	VOCP	PM10	_HAPs

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## SECTION 3A-115. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>TU2</i>	2. MDE Registration No.:(if applicable) <b>6-0330</b>
1a. Date of installation (month/year): 2002	0-0330
3. Detailed description of the emissions unit, including	all emission point(s) and the assigned number(s):
Truck Unloading.	
4. Federally Enforceable Limit on the Operating Schedu	ale for this Emissions Unit: <i>N/A</i>
General Reference:	
Continuous Processes: hours/d	laydays/year
Batch Processes: hours/ba	atchbatches/day
days/yea	ur
5. Fuel Consumption: <i>N/A</i>	
Type(s) of Fuel % Sulfur	Annual Usage (specify units)
2	_
2	
3	
6. Emissions in Tons: Refer to Emissions Certification	Report on electronic copy of Application
A. Actual Major: Potential Ma	ajor:(note: before control device)
B. Actual Emissions: NOxSOx	VOCPM10 HAPs

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## SECTION 3A-116. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>F02-006</i>		2. MDE Regi	istration No.	:(if applicable)
1a. Date of installation (month/year): 20	02	0-0330		
3. Detailed description of the emissions of Reclaim Elevator. Emission Point No.	_	nission point(s)	and the ass	igned number(s):
4. Federally Enforceable Limit on the Option General Reference:	perating Schedule for	this Emission	s Unit: <i>N/A</i>	
Continuous Processes:	hours/day		lays/year	
Batch Processes:	hours/batch		_batches/day	7
	days/year			
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.	% Sulfur		Annual Usa	age (specify units)
2				
6. Emissions in Tons: Refer to Emission	s Certification Repo	ort on electron	ic copy of A	pplication
A. Actual Major:	_ Potential Major:_	(	(note: before	e control device)
B. Actual Emissions: NOx	SOx	VOCI	PM10	_ HAPs

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## SECTION 3A-117. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>F02-018</i>		2. MDE Registration N <b>6-0330</b>	o.:(if applicable)
1a. Date of installation (month/year):	2002		
3. Detailed description of the emission	ons unit, including all em	ission point(s) and the as	signed number(s):
The primary use of the Belt Conveyor	r is transferring clinker.		
4. Federally Enforceable Limit on the	Onerating Schedule for	this Emissions Unit: <i>N</i>	'A
General Reference:	o operacing senedure for	tins Limstons Cinc. 17,	
Continuous Processes:	hours/day	days/year	
Batch Processes:	hours/batch	batches/da	ny
-	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel	% Sulfur	Annual U	sage (specify units)
Type(s) of Fuel 1			sage (specify units)
Type(s) of Fuel 1 2			sage (specify units)
Type(s) of Fuel 1			sage (specify units)
Type(s) of Fuel  1  2  3  6. Emissions in Tons: <i>Refer to Emiss</i>	sions Certification Repo	ort on electronic copy of	Application
Type(s) of Fuel  1  2  3  6. Emissions in Tons: <i>Refer to Emiss</i> A. Actual Major:	sions Certification Repo		Application re control device)

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### SECTION 3A-118. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>F03-001</i>		2. MDE Reg <b>6-0330</b>	istration No	::(if applicable)
1a. Date of installation (month/year): 200	02	0 0330		
3. Detailed description of the emissions u	unit, including all em	ission point(s)	) and the ass	igned number(s):
The primary use of the Belt Conveyor is t	ransferring clinker	and raw matei	rials.	
4. Federally Enforceable Limit on the Op	erating Schedule for	this Emission	ns Unit: N/A	1
General Reference:				
Continuous Processes:	hours/day		days/year	
Batch Processes:	hours/batch		_batches/day	7
	days/year			
5. Fuel Consumption: <i>N/A</i>				
Type(s) of Fuel	% Sulfur		Annual Usa	nge (specify units)
2				
3				
J				
6. Emissions in Tons: Refer to Emission	-			
A. Actual Major:				
B. Actual Emissions: NOx_	SOx	VOC	PM10	_HAPs

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## SECTION 3A-119. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>F03-002</i>		2. MDE Registration No 6-0330	o.:(if applicable)
1a. Date of installation (month/year): 26	002		
3. Detailed description of the emissions Coal Bin Weigh Feeder.	unit, including all em	nission point(s) and the ass	signed number(s):
4. Federally Enforceable Limit on the O General Reference:	perating Schedule for	r this Emissions Unit: <i>N/</i> 2	4
Continuous Processes:	hours/day	days/year	
Batch Processes:	hours/batch	batches/da	y
	days/year		
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.	% Sulfur		age (specify units)
3			
6. Emissions in Tons: Refer to Emission	ns Certification Repo	ort on electronic copy of A	Application
A. Actual Major:	Potential Major:	(note: before	re control device)
B. Actual Emissions: NOx	sOx	VOCPM10	HAPs

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## SECTION 3A-120. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>F03-003</i>		2. MDE Registration <i>6-0330</i>	n No.:(if applicable)
1a. Date of installation (month/year): 2	2002		
3. Detailed description of the emission	s unit, including all em	nission point(s) and the	e assigned number(s):
Coke Bin Weigh Feeder.			
4. Federally Enforceable Limit on the G	Operating Schedule for	r this Emissions Unit:	N/A
General Reference:			
Continuous Processes:	hours/day	days/ye	ar
Batch Processes:	hours/batch	batche	s/day
	days/year		
5. Fuel Consumption: N/A			
Type(s) of Fuel  1.	% Sulfur	Annua	l Usage (specify units)
2			
3			
6. Emissions in Tons: <i>Refer to Emission</i>	ons Certification Repo	ort on electronic copy	of Application
A. Actual Major:		= -	
B. Actual Emissions: NO			

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## SECTION 3A-121. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>F02-007</i>		2. MDE Registration N 6-0330	o.:(if applicable)
1a. Date of installation (month/yea	ar): <b>2002</b>	0 0330	
3. Detailed description of the emis <i>Belt Conveyer</i> .	ssions unit, including all en	l nission point(s) and the a	ssigned number(s):
4. Federally Enforceable Limit on General Reference:	the Operating Schedule for	r this Emissions Unit: <i>N</i>	/A
Continuous Processes:	hours/day	days/year	
Batch Processes:	hours/batch	batches/d	ay
	days/year		
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.	% Sulfur		sage (specify units)
3			
6. Emissions in Tons: Refer to En	nissions Certification Repo	ort on electronic copy of	Application
A. Actual Major:	Potential Major:	(note: befo	ore control device)
B. Actual Emissions:	NOxSOx	VOCPM10	HAPs

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# SECTION 3A-122. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: TT5		2. MDE Regine 6-0330	istration No.	:(if applicable)
1a. Date of installation (month/year): 2002	2	0 0330		
3. Detailed description of the emissions ur	_	ission point(s)	and the ass	igned number(s):
Transfer Tower #5. Emission Point No.	F 02-02 /			
4. Federally Enforceable Limit on the Ope	erating Schedule for	thic Emission	c I Init· N/4	1
General Reference:	rating senedule for	tills Ellission	s Omt. 1VA	
Continuous Processes:	hours/day	(	days/year	
Batch Processes:	hours/batch		_batches/day	7
	days/year			
5. Fuel Consumption: <i>N/A</i>				
Type(s) of Fuel  1.	% Sulfur		Annual Usa	nge (specify units)
2				
3				
6. Emissions in Tons: Refer to Emissions	Certification Repo	ort on electron	ic copy of A	pplication
A. Actual Major:	-			
B. Actual Emissions: NOx_	SOx	VOCI	PM10	_HAPs

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# SECTION 3A-123. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>F03-016</i>		2. MDE Registration No. <i>6-0330</i>	:(if applicable)
1a. Date of installation (month/year):	2001	0-0330	
3. Detailed description of the emission The Coal Mill System preprocesses con Emission Point No. F03-028, F03-03	al for use as a fuel in th	ne Kiln and Preheater/Prec	` ` `
4. Federally Enforceable Limit on the	Operating Schedule for	this Emissions Unit: N/A	
General Reference:			
Continuous Processes:	hours/day	days/year	
Batch Processes:	hours/batch	batches/day	
	days/year		
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1. 2. 3.			ge (specify units)
6. Emissions in Tons: Refer to Emissi	ions Certification Repo	ort on electronic copy of A	pplication
A. Actual Major:	Potential Major:	(note: before	control device)
B. Actual Emissions: No	Ox SOx	VOCPM10	HAPs

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# SECTION 3A-124. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b>F04-009</b>	2. M 6-03	IDE Registration No.:(if applicable)
1a. Date of installation (month/year): 2002		
3. Detailed description of the emissions unit, inc	luding all emission	n point(s) and the assigned number(s):
Pneumatic Pump for Fine Coal Dust Bin. Emis	sion Point No. F04	4-010
4. Federally Enforceable Limit on the Operating	Schedule for this	Emissions Unit: <i>N/A</i>
General Reference:	1 /1	
	hours/day	days/year
Batch Processes:	nours/batch	batches/day
d	ays/year	
5. Fuel Consumption: <i>N/A</i>		
Type(s) of Fuel %	Sulfur	Annual Usage (specify units)
2		
3		
<u> </u>		
6. Emissions in Tons: Refer to Emissions Certif	ication Report on	electronic copy of Application
		(note: before control device)
B. Actual Emissions: NOx	SOxVOC	PM10 HAPs

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## SECTION 3A-125. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>F04-018</i>	2. MDE Registration No.:(if applicable) <b>6-0330</b>
1a. Date of installation (month/year): 2002	0 0330
<del>-</del>	ling all emission point(s) and the assigned number(s):
Kiln Fuel Bin Pressure Relief. Emission Point No.	. C04-014
4. Federally Enforceable Limit on the Operating Sc	shadula for this Emissions Unit: N/A
General Reference:	fiedule for this Emissions Ont. 1VA
	urs/daydays/year
Batch Processes:hou	urs/batchbatches/day
days	s/year
5. Fuel Consumption: <i>N/A</i>	
Type(s) of Fuel % Sul	Ifur Annual Usage (specify units)
2	
3	
6. Emissions in Tons: Refer to Emissions Certifica	ation Report on electronic copy of Application
	al Major:(note: before control device)
B. Actual Emissions: NOxSO:	xVOCPM10HAPs

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# **SECTION 3A-126.** EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b>F04-026</b>		2. MDE Registration <i>6-0330</i>	No.:(if applicable)
1a. Date of installation (month/year): 26	002		
3. Detailed description of the emissions	unit, including all em	nission point(s) and the	assigned number(s):
Calciner Fuel Bin Pressure Relief. Emi	ission Point No. C04-0	014	
4. Federally Enforceable Limit on the C	nerating Schedule for	this Emissions Unit	N/A
General Reference:	perating senedare for	tins Emissions onic	1 1/21
Continuous Processes:	hours/day	days/yea	r
Batch Processes:	hours/batch	batches	/day
	days/year		
5. Fuel Consumption: N/A	0/ 2 10		
Type(s) of Fuel 1	% Sulfur	Annual	Usage (specify units)
2			
3			
6 Emissions in Tons. Pafer to Emission			
0. Ellissions in Tons: Rejer to Emissio	ns Certification Repo	ort on electronic copy o	of Application
A. Actual Major:			

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# SECTION 3A-127. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: TT8/9		2. MDE Regis <b>6-0125</b>	tration No.	:(if applicable)
1a. Date of installation (month/year): 20	004	0 0123		
3. Detailed description of the emissions  Transfer Tower #8/9. Emission Point N	=	= ' ' '	and the assi	gned number(s):
4. Federally Enforceable Limit on the Ogeneral Reference:	perating Schedule for	this Emissions	Unit: N/A	
Continuous Processes:	hours/day	da	ays/year	
Batch Processes:	hours/batch	t	oatches/day	
	days/year			
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.  3.			Annual Usa	ge (specify units)
6. Emissions in Tons: Refer to Emission	-			-
A. Actual Major:				
B. Actual Emissions: NOx	XSOX	VOCP	VI10	HAPs

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## SECTION 3A-128. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>TT6</i>		2. MDE Registration No.:(if applicable) 6-0125	
1a. Date of installation (month/yea	ar): <b>2004</b>	0 0123	
3. Detailed description of the emis  Transfer Tower #6. Emission Poi	_	nission point(s) and the assigned number(s)	):
4. Federally Enforceable Limit on General Reference:	the Operating Schedule for	r this Emissions Unit: <i>N/A</i>	
Continuous Processes:	hours/day	days/year	
Batch Processes:	hours/batch	batches/day	
	days/year		
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.	% Sulfur	Annual Usage (specify unit	ts)
3			
6. Emissions in Tons: Refer to En	nissions Certification Repo	ort on electronic copy of Application	
A. Actual Major:	Potential Major:	(note: before control device)	)
B. Actual Emissions:	NOxSOx	_VOCPM10HAPs	

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# SECTION 3A-129. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>G01-001</i>	2. MDE Registration No.:(if applicable) <b>6-0125</b>
1a. Date of installation (month/year): 2001	0-0123
3. Detailed description of the emissions unit, including all em	nission point(s) and the assigned number(s):
The primary use of the Main Pan Conveyor is for clinker t	ransfer. The Pan Conveyor transfers
clinker as a finished material. Emission Point No. E04-016	
4. Federally Enforceable Limit on the Operating Schedule for	this Emissions Unit: N/A
General Reference:	This Emissions Chiw 1771
Continuous Processes:hours/day	days/year
Batch Processes: hours/batch	batches/day
days/year	
5. Fuel Consumption: <i>N/A</i>	
Type(s) of Fuel % Sulfur	Annual Usage (specify units)
2	
<u> </u>	
6. Emissions in Tons: Refer to Emissions Certification Repo	
A. Actual Major: Potential Major:	
B. Actual Emissions: NOxSOx	VOCPM10HAPs
5. Fuel Consumption: N/A Type(s) of Fuel % Sulfur  1. 2. 3. 6. Emissions in Tons: Refer to Emissions Certification Report A. Actual Major: Potential Major:	ort on electronic copy of Application  (note: before control device)

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## SECTION 3A-130. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>G03-010</i>		2. MDE Registration No.:( 6-0125	if applicable)
1a. Date of installation (month/year): 200	01	0 0120	
3. Detailed description of the emissions u	ınit, including all em	ission point(s) and the assig	ned number(s):
The primary use of Clinker into Cranev	way is for clinker tro	unsfer. Emission Point No.	G03-011
4. Federally Enforceable Limit on the Op	perating Schedule for	this Emissions Unit: <i>N/A</i>	
General Reference:			
Continuous Processes:	hours/day		
Batch Processes:	hours/batch	batches/day	
	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel	% Sulfur	Annual Usag	e (specify units)
2			
2			
3			
6. Emissions in Tons: Refer to Emission	s Certification Repo	ort on electronic copy of Ap	plication
A. Actual Major:	_ Potential Major:	(note: before	control device)
B. Actual Emissions: NOx	SOx	VOCPM10	HAPs

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# SECTION 3A-131. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>CWAY</i>	2. MDE Registration No.:(if applicable) 6-0125
1a. Date of installation (month/year): 1970	0 0125
3. Detailed description of the emissions unit, including all em Craneway.	nission point(s) and the assigned number(s):
4. Federally Enforceable Limit on the Operating Schedule for General Reference:	this Emissions Unit: <i>N/A</i>
Continuous Processes: hours/day	days/year
Batch Processes:hours/batch	batches/day
days/year	
5. Fuel Consumption: N/A Type(s) of Fuel % Sulfur  1. 2. 3.	
6. Emissions in Tons: <i>Refer to Emissions Certification Repo</i> A. Actual Major: Potential Major:  B. Actual Emissions: NOx SOx	(note: before control device)

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# SECTION 3A-132. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b>SP6</b>		2. MDE Registration No.:(if applica 6-0125	ble)
1a. Date of installation (month/year): 20	15	0 0220	
3. Detailed description of the emissions to <i>Gypsum Stockpile</i> .	unit, including all em	nission point(s) and the assigned numb	per(s):
4. Federally Enforceable Limit on the Op General Reference:	perating Schedule for	r this Emissions Unit: <i>N/A</i>	
Continuous Processes:	hours/day	days/year	
Batch Processes:	hours/batch	batches/day	
	days/year		
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.	% Sulfur	Annual Usage (specify	units)
3			
6. Emissions in Tons: Refer to Emission	s Certification Repo	ort on electronic copy of Application	
A. Actual Major:	_ Potential Major:	(note: before control de	evice)
B. Actual Emissions: NOx	SOx	VOCPM10HAPs	

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# SECTION 3A-133. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>TU3</i>		2. MDE Registration <i>6-0125</i>	No.:(if applicable)
1a. Date of installation (month/year): 2	004	0 0120	
3. Detailed description of the emissions	s unit, including all em	nission point(s) and the	assigned number(s):
Gypsum Truck Unloading.			
4. Federally Enforceable Limit on the C	Operating Schedule for	this Emissions Unit:	N/A
General Reference:			
Continuous Processes:	hours/day	days/yea	r
Batch Processes:	hours/batch	batches	/day
	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel 1.	% Sulfur	Annual	Usage (specify units)
2			
3			
6. Emissions in Tons: <i>Refer to Emission</i>	ons Certification Repo	ort on electronic copy (	of Application
A. Actual Major:		= -	
B. Actual Emissions: NO	Ox SOx	VOCPM10	HAPs

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# SECTION 3A-134. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>G04-014</i>		2. MDE Registration <i>6-0125</i>	No.:(if applicable)
1a. Date of installation (month/year):	2001	0 0120	
3. Detailed description of the emissio	ns unit, including all em	nission point(s) and the	assigned number(s):
The primary use of the 450 Metric To	on Clinker Bin is for clin	iker storage. Emission	Point No. G04-011
4. Federally Enforceable Limit on the	Operating Schedule for	this Emissions Unit:	N/A
General Reference:			
Continuous Processes:	hours/day	days/yea	
		aays, y ca	r
Batch Processes:	hours/batch	batches	
Batch Processes:	•	-	
5. Fuel Consumption: <i>N/A</i>	hours/batch	-	
	hours/batch	batches	
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.	hours/batch days/year % Sulfur	batches	/day
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.	hours/batch days/year % Sulfur	batches Annual	/day
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.	hours/batch days/year % Sulfur	batches Annual	/day
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.  3.  6. Emissions in Tons: <i>Refer to Emiss</i>	hours/batch days/year % Sulfur  Sions Certification Repo	batches Annual  ort on electronic copy	Usage (specify units)  of Application
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel 1. 2. 3. 6. Emissions in Tons: <i>Refer to Emiss</i> A. Actual Major:	hours/batchdays/year  % Sulfur	batches Annual  ort on electronic copy (note: be	Usage (specify units)  of Application efore control device)

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# SECTION 3A-135. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>G04-020</i>		2. MDE Regis 6-0125	stration No.	:(if applicable)
1a. Date of installation (month/year): 2001		0 0120		
3. Detailed description of the emissions unit, incl	_			
The primary equipment type of the Belt Conveyor	r is clinker co	onveyance. Em	ission Poin	t No. G04-011
	G 1 1 1 C	4	TT 1. NT/	
4. Federally Enforceable Limit on the Operating General Reference:	Schedule for	this Emissions	s Unit: <i>N/A</i>	
	nours/day	d	lays/year	
	ours/batch		batches/day	,
da	ays/year		•	
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel % S	Sulfur		Annual Usa	ge (specify units)
1				
2				_
3				
6. Emissions in Tons: Refer to Emissions Certifi	ication Repo	rt on electroni	ic copy of A	pplication
A. Actual Major: Potent	-			
B. Actual Emissions: NOxS				

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# SECTION 3A-136. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>G04-010</i>		2. MDE Registration No.:(if applicable) 6-0125
1a. Date of installation (month/year): 2	2001	0-0123
3. Detailed description of the emission	s unit, including all em	ission point(s) and the assigned number(s):
The primary use of the Bucket Elevan	tor is to transfer clink	er. Emission Point No. G04-011
4. Federally Enforceable Limit on the G	Operating Schedule for	this Emissions Unit: <i>N/A</i>
General Reference:		
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: <i>N/A</i>		
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)
1		
2		
3		
6. Emissions in Tons: Refer to Emission	ons Certification Repo	rt on electronic copy of Application
A. Actual Major:	Potential Major:	(note: before control device)
B. Actual Emissions: NO	Ox SOx	VOCPM10HAPs

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# SECTION 3A-137. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>G04-009</i>		2. MDE Registration No	o.:(if applicable)
1a. Date of installation (month/year): 2	2002	6-0125	
3. Detailed description of the emission	s unit, including all em	ission point(s) and the ass	signed number(s):
The primary use of the Belt Conveyor	is transferring clinker.	Emission Point No. G04	-034
4. Federally Enforceable Limit on the	Operating Schedule for	this Emissions Unit: N/A	4
General Reference:			
Continuous Processes:	hours/day	days/year	
Batch Processes:	hours/batch	batches/da	y
	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel	% Sulfur	Annual Us	age (specify units)
1			
2			
3			
6. Emissions in Tons: Refer to Emissi	ons Certification Repo	rt on electronic copy of A	Application
A. Actual Major:	Potential Major:	(note: befor	re control device)
B. Actual Emissions: No	Ox SOx	VOCPM10	HAPs

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## SECTION 3A-138. EMISSIONS UNIT DESCRIPTIONS

		2. MDE Registration No.:(if applicable) <b>6-0125</b>
1a. Date of installation (month/year):	2002	V V120
3. Detailed description of the emission	ns unit, including all em	ission point(s) and the assigned number(s):
Belt Feeder. Emission Point No. G04	1-034	
4. Federally Enforceable Limit on the	Operating Schedule for	this Emissions Unit: N/A
General Reference:	operating semetative re-	VIII EIIII EIII EIII I I I I I I I I I I
~		
Continuous Processes:	hours/day	days/year
Continuous Processes:  Batch Processes:	hours/day hours/batch	days/year batches/day
	•	• •
	hours/batch	• •
Batch Processes:	hours/batch	• •
5. Fuel Consumption: N/A Type(s) of Fuel  1.	hours/batchdays/year  % Sulfur	batches/day  Annual Usage (specify units)
5. Fuel Consumption: N/A Type(s) of Fuel  1. 2.	hours/batch days/year % Sulfur	batches/day  Annual Usage (specify units)
5. Fuel Consumption: N/A Type(s) of Fuel  1.	hours/batch days/year % Sulfur	batches/day  Annual Usage (specify units)
Batch Processes:  5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1. 2. 3. 6. Emissions in Tons: <i>Refer to Emiss</i>	hours/batchdays/year  % Sulfur  ions Certification Repo	batches/day  Annual Usage (specify units)  ort on electronic copy of Application
5. Fuel Consumption: N/A Type(s) of Fuel  1. 2. 3. 6. Emissions in Tons: Refer to Emiss A. Actual Major:	hours/batchdays/year  % Sulfur  ions Certification Repo	batches/day Annual Usage (specify units)

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# SECTION 3A-139. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>G04-056</i>		2. MDE Reg 6-0125	istration No	::(if applicable)
1a. Date of installation (month/year): 200	92	0-0123		
3. Detailed description of the emissions un 100 Metric Ton Clinker Bin Weighfeeder	_		) and the ass	igned number(s):
4. Federally Enforceable Limit on the Op	erating Schedule for	this Emission	s Unit: <i>N/A</i>	1
General Reference:				
Continuous Processes:	hours/day		days/year	
Batch Processes:	hours/batch		_batches/day	7
	days/year			
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.			Annual Usa	age (specify units)
3				-
6. Emissions in Tons: Refer to Emission.	s Certification Repo	ort on electron	ic copy of A	<i><b>Ipplication</b></i>
A. Actual Major:	-			
B. Actual Emissions: NOx_				

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## SECTION 3A-140. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>G04-058</i>		. MDE Registration 5-0125	No.:(if applicable)
1a. Date of installation (month/year): 2002		0123	
3. Detailed description of the emissions unit, inclu	ıding all emis	sion point(s) and the	e assigned number(s):
Clinker Bin, H01-006 Belt. Emission Point No. 1	H01-210		
4. Federally Enforceable Limit on the Operating S	chedule for th	nis Emissions Unit:	N/A
General Reference:			
Continuous Processes: ho	ours/day _	days/ye	ar
Batch Processes: ho	ours/batch	batches	s/day
day	ys/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel % Su	ulfur	Annua	Usage (specify units)
2			
3			
6. Emissions in Tons: <i>Refer to Emissions Certific</i>	ration Panout	on alactronia com	of Application
A. Actual Major: Potenti	-		• • •
B. Actual Emissions: NOxSO			

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## SECTION 3A-141. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>G04-059</i>		2. MDE Regi 6-0125	istration No.	:(if applicable)
1a. Date of installation (month/year): 200	92	0-0123		
3. Detailed description of the emissions to H01-015 Clinker Feeder, G04-018 Belt	_		and the ass	igned number(s):
4. Federally Enforceable Limit on the Op General Reference:	perating Schedule for	this Emission	s Unit: <i>N/A</i>	
Continuous Processes:	hours/day	(	days/year	
Batch Processes:	hours/batch		_batches/day	7
	days/year			
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.  3.			Annual Usa	age (specify units)
6. Emissions in Tons: <i>Refer to Emission</i>	-			
A. Actual Major:				
B. Actual Emissions: NOx	SOx	VOCI	PM10	_HAPs

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## SECTION 3A-142. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>G01-012</i>		2. MDE Regis <b>6-0125</b>	tration No.	c(if applicable)
1a. Date of installation (month/year): 2002		0 0123		
3. Detailed description of the emissions uni	t, including all em	ission point(s) a	and the assi	gned number(s):
Clinker Storage Silo. Emission Point No. G	501-009			
4. Federally Enforceable Limit on the Oper	rating Schedule for	this Emissions	Unit: N/A	
General Reference:				
Continuous Processes:	hours/day	da	ays/year	
Batch Processes:	hours/batch	t	oatches/day	
	days/year			
5. Fuel Consumption: <i>N/A</i>				
Type(s) of Fuel	% Sulfur	F	Annual Usa	ge (specify units)
2				_
3				
6 Emissions in Tons: Defents Emissions	Cautification Dans	out are alcotucation	2 aanu of 1	nnligation
6. Emissions in Tons: <i>Refer to Emissions</i> 6. A. Actual Major:	-			· <del>-</del>
B. Actual Emissions: NOx				

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# SECTION 3A-143. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>G02-002</i>		2. MDE Registration No.:(if applicable) 6-0125	
1a. Date of installation (month/year):	2002	0 0120	
3. Detailed description of the emission Transfer Tower #11, #12, #13 Belt Co	_	nission point(s) and the assigned number(s):  nt No. G02-047, G02-044, G02-021	
4. Federally Enforceable Limit on the	Operating Schedule for	r this Emissions Unit: <i>N/A</i>	
General Reference:	1 /1		
Continuous Processes:	hours/day		
Batch Processes:	hours/batch	batches/day	
	days/year		
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel	% Sulfur	Annual Usage (specify units	
1			
2			)
۷			) _
3			) — —
			) 
Emissions in Tons: <i>Refer to Emiss</i>	ions Certification Repo		) _ 

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# SECTION 3A-144. EMISSIONS UNIT DESCRIPTIONS

		2. MDE Registration No.:(if applicable) 6-0125
1a. Date of installation (month/year	r): <b>2004</b>	0 0120
3. Detailed description of the emiss:	ions unit, including all en	nission point(s) and the assigned number(s):
The primary use of the Belt Convey	or is transferring clinker.	Emission Point No. G04-037
4. Federally Enforceable Limit on the	he Operating Schedule fo	r this Emissions Unit: <i>N/A</i>
General Reference:		
General Reference:  Continuous Processes:	hours/day	days/year
General Reference:		
General Reference:  Continuous Processes:	hours/day	days/year
General Reference:  Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A	hours/day hours/batch days/year	days/year batches/day
General Reference:  Continuous Processes:  Batch Processes:	hours/day hours/batch	days/year
General Reference:  Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A  Type(s) of Fuel  1.	hours/dayhours/batchdays/year  % Sulfur	days/yearbatches/day  Annual Usage (specify units)
General Reference:  Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A  Type(s) of Fuel  1.  2.	hours/dayhours/batchdays/year  % Sulfur	days/yearbatches/day  Annual Usage (specify units)
General Reference:  Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A Type(s) of Fuel  1. 2. 3.	hours/dayhours/batchdays/year  % Sulfur	days/yearbatches/day  Annual Usage (specify units)
General Reference:  Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A	hours/dayhours/batchdays/year  % Sulfur	days/yearbatches/day  Annual Usage (specify units)  ort on electronic copy of Application
General Reference:  Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A	hours/dayhours/batchdays/year  % Sulfur  issions Certification Repo	days/yearbatches/day  Annual Usage (specify units)

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# SECTION 3A-145. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>G04-019</i>		2. MDE Registration N 6-0125	No.:(if applicable)
1a. Date of installation (month/year): 19	70	0 0120	
3. Detailed description of the emissions	unit, including all em	ission point(s) and the a	assigned number(s):
CE2 Bucket Elevator. Emission Point N	o. G04-037		
4. Federally Enforceable Limit on the O <sub>1</sub>	perating Schedule for	this Emissions Unit: N	V/A
General Reference:			
Continuous Processes:	hours/day	days/year	
Batch Processes:	hours/batch	batches/c	lay
	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel	% Sulfur	Annual U	Jsage (specify units)
2			
2			
3			-
6. Emissions in Tons: Refer to Emission	ns Certification Repo	ort on electronic copy o	f Application
A. Actual Major:	_ Potential Major:_	(note: bef	ore control device)
B. Actual Emissions: NOx	SOx	VOCPM10	HAPs

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# SECTION 3A-146. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>G04-031</i>		2. MDE Registration No.:(if applicable) 6-0125
1a. Date of installation (month/year):	1970	0-0123
	_	ission point(s) and the assigned number(s):
Drag Conveyor B3. Emission Point I	No. H09-073	
4. Federally Enforceable Limit on the	e Operating Schedule for	this Emissions Unit: <i>N/A</i>
General Reference:	1 /1	1 /
Continuous Processes:	hours/day	• •
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: N/A	0/ 0.10	
Type(s) of Fuel 1.	% Sulfur	Annual Usage (specify units)
2		-
3		
6. Emissions in Tons: <i>Refer to Emiss</i> A. Actual Major:	_	(note: before control device)
		VOCPM10HAPs

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## SECTION 3A-147. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>G05</i>		2. MDE Regist <b>6-0125</b>	tration No.:(if applicable)
1a. Date of installation (month/year): 200	94	0 0123	
3. Detailed description of the emissions was Off Loading Trucks PH Dust Silo.	nnit, including all em	ission point(s) a	nd the assigned number(s):
4. Federally Enforceable Limit on the Op General Reference:	perating Schedule for	this Emissions	Unit: <i>N/A</i>
Continuous Processes:	hours/day	da	ys/year
Batch Processes:	hours/batch	b	atches/day
	days/year		
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.	% Sulfur		Annual Usage (specify units)
2			
6. Emissions in Tons: Refer to Emission	s Certification Repo	ort on electronic	copy of Application
A. Actual Major:	_ Potential Major:	(n	ote: before control device)
B. Actual Emissions: NOx	SOx	VOCPN	M10 HAPs

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## SECTION 3A-148. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: TL1		2. MDE Regis 6-0125	stration No.	:(if applicable)
1a. Date of installation (month/year): 2004		0-0123		
3. Detailed description of the emissions unit, in	ncluding all emi	ission point(s) a	and the assi	gned number(s):
Clinker Truck/Rail Loadout. Emission Point	No. G02-053			
	~ 1 11 0			
4. Federally Enforceable Limit on the Operatin	ig Schedule for	this Emissions	Unit: N/A	
General Reference:  Continuous Processes:	hours/day	d	ave/voor	
Batch Processes:	nours/day hours/batch		ays/year	
Datch Processes:	_		oatches/day	
	_days/year			
5. Fuel Consumption: <i>N/A</i>				
Type(s) of Fuel	% Sulfur	I	Annual Usa	ge (specify units)
1				
2				
3				
6. Emissions in Tons: Refer to Emissions Cer	tification Repo	rt on electronic	c copy of A	pplication
A. Actual Major: Pot	ential Major:	(1	note: before	control device)
B. Actual Emissions: NOx	_ SOx	VOCP	M10	HAPs

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## SECTION 3A-149. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: TT7		2. MDE Registration No.:(if applicable) 6-0125
1a. Date of installation (month/year): 200	4	
3. Detailed description of the emissions up	nit, including all em	nission point(s) and the assigned number(s):
Transfer Tower #7. Emission Point No.	G03-004	
4. Federally Enforceable Limit on the Ope	erating Schedule for	this Emissions Unit: N/A
General Reference:  Continuous Processes:	hours/day	days/yeer
	hours/day	• •
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: <i>N/A</i>		
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)
1		
2		
3		
6. Emissions in Tons: Refer to Emissions	Certification Repo	ort on electronic copy of Application
A. Actual Major:	Potential Major:	(note: before control device)
B. Actual Emissions: NOx_	SOx	VOCPM10HAPs

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## SECTION 3A-150. EMISSIONS UNIT DESCRIPTIONS

Registration No.:(if applicable)
nt(s) and the assigned number(s):
ssions Unit: <i>N/A</i>
days/year
batches/day
Annual Usage (specify units)
etronic copy of Application
(note: before control device)
PM10 HAPs

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# SECTION 3A-151. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H04-001</i>		2. MDE Registration No.:(if applicable) 6-0331	
1a. Date of installation (month/year): 20	002		
3. Detailed description of the emissions <i>Gypsum Bin 409</i> .	unit, including all em	nission point(s) and the assigned number(s)	):
4. Federally Enforceable Limit on the O General Reference:	perating Schedule for	r this Emissions Unit: <i>N/A</i>	
Continuous Processes:	hours/day	days/year	
Batch Processes:	hours/batch	batches/day	
	days/year		
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.	% Sulfur	Annual Usage (specify unit	s)
3			
6. Emissions in Tons: Refer to Emission	ns Certification Repo	ort on electronic copy of Application	
A. Actual Major:	Potential Major:	(note: before control device)	)
B. Actual Emissions: NO	xSOx	VOCPM10HAPs	

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## SECTION 3A-152. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H04-003</i>		2. MDE Regist <b>6-0331</b>	tration No.	(if applicable)
1a. Date of installation (month/year): 20	02			
3. Detailed description of the emissions	unit, including all em	ission point(s) a	nd the assi	gned number(s):
Limestone Tank 416.				
4. Federally Enforceable Limit on the Op	perating Schedule for	this Emissions	Unit: <i>N/A</i>	
General Reference:				
Continuous Processes:	hours/day	da	ys/year	
Batch Processes:	hours/batch	b	atches/day	
	days/year			
5. Fuel Consumption: N/A	0/ 0.10		177	( '6 '.)
Type(s) of Fuel 1	% Sulfur	P.	Annual Usa	ge (specify units)
2				
3				
6. Emissions in Tons: <i>Refer to Emission</i>	s Certification Repo	ort on electronic	copy of A	pplication
A. Actual Major:	_ Potential Major:	(n	ote: before	control device)
B. Actual Emissions: NOx	SOx	VOCPN	И10 <u> </u>	HAPs

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## SECTION 3A-153. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H05-001</i>		2. MDE Regis 6-0331	stration No.	:(if applicable)
1a. Date of installation (month/year): 20	02			
3. Detailed description of the emissions of <i>Gypsum Bin 509</i> .	unit, including all em	ission point(s)	and the assi	gned number(s):
4. Federally Enforceable Limit on the Op General Reference:	perating Schedule for	this Emissions	s Unit: <i>N/A</i>	
Continuous Processes:	hours/day	d	ays/year	
Batch Processes:	hours/batch		batches/day	,
	days/year			
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.			Annual Usa	ge (specify units)
3				
6. Emissions in Tons: Refer to Emission	-			
A. Actual Major:	_ Potential Major:	(1	note: before	e control device)
B. Actual Emissions: NOx	SOx	VOCP	M10	_HAPs

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## SECTION 3A-154. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H06-001</i>	2. MI <b>6-03</b> 3	DE Registration No.:(if applicable)
1a. Date of installation (month/year): 2002	0 033	, <b>1</b>
3. Detailed description of the emissions unit, incl	uding all emission	point(s) and the assigned number(s):
Gypsum Bin 609.		
4. Federally Enforceable Limit on the Operating	Schedule for this E	missions Unit: <i>N/A</i>
General Reference:		
Continuous Processes:	nours/day	days/year
Batch Processes: h	ours/batch	batches/day
d	ys/year	
5. Fuel Consumption: <i>N/A</i>		
Type(s) of Fuel % S	Sulfur	Annual Usage (specify units)
2		
3		
6. Emissions in Tons: Refer to Emissions Certification	cation Report on e	electronic copy of Application
· ·	-	(note: before control device)
		PM10HAPs

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## SECTION 3A-155. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H07-001</i>		2. MDE Registration No.:(if applicable) 6-0331
1a. Date of installation (month/year): 20	02	0-0331
3. Detailed description of the emissions of the emission of the emi	unit, including all em	ission point(s) and the assigned number(s):
4. Federally Enforceable Limit on the Op General Reference:	perating Schedule for	this Emissions Unit: <i>N/A</i>
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: N/A Type(s) of Fuel  1. 2. 3.		
6. Emissions in Tons: <i>Refer to Emission</i> A. Actual Major:	<u> </u>	nrt on electronic copy of Application (note: before control device)
B. Actual Emissions: NOx	SOx	VOCPM10HAPs

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## SECTION 3A-156. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H08-001</i>		2. MDE Registration No.:(if applicable) 6-0331
1a. Date of installation (month/year): 200	02	0-0331
3. Detailed description of the emissions of the emission of the emi	unit, including all em	ission point(s) and the assigned number(s):
4. Federally Enforceable Limit on the Option General Reference:	perating Schedule for	this Emissions Unit: <i>N/A</i>
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.  3.		
6. Emissions in Tons: <i>Refer to Emission</i> A. Actual Major:	-	nrt on electronic copy of Application (note: before control device)
B. Actual Emissions: NOx	SOx	VOCPM10HAPs

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## SECTION 3A-157. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H04-004</i>		2. MDE Registration No.:(if applicable) <b>6-0331</b>
1a. Date of installation (month/year): 1970		
3. Detailed description of the emissions unit, in <i>Clinker Bin 403</i> .	ncluding all emi	ssion point(s) and the assigned number(s):
4. Federally Enforceable Limit on the Operating General Reference:	ng Schedule for	this Emissions Unit: <i>N/A</i>
Continuous Processes:	_hours/day	days/year
Batch Processes:	_hours/batch	batches/day
	_days/year	
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  9. 2.	% Sulfur	Annual Usage (specify units)
3		
6. Emissions in Tons: <i>Refer to Emissions Cere</i> A. Actual Major: Pote	-	rt on electronic copy of Application (note: before control device)
B. Actual Emissions: NOx	_ SOx	VOCPM10HAPs

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## SECTION 3A-158. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H05-004</i>		2. MDE Registratio <i>6-0331</i>	n No.:(if applicable)
1a. Date of installation (month/year): 19	70	0 0001	
3. Detailed description of the emissions to <i>Gypsum Bin 403</i> .	unit, including all em	ission point(s) and th	e assigned number(s):
4. Federally Enforceable Limit on the Op General Reference:	perating Schedule for	this Emissions Unit:	N/A
Continuous Processes:	hours/day	days/ye	ear
Batch Processes:	hours/batch	batche	
	days/year		
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.	% Sulfur		al Usage (specify units)
3			
6. Emissions in Tons: Refer to Emission	s Certification Repo	ort on electronic copy	of Application
A. Actual Major:		= -	
B. Actual Emissions: NOx	SOx	VOCPM10_	HAPs

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## SECTION 3A-159. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H06-004</i>		2. MDE Registration No.:(if applicable) 6-0331
1a. Date of installation (month/year): 197	70	0-0331
3. Detailed description of the emissions un Clinker Bin 603.	init, including all em	ission point(s) and the assigned number(s):
4. Federally Enforceable Limit on the Op General Reference:	perating Schedule for	this Emissions Unit: <i>N/A</i>
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.  3.		
6. Emissions in Tons: <i>Refer to Emission</i> .  A. Actual Major:	•	ort on electronic copy of Application  (note: before control device)
B. Actual Emissions: NOx_	SOx	VOCPM10HAPs

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## SECTION 3A-160. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H07-004</i>		2. MDE Registration No.:(if applicable) <b>6-0331</b>
1a. Date of installation (month/year): 2004	4	0-0331
3. Detailed description of the emissions un Clinker Bin.	nit, including all em	ission point(s) and the assigned number(s):
4. Federally Enforceable Limit on the Ope General Reference:	erating Schedule for	this Emissions Unit: <i>N/A</i>
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: N/A Type(s) of Fuel  1  2  3		
	Potential Major:	(note: before control device)
B. Actual Emissions: NOx_	SUx	VOCPM10HAPs

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# SECTION 3A-161. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H01-040</i>	2. MDE Registration No.:(if applicable) 6-0331
1a. Date of installation (month/year): 2002	0-0331
3. Detailed description of the emissions unit, including all em	nission point(s) and the assigned number(s):
The Finish Mill #1 System uses the following materials: gy creates Portland cement as a finished product. Emission Po	ppsum, limestone, and clinker. This unit
4. Federally Enforceable Limit on the Operating Schedule for General Reference:	this Emissions Unit: <i>N/A</i>
Continuous Processes:hours/day	days/year
Batch Processes: hours/batch	batches/day
days/year	
5. Fuel Consumption: Based on actual data for 2019	
Type(s) of Fuel % Sulfur 1. Fuel Oil N/A	Annual Usage (specify units)
	102,411.6 gallons
2	
3	
6. Emissions in Tons: Refer to Emissions Certification Repo	ort on electronic copy of Application
A. Actual Major: Potential Major:	
B. Actual Emissions: NOxSOx	VOCPM10HAPs

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## SECTION 3A-162. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H01-061</i>		2. MDE Regis 6-0331	stration No.	:(if applicable)
1a. Date of installation (month/year): 2002		0 0331		
3. Detailed description of the emissions uni	t, including all em	ission point(s)	and the assi	gned number(s):
Cyclone and Belts. Emission Point No. He	01-070			
4. Federally Enforceable Limit on the Oper	ating Schedule for	this Emissions	Unit: N/A	
General Reference:				
Continuous Processes:	hours/day	d	ays/year	
Batch Processes:	hours/batch		batches/day	,
	days/year			
5. Fuel Consumption: <i>N/A</i>				
Type(s) of Fuel	% Sulfur		Annual Usa	ge (specify units)
1				
2				
3				
6. Emissions in Tons: Refer to Emissions (	Certification Repo	rt on electroni	c copy of A	pplication
A. Actual Major:	Potential Major:	(1	note: before	e control device)
B. Actual Emissions: NOx	SOx	VOCP	M10	_HAPs

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# SECTION 3A-163. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H01-063</i>		2. MDE Registration No.: 6-0331	(if applicable)
1a. Date of installation (month/year): 2	2002	0-0331	
3. Detailed description of the emission	ns unit, including all em	ission point(s) and the assignment	gned number(s):
Cyclone and Belts. Emission Point N	Vo. H01-070		
4. Federally Enforceable Limit on the	Operating Schedule for	this Emissions Unit: N/A	
General Reference:	o por ming constants res	• • • • • • • • • • • • • • • • • • •	
Continuous Processes:	hours/day	days/year	
Batch Processes:	hours/batch	batches/day	
<del></del>	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel	% Sulfur	Annual Usaş	ge (specify units)
1			
2			
3			
6. Emissions in Tons: Refer to Emissi	ions Certification Repo	ort on electronic copy of Ap	pplication
A. Actual Major:	Potential Major:	(note: before	control device)
		VOCPM10	
			III II 5

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# SECTION 3A-164. EMISSIONS UNIT DESCRIPTIONS

2. MDE Registration No.:(if applicable) <b>6-0331</b>
0 0001
l emission point(s) and the assigned number(s):
30
e for this Emissions Unit: <i>N/A</i>
ydays/year
chbatches/day
Annual Usage (specify units)
Report on electronic copy of Application
or:(note: before control device)  VOCPM10HAPs
R

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# SECTION 3A-165. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H01-090</i>		2. MDE Regi	istration No.	:(if applicable)
1a. Date of installation (month/year): 200	2	0 0001		
3. Detailed description of the emissions u	nit, including all em	ission point(s)	and the ass	igned number(s):
Finish Mill #1 Burner. Emission Point N	No. H01-070			
4. Federally Enforceable Limit on the Ope	erating Schedule for	this Emission	s Unit: <i>N/A</i>	[
General Reference:				
Continuous Processes:	hours/day	(	days/year	
Batch Processes:	hours/batch		batches/day	7
	days/year			
5. Fuel Consumption: <i>N/A</i>				
Type(s) of Fuel	% Sulfur		Annual Usa	age (specify units)
2				
3				
6. Emissions in Tons: <i>Refer to Emissions</i>	Certification Rena	ort on electron	ic copy of A	pplication
A. Actual Major:	-			
B. Actual Emissions: NOx_				

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## SECTION 3A-166. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H01-105</i>	2. MDE Registration No.:(if applicable) <b>6-0331</b>
1a. Date of installation (month/year): 2002	0 0331
3. Detailed description of the emissions unit, including	ng all emission point(s) and the assigned number(s):
Belt Conveyor and Tipping Valves. Emission Point	No. H01-210
4. Federally Enforceable Limit on the Operating Sch	edule for this Emissions Unit: <i>N/A</i>
General Reference:	
Continuous Processes:hour	s/daydays/year
Batch Processes: hours	s/batchbatches/day
days/	year
5. Fuel Consumption: <i>N/A</i>	
Type(s) of Fuel % Sulf	ar Annual Usage (specify units)
1	
2	
3	
6. Emissions in Tons: Refer to Emissions Certificate	on Report on electronic copy of Application
· ·	Major:(note: before control device)
	VOCPM10 HAPs

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# SECTION 3A-167. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H01-110</i>	2. MDE Registration No.:(if applicable) <b>6-0331</b>
1a. Date of installation (month/year): 2002	0-0331
3. Detailed description of the emissions unit, including a	ll emission point(s) and the assigned number(s):
Bin. Emission Point No. H01-210	
4. Federally Enforceable Limit on the Operating Schedul	e for this Emissions Unit: <i>N/A</i>
General Reference:	
Continuous Processes: hours/da	ydays/year
Batch Processes: hours/bat	chbatches/day
days/year	
5. Fuel Consumption: <i>N/A</i>	
Type(s) of Fuel % Sulfur	Annual Usage (specify units)
2	
2	
3	
6. Emissions in Tons: Refer to Emissions Certification	Report on electronic copy of Application
A. Actual Major: Potential Major	or:(note: before control device)
B. Actual Emissions: NOxSOx	VOCPM10 HAPs

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## SECTION 3A-168. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H01-112</i>		2. MDE Registration <i>6-0331</i>	n No.:(if applicable)
1a. Date of installation (month/year): 2	2002	0-0331	
3. Detailed description of the emission Belt Conveyor and Tipping Valves. En	_		e assigned number(s):
4. Federally Enforceable Limit on the	Operating Schedule for	this Emissions Unit:	N/A
General Reference:	1 /1	1 /	
Continuous Processes:	hours/day	days/ye	
Batch Processes:	hours/batch	batche	s/day
	days/year		
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.  3.			l Usage (specify units)
6. Emissions in Tons: <i>Refer to Emissi</i>	ons Certification Reno	ert on electronic conv	of Application
A. Actual Major:	-		• ••
B. Actual Emissions: NO			

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## SECTION 3A-169. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H07-015</i>	2. MDE Registration No.:(if applicable) <b>6-0331</b>
1a. Date of installation (month/year): 2002	V 0001
3. Detailed description of the emissions unit, including all em	ission point(s) and the assigned number(s):
Cement to Cement Cooler – Finish Mill #7. Emission Poin	t No. H01-240
4. Federally Enforceable Limit on the Operating Schedule for	this Emissions Unit: <i>N/A</i>
General Reference:	
Continuous Processes:hours/day	days/year
Batch Processes: hours/batch	batches/day
days/year	
5. Fuel Consumption: <i>N/A</i>	
Type(s) of Fuel % Sulfur	Annual Usage (specify units)
1	
3	
6. Emissions in Tons: Refer to Emissions Certification Repo	ort on electronic copy of Application
A. Actual Major: Potential Major:	(note: before control device)
B. Actual Emissions: NOxSOx	VOCPM10HAPs
Type(s) of Fuel % Sulfur  1  2  3  6. Emissions in Tons: <i>Refer to Emissions Certification Reportation Report</i> A. Actual Major: Potential Major:	ort on electronic copy of Application  (note: before control device)

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## SECTION 3A-170. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H07-016</i>		2. MDE Regine 6-0331	stration No.	:(if applicable)
1a. Date of installation (month/year): 200	92	0 0001		
3. Detailed description of the emissions u	unit, including all em	ission point(s)	and the assi	gned number(s):
Airslide. Emission Point No. H01-240				
4. Endowally Enforceable Limit on the On	anatina Cabadula far	this Emissions	Their N/A	
4. Federally Enforceable Limit on the Op General Reference:	serating schedule for	this Emissions	S Unit: IV/A	
Continuous Processes:	hours/day	d	ays/year	
Batch Processes:	hours/batch		batches/day	
	days/year			
5. Fuel Consumption: <i>N/A</i>				
Type(s) of Fuel	% Sulfur		Annual Usa	ge (specify units)
2				
3				
6. Emissions in Tons: Refer to Emission	s Certification Repo	ort on electroni	c copy of A	pplication
A. Actual Major:	-			
B. Actual Emissions: NOx	SOx	VOCP	PM10	_HAPs

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# SECTION 3A-171. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H04-006</i>		2. MDE Registration No.:(if applicable) <b>6-0331</b>
1a. Date of installation (month/year): 19	70	0 0001
3. Detailed description of the emissions of the primary equipment type of the Bel materials: gypsum, limestone, and clinique products: gypsum, limestone, and clinique products: gypsum, limestone, and clinique products.	lt Conveyor (Finish l ker. This unit assists	in creating the following finished
4. Federally Enforceable Limit on the Op	perating Schedule for	this Emissions Unit: <i>N/A</i>
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.	% Sulfur	Annual Usage (specify units)
3		
6. Emissions in Tons: Refer to Emission	<u> </u>	10 0 11
		(note: before control device)
B. Actual Emissions: NOx	SUX	VOCPM10HAPs

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# SECTION 3A-172. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H04-014</i>		2. MDE Registration No.:(if applicable) <b>6-0331</b>
1a. Date of installation (month/year): I	1970	0-0331
<u> </u>	ollowing raw material	ission point(s) and the assigned number(s): s: gypsum, limestone, and clinker. This unit int No. H04-044
4. Federally Enforceable Limit on the General Reference:	Operating Schedule for	this Emissions Unit: <i>N/A</i>
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.		
3		
6. Emissions in Tons: Refer to Emission	•	
		(note: before control device)
B. Actual Emissions: NO	Ox SOx	VOCPM10HAPs

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# SECTION 3A-173. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H05-014</i>		2. MDE Registration No.:(if applicable) 6-0331
1a. Date of installation (month/year)	): <b>1970</b>	0-0331
*	e following raw material	ission point(s) and the assigned number(s): s: gypsum, limestone, and clinker. This unit int No. H05-044
4. Federally Enforceable Limit on the General Reference:	ne Operating Schedule for	this Emissions Unit: <i>N/A</i>
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
_	days/year	
5. Fuel Consumption: N/A Type(s) of Fuel  1  2  3		
A. Actual Major:	Potential Major:	rt on electronic copy of Application  (note: before control device)  VOCPM10HAPs

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# SECTION 3A-174. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H06-014</i>		2. MDE Reg <b>6-0331</b>	istration No	::(if applicable)
1a. Date of installation (month/year): 19	270	0-0331		
3. Detailed description of the emissions	_	- '		` ' '
The primary use of the Finish Mill #6	System is to finish P	ortland ceme	nt. Emission	Point No. H06-044
4. Federally Enforceable Limit on the Officeral Reference:	perating Schedule for	this Emission	is Unit: <i>N/A</i>	1
Continuous Processes:	hours/day	•	days/year	
Batch Processes:	hours/batch		_batches/day	7
	days/year		_ ,	
	days/year			
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel	% Sulfur		Annual He	age (specify units)
1	70 Sullul		Allilual USa	ige (specify units)
2				_
3				
6. Emissions in Tons: Refer to Emission	ns Certification Rena	ort on electron	uic copy of A	Innlication
A. Actual Major:	-			
B. Actual Emissions: NOx				

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# SECTION 3A-175. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H06-017</i>	2. MDE Registration No.:(if applicable) 6-0331
1a. Date of installation (month/year): 1970	0 0001
3. Detailed description of the emissions unit, including all	emission point(s) and the assigned number(s):
Cyclone 642 (FM #6 System). Emission Point No. H06-04	4
4. Federally Enforceable Limit on the Operating Schedule	for this Emissions Unit: <i>N/A</i>
General Reference:	_
Continuous Processes:hours/day	days/year
Batch Processes: hours/batch	hbatches/day
days/year	
5. Fuel Consumption: <i>N/A</i>	
Type(s) of Fuel % Sulfur	Annual Usage (specify units)
1	
3	
6. Emissions in Tons: Refer to Emissions Certification Re	eport on electronic copy of Application
A. Actual Major: Potential Major	:(note: before control device)
B. Actual Emissions: NOxSOx	VOCPM10 HAPs
Batch Processes:hours/batchdays/year  5. Fuel Consumption: N/A     Type(s) of Fuel	Annual Usage (specify units)  **Eport on electronic copy of Application**  ::

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# SECTION 3A-176. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H06-037</i>		2. MDE Registration No.:(if applicable) 6-0331
1a. Date of installation (month/year): 1970	)	
3. Detailed description of the emissions un	it, including all em	ission point(s) and the assigned number(s):
Separator 627 (FM #6 System). Emission	Point No. H06-044	1
4. Federally Enforceable Limit on the Ope	rating Schedule for	this Emissions Unit: <i>N/A</i>
General Reference:	1 /1	1 /
Continuous Processes:	hours/day	
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: <i>N/A</i>		
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)
2		
3		
J		
6. Emissions in Tons: <i>Refer to Emissions</i>	_	
		(note: before control device)
B. Actual Emissions: NOx_	SOx	VOCPM10HAPs

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# SECTION 3A-177. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <b>H07-014</b>		2. MDE Registration No.:(if applicable) 6-0331
1a. Date of installation (month/year): 20	002	0-0331
±	llowing raw material	ission point(s) and the assigned number(s): s: gypsum, limestone, and clinker. This unit sint No. H07-056 and H07-057
4. Federally Enforceable Limit on the O	nerating Schedule for	this Emissions Unit: N/A
General Reference:	peruning Senedure for	tins Emissions Cint. 1971
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.  3.		
6. Emissions in Tons: <i>Refer to Emission</i> A. Actual Major:	•	(note: before control device)
		VOCPM10 HAPs

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# SECTION 3A-178. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H07-018</i>	2. MDE Registration No.:(if applicable) 6-0331
1a. Date of installation (month/year): 2001	0-0331
3. Detailed description of the emissions unit, including all The primary use of the Finished Cement Transfer System Emission Point No. H07-056 and H07-057	
4. Federally Enforceable Limit on the Operating Schedule General Reference:	for this Emissions Unit: <i>N/A</i>
Continuous Processes:hours/day	days/year
Batch Processes: hours/batch	hbatches/day
days/year	
5. Fuel Consumption: N/A Type(s) of Fuel % Sulfur 1. 2. 3.	
	eport on electronic copy of Application ::(note: before control device) VOCPM10 HAPs

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# SECTION 3A-179. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H07-068</i>		2. MDE Registration No.:(if applicable) 6-0331
1a. Date of installation (month/year): 26	001	0-0331
3. Detailed description of the emissions  The primary use of the Finished Cemen  Emission Point No. H07-056 and H07-0	t Transfer System is t	nission point(s) and the assigned number(s):  to transfer Portland cement.
4. Federally Enforceable Limit on the O General Reference:	perating Schedule for	r this Emissions Unit: <i>N/A</i>
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: N/A Type(s) of Fuel  1. 2. 3.		
	Potential Major:	ort on electronic copy of Application  (note: before control device)  VOCPM10 HAPs
2. Tream Emissions. 107		

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## SECTION 3A-180. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H07-040</i>		2. MDE Registration No.:(if applicable) <b>6-0331</b>
1a. Date of installation (month/year): 2002		0 0001
3. Detailed description of the emissions unit	t, including all em	ission point(s) and the assigned number(s):
Cement Cooler. Emission Point No. H10-11	'3	
4. Federally Enforceable Limit on the Opera	ating Schedule for	this Emissions Unit: <i>N/A</i>
General Reference:		
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: <i>N/A</i>		
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)
2		
3		
<u> </u>		
6. Emissions in Tons: Refer to Emissions C	Certification Repo	rt on electronic copy of Application
		(note: before control device)
B. Actual Emissions: NOx	SOx	VOCPM10HAPs

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# SECTION 3A-181. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H07-070</i>		2. MDE Regis <b>6-0331</b>	tration No.:(if app	olicable)
1a. Date of installation (month/year): 200	1	0-0331		
3. Detailed description of the emissions u	nit, including all em	ission point(s) a	and the assigned n	umber(s):
Airslide. Emission Point No. H07-056 an	_	- ` ` `	_	. ,
4. Federally Enforceable Limit on the Ope	erating Schedule for	this Emissions	Unit: N/A	
General Reference:				
Continuous Processes:	hours/day	da	iys/year	
Batch Processes:	hours/batch	b	oatches/day	
	days/year			
5. Fuel Consumption: <i>N/A</i>				
Type(s) of Fuel	% Sulfur	A	Annual Usage (spe	ecify units)
1				
2				
3				
6. Emissions in Tons: <i>Refer to Emissions</i>	Certification Reno	rt on electronic	c copy of Applicat	ion
A. Actual Major:	-			
B. Actual Emissions: NOx_				

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## SECTION 3A-182. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H07-071</i>		2. MDE Regist <b>6-0331</b>	ration No.:(if applicable)
1a. Date of installation (month/year): 200	02	0-0331	
3. Detailed description of the emissions to Airslide. Emission Point No. H10-113	unit, including all em	ission point(s) a	nd the assigned number(s):
4. Federally Enforceable Limit on the Op General Reference:	perating Schedule for	this Emissions	Unit: N/A
Continuous Processes:	hours/day	da	ys/year
Batch Processes:	hours/batch	b	atches/day
·	days/year		
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.	% Sulfur	A	annual Usage (specify units)
2			
			ann of Application
6. Emissions in Tons: <i>Refer to Emission</i> A. Actual Major:	_		
B. Actual Emissions: NOx			

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# SECTION 3A-183. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H08-014</i>		2. MDE Registrati <i>6-0331</i>	on No.:(if applicable)
1a. Date of installation (month/year): 20	02	0 0001	
3. Detailed description of the emissions of the primary use of the Finish Mill #8 is Portland cement as a finished product.	System is processing	limestone, clinker	· /
4. Federally Enforceable Limit on the Op	perating Schedule for	this Emissions Uni	t: <i>N/A</i>
General Reference:			
Continuous Processes:	hours/day	days/y	rear ear
Batch Processes:	hours/batch	batch	nes/day
	days/year		
5. Fuel Consumption: N/A Type(s) of Fuel 1 2 3			ual Usage (specify units)
6. Emissions in Tons: <i>Refer to Emission</i>	s Certification Rend	ort on electronic coi	ny of Application
A. Actual Major:	-	-	• • • •
B. Actual Emissions: NOx			

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## SECTION 3A-184. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H08-017</i>		2. MDE Registration N <i>6-0331</i>	No.:(if applicable)
1a. Date of installation (month/year): 2	2002	0-0331	
3. Detailed description of the emission Separator (FM #8 System). Emission	_	ission point(s) and the a	assigned number(s):
4. Federally Enforceable Limit on the General Reference:	Operating Schedule for	this Emissions Unit: <b>N</b>	I/A
Continuous Processes:	hours/day	days/year	
Batch Processes:	hours/batch	batches/c	lay
	days/year		
5. Fuel Consumption: N/A Type(s) of Fuel 1 2 3			Jsage (specify units)
6. Emissions in Tons: Refer to Emission	ons Certification Repo	rt on electronic copy oj	f Application
A. Actual Major:	Potential Major:	(note: befo	ore control device)
B. Actual Emissions: NO	OxSOx	VOCPM10	HAPs

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## SECTION 3A-185. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H08-037</i>		2. MDE Regi 6-0331	istration No.	:(if applicable)
1a. Date of installation (month/year): 200	2	0 0331		
3. Detailed description of the emissions un	nit, including all em	ission point(s)	and the ass	igned number(s):
Cyclone (FM #8 System). Emission Point	t No. H08-056			
4. Federally Enforceable Limit on the Ope	erating Schedule for	this Emission	s Unit: <i>N/A</i>	1
General Reference:		tins Emission	5 01111. 1 1/12	
Continuous Processes:	hours/day		lays/year	
Batch Processes:	hours/batch		_batches/day	7
	days/year			
5. Fuel Consumption: <i>N/A</i>				
Type(s) of Fuel	% Sulfur		Annual Usa	age (specify units)
2				
2				
J				
6. Emissions in Tons: Refer to Emissions	-			
A. Actual Major:	Potential Major:	(	(note: before	e control device)
B. Actual Emissions: NOx_	SOx	VOCF	PM10	_HAPs

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## SECTION 3A-186. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H08-038</i>		2. MDE Registration No.:(if applicable) 6-0331
1a. Date of installation (month/yea	ar): <b>2002</b>	
3. Detailed description of the emis Cyclone (FM #8 System). Emission	_	nission point(s) and the assigned number(s):
4. Federally Enforceable Limit on General Reference:	-	
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.  3.		
3		
6. Emissions in Tons: Refer to En	nissions Certification Repo	ort on electronic copy of Application
		(note: before control device)
B. Actual Emissions:	NOxSOx	VOCPM10HAPs

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# SECTION 3A-187. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H08-040</i>		2. MDE Registration No. 6-0331	:(if applicable)
1a. Date of installation (month/year): 200	2	0 0331	
3. Detailed description of the emissions u	nit, including all em	ission point(s) and the ass	igned number(s):
Cement Cooler. Emission Point No. H10	-113		
4. Federally Enforceable Limit on the Ope	erating Schedule for	this Emissions Unit: <i>N/A</i>	
General Reference:  Continuous Processes:	hours/day	dovalvoor	
	hours/day	• •	_
Batch Processes:	hours/batch	batches/day	
	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel	% Sulfur	Annual Usa	age (specify units)
1			
2			
3			_
6. Emissions in Tons: Refer to Emissions	Certification Repo	ort on electronic copy of A	pplication
A. Actual Major:	Potential Major:	(note: before	e control device)
B. Actual Emissions: NOx_	SOx	VOCPM10	_HAPs

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## SECTION 3A-188. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H08-064</i>		2. MDE Registration No.:(if applicable) 6-0331
1a. Date of installation (month/yea	ar): <b>2002</b>	0-0331
3. Detailed description of the emis Airslide. Emission Point No. H10	_	ission point(s) and the assigned number(s):
4. Federally Enforceable Limit on General Reference:	the Operating Schedule for	this Emissions Unit: <i>N/A</i>
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.  3.		
		rt on electronic copy of Application
A. Actual Major:	Potential Major:	(note: before control device)
B. Actual Emissions:	NOx SOx	VOCPM10HAPs

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## SECTION 3A-189. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H09-000</i>		2. MDE Registration N	o.:(if applicable)
1a. Date of installation (month/year): 2001		6-0331	
3. Detailed description of the emissions unit, inc Semi Finishing Grinding System. Emission Poin	_		ssigned number(s):
Semi Finishing Orthaing System. Emission For	u 140. 1109-03	,,,	
4. Federally Enforceable Limit on the Operating	Schedule for	this Emissions Unit: N	//A
General Reference:			
Continuous Processes:	hours/day	days/year	
Batch Processes:	nours/batch	batches/d	ay
d	ays/year		
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel %	Sulfur	Annual I	sage (specify units)
1	Suitui	7 Hilliau C	sage (speerly amas)
2			
3			
6. Emissions in Tons: Refer to Emissions Certij	fication Repo	rt on electronic copy of	Application
A. Actual Major: Poter	-		
B. Actual Emissions: NOx	SOx	VOCPM10	HAPs

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# SECTION 3A-190. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H09-019</i>		2. MDE Registration No 6-0331	o.:(if applicable)
1a. Date of installation (month/year): 20	901	0 0331	
3. Detailed description of the emissions	unit, including all em	nission point(s) and the ass	signed number(s):
The primary use of the Weighfeeder (free Emission Point No. H09-025	om 750 Ton Clinker E	Bin) is transferring clinke	r.
4. Federally Enforceable Limit on the O	perating Schedule for	this Emissions Unit: N/2	4
General Reference:			
Continuous Processes:	hours/day	days/year	
Batch Processes:	hours/batch	batches/da	у
	days/year		
5. Fuel Consumption: N/A Type(s) of Fuel  1. 2. 3.			sage (specify units)
6. Emissions in Tons: Refer to Emission		=	
A. Actual Major:			
B. Actual Emissions: NO:	x SOx	VOCPM10	HAPs

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# SECTION 3A-191. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H09-020</i>		2. MDE Registration N 6-0331	o.:(if applicable)
1a. Date of installation (month/ye	ar): <b>2002</b>		
3. Detailed description of the emis 100 Metric Ton Slag/Clinker Bin	_		ssigned number(s):
4. Federally Enforceable Limit on General Reference:	the Operating Schedule fo	r this Emissions Unit: <i>N</i>	<u>/</u> A
Continuous Processes:	hours/day	days/year	
Batch Processes:	hours/batch	batches/d	ay
	days/year		
5. Fuel Consumption: N/A Type(s) of Fuel 1. 2. 3.			sage (specify units)
6. Emissions in Tons: <i>Refer to En</i>	nissions Certification Ren	ort on electronic copy of	Annlication
-	Potential Major:_		
	NOxSOx		

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### SECTION 3A-192. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H09-021</i>		2. MDE Reg <b>6-0331</b>	gistration No	o.:(if applicable)
1a. Date of installation (month/year): 20	02	0 0331		
3. Detailed description of the emissions of the missions of the emissions of the emission o	_		) and the ass	signed number(s):
4. Federally Enforceable Limit on the Option General Reference:	perating Schedule for	this Emission	ns Unit: <i>N/</i> 2	4
Continuous Processes:	hours/day		days/year	
Batch Processes:	hours/batch		_batches/day	у
	days/year			
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.	% Sulfur		Annual Us	age (specify units)
3				
6. Emissions in Tons: <i>Refer to Emission</i>	s Certification Repo	ort on electroi	nic copy of A	Application
A. Actual Major:	_ Potential Major:		(note: befor	re control device)
B. Actual Emissions: NOx	SOx	VOC	PM10	_ HAPs

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## SECTION 3A-193. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H09-023</i>		2. MDE Registration No.:(if applicable) <b>6-0331</b>
1a. Date of installation (month/year): 2001		0-0331
3. Detailed description of the emissions unit, in The primary use of the 100 Metric Ton Gypsu Emission Point No. H09-025	C	
4. Federally Enforceable Limit on the Operation General Reference:	ing Schedule for	this Emissions Unit: <i>N/A</i>
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	_days/year	
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.  3.		
6. Emissions in Tons: <i>Refer to Emissions Ces</i> A. Actual Major: Po	rtification Repo	ort on electronic copy of Application  (note: before control device)
B. Actual Emissions: NOx	SOx	VOCPM10HAPs

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## SECTION 3A-194. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H09-024</i>		2. MDE Registration No.:(if applicable) <b>6-0331</b>
1a. Date of installation (month/year): 26	901	0-0331
3. Detailed description of the emissions  The primary use of the Belt Conveyor (f  Emission Point No. H09-025		ission point(s) and the assigned number(s):  to transfer gypsum.
4. Federally Enforceable Limit on the C General Reference:	perating Schedule for	this Emissions Unit: <i>N/A</i>
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.  3.		
6. Emissions in Tons: Refer to Emissio		
A. Actual Major:	Potential Major:	(note: before control device)
B. Actual Emissions: NO:	x SOx	VOCPM10HAPs

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## SECTION 3A-195. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H09-028</i>	2. MDE Registration No.:(if applicable) 6-0331
1a. Date of installation (month/year): 2000	0-0331
3. Detailed description of the emissions unit, including all e	emission point(s) and the assigned number(s):
The primary use of the Bucket Elevator is transferring gyps	sum. Emission Point No. H09-051
4. Federally Enforceable Limit on the Operating Schedule to	for this Emissions Unit: <i>N/A</i>
General Reference:	_
Continuous Processes:hours/day	days/year
Batch Processes: hours/batch	batches/day
days/year	
5. Fuel Consumption: <i>N/A</i>	
Type(s) of Fuel % Sulfur	Annual Usage (specify units)
1	
2	
3	
6. Emissions in Tons: Refer to Emissions Certification Re	port on electronic copy of Application
A. Actual Major: Potential Major:	(note: before control device)
B. Actual Emissions: NOxSOx	VOCPM10 HAPs

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## SECTION 3A-196. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H09-031</i>		2. MDE Registration No.	o.:(if applicable)
1a. Date of installation (month/year): 26	000	6-0331	
3. Detailed description of the emissions	unit, including all em	ission point(s) and the as	signed number(s):
The primary use of the Belt Conveyor is	transferring gypsum.	Emission Point No. H09	9-051 and H09-033
4. Federally Enforceable Limit on the O	perating Schedule for	this Emissions Unit: <i>N</i> /	<u>'</u> A
General Reference:			
Continuous Processes:	hours/day	days/year	
Batch Processes:	hours/batch	batches/da	ny
	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel	% Sulfur	Annual Us	sage (specify units)
1			
2			
3			
6. Emissions in Tons: Refer to Emission	ns Certification Repo	rt on electronic copy of	Application
A. Actual Major:	-		
B. Actual Emissions: NO			

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## SECTION 3A-197. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H09-036</i>	2. MDE Registration No.:(if applicable) 6-0331
1a. Date of installation (month/year): 2004	
3. Detailed description of the emissions unit, including a	all emission point(s) and the assigned number(s):
The primary use of the Bin is transferring gypsum. Emi	ission Point No. H09-059 and H09-033
4. Federally Enforceable Limit on the Operating Schedul	ale for this Emissions Unit: <i>N/A</i>
General Reference:	
Continuous Processes:hours/da	aydays/year
Batch Processes: hours/bat	atchbatches/day
days/year	r
5. Fuel Consumption: <i>N/A</i>	
Type(s) of Fuel % Sulfur	Annual Usage (specify units)
2	
2	
J	
6. Emissions in Tons: Refer to Emissions Certification	1
	jor:(note: before control device)
B. Actual Emissions: NOxSOx	VOCPM10 HAPs

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## SECTION 3A-198. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H09-041</i>	2. MDE Registration No.:(if applicable) <b>6-0331</b>
1a. Date of installation (month/year): 2004	0-0331
3. Detailed description of the emissions unit, including	g all emission point(s) and the assigned number(s):
The primary use of the Roll Press is transferring gyps	
4. Federally Enforceable Limit on the Operating Sche	dule for this Emissions Unit: <i>N/A</i>
General Reference:	
Continuous Processes: hours	s/daydays/year
Batch Processes: hours	/batchbatches/day
days/y	ear
5. Fuel Consumption: N/A Type(s) of Fuel % Sulfu  1. 2. 3.	
6. Emissions in Tons: Refer to Emissions Certification	on Renort on electronic copy of Application
-	Major:(note: before control device)
	VOCPM10 HAPs

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## SECTION 3A-199. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H09-046</i>		2. MDE Registration N	o.:(if applicable)
1a. Date of installation (month/year): 2	2002	6-0331	
3. Detailed description of the emissions	s unit, including all em	ission point(s) and the a	ssigned number(s):
The primary use of the Belt Conveyor i	s transferring gypsum.	Emission Point No. He	09-033
4. Federally Enforceable Limit on the O	Operating Schedule for	this Emissions Unit: N	V/A
General Reference:			
Continuous Processes:	hours/day	days/year	
Batch Processes:	hours/batch	batches/d	ay
	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel	% Sulfur	Annual U	sage (specify units)
1			
2			_
3			
6. Emissions in Tons: Refer to Emission	ons Certification Repo	rt on electronic copy of	Application
A. Actual Major:	Potential Major:	(note: befo	ore control device)
B. Actual Emissions: NC	Ox SOx	VOCPM10	HAPs

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# SECTION 3A-200. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H09-047</i>	2. MDE Registration No.:(if applicable) <b>6-0331</b>		
1a. Date of installation (month/year): 2000	0-0331		
3. Detailed description of the emissions unit, including all e	mission point(s) and the assigned number(s):		
The primary use of the Bucket Elevator is transferring gyps	um. Emission Point No. H09-059		
4. Federally Enforceable Limit on the Operating Schedule for	or this Emissions Unit: <i>N/A</i>		
General Reference:	_		
Continuous Processes:hours/day	days/year		
Batch Processes:hours/batch	batches/day		
days/year			
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel % Sulfur	Annual Usage (specify units)		
2			
2			
3			
6. Emissions in Tons: Refer to Emissions Certification Report on electronic copy of Application			
A. Actual Major: Potential Major:	(note: before control device)		
B. Actual Emissions: NOxSOx	_ VOCPM10 HAPs		

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## SECTION 3A-201. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H09-058</i>		2. MDE Registratio <b>6-0331</b>	n No.:(if applicable)
1a. Date of installation (month/year): 2000			
3. Detailed description of the emissions unit	, including all em	ission point(s) and th	ne assigned number(s):
Belt Conveyer to 90 Metric Ton Bin. Emiss	sion Point No. H0	9-073 and H09-059	
4. Federally Enforceable Limit on the Opera	ting Schedule for	this Emissions Unit:	: N/A
General Reference:			
Continuous Processes:	hours/day	days/ye	ear
Batch Processes:	hours/batch	batche	es/day
	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel	% Sulfur	Annua	al Usage (specify units)
2			_
3			
			C 4 1 1 1
6. Emissions in Tons: <i>Refer to Emissions C</i> A. Actual Major: P	_		
B. Actual Emissions: NOx			
2. Troum Emissions. Tron		1 1/110	

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## SECTION 3A-202. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H09-062</i>	2. MDE Registration No.:(if applicable) 6-0331
1a. Date of installation (month/year): 2000	0-0331
3. Detailed description of the emissions unit, including all en The primary use of the Reversible Belt Conveyer (from Semi Emission Point No. H09-051 and H09-082	• ,,
4. Federally Enforceable Limit on the Operating Schedule for General Reference:	or this Emissions Unit: <i>N/A</i>
Continuous Processes:hours/day	days/year
Batch Processes:hours/batch	batches/day
days/year	
5. Fuel Consumption: N/A Type(s) of Fuel % Sulfur  1  2 3	
6. Emissions in Tons: <i>Refer to Emissions Certification Rep</i> A. Actual Major: Potential Major:_ B. Actual Emissions: NOx SOx	(note: before control device)

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## SECTION 3A-203. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H09-066</i>		2. MDE Registration No.:(if applicable) 6-0331
1a. Date of installation (month/year): 20	02	0-0331
3. Detailed description of the emissions	unit, including all em	ission point(s) and the assigned number(s):
Belt Conveyer. Emission Point No. H09	0-082	
4. Federally Enforceable Limit on the Op	perating Schedule for	this Emissions Unit: <i>N/A</i>
General Reference:	1 /	1
Continuous Processes:	hours/day	• •
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: <i>N/A</i>		
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)
2		
3		
6. Emissions in Tons: Refer to Emission	-	** * **
		(note: before control device)
B. Actual Emissions: NOx	SUX	VOCPM10HAPs

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## SECTION 3A-204. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H09-075</i>		2. MDE Registration No.:(if applicable) 6-0331	)
1a. Date of installation (month/year):	: 2000		
3. Detailed description of the emission	ons unit, including all en	nission point(s) and the assigned number(s	s):
90 Ton Bin. Emission Point No. HO	9-073		
4. Federally Enforceable Limit on the	e Operating Schedule for	r this Emissions Unit: <i>N/A</i>	
4. Federally Enforceable Limit on the General Reference:	e Operating Schedule for	r this Emissions Unit: <i>N/A</i>	
	e Operating Schedule for hours/day		
General Reference:			
General Reference:  Continuous Processes:	hours/day	days/year	
General Reference:  Continuous Processes:  Batch Processes:	hours/day hours/batch days/year	days/year	
General Reference:  Continuous Processes:  Batch Processes:	hours/day hours/batch	days/year	its)
General Reference:  Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A  Type(s) of Fuel  1.	hours/day hours/batch days/year  % Sulfur	days/yearbatches/day  Annual Usage (specify unit	its)
General Reference:  Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A Type(s) of Fuel  1. 2.	hours/day hours/batch days/year % Sulfur	days/yearbatches/day  Annual Usage (specify unit	its)
General Reference:  Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A Type(s) of Fuel 1. 2. 3.	hours/day hours/batch days/year % Sulfur	days/yearbatches/day  Annual Usage (specify unit	its)
General Reference:  Continuous Processes:  Batch Processes:  5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.  3.  6. Emissions in Tons: <i>Refer to Emiss</i>	hours/dayhours/batchdays/year  % Sulfur	days/yearbatches/day  Annual Usage (specify unitary on electronic copy of Application	
General Reference:  Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A	hours/dayhours/batchdays/year  % Sulfur  sions Certification Repo	days/yearbatches/day  Annual Usage (specify unit	e)

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# SECTION 3A-205. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H09-091</i>		2. MDE Registration No.:( <i>6-0331</i>	if applicable)	
1a. Date of installation (month/year): 2000		0-0331		
3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): Clinker Belt. Emission Point No. H09-094				
Cunker Deu. Emission Foini No. 1109-094				
4. Federally Enforceable Limit on the Opera	oting Schadula for	this Emissions Unit: N/A		
General Reference:	ating Schedule for	tills Ellissions Olit. IVA		
Continuous Processes:	hours/day	days/year		
Batch Processes:	hours/batch	batches/day		
		oateness day		
	days/year			
5. Fuel Consumption: <i>N/A</i>				
Type(s) of Fuel	% Sulfur	Annual Usag	e (specify units)	
2				
2				
3				
6. Emissions in Tons: Refer to Emissions C	Certification Repo	rt on electronic copy of App	plication	
A. Actual Major: I	Potential Major:	(note: before o	control device)	
B. Actual Emissions: NOx	SOx	VOCPM10I	HAPs	

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## **SECTION 3A-206.** EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H10-001</i>		2. MDE Registration <i>6-0331</i>	No.:(if applicable)
1a. Date of installation (month/year): 200	02		
3. Detailed description of the emissions u	ınit, including all em	ission point(s) and the	assigned number(s):
Airslide. Emission Point No. H10-113			
4. Federally Enforceable Limit on the Op	erating Schedule for	this Emissions Unit:	N/A
General Reference:	1 /1	1 /	
Continuous Processes:	hours/day		
Batch Processes:	hours/batch	batches	/day
	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel	% Sulfur	Annual	Usage (specify units)
2			
3			
6. Emissions in Tons: <i>Refer to Emission</i>			of Application
A. Actual Major:			
B. Actual Emissions: NOx			

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### SECTION 3A-207. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H10-006</i>		2. MDE Regis 6-0331	stration No.	:(if applicable)
1a. Date of installation (month/year): 200	2	0 0331		
3. Detailed description of the emissions un	nit, including all em	ission point(s)	and the assi	igned number(s):
Bucket Elevator. Emission Point No. H16	0-113			
4. Federally Enforceable Limit on the Ope	erating Schedule for	this Emissions	Unit: N/A	
General Reference:				
Continuous Processes:	hours/day	d	ays/year	
Batch Processes:	hours/batch		batches/day	,
	days/year			
5. Fuel Consumption: <i>N/A</i>				
Type(s) of Fuel	% Sulfur	-	Annual Usa	ige (specify units)
2				
3				
6. Emissions in Tons: <i>Refer to Emissions</i>	Cartification Dans	out on alastucui	a annu of A	nnlication
A. Actual Major:	-			
B. Actual Emissions: NOx_				

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### SECTION 3A-208. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H10-007</i>	2. MDE Registration No.:(if applicable) 6-0331
1a. Date of installation (month/year): 2001	0 0331
3. Detailed description of the emissions unit, including a Airslide. Emission Point No. H10-119	all emission point(s) and the assigned number(s):
4. Federally Enforceable Limit on the Operating Schedu General Reference:	le for this Emissions Unit: <i>N/A</i>
Continuous Processes: hours/d	aydays/year
Batch Processes:hours/ba	atchbatches/day
days/yea	r
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel % Sulfur  1.  2.	Annual Usage (specify units)
3	
6. Emissions in Tons: Refer to Emissions Certification	Report on electronic copy of Application
A. Actual Major: Potential Ma	jor:(note: before control device)
B. Actual Emissions: NOxSOx	VOCPM10HAPs

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### SECTION 3A-209. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H10-010</i>		2. MDE Registratio <i>6-0331</i>	n No.:(if applicable)
1a. Date of installation (month/year): 2007	1	0-0331	
3. Detailed description of the emissions un	nit, including all em	ission point(s) and th	e assigned number(s):
Bucket Elevator. Emission Point No. H1	0-119		
4. Federally Enforceable Limit on the Ope	rating Schedule for	this Emissions Unit:	N/A
General Reference:			- "
Continuous Processes:	hours/day	days/ye	ear
Batch Processes:	hours/batch	batche	
	days/year		
	aays, y car		
5. Fuel Consumption: <i>N/A</i>	0/ 0.10		111 ( 'C '()
Type(s) of Fuel 1.	% Sulfur	Annua	al Usage (specify units)
2			
3			•
<u>.                                    </u>			
6. Emissions in Tons: Refer to Emissions	Certification Repo	rt on electronic copy	of Application
A. Actual Major:	Potential Major:	(note: \	pefore control device)
B. Actual Emissions: NOx_	SOx	VOCPM10_	HAPs

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## SECTION 3A-210. EMISSIONS UNIT DESCRIPTIONS

		2. MDE Registration No.:(if applicable) 6-0331	
1a. Date of installation (month/year)	: <b>2001</b>		
3. Detailed description of the emissi	ons unit, including all em	nission point(s) and the assigned number(s):	
Airslide. Emission Point No. H10-1	119		
4. Federally Enforceable Limit on the	e Operating Schedule for	this Emissions Unit: <i>N/A</i>	
General Reference:			
	1 /1	1	
Continuous Processes:	hours/day	• •	
	hours/day _hours/batch	days/yearbatches/day	
Continuous Processes:	•	• •	
Continuous Processes:  Batch Processes:	hours/batch days/year	batches/day	
Continuous Processes:  Batch Processes:	hours/batch	• •	*)
Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A Type(s) of Fuel  1.	hours/batch days/year % Sulfur	batches/day Annual Usage (specify units	(1)
Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A Type(s) of Fuel  1. 2.	hours/batch days/year % Sulfur	batches/day Annual Usage (specify units	(i)
Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A Type(s) of Fuel  1. 2. 3.	hours/batch days/year % Sulfur	batches/day Annual Usage (specify units	))
Continuous Processes:  Batch Processes:  5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.  3.  6. Emissions in Tons: <i>Refer to Emis</i>	hours/batch days/year % Sulfur ssions Certification Repo	batches/day Annual Usage (specify units  ort on electronic copy of Application	))) —
Continuous Processes:  Batch Processes:  5. Fuel Consumption: N/A	hours/batchdays/year  % Sulfur  ssions Certification Repo	batches/day Annual Usage (specify units	))

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## SECTION 3A-211. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H10-125</i>		2. MDE Registratio <i>6-0331</i>	n No.:(if applicable)
1a. Date of installation (month/year): 2001		0-0331	
3. Detailed description of the emissions unit,	including all em	ission point(s) and th	e assigned number(s):
Airslide. Emission Point No. H10-119			
4. Federally Enforceable Limit on the Operat	ting Schedule for	this Emissions Unit:	N/A
General Reference:	mg semedare rer		1 1/12
Continuous Processes:	hours/day	days/ye	ear
Batch Processes:	hours/batch	batche	
	dovidana		·
	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel	% Sulfur	Annua	al Usage (specify units)
2			
2			
3			
6. Emissions in Tons: Refer to Emissions Co	ertification Repo	rt on electronic copy	of Application
A. Actual Major: Po	otential Major:	(note: \	pefore control device)
B. Actual Emissions: NOx	SOx	VOCPM10_	HAPs

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## SECTION 3A-212. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H10-167</i>		2. MDE Registration N 6-0331	o.:(if applicable)
1a. Date of installation (month/year): 2002			
3. Detailed description of the emissions unit	, including all em	ission point(s) and the as	signed number(s):
Airslide. Emission Point No. H10-181			
4. Federally Enforceable Limit on the Opera	ting Schedule for	this Emissions Unit: <i>N</i> /	'A
General Reference:	1 /1	1 /	
Continuous Processes:	hours/day	days/year	
Batch Processes:	hours/batch	batches/da	ny
	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel	% Sulfur	Annual U	sage (specify units)
2			
3			
6. Emissions in Tons: <i>Refer to Emissions C</i>			Annlication
A. Actual Major: P	-		
B. Actual Emissions: NOx			

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## SECTION 3A-213. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H10-176</i>		2. MDE Registration No.:(if applica 6-0331	able)
1a. Date of installation (month/year): 200	02		
3. Detailed description of the emissions u	nit, including all em	nission point(s) and the assigned num	ber(s):
Bucket Elevator. Emission Point No. H1	0-181		
		41 F 1 1 XX 1 XX 1	
4. Federally Enforceable Limit on the Op General Reference:	erating Schedule for	this Emissions Unit: N/A	
Continuous Processes:	hours/day	dovelvoor	
Batch Processes:	hours/batch	• •	
Datch Processes:		batches/day	
	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel	% Sulfur	Annual Usage (specify	y units)
1			
2			
3			
6. Emissions in Tons: Refer to Emissions	S Certification Repo	ort on electronic copy of Application	!
A. Actual Major:	_ Potential Major:	(note: before control de	evice)
B. Actual Emissions: NOx_	SOx	VOCPM10HAPs	

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## SECTION 3A-214. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>H10-177</i>		2. MDE Registration No 6-0331	::(if applicable)
1a. Date of installation (month/yea	ar): <b>2002</b>	0-0331	
3. Detailed description of the emis Airslide. Emission Point No. H10	_	l nission point(s) and the ass	signed number(s):
4. Federally Enforceable Limit on	the Operating Schedule fo	r this Emissions Unit · N/	1
General Reference:	the Operating Schedule 10.	tills Ellissions Out. 17/2	1
Continuous Processes:	hours/day	days/year	
Batch Processes:	hours/batch	batches/day	y
	days/year		
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.	% Sulfur		age (specify units)
3			
6. Emissions in Tons: Refer to En	nissions Certification Repo	ort on electronic copy of A	Application
A. Actual Major:	Potential Major:_	(note: befor	e control device)
B. Actual Emissions:	NOxSOx	VOCPM10	_ HAPs

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## **SECTION 3A-215.** EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>101-033</i>		2. MDE Registration No.: 6-0039	(if applicable)
1a. Date of installation (month/year): 2002		0 0037	
3. Detailed description of the emissions unit, ir	ncluding all emi	ission point(s) and the assi	gned number(s):
Day Tank. Emission Point No. H10-179			
4. Federally Enforceable Limit on the Operatin	g Schedule for	this Emissions Unit: <i>N/A</i>	
General Reference:			
Continuous Processes:	_hours/day	days/year	
Batch Processes:	_hours/batch	batches/day	
	_days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel %	6 Sulfur	Annual Usa	ge (specify units)
2			
3			
J			
6. Emissions in Tons: Refer to Emissions Cert	tification Repo	rt on electronic copy of Ap	pplication
A. Actual Major: Potential			
B. Actual Emissions: NOx	_SOx	VOCPM10	HAPs

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## **SECTION 3A-216.** EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>102-289</i>		2. MDE Regi <b>6-0039</b>	istration No.	:(if applicable)
1a. Date of installation (month/year): 2002	2	0-0037		
3. Detailed description of the emissions un	nit, including all em	ission point(s)	and the assi	gned number(s):
Feed Bin. Emission Point No. 102-290	-			
4. Federally Enforceable Limit on the Ope	erating Schedule for	this Emission	s Unit · N/A	
General Reference:	rating Senedate for	tins Limssion	5 Cmt. 14/1	
Continuous Processes:	hours/day	Ċ	lays/year	
Batch Processes:	hours/batch		_batches/day	
	days/year			
5. Fuel Consumption: <i>N/A</i>				
Type(s) of Fuel	% Sulfur		Annual Usa	ge (specify units)
1				
2				
3				
6. Emissions in Tons: Refer to Emissions	Certification Repo	ort on electron	ic copy of A	pplication
A. Actual Major:	-			• •
B. Actual Emissions: NOx_				
	50x	VOC1	- WITU	HAPS

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## SECTION 3A-217. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>103/104</i>		2. MDE Registrati <b>6-0039</b>	on No.:(if applicable)
1a. Date of installation (month/year):	1970		
3. Detailed description of the emission	ns unit, including all en	nission point(s) and	the assigned number(s):
Packaging and Palletizing.			
4. Federally Enforceable Limit on the	Operating Schedule for	r this Emissions Uni	t: <i>N/A</i>
General Reference:			
Continuous Processes:	hours/day	days/y	year
Batch Processes:	hours/batch	batcl	nes/day
	days/year		
5. Fuel Consumption: N/A	0/ C16	A	1.I.J. (
Type(s) of Fuel 1	% Sulfur	Ann	ual Usage (specify units)
2			
3			_
6. Emissions in Tons: Refer to Emiss	ions Certification Repo	ort on electronic cop	by of Application
A Astrol Major			
A. Actual Major:	Potential Major:_	(note:	before control device)

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### SECTION 3A-218. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: TL2		2. MDE Regis <b>6-0039</b>	tration No.:	(if applicable)
1a. Date of installation (month/year): 2002		0-0037		
3. Detailed description of the emissions unit.	, including all em	ission point(s) a	and the assi	gned number(s):
Truck Day Tank Loadout. 102-290				
4. Federally Enforceable Limit on the Opera	ting Schedule for	this Emissions	Unit: N/A	
General Reference:				
Continuous Processes:	hours/day	da	nys/year	
Batch Processes:	hours/batch	b	oatches/day	
	days/year			
5. Fuel Consumption: <i>N/A</i>				
Type(s) of Fuel	% Sulfur	A	Annual Usa	ge (specify units)
2				
3				
6. Emissions in Tons: Refer to Emissions Co	-			-
A. Actual Major: P B. Actual Emissions: NOx				
D. Actual Ellissions. NOX	SOx	VOCPr	V11U	11/41.9

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### SECTION 3A-219. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>I02-001 to I02-032</i>	2. MDE Registration No.:(if applicable)
1a. Date of installation (month/year): 1970 and 2003	6-0039
3. Detailed description of the emissions unit, including a The primary use of the Product Silos is for product store Emission Point No. H10-224, H10-252, H10-254, and	age. The product silos store Portland cement.
4. Federally Enforceable Limit on the Operating Schedu General Reference:	lle for this Emissions Unit: <i>N/A</i>
Continuous Processes: hours/d	aydays/year
Batch Processes: hours/ba	atchbatches/day
days/yea	r
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel % Sulfur  1.  2.  3.	
	Report on electronic copy of Application     jor:(note: before control device)     VOCPM10HAPs

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### SECTION 3A-220. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>TL4 (F6/F5/H7/J6/</i>	/J3/J4/E7/H3)	2. MDE Registration No.:(if applicable)
1a. Date of installation (month/year): 1970	and 2003	6-0039
3. Detailed description of the emissions unit	t, including all em	ission point(s) and the assigned number(s):
Bulk Loadout System. Emission Point No 180, and I14-190	. 111-180, 111-19	0, 112-180, 112-190, 113-180, 113-190, 114-
4. Federally Enforceable Limit on the Opera	ating Schedule for	this Emissions Unit: <i>N/A</i>
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: N/A Type(s) of Fuel 1. 2. 3.		
6. Emissions in Tons: <i>Refer to Emissions C</i> A. Actual Major: H		rt on electronic copy of Application (note: before control device)
B. Actual Emissions: NOx	SOx	VOCPM10HAPs

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### SECTION 3A-221. EMISSIONS UNIT DESCRIPTIONS

		2. MDE Registration <i>6-0330</i>	No.:(if applicable)
1a. Date of installation (month/year	): <b>200</b> 7	0 0000	
3. Detailed description of the emissi	_		assigned number(s):
Dried BioSolids Storage Tank. Em	ission Point No. F04-062	and F04-064	
4. Federally Enforceable Limit on the	he Operating Schedule for	this Emissions Unit:	N/A
General Reference:			
C	1 / 1	1/	_
Continuous Processes:	hours/day	days/yea	
Continuous Processes: Batch Processes:	hours/batch	days/yea	
	•		
Batch Processes:  5. Fuel Consumption: N/A	hours/batch days/year		
Batch Processes:	hours/batch	batches/	
5. Fuel Consumption: N/A Type(s) of Fuel  1.	hours/batch days/year % Sulfur	batches/	/day
5. Fuel Consumption: N/A Type(s) of Fuel  1. 2.	hours/batch days/year % Sulfur	batches/	/day
5. Fuel Consumption: N/A Type(s) of Fuel  1.	hours/batch days/year % Sulfur	batches/	/day
5. Fuel Consumption: N/A Type(s) of Fuel  1. 2. 3. 6. Emissions in Tons: Refer to Emi	hours/batch days/year % Sulfur  Ssions Certification Repo	Annual  Ort on electronic copy of	Usage (specify units)  of Application
5. Fuel Consumption: N/A Type(s) of Fuel  1. 2. 3. 6. Emissions in Tons: Refer to Emi A. Actual Major:	hours/batchdays/year  % Sulfur	batches/ Annual  ort on electronic copy o	Usage (specify units)  of Application  efore control device)

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### SECTION 3A-222. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>F05-049</i>	2. MDE Registration No.:(if applicable) <b>6-0330</b>
1a. Date of installation (month/year): 2007	
3. Detailed description of the emissions unit, including	g all emission point(s) and the assigned number(s):
Rotary Airlock for Feeding DBS from Silo. Emission	Point No. F04-062 and F04-064
4. Federally Enforceable Limit on the Operating Sched	dule for this Emissions Unit: <i>N/A</i>
General Reference:	
Continuous Processes:hours	/daydays/year
Batch Processes: hours/	batchbatches/day
days/ye	ear
5. Fuel Consumption: <i>N/A</i>	
Type(s) of Fuel % Sulfur	Annual Usage (specify units)
2	
2	
3	
6. Emissions in Tons: Refer to Emissions Certification	n Report on electronic copy of Application
A. Actual Major: Potential M	lajor:(note: before control device)
B. Actual Emissions: NOxSOx	VOCPM10 HAPs

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### SECTION 3A-223. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>F05-050</i>		2. MDE Registration No.:(if applicable) <b>6-0330</b>
1a. Date of installation (month/year): 200	<i>)7</i>	
3. Detailed description of the emissions u	nit, including all em	nission point(s) and the assigned number(s):
Scale, Pfister Dosing System. Emission I	Point No. F04-062 at	nd F04-064
4. Federally Enforceable Limit on the Op	erating Schedule for	r this Emissions Unit: <i>N/A</i>
General Reference:		
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: <i>N/A</i>		
Type(s) of Fuel	% Sulfur	Annual Usage (specify units)
1		
2		
3		
6. Emissions in Tons: Refer to Emissions	s Certification Repo	ort on electronic copy of Application
	_	(note: before control device)
B. Actual Emissions: NOx_	SOx	VOCPM10HAPs

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## SECTION 3A-224. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>F05-051</i>		2. MDE Registration No.:(a 6-0337	if applicable)
1a. Date of installation (month/year): 20	07		
3. Detailed description of the emissions of <i>Mobile DBS Conveyor</i> .	unit, including all em	ission point(s) and the assign	ned number(s):
4. Federally Enforceable Limit on the Op General Reference:	perating Schedule for	this Emissions Unit: <i>N/A</i>	
Continuous Processes:	hours/day	days/year	
Batch Processes:	hours/batch	batches/day	
	days/year		
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.	% Sulfur		e (specify units)
3			
6. Emissions in Tons: Refer to Emission	s Certification Repo	ort on electronic copy of App	plication
A. Actual Major:	_ Potential Major:	(note: before c	control device)
B. Actual Emissions: NOx	SOx	VOCPM10F	HAPs

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## SECTION 3A-225. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>F05-055</i>		2. MDE Registration No.:(if applicable) <b>6-0330</b>
1a. Date of installation (month/year): 2	2007	
3. Detailed description of the emission  Diverter Valve to Calciner. Emission	_	ission point(s) and the assigned number(s):  F04-064
4. Federally Enforceable Limit on the General Reference:	Operating Schedule for	this Emissions Unit: <i>N/A</i>
Continuous Processes:	hours/day	days/year
Batch Processes:	hours/batch	batches/day
	days/year	
5. Fuel Consumption: <i>N/A</i> Type(s) of Fuel  1.  2.		
3		
6. Emissions in Tons: <i>Refer to Emission</i>		
		(note: before control device) VOCPM10 HAPs
b. Actual Elilissiolis. INC	JA JUA	1 W1101A1 S

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## SECTION 3A-226. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>F05-056</i>		2. MDE Registration No.:(i <b>6-0330</b>	f applicable)
1a. Date of installation (month/year): 200	97		
3. Detailed description of the emissions u	ınit, including all em	ission point(s) and the assign	ned number(s):
Diverter Valve to Main Kiln Burner. Em	ission Point No. F04	1-062 and F04-064	
4. Federally Enforceable Limit on the Op	erating Schedule for	this Emissions Unit: N/A	
General Reference:			
Continuous Processes:	hours/day	days/year	
Batch Processes:	hours/batch	batches/day	
· · · · · · · · · · · · · · · · · · ·	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel	% Sulfur	Annual Usage	e (specify units)
2			
2			
3			
6. Emissions in Tons: Refer to Emission.	s Certification Repo	rt on electronic copy of App	olication
A. Actual Major:	_ Potential Major:	(note: before c	ontrol device)
B. Actual Emissions: NOx_	SOx	VOCPM10 F	IAPs

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### SECTION 3A-227. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>G05-001</i>		2. MDE Registration No.:(if applicable) 6-0331	
1a. Date of installation (month/year): 2009			
3. Detailed description of the emissions un	it, including all em	nission point(s) and the assigned number(s)	:
Pneumatic baghouse dust transfer system	a. Emission Point I	No. G05-003	
4. Federally Enforceable Limit on the Oper	rating Schedule for	this Emissions Unit: <i>N/A</i>	
General Reference:	1 /1	/	
Continuous Processes:	hours/day	• •	
Batch Processes:	hours/batch	batches/day	
	days/year		
5. Fuel Consumption: <i>N/A</i>			
Type(s) of Fuel	% Sulfur	Annual Usage (specify units	s)
2			
3			
J			
6. Emissions in Tons: Refer to Emissions	Certification Repo	ort on electronic copy of Application	
		(note: before control device)	)
B. Actual Emissions: NOx	SOx	VOCPM10HAPs	

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#### SECTION 3A-228. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: <i>J08-532</i>	2. MDE Registration No.:(if applicable) <b>9-0186</b>
1a. Date of installation (month/year): 2001	7-0100
3. Detailed description of the emissions unit, including a	ll emission point(s) and the assigned number(s):
Caterpillar 2,520 horsepower emergency generator.	
4. Federally Enforceable Limit on the Operating Schedul	le for this Emissions Unit: <i>N/A</i>
General Reference:	1 /
Continuous Processes: hours/da	• • •
Batch Processes: hours/ba	tchbatches/day
days/year	
5. Fuel Consumption:	
Type(s) of Fuel % Sulfur 1. Fuel Oil N/A	Annual Usage (specify units) As needed
2	
3	
6. Emissions in Tons: Refer to Emissions Certification	Report on electronic copy of Application
	or:(note: before control device)
B. Actual Emissions: NOxSOx	VOCPM10 HAPs

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#### SECTION 3B Citation to and Description of Applicable Federally Enforceable Requirements

This section includes all information pertinent to the MDE Title V Renewal Application form MDE/ARMA/PER.020 Page 6 of 16.

No emission units have been added since the issuance of the current Title V Permit. In addition, no changes are being proposed to any Federally Enforceable Requirements within Section IV of the current Title V Permit. Therefore, for each emission unit group, the emission limits, monitoring, testing, recordkeeping, and reporting requirements currently in the Title V Permit are incorporated by reference.

## SECTION 3B-1. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Table IV-1 Quarry – Fugitive Sources (Area A)

Emissions Unit No.: <u>See Table IV-1</u>	General Reference:	40 CFR 60 Subpart OOO
Briefly describe the Emission Standard/Lim See Table IV-1 of Part 70 Operating Permit No. 2	nit or Operational Limitatio 4-013-0012 Issued January 1, 2	2017
Permit Shield Request:		
Compliance Demonstration:  Check appropriate reports required to be Quarterly Monitoring Report:  Annual Compliance Certification Semi-Annual Monitoring Report	e submitted:  : X : X	
Methods used to demonstrate compliance:		
Monitoring: Reference See Table IV-1 Des		
Testing: Reference See Table IV-1 De		
Record Keeping: Reference See Table IV-1	Describe:	
Reporting: Reference   See Table IV-1	Describe:	

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Frequency of submittal of the compliance demonstration: Semiannual and Annual

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# SECTION 3B-2. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Table IV-3 New Windsor Quarry – Point Sources (Area A-2)

Emissions Unit No.: <u>See Table IV-3</u> General Reference: <u>40 CFR 60 Subpart OOO</u>
Briefly describe the Emission Standard/Limit or Operational Limitation:  See Table IV-3 of Part 70 Operating Permit No. 24-013-0012 Issued January 1, 2017
Permit Shield Request:
Compliance Demonstration:  Check appropriate reports required to be submitted:  Quarterly Monitoring Report:  Annual Compliance Certification:  Semi-Annual Monitoring Report:  X
Methods used to demonstrate compliance:
Monitoring: Reference See Table IV-3 Describe:
Testing: Reference See Table IV-3 Describe:
Record Keeping: Reference See Table IV-3 Describe:
Reporting: Reference See Table IV-3 Describe:

Frequency of submittal of the compliance demonstration: <u>Semiannual and Annual</u>

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# SECTION 3B-3. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Table IV-5 Material Handling – Fugitive Sources – Subject to MACT Requirements

Emissions Unit No.: <u>See Table IV-5</u> General Reference: <u>40 CFR 63 Subpart LLL</u>
Briefly describe the Emission Standard/Limit or Operational Limitation: See Table IV-5 of Part 70 Operating Permit No. 24-013-0012 Issued January 1, 2017
Permit Shield Request:
Compliance Demonstration:  Check appropriate reports required to be submitted:  Quarterly Monitoring Report:  Annual Compliance Certification:  Semi-Annual Monitoring Report:  X
Methods used to demonstrate compliance:
Monitoring: Reference See Table IV-5 Describe:
Testing: Reference See Table IV-5 Describe:
Record Keeping: Reference See Table IV-5 Describe:
Reporting: Reference See Table IV-5 Describe:

Frequency of submittal of the compliance demonstration: Semiannual and Annual

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# SECTION 3B-4. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Table IV-6 Material Handling – Point Sources – Subject to MACT Requirements

Emissions Unit No.: <u>See Table IV-6</u>	General Reference: 40 CFR 63 Subpart LLL
	Operational Limitation: 3-0012 Issued January 1, 2017
Permit Shield Request:	
Compliance Demonstration:  Check appropriate reports required to be sub Quarterly Monitoring Report:  Annual Compliance Certification: Semi-Annual Monitoring Report:	X
Methods used to demonstrate compliance:	
	::
	pe:
Record Keeping: Reference See Table IV-6 Desc	cribe:
Reporting: Reference See Table IV-6 Desc	ribe:

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Frequency of submittal of the compliance demonstration: Semiannual and Annual

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## SECTION 3B-5. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: See Table IV-7 General Reference: 40 CFR 63 Subpart LLL and

Table IV-7 Kiln, Raw and Coal Mills - Subject to MACT Requirements

4	40 CFR 98
Briefly describe the Emission Standard/Limit or Operational Limitation See Table IV-7 of Part 70 Operating Permit No. 24-013-0012 Issued January 1, 2	2017
Permit Shield Request:	
Compliance Demonstration:  Check appropriate reports required to be submitted:  Quarterly Monitoring Report: X  Annual Compliance Certification: X  Semi-Annual Monitoring Report: X	
Methods used to demonstrate compliance:	
Monitoring: Reference See Table IV-7 Describe:	
Testing: Reference See Table IV-7 Describe:	
Record Keeping: Reference See Table IV-7 Describe:	
Reporting: Reference See Table IV-7 Describe:	

Frequency of submittal of the compliance demonstration: **Quarterly, Semiannual, and Annual** 

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# SECTION 3B-6. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Table IV-8 Clinker Cooler and Main Pan Conveyor – Subject to MACT Requirements

Emissions Unit No.: <u>See Table IV-8</u> General Reference: <u>40 CFR 63 Subpart LLL</u>
Briefly describe the Emission Standard/Limit or Operational Limitation: See Table IV-8 of Part 70 Operating Permit No. 24-013-0012 Issued January 1, 2017
Permit Shield Request:
Compliance Demonstration:  Check appropriate reports required to be submitted:  Quarterly Monitoring Report:  Annual Compliance Certification:  Semi-Annual Monitoring Report:  X
Methods used to demonstrate compliance:
Monitoring: Reference See Table IV-8 Describe:
Testing: Reference See Table IV-8 Describe:
Record Keeping: Reference See Table IV-8 Describe:
Reporting: Reference   See Table IV-8   Describe:

Frequency of submittal of the compliance demonstration: Semiannual and Annual

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# SECTION 3B-7. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Table IV-9 Clinker Handling and Craneway – Point Sources – Subject to MACT Requirements

Emissions Unit No.: See Table IV-9	General Reference:	40 CFR 63 Subpart LLL
	013-0012 Issued January 1, 2	2017
Permit Shield Request:		
Compliance Demonstration:  Check appropriate reports required to be s  Quarterly Monitoring Report:  Annual Compliance Certification:  Semi-Annual Monitoring Report:	X	
Methods used to demonstrate compliance:		
Monitoring: Reference See Table IV-9 Descri		
Testing: Reference See Table IV-9 Description	eribe:	
Record Keeping: Reference See Table IV-9 D	escribe:	
Reporting: Reference   See Table IV-9   De	escribe:	

Frequency of submittal of the compliance demonstration: Semiannual and Annual

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# SECTION 3B-8. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Table IV-10 Finish Mill Systems – Subject to MACT Requirements

Emissions Unit No.: See Table IV-10 General Reference: 40 CFR 63 Subpart LLL
Briefly describe the Emission Standard/Limit or Operational Limitation: See Table IV-10 of Part 70 Operating Permit No. 24-013-0012 Issued January 1, 2017
Permit Shield Request:
Compliance Demonstration:  Check appropriate reports required to be submitted:  Quarterly Monitoring Report:  Annual Compliance Certification:  Semi-Annual Monitoring Report:  X
Methods used to demonstrate compliance:
Monitoring: Reference See Table IV-10 Describe:
Testing: Reference See Table IV-10 Describe:
Record Keeping: Reference See Table IV-10 Describe:
Reporting: Reference See Table IV-10 Describe:

Frequency of submittal of the compliance demonstration: Semiannual and Annual

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# SECTION 3B-9. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Table IV-11 Miscellaneous Sources Venting Inside Building – Subject to MACT Requirements

Emissions Unit No.: See Table IV-11 General Reference: 40 CFR 63 Subpart LLL
Briefly describe the Emission Standard/Limit or Operational Limitation:  See Table IV-11 of Part 70 Operating Permit No. 24-013-0012 Issued January 1, 2017
Permit Shield Request:
Compliance Demonstration:  Check appropriate reports required to be submitted:  Quarterly Monitoring Report:  Annual Compliance Certification:  Semi-Annual Monitoring Report:  X
Methods used to demonstrate compliance:
Monitoring: Reference See Table IV-11 Describe:
Cesting: Reference See Table IV-11 Describe:
Record Keeping: Reference See Table IV-11 Describe:
Reporting: Reference See Table IV-11 Describe:

Frequency of submittal of the compliance demonstration: Semiannual and Annual

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# SECTION 3B-10. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Table IV-15 Facility Wide - MACT Sources Only

Emissions Unit No.: See Table IV-15 General Reference: 40 CFR 63 Subpart LLL
Briefly describe the Emission Standard/Limit or Operational Limitation: See Table IV-15 of Part 70 Operating Permit No. 24-013-0012 Issued January 1, 2017
Permit Shield Request:
Compliance Demonstration:  Check appropriate reports required to be submitted:  Quarterly Monitoring Report:  Annual Compliance Certification:  Semi-Annual Monitoring Report:  X
Methods used to demonstrate compliance:
Monitoring: Reference See Table IV-15 Describe:
Testing: Reference See Table IV-15 Describe:
Record Keeping: Reference See Table IV-15 Describe:
Reporting: Reference See Table IV-15 Describe:

Frequency of submittal of the compliance demonstration: Semiannual and Annual



#### SECTION 3C Obsolete, Extraneous, or Insignificant Permit Conditions

This section includes all information pertinent to the MDE Title V Renewal Application form MDE/ARMA/PER.020 Page 7 of 16.

There are no permit conditions in the current Title V Permit that should be considered obsolete, extraneous, or environmentally insignificant.

## SECTION 3C. OBSOLETE, EXTRANEOUS, OR INSIGNIFICANT PERMIT CONDITIONS

List permit to construct conditions which should be considered to be obsolete, extraneous, or environmentally insignificant.

Emissions Unit No.: <u>N/A</u>	Permit to Construct No. N/A
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Emissions Point No.	Date Permit Issued	Condition No.	Brief Description of Condition and Reason for Exclusion	

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# **SECTION 3D Alternate Operating Scenarios**

This section includes all information pertinent to the MDE Title V Renewal Application form MDE/ARMA/PER.020 Page 8 of 16.

#### **SECTION 3D.** ALTERNATE OPERATING SCENARIOS

<b>Emissions Unit No.:</b>	N/A

Briefly describe any alternate operating scenarios. Assign a number to each scenario for purposes.	or identification
N/A	

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#### **SECTION 3E**

# Citation to and Description of Applicable Federally Enforceable Requirements for an Alternate Operating Scenario

This section includes all information pertinent to the MDE Title V Renewal Application form MDE/ARMA/PER.020 Page 9 of 16.

SECTION 3E. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS FOR AN ALTERNATE OPERATING SCENARIO

Scenario No.: <u>N/A</u>	
Emissions Unit No.: N/A	General Reference: N/A
Briefly describe any applicable Emissions	Standard/Limits/Operational Limitations:
N/A	
Compliance Demonstration	
Methods used to demonstrate compliance:	:
Monitoring: Reference	Describe:
Testing: Reference	Describe:
Record Keeping: Reference	Describe:
Danastina: Dafarana	Dagarika
Reporting: Keterence	Describe:

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# **SECTION 4.0 Control Equipment**

This section includes all information pertinent to the MDE Title V Renewal Application form MDE/ARMA/PER.020 Page 10 of 16.

### **SECTION 4-1. CONTROL EQUIPMENT**

1. Associated Emissions Units No.: A01-009 and A01-018	2. Emissions Point No.: A01-012	
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled: Co	ntrol Efficiency:	
PM/PM10 99%	Ó	
Opacity N/A		
5. Capture Efficiency: 100%		

**SECTION 4-2. CONTROL EQUIPMENT** 

1. <u>Associated Emissions Units No</u> . : <b>A01-021</b>	2. Emissions Point No.: A01-025		
3. Type and Description of Control Equipment: Fabric Filter Dust Collector			
4. Pollutants Controlled: Con	ntrol Efficiency:		
PM/PM10 99%			
Opacity N/A			
5. Capture Efficiency: 100%			

### **SECTION 4-3. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> . : <b>A02-005</b> , <b>A02-006</b> , <b>A02-010</b> , <b>A02-017</b> , <b>A02-018</b> , <b>A02-</b> <b>019</b> , <b>and A02-021</b>		2. Emissions Point No.: A02-008		
3. Type and Description of Control Equipment: Fabric Filter Dust Collector				
4. Pollutants Controlled:	Cont	rol Efficiency:		
PM/PM10	99%			
Opacity 2	V/A			
5. Capture Efficiency: 100%				

### **SECTION 4-4. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> . : <i>A02-011</i> , <i>A02-022</i> , <i>A02-023</i> , <i>and A02-024</i>		2. Emissions Point No.: A02-012		
3. Type and Description of Control Equipment: Fabric Filter Dust Collector				
4. Pollutants Controlled: Control Efficiency:		rol Efficiency:		
PM/PM <sub>10</sub> 99%				
Opacity N/A		L		
5. Capture Efficiency: 100%				

### **SECTION 4-5. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No.</u> : A02-011, A02-022, A02-023, and A02-024		2. Emissions Point No.: A02-015	
3. Type and Description of Control Equipment: Fabric Filter Dust Collector			
4. Pollutants Controlled: Control Efficiency:		ol Efficiency:	
PM/PM10 99%		Ó	
Opacity N/A		4	
5. Capture Efficiency: 100%			

### **SECTION 4-6. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> . : <i>B01-017</i> , <i>A02-011</i> , <i>A02-022</i> , <i>A02-023</i>		2. Emissions Point No.: A02-025		
3. Type and Description of Control Equipment: Fabric Filter Dust Collector				
4. Pollutants Controlled:	4. Pollutants Controlled: Control Efficiency:			
PM/PM10 99	M/PM10 99%			
Opacity N/A				
5. Capture Efficiency: 100%				

### **SECTION 4-7. CONTROL EQUIPMENT**

1. Associated Emissions Units No.: A03-005 and A03-006	2. Emissions Point No.: A03-007	
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled:	ontrol Efficiency:	
PM/PM10 999		
Opacity N/A		
5. Capture Efficiency: 100%		

### **SECTION 4-8. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> . : <b>A03-008</b>	2	2. Emissions Point No.: A03-009	
3. Type and Description of Control Equipment: Fabric Filter Dust Collector			
4. Pollutants Controlled:	ontro	ol Efficiency:	
PM/PM10 99	99%		
Opacity N/.	<b>A</b>		
5. Capture Efficiency: 100%			

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#### **SECTION 4-9. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> . : <b>A03-010</b>	2. Emissions Point No.: A03-011	
3. Type and Description of Control Equipment: Fabri	c Filter Dust Collector	
4. Pollutants Controlled:	ontrol Efficiency:	
	99%	
Opacity N/A		
5. Capture Efficiency: 100%		

### **SECTION 4-10. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> . : <b>A03-012</b>		2. Emissions Point No.: A03-013
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled:	Contr	rol Efficiency:
PM/PM10 99	99%	
Opacity N	/A	
5. Capture Efficiency: 100%		

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### **SECTION 4-11. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> . : <b>A03-014</b>	2. Emissions Point No.: A03-015
3. Type and Description of Control Equipment: Fabric	Filter Dust Collector
4. Pollutants Controlled: Con	ntrol Efficiency:
PM/PM10 99%	
Opacity N/A	
5. Capture Efficiency: 100%	

**SECTION 4-12. CONTROL EQUIPMENT** 

1. <u>Associated Emissions Units No</u> . : <i>A03-016</i>	2. Emissions Point No.: A03-017	
3. Type and Description of Control Equipment: Fabric	Filter Dust Collector	
4. Pollutants Controlled: Con	trol Efficiency:	
PM/PM10 99%	99%	
Opacity N/A		
5. Capture Efficiency: 100%		

### **SECTION 4-13. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> .: <b>B02-007</b> , <b>B02-011</b> , <b>B02-012</b> , <b>and B02-017</b>	2. <u>Emissions Point No</u> .: <i>B02-008</i>	
3. Type and Description of Control Equipment: Fabric	Filter Dust Collector	
4. Pollutants Controlled: Co	ntrol Efficiency:	
PM/PM10 99%	99%	
Opacity N/A		
5. Capture Efficiency: 100%		

### **SECTION 4-14. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> . : <b>B03-004</b>		2. Emissions Point No.: <b>B03-008</b>
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled:	Cont	rol Efficiency:
PM/PM10 99	99%	
Opacity N.	/A	
5. Capture Efficiency: 100%		

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### **SECTION 4-15. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> .: <b>B04-019</b> and TT3		2. <u>Emissions Point No</u> .: <b>B04-016</b>
3. Type and Description of Control Equipment: Fab.	3. Type and Description of Control Equipment: Fabric Filter Dust Collector	
4. Pollutants Controlled:	Cont	rol Efficiency:
PM/PM10 99	99%	
Opacity N	/A	
5. Capture Efficiency: 100%		

#### **SECTION 4-16. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> .: <i>TT3</i>	2. Emissions Point No.: B04-011
3. Type and Description of Control Equipment: Fabr	ic Filter Dust Collector
4. Pollutants Controlled:	Control Efficiency:
PM/PM10 99	%
Opacity N/A	A
5. Capture Efficiency: 100%	

### **SECTION 4-17. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> . : <i>TT4</i>	2. Emissions Point No.: B02-019	
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled: Con	ntrol Efficiency:	
PM/PM10 99%	99%	
Opacity N/A		
5. Capture Efficiency: 100%		

### **SECTION 4-18. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> .: <i>C01-002</i> , <i>C01-004</i> , <i>C01-006</i> , <i>and C01-011</i>	2. Emissions Point No.: C01-007	
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled: Co	ntrol Efficiency:	
PM/PM10 99%		
Opacity N/A		
5. Capture Efficiency: 100%		

**SECTION 4-19. CONTROL EQUIPMENT** 

1. <u>Associated Emissions Units No</u> .: <i>C01-011, C02-and C02-038</i>	-001, 2. Emissions Point No.: C02-021	
3. Type and Description of Control Equipment: Fa	bric Filter Dust Collector	
4. Pollutants Controlled:	Control Efficiency:	
	99%	
Opacity [	V/A	
5. Capture Efficiency: 100%		

## **SECTION 4-20. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> . : <i>C01-015</i>	2. Emissions Point No.: C01-019	
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled:	ntrol Efficiency:	
PM/PM10 99%		
Opacity N/A		
5. Capture Efficiency: 100%		

**SECTION 4-21. CONTROL EQUIPMENT** 

1. <u>Associated Emissions Units No</u> . : <i>C02-001</i> , <i>C02-006</i> , <i>and C02-060</i>	2. Emissions Point No.: C02-011	
3. Type and Description of Control Equipment: Fabric	Filter Dust Collector	
4. Pollutants Controlled:	ntrol Efficiency:	
PM/PM10 99%	Ó	
Opacity N/A		
5. Capture Efficiency: 100%		

**SECTION 4-22. CONTROL EQUIPMENT** 

1. <u>Associated Emissions Units No</u> . : <i>C04-037</i> , <i>C04-038</i> , <i>and C04-068</i>	2. Emissions Point No.: C04-050	
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled: Con	trol Efficiency:	
PM/PM10 99%		
Opacity N/A		
5. Capture Efficiency: 100%		

**SECTION 4-23. CONTROL EQUIPMENT** 

1. <u>Associated Emissions Units No</u> . : <i>C04-038, C04-037 C04-068, C04-070, C04-072, and C04-074</i>	2. <u>Emissions Point No</u> .: <i>C04-075</i>	
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled:	ntrol Efficiency:	
PM/PM10 99%		
Opacity N/A		
5. Capture Efficiency: 100%		

**SECTION 4-24. CONTROL EQUIPMENT** 

1. <u>Associated Emissions Units No</u> .: <i>C03-034</i> , <i>C03-035</i> , <i>C03-040</i> , <i>and C03-042</i>	2. Emissions Point No.: C03-001	
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
	ontrol Efficiency:	
PM/PM10 99%		
Opacity N/A	4	
5. Capture Efficiency: 100%		

**SECTION 4-25. CONTROL EQUIPMENT** 

1. <u>Associated Emissions Units No</u> .: <i>C03-045</i>	2. Emissions Point No.: C03-047	
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
	Control Efficiency:	
PM/PM10 99		
Opacity N/A	'A	
5. Capture Efficiency: 100%		

## **SECTION 4-26. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> . : <i>C03-054</i> , <i>C03-045</i> , <i>C03-008</i> , <i>C04-066</i>		2. Emissions Point No.: C03-050
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled:	Cont	rol Efficiency:
PM/PM10 99	9%	
Opacity N	// <b>A</b>	
5. Capture Efficiency: 100%		

## **SECTION 4-27. CONTROL EQUIPMENT**

1. Associated Emissions Units No.: C03-013, C03 and C03-046	3-010, 2. <u>Emissions Point No</u> .: <i>C03-030</i>	
3. Type and Description of Control Equipment: Fo	abric Filter Dust Collector	
4. Pollutants Controlled:	Control Efficiency:	
PM/PM10	99%	
Opacity	N/A	
5. Capture Efficiency: 100%		

**SECTION 4-28. CONTROL EQUIPMENT** 

1. <u>Associated Emissions Units No</u> . : <b>C03-046, C03</b> <b>D01-001, D01-002, and D01-003</b>	3-017, 2. Emissions Point No.: <b>D01-037</b>	
3. Type and Description of Control Equipment: For	abric Filter Dust Collector	
4. Pollutants Controlled:	Control Efficiency:	
PM/PM10	99%	
Opacity	N/A	
5. Capture Efficiency: 100%	l	

## **SECTION 4-29. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> .: <i>E01-001</i> , <i>E02-001</i> , <i>C02-025</i> , <i>F04-018</i> , <i>and F04-026</i>		2. Emissions Point No.: C04-014
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled:	Cont	rol Efficiency:
PM/PM10 99	9%	
Opacity N	// <b>A</b>	
5. Capture Efficiency: 100%		

**SECTION 4-30. CONTROL EQUIPMENT** 

1. <u>Associated Emissions Units No</u> .: <b>D02-017</b> , <b>D02-004</b> , <b>D01-020</b> , <b>D02-019</b> , <b>and D02-006</b>	2. Emissions Point No.: D01-034		
3. Type and Description of Control Equipment: Fabric Filter Dust Collector			
4. Pollutants Controlled:	Control Efficiency:		
PM/PM10 99	0%		
Opacity N/	/A		
5. Capture Efficiency: 100%			

**SECTION 4-31. CONTROL EQUIPMENT** 

1. <u>Associated Emissions Units No</u> .: <i>D01-023</i> , <i>D01-026</i> , <i>D02-007</i> , <i>and D02-020</i>	2. Emissions Point No.: D01-040		
3. Type and Description of Control Equipment: Fabric Filter Dust Collector			
4. Pollutants Controlled: Con	trol Efficiency:		
PM/PM10 99%			
Opacity N/A			
5. Capture Efficiency: 100%			

### **SECTION 4-32. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No.</u> : <b>D02-025</b> , <b>D02-026</b> , <b>D02-049</b> , <b>D02-023</b> , <b>and D02-010</b>	2	2. Emissions Point No.: <b>D02-041</b>
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled:	Contro	ol Efficiency:
PM/PM10 99	%	
Opacity N/A	'A	
5. Capture Efficiency: 100%		

## **SECTION 4-33. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> . : <i>D02-025</i> , <i>D02-026</i> , <i>D02-033</i> , <i>D02-045</i> , <i>and D02-047</i>		2. <u>Emissions Point No</u> .: <b>D02-027</b>
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled:	Contr	ol Efficiency:
PM/PM10 99	0%	
Opacity N/	/A	
5. Capture Efficiency: 100%		

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## **SECTION 4-34. CONTROL EQUIPMENT**

1. Associated Emissions Units No.: E03-001 and G01-001	2. Emissions Point No.: E04-016	
3. Type and Description of Control Equipment: Fabric	Filter Dust Collector	
4. Pollutants Controlled:	ntrol Efficiency:	
PM/PM10 99%		
Opacity N/A		
5. Capture Efficiency: 100%		

## **SECTION 4-35. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> .: <b>F02-006, F02</b> and TT5	2-007, 2. <u>Emissions Point No</u> .: <i>F02-027</i>
3. Type and Description of Control Equipment: For	abric Filter Dust Collector
4. Pollutants Controlled:	Control Efficiency:
PM/PM10	99%
Opacity	N/A
5. Capture Efficiency: 100%	

## **SECTION 4-36. CONTROL EQUIPMENT**

1. Associated Emissions Units No.: F03-016		2. Emissions Point No.: <b>F03-028</b>
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled:	Cont	rol Efficiency:
PM/PM10 99	99%	
Opacity N	/A	
5. Capture Efficiency: 100%		

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## **SECTION 4-37. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> . : <i>F03-016</i>	2. Emissions Point No.: F03-032	
3. Type and Description of Control Equipment: Fabric	Filter Dust Collector	
4. Pollutants Controlled:	ntrol Efficiency:	
PM/PM10 99%		
Opacity N/A		
5. Capture Efficiency: 100%		

**SECTION 4-38. CONTROL EQUIPMENT** 

1. <u>Associated Emissions Units No</u> . : <i>F03-016</i>	2. Emissions Point No.: F03-036	
3. Type and Description of Control Equipment: Fabric	Filter Dust Collector	
4. Pollutants Controlled: Con	trol Efficiency:	
PM/PM10 99%		
Opacity N/A		
5. Capture Efficiency: 100%		

### **SECTION 4-39. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> . : <i>F03-016</i>	2. Emissions Point No.: F03-040	
3. Type and Description of Control Equipment: Fabric	Filter Dust Collector	
4. Pollutants Controlled: Con	ntrol Efficiency:	
PM/PM10 99%		
Opacity N/A		
5. Capture Efficiency: 100%		

## **SECTION 4-40. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> . : <i>F03-016</i>	2. Emissions Point No.: F03-044	
3. Type and Description of Control Equipment: Fabric	Filter Dust Collector	
4. Pollutants Controlled: Co	ntrol Efficiency:	
PM/PM10 99%		
Opacity N/A		
5. Capture Efficiency: 100%		

## **SECTION 4-41. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> . : <i>F03-016</i>		2. Emissions Point No.: F03-048
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled:	Conti	rol Efficiency:
PM/PM10 99	99%	
Opacity N	/A	
5. Capture Efficiency: 100%		

### **SECTION 4-42. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> . : <b>F04-009</b>	2. Emissions Point No.: F04-010	
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled: Con	trol Efficiency:	
PM/PM10 99%		
Opacity N/A		
5. Capture Efficiency: 100%		

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### **SECTION 4-43. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> . : <i>TT8/9</i>	2. Emissions Point No.: G02-041	
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled: Con	ntrol Efficiency:	
PM/PM10 99%		
Opacity N/A		
5. Capture Efficiency: 100%		

## **SECTION 4-44. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> . : <i>TT8/9</i>	,	2. Emissions Point No.: <b>B01-018</b>
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled:	Contr	ol Efficiency:
PM/PM10 99	99%	
Opacity N	/A	
5. Capture Efficiency: 100%		

## **SECTION 4-45. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> .: <b>TT6</b>	2. Emissions Point No.: G02-025	
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled: Cor	ntrol Efficiency:	
PM/PM10 99%		
Opacity N/A		
5. Capture Efficiency: 100%		

### **SECTION 4-46. CONTROL EQUIPMENT**

1. Associated Emissions Units No.: TT9/10 and G03-010	2. Emissions Point No.: G03-011	
3. Type and Description of Control Equipment: Fabric	c Filter Dust Collector	
4. Pollutants Controlled:	ontrol Efficiency:	
PM/PM10 99%	6	
Opacity N/A		
5. Capture Efficiency: 100%		

**SECTION 4-47. CONTROL EQUIPMENT** 

1. <u>Associated Emissions Units No</u> . : <i>G04-010</i> , <i>G04-014</i> , <i>and G04-020</i>	2. Emissions Point No.: G04-011
3. Type and Description of Control Equipment: Fabric	Filter Dust Collector
4. Pollutants Controlled: Con	ntrol Efficiency:
PM/PM10 99%	
Opacity N/A	
5. Capture Efficiency: 100%	

**SECTION 4-48. CONTROL EQUIPMENT** 

1. <u>Associated Emissions Units No</u> . : <i>G04-056</i> , <i>G04-009</i> , <i>and G04-016</i>	2. Emissions Point No.: G04-034	
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled: Con	trol Efficiency:	
PM/PM10 99%		
Opacity N/A		
5. Capture Efficiency: 100%		

## **SECTION 4-49. CONTROL EQUIPMENT**

1. Associated Emissions Units No.: G04-058 and G04-059		2. Emissions Point No.: H01-210 (G04-059)
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled:	Cont	crol Efficiency:
PM/PM10 9	99%	
Opacity N	<i>I/A</i>	
5. Capture Efficiency: 100%		

## **SECTION 4-50. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> . : <i>G01-012</i>	2. Emissions Point No.: G01-009	
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled: Con	ntrol Efficiency:	
PM/PM10 99%		
Opacity N/A		
5. Capture Efficiency: 100%		

**SECTION 4-51. CONTROL EQUIPMENT** 

1. <u>Associated Emissions Units No</u> .: <i>G02-002</i>	2. Emissions Point No.: G02-047	
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled: Con	trol Efficiency:	
PM/PM10 99%		
Opacity N/A		
5. Capture Efficiency: 100%		

### **SECTION 4-52. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> . : <i>G02-002</i>	2. Emissions Point No.: G02-044	
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled:	ol Efficiency:	
PM/PM10 99	99%	
Opacity N/.		
5. Capture Efficiency: 100%		

**SECTION 4-53. CONTROL EQUIPMENT** 

1. <u>Associated Emissions Units No</u> . : <i>G02-002</i>	2. Emissions Point No.: G02-021
3. Type and Description of Control Equipment: Fabric	Filter Dust Collector
4. Pollutants Controlled: Con	trol Efficiency:
PM/PM10 99%	
Opacity N/A	
5. Capture Efficiency: 100%	

**SECTION 4-54. CONTROL EQUIPMENT** 

1. <u>Associated Emissions Units No</u> . : <i>G04-018</i> and G04-019		2. Emissions Point No.: G04-037	
3. Type and Description of Control Equipment: Fabric Filter Dust Collector			
4. Pollutants Controlled:	Cont	rol Efficiency:	
PM/PM10 99	99%		
Opacity N	N/A		
5. Capture Efficiency: 100%			

## **SECTION 4-55. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> .: <b>G04-031, H09-and H09-075</b>	058 2. Emissions Point No.: H09-073	
3. Type and Description of Control Equipment: Fair	bric Filter Dust Collector	
4. Pollutants Controlled:	Control Efficiency:	
PM/PM10 9	9%	
Opacity N	N/A	
5. Capture Efficiency: 100%		

## **SECTION 4-56. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> . : <i>TL1</i>	2. Emissions Point No.: G02-053	
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled: Con	ntrol Efficiency:	
PM/PM10 99%		
Opacity N/A	N/A	
5. Capture Efficiency: 100%		

**SECTION 4-57. CONTROL EQUIPMENT** 

1. <u>Associated Emissions Units No</u> . : <i>TT7</i>	2. Emissions Point No.: G03-004		
3. Type and Description of Control Equipment: Fabric Filter Dust Collector			
4. Pollutants Controlled: Con	trol Efficiency:		
PM/PM10 99%			
Opacity N/A			
5. Capture Efficiency: 100%			

## **SECTION 4-58. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> .: <b>H01-040</b> , <b>H01-061</b> , <b>H01-090</b> and <b>H01-063</b>	2. Emissions Point No.: H01-070	
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled:	ntrol Efficiency:	
PM/PM10 99%		
Opacity N/A		
5. Capture Efficiency: 100%		

**SECTION 4-59. CONTROL EQUIPMENT** 

1. <u>Associated Emissions Units No</u> .: <i>H01-080</i>	2. Emissions Point No.: H01-230		
3. Type and Description of Control Equipment: Fabric Filter Dust Collector			
4. Pollutants Controlled: Co	ntrol Efficiency:		
PM/PM10 99%			
Opacity N/A			
5. Capture Efficiency: 100%			

**SECTION 4-60. CONTROL EQUIPMENT** 

1. <u>Associated Emissions Units No</u> . : <i>H01-105</i> , <i>H01-110</i> , <i>and H01-112</i>	2. Emissions Point No.: H01-210		
3. Type and Description of Control Equipment: Fabric Filter Dust Collector			
4. Pollutants Controlled: Con	trol Efficiency:		
PM/PM10 99%			
Opacity N/A			
5. Capture Efficiency: 100%			

## **SECTION 4-61. CONTROL EQUIPMENT**

1. Associated Emissions Units No.: H07-015 and H07-016		2. Emissions Point No.: H01-240	
3. Type and Description of Control Equipment: Fabric Filter Dust Collector			
4. Pollutants Controlled:	Cont	rol Efficiency:	
PM/PM10 9	99%		
Opacity A	N/A		
5. Capture Efficiency: 100%			

## **SECTION 4-62. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> .: <b>H04-006</b> and <b>H04-014</b>	2. Emissions Point No.: H04-044		
3. Type and Description of Control Equipment: Fabric Filter Dust Collector			
4. Pollutants Controlled: Con	ntrol Efficiency:		
PM/PM10 99%			
Opacity N/A			
5. Capture Efficiency: 100%			

### **SECTION 4-63. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> . : <i>H05-014</i>	2. Emissions Point No.: H05-044		
3. Type and Description of Control Equipment: Fabric Filter Dust Collector			
4. Pollutants Controlled:	ntrol Efficiency:		
PM/PM10 99%			
Opacity N/A			
5. Capture Efficiency: 100%			

### **SECTION 4-64. CONTROL EQUIPMENT**

5. Capture Efficiency: 100%		

## **SECTION 4-65. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> .: <i>H07-014</i> , <i>H07-018</i> , <i>H07-068</i> , <i>H07-070</i>		2. <u>Emissions Point No</u> .: <i>H07-056</i>	
3. Type and Description of Control Equipment: Fabric Filter Dust Collector			
4. Pollutants Controlled:	Cont	rol Efficiency:	
PM/PM10 99	99%		
Opacity N	/A		
5. Capture Efficiency: 100%			

## **SECTION 4-66. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> . : <i>H07-014</i> , <i>H07-018</i> , <i>H07-068</i> , <i>H07-070</i>	2. Emissions Point No.: H07-057
3. Type and Description of Control Equipment: Fabric	Filter Dust Collector
4. Pollutants Controlled: Con	ntrol Efficiency:
PM/PM10 99%	
Opacity N/A	
5. Capture Efficiency: 100%	

## **SECTION 4-67. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> . : <b>H07-040,</b> <b>H07-071, H08-040, H08-064, H10-001, and</b> <b>H10-006</b>		2. Emissions Point No.: H10-113	
3. Type and Description of Control Equipment: Fabric Filter Dust Collector			
4. Pollutants Controlled:	Cont	rol Efficiency:	
PM/PM10 99	99%		
Opacity N	// <b>A</b>		
5. Capture Efficiency: 100%			

## **SECTION 4-68. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> . : <i>H08-014</i> , <i>H08-017</i> , <i>H08-037</i> , <i>H08-038</i>	2. <u>Emissions Point No</u> .: <i>H08-056</i>
3. Type and Description of Control Equipment: Fabric	Filter Dust Collector
4. Pollutants Controlled:	ntrol Efficiency:
PM/PM10 99%	
Opacity N/A	
5. Capture Efficiency: 100%	

## **SECTION 4-69. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> .: <b>H09-000</b> , <b>H09-058</b> , <b>H09-036</b> , <b>and H09-047</b>	2. <u>Emissions Point No</u> .: <i>H09-059</i>
3. Type and Description of Control Equipment: Fabric	Filter Dust Collector
4. Pollutants Controlled: Co	ntrol Efficiency:
PM/PM10 99%	
Opacity N/A	
5. Capture Efficiency: 100%	

**SECTION 4-70. CONTROL EQUIPMENT** 

1. <u>Associated Emissions Units No</u> . : <i>H09-019</i> , <i>H09-023</i> , <i>and H09-024</i>	2. Emissions Point No.: H09-025	
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled: Con	trol Efficiency:	
PM/PM10 99%		
Opacity N/A		
5. Capture Efficiency: 100%		

## **SECTION 4-71. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> .: <i>H09-062</i> , <i>H09-066</i> , <i>H09-021</i> , <i>and H09-020</i>		2. Emissions Point No.: H09-082
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled:	Conti	rol Efficiency:
PM/PM10 99	99%	
Opacity N.	/A	
5. Capture Efficiency: 100%		

## **SECTION 4-72. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> .: <i>H09-031</i> , <i>H09-062</i> , <i>and H09-028</i>		2. Emissions Point No.: H09-051		
3. Type and Description of Control Equipment: Fabr	3. Type and Description of Control Equipment: Fabric Filter Dust Collector			
4. Pollutants Controlled:	Cont	rol Efficiency:		
PM/PM10 99	99%			
Opacity N <sub>i</sub>	/ <b>A</b>			
5. Capture Efficiency: 100%				

## **SECTION 4-73. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> .: <b>H09-031</b> , <b>H09-036</b> , <b>H09-041</b> , <b>and H09-046</b>	2. Emissions Point No.: H09-033
3. Type and Description of Control Equipment: Fabric	Filter Dust Collector
4. Pollutants Controlled:	ntrol Efficiency:
PM/PM10 99%	
Opacity N/A	
5. Capture Efficiency: 100%	

### **SECTION 4-74. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> . : <i>H09-091</i>	2. Emissions Point No.: H09-094
3. Type and Description of Control Equipment: Fabr	c Filter Dust Collector
4. Pollutants Controlled:	ontrol Efficiency:
PM/PM10 99	<del>%</del>
Opacity N/2	1
5. Capture Efficiency: 100%	

## **SECTION 4-75. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> .: <i>H10-007</i> , <i>H10-010</i> , <i>H10-124</i> , <i>and H10-125</i>		2. Emissions Point No.: H10-119
3. Type and Description of Control Equipment: Fac	bric l	Filter Dust Collector
4. Pollutants Controlled:	Cont	rol Efficiency:
PM/PM10	99%	
Opacity A	V/A	
5. Capture Efficiency: 100%		

## **SECTION 4-76. CONTROL EQUIPMENT**

1. Associated Emissions Units No.: H10-167 and H10-176		2. Emissions Point No.: H10-181
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled:	Contr	ol Efficiency:
PM/PM10 99	99%	
Opacity N/	<b>'A</b>	
5. Capture Efficiency: 100%		

## **SECTION 4-77. CONTROL EQUIPMENT**

1. Associated Emissions Units No.: H10-177 and 2033	2. <u>Emissions Point No</u> .: <i>H10-179</i>	
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled:	Control Efficiency:	
PM/PM10	99%	
Opacity	N/A	
5. Capture Efficiency: 100%		

## **SECTION 4-78. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> . : <i>102-289</i> and TL2	2. Emissions Point No.: 102-290	
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled:	ntrol Efficiency:	
PM/PM10 99%		
Opacity N/A		
5. Capture Efficiency: 100%		

## **SECTION 4-79. CONTROL EQUIPMENT**

1. Associated Emissions Units No.: 102-001 to 102-032		2. Emissions Point No.: H10-224
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled:	olled: Control Efficiency:	
PM/PM10	99%	
<b>Opacity</b>	N/A	
5. Capture Efficiency: 100%		

**SECTION 4-80. CONTROL EQUIPMENT** 

1. <u>Associated Emissions Units No</u> . : <i>I02-001 to I02-032</i>	2. Emissions Point No.: H10-252	
3. Type and Description of Control Equipment: Fabric	Filter Dust Collector	
4. Pollutants Controlled: Con	ntrol Efficiency:	
PM/PM10 99%		
Opacity N/A		
5. Capture Efficiency: 100%		

### **SECTION 4-81. CONTROL EQUIPMENT**

1. Associated Emissions Units No.: 102-001 to 102-032	2. Emissions Point No.: H10-254	
3. Type and Description of Control Equipment: Fabric	Filter Dust Collector	
4. Pollutants Controlled:	ntrol Efficiency:	
PM/PM10 99%	Ó	
Opacity N/A		
5. Capture Efficiency: 100%		

## **SECTION 4-82. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> . : <i>I02-001 to I02-032</i>		2. Emissions Point No.: H10-221
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled:	Control Efficiency:	
PM/PM10 99	99%	
Opacity N.	N/A	
5. Capture Efficiency: 100%		

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## **SECTION 4-83. CONTROL EQUIPMENT**

1. Associated Emissions Units No.: TL4 (F6/F5/H7/J6/J3/J4/E7/H3)	2. <u>E</u>	missions Point No.: I11-180
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled:	ants Controlled: Control Efficiency:	
PM/PM10 99	99%	
Opacity N/	N/A	
5. Capture Efficiency: 100%		

## **SECTION 4-84. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> . : <i>TL4</i> ( <i>F6/F5/H7/J6/J3/J4/E7/H3</i> )	2. Emissions Point No.: I11-190	
3. Type and Description of Control Equipment: Fabric	Filter Dust Collector	
4. Pollutants Controlled: Con	ntrol Efficiency:	
PM/PM10 99%		
Opacity N/A		
5. Capture Efficiency: 100%		

**SECTION 4-85. CONTROL EQUIPMENT** 

1. <u>Associated Emissions Units No</u> . : <i>TL4</i> ( <i>F6/F5/H7/J6/J3/J4/E7/H3</i> )	2. Emissions Point No.: 112-180	
3. Type and Description of Control Equipment: Fabric	Filter Dust Collector	
4. Pollutants Controlled: Con	ntrol Efficiency:	
PM/PM10 99%		
Opacity N/A	N/A	
5. Capture Efficiency: 100%		

## **SECTION 4-86. CONTROL EQUIPMENT**

1. Associated Emissions Units No.: TL4 (F6/F5/H7/J6/J3/J4/E7/H3)		2. Emissions Point No.: I12-190	
3. Type and Description of Control Equipment: Fabric Filter Dust Collector			
4. Pollutants Controlled:	Control Efficiency:		
PM/PM10 99	99%		
Opacity N <sub>i</sub>	N/A		
5. Capture Efficiency: 100%			

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## **SECTION 4-87. CONTROL EQUIPMENT**

1. Associated Emissions Units No.: TL4 (F6/F5/H7/J6/J3/J4/E7/H3)		2. Emissions Point No.: I13-180
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled:	Controlled: Control Efficiency:	
PM/PM <sub>10</sub> 9	99%	
Opacity A	N/A	
5. Capture Efficiency: 100%		

## **SECTION 4-88. CONTROL EQUIPMENT**

1. Associated Emissions Units No.: TL4 (F6/F5/H7/J6/J3/J4/E7/H3)	2. <u>F</u>	Emissions Point No.: 113-190
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled:	tants Controlled: Control Efficiency:	
PM/PM10 99	99%	
Opacity N	N/A	
5. Capture Efficiency: 100%		

## **SECTION 4-89. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> . : <i>TL4</i> ( <i>F6/F5/H7/J6/J3/J4/E7/H3</i> )	2. Emissions Point No.: I14-180	
3. Type and Description of Control Equipment: Fabric Filter Dust Collector		
4. Pollutants Controlled: Con	ntrol Efficiency:	
PM/PM10 99%		
Opacity N/A		
5. Capture Efficiency: 100%		

#### **SECTION 4-90. CONTROL EQUIPMENT**

1. Associated Emissions Units No.: TL4 (F6/F5/H7/J6/J3/J4/E7/H3)	2. Emissi	ions Point No.: <b>I14-190</b>	
3. Type and Description of Control Equipment: Fabric Filter Dust Collector			
4. Pollutants Controlled:	ntrol Efficie	ency:	
PM/PM10 99			
Opacity N/			
5. Capture Efficiency: 100%			

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#### **SECTION 4-91. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> .: <b>F04-058</b> , <b>F05-055</b> , <b>F05-056</b> , <b>F05-049</b> , <b>F05-050</b> , <b>and F05-051</b>	2. Emissions Point No.: F04-062		
3. Type and Description of Control Equipment: Fabric Filter Dust Collector			
4. Pollutants Controlled:	Control Efficiency:		
PM/PM10 99	9%		
Opacity N/	/A		
5. Capture Efficiency: 100%			

#### **SECTION 4-92. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> .: <b>F04-058</b> , <b>F05-055</b> , <b>F05-056</b> , <b>F05-049</b> , <b>F05-050</b> , <b>and</b> <b>F05-051</b>	2. Emissions Point No.: F04-064			
3. Type and Description of Control Equipment: Fabric Filter Dust Collector				
4. Pollutants Controlled:	Control Efficiency:			
PM/PM10 99	1%			
Opacity N	'A			
5. Capture Efficiency: 100%				

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#### **SECTION 4-93. CONTROL EQUIPMENT**

1. <u>Associated Emissions Units No</u> . : <i>G05-001</i>	2. Emissions Point No.: G05-003		
3. Type and Description of Control Equipment: Fabric Filter Dust Collector			
4. Pollutants Controlled:	ontrol Efficiency:		
PM/PM10 99	%		
Opacity N/.	1		
5. Capture Efficiency: 100%			

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**SECTION 4-94. CONTROL EQUIPMENT** 

1. <u>Associated Emissions Units No</u> . : <b>B03-031</b>	2. Emissions Point No.: PAC Tank Bin Vent
3. Type and Description of Control Equipment: Power Activated Carbon Bin Vent Filter	
4. Pollutants Controlled: Con	trol Efficiency:
PM/PM <sub>10</sub> 99%	
Opacity N/A	
5. Capture Efficiency: 100%	

**SECTION 4-95. CONTROL EQUIPMENT** 

1. <u>Associated Emissions Units No</u> . : <i>E01-001/E02-0</i>	2. Emissions Point No.: PAC System		
3. Type and Description of Control Equipment: Power Activated Carbon (PAC) Injection System			
4. Pollutants Controlled:	Control Efficiency:		
	aries based on carbon injection rate necessary for ompliance		
5. Capture Efficiency: <i>N/A</i>			

**SECTION 4-96. CONTROL EQUIPMENT** 

1. Associated Emissions Units No.: E01-001/E02-001	2. Emissions Point No.: SNCR
3. Type and Description of Control Equipment: Select	ive Non-Catalytic Reduction System
4. Pollutants Controlled:	ontrol Efficiency:
	ies based on aqueous ammonia injection rate essary for compliance

# **SECTION 5.0 Summary Sheet of Potential Emissions**

This section includes all information pertinent to the MDE Title V Renewal Application form MDE/ARMA/PER.020 Page 11 of 16.

#### SECTION 5. SUMMARY SHEET OF POTENTIAL EMISSIONS

List all applicable pollutants in tons per year (tpy) pertaining to this facility. The Emissions Unit No. should be consistent with numbers used in Section 3. Attach a copy of all calculations.

Pollutant	Refer to Emissions Certification Report on electronic copy of Application.		
CAS Number			
Emissions Unit #			
<b>Fugitive Emissions</b>			
Total			

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#### SECTION 6.0 Explanation of Proposed Exemptions from Otherwise Applicable Federally Enforceable Requirements

This section includes all information pertinent to the MDE Title V Renewal Application form MDE/ARMA/PER.020 Page 12 of 16.

# SECTION 6. EXPLANATION OF PROPOSED EXEMPTIONS FROM OTHERWISE APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Describe and cite the applicable requirements to be exempted. Complete this Section only if the facility is claiming exemptions from or the non-applicability of any federally enforceable requirements.

1. Applicable Requirement:
N/A
2. Brief Description:
2. Deagang for Proposed Evernation or Justification of Non-applicability
3. Reasons for Proposed Exemption or Justification of Non-applicability:

<u>1</u> of <u>1</u>

#### SECTION 7.0 Compliance Schedule for Noncomplying Emissions Units

This section includes all information pertinent to the MDE Title V Renewal Application form MDE/ARMA/PER.020 Page 13 of 16.

# SECTION 7. COMPLIANCE SCHEDULE FOR NONCOMPLYING EMISSIONS UNITS

1. Emissions Unit # <i>N/A</i>	Anticipated Compliance Date
Applicable Federally Enforceable Requirement being Violated:	
2. Description of Plan to Achieve Compliance:	

Certified Progress Reports for sources in noncompliance shall be submitted at least quarterly to the Department.

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# APPENDIX A Finish Mill Systems CAM Plan

### **COMPLIANCE ASSURANCE MONITORING PLAN**

### Prepared by:

# LEHIGH CEMENT COMPANY UNION BRIDGE PORTLAND CEMENT PLANT

**SEPTEMBER 2016** 

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#### 1.0 Introduction

The Lehigh Cement Company (Lehigh) Union Bridge Plant (Plant) has developed this Compliance Assurance Monitoring Plan to meet the requirements of the CAM Rule. The CAM Rule was signed on October 3, 1997 and published in the Federal Register on October 22, 1997 as 40 CFR Part 64. The U. S. Environmental Protection Agency (EPA) developed the CAM Rule to focus on monitoring for "reasonable assurance of compliance" of applicable requirements stipulated in the Clean Air Act (CAA).

Table 1 depicts for each CAM Rule applicable EU, the corresponding Baghouse Number(s), and Emission Point (EP) Number. Additional information for these EU's is provided in the Plant's current Title V Permit, No. 24-013-00012, issued by MDE to Lehigh on November 17, 2010.

Table 1 CAM Applicable Sources

Name Finish Mill #1 System	<u>EU No.</u> H01-040	Baghouse No. H01-070
Finish Mill #4 System	H04-014	H04-044
Finish Mill #5 System	H05-014	H05-044
Finish Mill #6 System	H06-014	H06-044
Finish Mill #7 System	H07-014	Н07-056, 057
Finish Mill #8 System	H08-014	H08-056

The particulate matter emission limits for which this CAM Plan is designed to protect are presented in Table 2.

Table 2
PM Emission Limits for CAM Applicable Sources

Source Finish Mill #1 Stack	<u>EU No.</u> H01-040	PM Emission Limit (gr/scfd) 0.0132
Finish Mill 4 Stack	H04-014	0.0132
Finish Mill 5 Stack	H05-014	0.0132
Finish Mill 6 Stack	H06-014	0.0132

Finish Mill 7 Stack	H07-014	0.0100
Finish Mill 8 Stack	H08-014	0.0100

#### 2.0 CAM Plan Requirements

Per 40 CFR 64, a CAM Plan must:

- 1. Describe the indicators to be monitored [Section 64.4(a)(1)];
- 2. Describe the ranges or the process to set indicator ranges [Section 64.4(a)(2)];
- 3. Describe the performance criteria for the monitoring, including [Section 64.4(a)(3)]:
  - Specifications for obtaining representative data
  - Quality assurance and control procedures
  - Monitoring frequency and data collection procedures
- 4. Describe indicator ranges and performance criteria for a continuous emission monitoring system (CEMS), continuous opacity monitoring system (COMS), or predictive emission monitoring system (PEMS) [Section 64.3(a)(4)];
- 5. Provide a justification for the use of parameters, ranges, and monitoring approach [Section 64.4(b)];
- 6. Provide emissions test data; and, if necessary [Section 64.4(c)]
- 7. Provide an implementation plan for installing, testing, and operating the monitoring [Section 64.4(d)].

#### 3.0 CAM Plan Content

#### 3.1 Indicators to Be Monitored

Table 3 summarizes the CAM Rule indicators to be monitored.

Table 3
CAM Rule Indicators to Be Monitored

Name Finish Mill #1 System	EU Number H01-040	Indicator to be Monitored Visible Emissions / Inspection and Maintenance
Finish Mill #4 System	H04-014	Visible Emissions / Inspection and Maintenance
Finish Mill #5 System	H05-014	Visible Emissions / Inspection and Maintenance
Finish Mill #6 System	H06-014	Visible Emissions/ Inspection and Maintenance
Finish Mill #7 System	H07-014	Visible Emissions/ Inspection and Maintenance
Finish Mill #8 System	H08-014	Visible Emissions/ Inspection and Maintenance

#### 3.2 Indicators Range

Table 4 provides the indicator ranges or designated conditions which will ensure minimizing particulate matter emissions to assure compliance with the particulate matter emissions limits for these emission units as previously presented in Table 2 of the CAM Plan. The information developed by Lehigh for the indicator ranges or designated conditions presented in Table 4 were based on past operating experience and the conduct of an extensive review of collected operational data including observed measured opacity.

#### 3.3 Indicator Monitoring Approach

#### Visible Emissions

Visible emissions from the Finish Mill #1, #4, #5, #6, #7, and #8 baghouses' exhaust will be monitored daily using EPA Reference Method 22-procedures. To comply with PC MACT Rule requirements, effective 9/9/15, the Plant is performing 6-minute daily Method 22 visible emission observations on all finish mill stacks as previously identified in this CAM Plan. An

excursion is defined as the presence of visible emissions. Excursions trigger an inspection of the baghouse, corrective action, and a reporting requirement.

Table 4
CAM Rule Indicator Values

		Indicator Range		
Name	EU Number	Opacity	Baghouse System Operating Condtions	Baghouse System Compartment Isolation
Finish Mill #1 System	H01-040	An excursion is defined as the presence of visible emissions. Excursions trigger an inspection of the baghouse, corrective action, and a reporting requirement.	N/A	N/A
Finish Mill #4 System	Н04-014	An excursion is defined as the presence of visible emissions. Excursions trigger an inspection of the baghouse, corrective action, and a reporting requirement.	N/A	N/A
Finish Mill #5 System	Н05-014	An excursion is defined as the presence of visible emissions. Excursions trigger an inspection of the baghouse, corrective action, and a reporting requirement.	N/A	N/A
Finish Mill #6 System	Н06-014	An excursion is defined as the presence of visible emissions. Excursions trigger an inspection of the baghouse, corrective action, and a reporting requirement.	N/A	N/A
Finish Mill #7 System	Н07-014	An excursion is defined as the presence of visible emissions. Excursions trigger an inspection of the baghouse, corrective action, and a reporting requirement.	N/A	N/A
Finish Mill #8 System	H08-014	An excursion is defined as the presence of visible emissions. Excursions trigger an inspection of the baghouse, corrective action, and a reporting requirement.	N/A	N/A

#### Inspection/Maintenance

Daily inspection according to checklist and maintenance performed in accordance with manufacturer's recommendations or as needed.

#### 3.4 Performance Criteria

#### 3.4.1 Data Representativeness

Table 5 presents a summary of the data which has been selected to be representative to meet CAM Rule requirements.

Table 5
Finish Mills #1, #4, #5, #6, #7, and #8 CAM table

I. Indicat	tor		
		Visible emissions	Inspection/Maintenance
Meası	urement approach	Visible emissions from the baghouses' exhaust will be monitored daily using and EPA Reference Method 22-like procedures.	Daily inspection according to checklist and maintenance performed in accordance with manufacturer's recommendations or as needed.
II. Indica	itor Range	An excursion is defined as the presence of visible emissions. Excursions trigger an inspection of the baghouse, corrective action, and a reporting requirement.	N/A
III. Perfo	ormance Criteria		
А	Data Representativeness	Measurements are made at the baghouse exhaust while the finish mills are operating.	Inspections are performed on the baghouses: H01-040, H04-044, H05-044, H06-044, H07-056 & 057, and H08-014.
В.	QA/QC Practices and Criteria	The observer will be familiar with Reference Method 22 and will follow Method 22-like procedures.	Qualified personnel perform inspections and maintenance.
C.	Monitoring Frequency	A 6-minute Method 22-like observation is performed daily.	Daily
D.	Data Collection Procedure	The VE observation is documented by the observer.	Records are maintained to document daily inspections and dates of any required maintenance.
E.	Averaging Period	N/A	None

#### 3.4.2 QA/QC Practices and Criteria

Daily six-minute Method 22 Tests performed for the Finish Mills 1, 4, 5, 6, 7, and 8 stacks will be recorded and maintained as part of the Plant operating record. The Method 22 Tests will be conducted while the Finish Mills are operating under representative performance conditions in accordance with 40 CFR Part 63.7(e) and 63.1350(f)(2)(i)-(iii). A follow-up six-minute Method 22 test will be performed within 24 hours of the end of the six-minute Method 22 test in which the visible emission was observed. If visible emissions are observed during the follow-up Method 22 performance a 30-minute Method 9 test must be performed. Any Method 9 Tests that are required to be performed for the Finish Mills 1, 4, 5, 6, 7, and 8 stacks will be recorded and

maintained as part of the Plant operating record. The Method 9 Test needs to be conducted within 1-hour of the follow-up Method 22 Test. The duration of the Method 9 Test needs to be at least 30 minutes in length.

### 3.4.3 Monitoring Frequency and Data Collection Procedure

Method 22 Tests need to be 6 minutes in duration. The duration of the Method 9 Test needs to be at least 30 minutes.

#### 4.0 CAM Plan Justification

Opacity and visible emissions were selected as the performance indicators because they are indicative of good operation and maintenance of each CAM Rule affected baghouse. Opacity limits are imposed by Federal (40 CFR 63 Subpart LLL) requirements and visible emission limits are imposed by both Federal (40 CFR 63 Subpart LLL) and State of Maryland (COMAR 26.11.06.02C(2)) requirements. An increase of opacity or detection of a visible emission indicates possible reduced performance of a baghouse. Additionally, the routine inspections and preventative maintenance activities that are performed as part of the O & M Plan will provide routine surveillance of each CAM Rule affected baghouse to ensure compliance with the PM emission limits presented in Table 2.

The baghouses associated with the Finish Mills are considered to be primarily Product Recovery Units (PRUs) and not air pollution control devices. The Finish Mill baghouses are designed to collect product (i.e., Portland cement) for subsequent sale as a bulk material or packaged material.

### 5.0 Emissions Test Data

Opacity and visible emission data are kept as part of the 40 CFR 63 Subpart LLL recordkeeping requirements. These emission data can be provided or made available to MDE upon request to meet CAM Rule 40 CFR 64.4(c) requirements.

### 6.0 Implementation Plan

As indicated in Section 5 of this CAM Plan, the visible emission data monitoring is already being performed to meet 40 CFR 63 Subpart LLL monitoring requirements. As a result, this CAM Plan constitutes an implementation plan for installing, testing, and operating the monitoring equipment to meet CAM Rule 40 CFR 64.4(d) requirements. Plant personnel are familiar with applicable Plant procedures and have been trained in performing Method 22 observations.

# Appendix B Citation to and Description of Applicable State-Only Enforceable Requirements

This appendix includes all information pertinent to the MDE Title V Renewal Application forms MDE/ARMA/PER.020 Page 15 of 16 and MDE/ARMA/PER.020 Page 16 of 16.

As previously discussed in Section 2.0, Lehigh is proposing modifications to the State-Only Enforceable Permit Requirements for Table IV-3. These changes are also detailed in the Appendix B-2 form for Table IV-3.

No changes are being proposed to any State-Only Enforceable Requirements within Section IV of the current Title V Permit, other than those previously discussed for Table IV-3. Therefore, for each emission unit group, the emission limits, monitoring, testing, recordkeeping, and reporting requirements currently in the Title V Permit are incorporated by reference.

### STATE-ONLY ENFORCEABLE REQUIREMENTS

### **Facility Information:**

Name of Facility: Lehigh Cement Company – Union Bridge County: Carroll, Frederick
Premises Number: 0012
Street Address: 675 Quaker Hill Road, Union Bridge, MD 21791
24-hour Emergency Telephone Number for Air Pollution Matters: 410-386-1210
Type of Equipment (List Significant Units): See Section I of Part 70 Operating Permit No. 24-013-0012 Issued January 1, 2017

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#### CITATION TO AND DESCRIPTION OF APPLICABLE STATE-ONLY ENFORCEABLE REQUIREMENTS

Table IV-1 Quarry – Fugitive Sources (Area A)

Registration No.: See Section I of Title V Permit
Emissions Unit No.: See Table IV-1 General Reference:
Briefly describe the requirement and the emissions limit (if applicable):
See Table IV-1, Applicable Standards/Limits
Methods used to demonstrate compliance:
See Table IV-1, Testing Requirements, Monitoring Requirements, Record Keeping Requirements,
and Reporting Requirements.

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#### Table IV-2 Union Bridge Quarry – Point Sources (Area A-1)

Registration No.: See Section I of Title V Permit
Emissions Unit No.: See Table IV-2 General Reference:
Briefly describe the requirement and the emissions limit (if applicable):
See Table IV-2, Applicable Standards/Limits
Methods used to demonstrate compliance:
See Table IV-2, Testing Requirements, Monitoring Requirements, Record Keeping Requirements,
and Reporting Requirements.

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Table IV-3 Quarry – Fugitive Sources (Area A)

Registration No.: See Section I of Title V Permit
Emissions Unit No.: See Table IV-3 General Reference:
Briefly describe the requirement and the emissions limit (if applicable):
See Table IV-3, Applicable Standards/Limits except for Condition 3.1(B)(1)(c and f), which
Lehigh is proposing to modify as described in Section 2.0 and shown below:
(c) The clinker production grade limestone mined by, or for, the Union Bridge Cement Plant from both the Union Bridge Quarry and the New Windsor Quarry shall be used only to support the Union Bridge Portland Cement Plant.
(f) The Union Bridge crushing system and the New Windsor Quarry crushing system shall not operate at the same time. Except that the Union Bridge crushing system may operate as a feed system for already-crushed limestone at the same time as the New Windsor Quarry crushing system, provided that the primary and secondary gyratory crushers do not operate within the Union Bridge crushing system.
Methods used to demonstrate compliance:
See Table IV-3, Testing Requirements, Monitoring Requirements, Record Keeping Requirements, and Reporting Requirements.

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#### Table IV-4 Material Handling – Fugitive Sources – Not subject to MACT Requirements

Registration No.: See Section I of Title V Permit
Emissions Unit No.: See Table IV-4 General Reference:
Briefly describe the requirement and the emissions limit (if applicable):
See Table IV-4, Applicable Standards/Limits
Methods used to demonstrate compliance:
See Table IV-4, Testing Requirements, Monitoring Requirements, Record Keeping Requirements,
and Reporting Requirements.

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#### Table IV-5 Material Handling – Fugitive Sources – Subject to MACT Requirements

Registration No.: See Section I of Title V Permit
Emissions Unit No.: See Table IV-5 General Reference:
Briefly describe the requirement and the emissions limit (if applicable):
See Table IV-5, Applicable Standards/Limits
Methods used to demonstrate compliance:
See Table IV-5, Testing Requirements, Monitoring Requirements, Record Keeping Requirements,
and Reporting Requirements.

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#### Table IV-6 Material Handling – Fugitive Sources – Subject to MACT Requirements

Registration No.: See Section I of Title V Permit
Emissions Unit No.: See Table IV-6 General Reference:
Briefly describe the requirement and the emissions limit (if applicable):
See Table IV-6, Applicable Standards/Limits
Methods used to demonstrate compliance:
See Table IV-6, Testing Requirements, Monitoring Requirements, Record Keeping Requirements,
and Reporting Requirements.

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### Table IV-7 Kiln, Raw and Coal Mills – (Subject to MACT Requirements)

Registration No.: See Section I of Title V Permit
Emissions Unit No.: See Table IV-7 General Reference:
Briefly describe the requirement and the emissions limit (if applicable):
See Table IV-7, Applicable Standards/Limits.
Methods used to demonstrate compliance:
See Table IV-7, Testing Requirements, Monitoring Requirements, Record Keeping Requirements,
and Reporting Requirements.

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#### Table IV-8 Clinker Cooler and Main Pan Conveyor – (Subject to MACT **Requirements**)

Registration No.: See Section I of Title V Permit
Emissions Unit No.: See Table IV-8 General Reference:
Briefly describe the requirement and the emissions limit (if applicable):
See Table IV-8, Applicable Standards/Limits
Methods used to demonstrate compliance:
See Table IV-8, Testing Requirements, Monitoring Requirements, Record Keeping Requirements,
and Reporting Requirements.

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Table IV-9 Clinker Handling and Craneway - Point Sources - (Subject to **MACT Requirements)** 

Registration No.: See Section 1 of Title v Permit
Emissions Unit No.: See Table IV-9 General Reference:
Briefly describe the requirement and the emissions limit (if applicable):
See Table IV-9, Applicable Standards/Limits
Methods used to demonstrate compliance:
See Table IV-9, Testing Requirements, Monitoring Requirements, Record Keeping Requirements,
and Reporting Requirements.

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## **Table IV-10 Finish Mill Systems – (Subject to MACT Requirements)**

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## Table IV-10a Finish Mill Systems CAM Plan

Registration No.: See Section I of Title V Permit		
Emissions Unit No.: See Table IV-10a General Reference:		
Briefly describe the requirement and the emissions limit (if applicable):		
See Table IV-10a, Indicator		
Methods used to demonstrate compliance:		
See Table IV-10a, Monitoring Approach, Measurement Approach, Indicator Range, and Performance Criteria.		

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## Table IV-11 Miscellaneous Sources Venting Inside Building – Subject to **MACT Requirements**

Registration No.: See Section 1 of Title v Permit
Emissions Unit No.: See Table IV-11 General Reference:
Briefly describe the requirement and the emissions limit (if applicable):
See Table IV-11, Applicable Standards/Limits
Methods used to demonstrate compliance:
See Table IV-11, Testing Requirements, Monitoring Requirements, Record Keeping Requirements,
and Reporting Requirements.

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## Table IV-12 Dried Biosolids (DBS) Related Operations

Registration No.: See Section I of Title V Permit
Emissions Unit No.: See Table IV-12 General Reference:
Briefly describe the requirement and the emissions limit (if applicable):  See Table IV-12, Applicable Standards/Limits
Methods used to demonstrate compliance:
See Table IV-12, Testing Requirements, Monitoring Requirements, Record Keeping Requirements, and Reporting Requirements.

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## **Table IV-13 Facility Wide Requirements**

Registration No.: See Section I of Title V Permit
Emissions Unit No.: See Table IV-13 General Reference:
Briefly describe the requirement and the emissions limit (if applicable):
See Table IV-13, Applicable Standards/Limits
Methods used to demonstrate compliance:
See Table IV-13, Testing Requirements, Monitoring Requirements, Record Keeping Requirements, and Reporting Requirements.

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## **Table IV-14 Emergency Generator**

Registration No.: See Section I of Title V Permit
Emissions Unit No.: See Table IV-14 General Reference:
Briefly describe the requirement and the emissions limit (if applicable):
See Table IV-14, Applicable Standards/Limits
Methods used to demonstrate compliance:
See Table IV-14, Testing Requirements, Monitoring Requirements, Record Keeping Requirements,
and Reporting Requirements.

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## **Table IV-15 Facility Wide – MACT Sources Only**

Registration No.: See Section I of Title V Permit
Emissions Unit No.: See Table IV-15 General Reference:
Briefly describe the requirement and the emissions limit (if applicable):  See Table IV-15, Applicable Standards/Limits
Methods used to demonstrate compliance:
See Table IV-15, Testing Requirements, Monitoring Requirements, Record Keeping Requirements, and Reporting Requirements.

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## Appendix C Check-off List of Emissions Units and Activities Exempt from the Part 70 Permit

# III. Check-off List of Emissions Units and Activities Exempt from the Part 70 Permit Application

## **Insignificant Activities**

Place a check mark beside each type of emissions unit or activity that is located at the facility. Where noted, please indicate the number of that type of emissions unit or activity located at the facility.

(1) No 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;
(2) No Fuel-burning equipment using solid fuel and having a heat input of less than 350,000 Btu (0.37 gigajoule) per hour;
(3) No. 3 Stationary internal combustion engines with less than 500 brake horsepower (373 kilowatts)of power output
(4) X Space heaters utilizing direct heat transfer and used solely for comfort heat;
(5) X Water cooling towers and water cooling ponds unless used for evaporative cooling of water from barometric jets or barometric condensers, or used in conjunction with an installation requiring a permit to operate;
(6) No. 3 Unheated VOC dispensing containers or unheated VOC rinsing containers of 60 gallons (227 liters) capacity or less;
(7) Commercial bakery ovens with a rated heat input capacity of less than 2,000,000 Btu per hour;
(8) Kilns used for firing ceramic ware, heated exclusively by natural gas, liquefied petroleum gas, electricity, or any combination of these;
(9) Confection cookers where the products are edible and intended for human consumption;
(10) Die casting machines;
(11) Photographic process equipment used to reproduce an image upon sensitized material through the use of radiant energy;
(12) Equipment for drilling, carving, cutting, routing, turning, sawing, planing, spindle sanding, or disc sanding of wood or wood products:

(13) Brazing, soldering, or welding equipment, and cutting torches related to manufacturing and construction activities that emit HAP metals and not directly related to plant maintenance, upkeep and repair or maintenance shop activities;
(14) Equipment for washing or drying products fabricated from metal or glass, provided that no VOC is used in the process and that no oil or solid fuel is burned;
(15) Containers, reservoirs, or tanks used exclusively for electrolytic plating work, or electrolytic polishing, or electrolytic stripping of brass, bronze, cadmium, copper, iron, lead, nickel, tin, zinc, and precious metals;
(16) Containers, reservoirs, or tanks used exclusively for:
(a) Dipping operations for applying coatings of natural or synthetic resins that contain no VOC;
(b) Dipping operations for coating objects with oils, waxes, or greases, and where no VOC is used;
(c) X Storage of butane, propane, or liquefied petroleum, or natural gas
(d) No. 2 Storage of lubricating oils:
(e) No Unheated storage of VOC with an initial boiling point of 300 °F (
(f) No. 4 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel,
(g) No Storage of motor vehicle gasoline and having individual tank capacities of 2,000 gallons (7.6 cubic meters) or less;
(h) No The storage of VOC normally used as solvents, diluents, thinners, inks, colorants, paints, lacquers, enamels, varnishes, liquid resins, or other surface coatings and having individual capacities of 2,000 gallons (7.6 cubic meters) or less;
(17) Gaseous fuel-fired or electrically heated furnaces for heat treating glass or metals, the use of which does not involve molten materials;

(18) Crucible furnaces, pot furnaces, or induction furnaces, with individual

capacities of 1,000 pounds (454 kilograms) or less each, in which no sweating or distilling is conducted, or any fluxing is conducted using chloride, fluoride,

or ammonium compounds, and from which only the following metals are poured or in which only the following metals are held in a molten state:

(a)		Aluminum or any alloy containing over 50 percent aluminum, if no gaseous chloride compounds, chlorine, aluminum chloride, or aluminum fluoride is used;	
(b)	)	Magnesium or any alloy containing over 50 percent magnesium;	
(c)	)	Lead or any alloy containing over 50 percent lead;	
(d)	)	Tin or any alloy containing over 50 percent tin;	
(e)	)	Zinc or any alloy containing over 50 percent zinc;	
(f)		Copper;	
(g)	)	Precious metals;	
(19)		oilers and pit barbecues as defined in COMAR 26.11.18.01 with a poking area of 5 square feet (0.46 square meter) or less;	
(20) <u>X</u>	related	aid and emergency medical care provided at the facility, including activities such as sterilization and medicine preparation used in t of a manufacturing or production process;	
(21)		recreational equipment and activities, such as fireplaces, barbecue d cookers, fireworks displays, and kerosene fuel use;	
(22) <u>X</u>	Potab	le water treatment equipment, not including air stripping equipment;	
(23)	Firing a	and testing of military weapons and explosives;	
	4) X Emissions resulting from the use of explosives for blasting at quarrying operations and from the required disposal of boxes used to ship the explosive;		
(25) <u>X</u>	Comfo	ort air conditioning subject to requirements of Title VI of the Clean t;	
(26)	Grain, 1	metal, or mineral extrusion presses;	
(27)	Brewer	ies with an annual beer production less than 60,000 barrels;	

(28	Natural draft hoods or natural draft ventilators that exhaust air pollutants into the ambient air from manufacturing/industrial or commercial processes;		
(29	9) X Laboratory fume hoods and vents;		
(30	O)No Sheet-fed letter or lithographic printing press(es) with a cylinder width of less than 18 inches;		
For th	e following, attach additional pages as necessary:		
(3	1) any other emissions unit, not listed in this section, with a potential to emit less than the "de minimus" levels listed in COMAR 26.11.02.10X (list and describe units):		
	No		
(32)	any other emissions unit at the facility which is not subject to an applicable requirement of the Clean Air Act (list and describe):		
	No		
	No		
	No		

# Appendix D PC MACT Operations and Maintenance Plan for the Union Bridge Plant



# PC MACT OPERATIONS AND MAINTENANCE PLAN FOR THE UNION BRIDGE PLANT

**Prepared for:** 

**Lehigh Cement Company LLC** 

**Union Bridge Plant** 

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**Prepared Date:** 

August 13, 2015

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# **Revision Page**

Revision #	Date
0	10/17/14
1	8/13/15
2	2/22/17

	Approved:	
Kent Martin	 Date	
Plant Manager		
<b>Kurt Deery, REM, CSEM</b>	Date	
<b>Environmental Engineer</b>		

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#### 1.0 INTRODUCTION

The United States Environmental Protection Agency (USEPA) on February 12, 2013 promulgated revised Maximum Available Control Technology National Emission Standards for Hazardous Air Pollutants for the Portland Cement Manufacturing Industry (i.e., the PC MACT Rule). This regulation is found in 40 CFR 63, Subpart LLL. Except for open clinker storage pile requirements which became effective on February 12, 2014, the revised PC MACT Rule requirements become effective on September 9, 2015. By promulgation of this regulation, the affected facilities also become subject to 40 CFR 63, Subpart A, General Provisions. Additionally, Final Amendments to Emissions Standards for Portland Cement Kilns were published in the Federal Register on July 27, 2015. The Lehigh Cement Company (Lehigh) Union Bridge Plant is classified as a "major source" as defined in 40 CFR 63.2.

Per the PC MACT Rule, the Plant is required to have established procedures for the proper operation and maintenance of all PC MACT Rule affected sources and air pollution control devices in order to meet the emissions limits and operating limits, including fugitive dust control measures for any open clinker piles, of 40 CFR 63.1342 through 40 CFR 63.1348. Specifically, these citations are as follows:

- 40 CFR 63.1342: Standards: General,
- 40 CFR 63.1343: What standards apply to my kilns, clinker coolers, raw material dryers, and open clinker storage piles,
- 40 CFR 63.1344: Affirmative defense for violation of emission standards during malfunction,
- 40 CFR 63.1345: Emissions limits for affected sources other than kilns; clinker coolers; new and reconstructed raw material dryers,
- 40 CFR 63.1346: Operating limits for kilns,
- 40 CFR 63.1347: Operation and maintenance plan requirements, and
- 40 CFR 63.1348: Compliance requirements.

The Operations and Maintenance Plan (O & M Plan) is also required to address periods of startup and shutdown. This O & M Plan satisfies the requirements of 40 CFR 63.1347(a) of the above PC MACT Rules as they apply to the operations of the Lehigh Union Bridge Plant.

#### 2.0 SUMMARY OF REGULATED PROCESSES/CONTROLS

#### 2.1 PC MACT O & M Plan Requirements

#### Per 40 CFR 63.1347, O & M Plan requirements are as follows:

- Requires that a written O & M Plan be prepared.
- The O & M Plan must be submitted to the Administrator, (MDE for the Union Bridge Plant) for review and approval as part of the application for a Part 70 Permit.
- The O & M Plan must include the following information:
  - 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 40 CFR 63.1343 through 40 CFR 63.1348.
  - Address periods of startup and shutdown.
  - Corrective actions to be taken when required by paragraph 40 CFR 63.1350(f)(3);
  - 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 Plant at least once per year.

#### 2.2 PC MACT Affected Sources

As outlined by the PC MACT Rule, operations at the Lehigh Union Bridge Plant that are covered by the PC MACT Rule include the following affected sources as specified in 40 CFR 63.1340:

- The Preheater/Precalciner (PH/PC) kiln and inline coal mill,
- The clinker cooler,
- The in-line raw mill,
- Finish mills,
- Raw material dryers,
- Raw material, clinker, and finished product storage bins,
- Conveying system transfer points including those associated with coal preparation used to convey coal from the mill to the PH/PC kiln.
- · Bagging and bulk loading and unloading systems, and

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• Any open clinker storage piles.

The Plant does not currently have any open clinker storage piles or a raw material dryer. Should the Plant have any open clinker storage piles or install a raw material dryer, this O & M Plan will be revised.

Plant emission sources that are subject to standards for nonmetallic mineral processing plants specified in 40 CFR 60 Subpart OOO and coal preparation plants specified in 40 CFR 60 Subpart Y are not subject to the PC MACT Rule.

Also, the Plant's current Title V Operating Permit No. 24-013-00012, last issued by the Maryland Department of the Environment (MDE) on April 2, 2013, provides a listing of the currently applicable emission limits, monitoring, reporting, and recordkeeping requirements for all air emission sources located at the Union Bridge Plant. The current Title V Permit does not reflect the new PC MACT Rule requirements issued by the U.S. EPA on February 12, 2013 which become effective for the Union Bridge Plant on September 9, 2015. Appendix A presents a listing of the PC MACT affected sources located at the Union Bridge Plant which become effective on September 9, 2015.

#### 2.3 Plant Process Description

The entire plant process is represented by the following individual plant process areas as listed in Section I(2) in Tables 1-9 in Title V Permit No. 24-013-00012:

Area A: Quarry Operations

Area B: Raw Material Transport and Storage

Area C: Raw Grinding

Area D: Raw Meal Feed System

Area E: Kiln and Clinker Cooler

Area F: Coal Grinding

Area G: Clinker Transport and Storage

Area H: Finish Mills

Area I: Cement Storage, Bagging, and Shipping

#### 2.4 Air Pollution Controls, Monitoring Systems, and Applicable Emission Limits

The Plant Title V Operating Permit No. 24-013-00012 specifies the air pollution controls employed, the monitoring systems and methods used, and the applicable emission limits for all PC MACT affected emission

sources. Also, for the CEMS systems employed to continuously measure kiln emissions, the Plant has developed CEM QA/QC Plans for Mercury, HCl, THC, and PM.

Provided below is a listing of the applicable PC MACT Rule emission limits.

#### • Existing Kiln Emission Limits

<u>Pollutant</u>	<b>Emission Limit</b>	<u>Units</u>
Filterable Particulate Matter	0.07	lb/ston clinker
Dioxin Furan <sup>1,2</sup>	0.02	ng/dscm (TEQ)
Mercury	55.0	lbs/MM ston clinker
Total Hydrocarbon <sup>1,3,4</sup>	24.0	ppmvd
Hydrogen Chloride <sup>1</sup>	3.0	ppmvd

Other - Operating limit on baghouse inlet temperature established during initial performance test

#### **Notes:**

#### • Existing Clinker Cooler Emission Limits

<b>Pollutant</b>	<b>Emission Limit</b>	<u>Units</u>
Filterable Particulate Matter	0.07	lb/ston clinker

<sup>&</sup>lt;sup>1</sup>Oxygen correction factor of 7 percent

<sup>&</sup>lt;sup>2</sup>If the average temperature at the inlet to the first PM control device (fabric filter or electrostatic precipitator) during the D/F performance test is 400 °F or less this limit is changed to 0.40 ng/dscm (TEQ)

<sup>&</sup>lt;sup>3</sup>Measured as propane.

<sup>&</sup>lt;sup>4</sup>Any source subject to the 24 ppmvd THC limit may elect to meet an alternative limit of 12 ppmvd for total organic HAP

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#### • Other

Emission Limits for 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 has an opacity limit of 10 percent.

#### 3.0 OPERATION AND MAINTENANCE PROCEDURES

As required by 40 CFR 63.6 (e) and 63.1347(a), the Plant will implement operating and maintenance procedures addressed in this section for all Plant process areas which contain affected PC MACT emission sources.

Table 1 lists each of the required O & M Plan elements as presented in 40 CFR 63.1347 and identifies where that information is presented within this section.

Table 1
Portland Cement MACT O & M Plan Required Elements

40 CFR63 Reference	Required Elements	Document Section Number(s)
63.1347(a)(1)	The O & M Plan shall include procedures <sup>(a)</sup> for <u>proper</u> operation and maintenance of the affected source and air pollution control devices in order to meet the emission limits and operating limits of 40 CFR 63.1343 through 40 CFR 63.1348;	Section 3.1
63.1347(a)(1)	The O & M Plant must address periods of startup and shutdown.	Section 6.0
63.1347(a)(2)	The O & M Plan shall include <u>corrective actions</u> to be taken when required by 40 CFR 63.1350(f)(3);	Section 3.2
63.1347(a)(3)	The O & M Plan shall include procedures <sup>(a)</sup> to be used during an <u>inspection of components of the combustion system</u> per 40 CFR 63 1347(3) of each kiln and each in-line kiln raw mill located at the facility at least once per year; and	Section 3.3
63.1350(f)	The O & M Plan shall include procedures <sup>(a)</sup> to be used to monitor affected sources subject to an opacity limit under 40 CFR 63.1345. Such procedures must be in accordance with the requirements specified in 40 CFR 63.1350(f).	Section 3.4

<sup>(</sup>a) The Lehigh Union Bridge facility has developed a series of Preventive Maintenance Plans (PMs) and Standard Operating Procedures (SOPs) to meet the applicable requirement for "procedures". The PMs and SOPs are written in a manner that address the action to be taken and not necessarily a step-by-step procedure for conducting the outlined action. For example, a PM may require the lubrication of certain specified process/control device components. The requirement to lubricate the components is noted in the PM, however, the process for conducting the lubrication is not.

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#### 3.1 Proper Operation and Maintenance

Per 40 CFR 63.1347(a)(1) of the PC MACT Rule, a MACT O & M Plan must include the procedures for proper operation and maintenance of the affected source(s) and associated air pollution control devices in

order to meet the emissions limits and operating limits of 40 CFR 63.1343 through 63.1348. The following sections, in conjunction with the Plant's current Standard Operating Procedures (SOPs) and Preventative Maintenance plans (PMs) satisfy this requirement. Please note that the SOPs and PMs associated with the PC MACT affected sources are available upon request and are not included herein.

SOPs and PMs for the PC MACT regulated sources are stored in the facility's shared network drive. The SAP system is a three-tiered (i.e., database, application server, and client) data management system that acts as a document repository to more easily facilitate the immediate retrieval of significant documentation.

## • Procedures for Proper Operation of PC MACT Regulated Sources

The procedures, as defined in

Table 1, for the proper operation of the PC MACT regulated sources are discussed in the Plant's SOPs, which are stored in the facility's shared network drive and available upon request but are not included herein. The SOPs have been generated in house by Lehigh, and include detailed information pertaining to the proper operation of the PC MACT affected sources and associated air pollution control devices based on manufacturer recommendations and Lehigh personnel operating experience.

#### Procedures for Properly Maintaining PC MACT Regulated Sources

The procedures, as defined in

Table 1, for properly maintaining the PC MACT regulated sources are discussed in the facility's PMs, which are stored in the facility's SAP system and available upon request but are not included herein. The PMs have been generated in house by Lehigh, and include detailed information pertaining to the proper maintenance of the PC MACT affected sources and associated air pollution control devices based on manufacturer recommendations and Lehigh personnel maintenance experience. Lehigh maintenance staff receives daily, weekly, and monthly work orders for preventative maintenance of PC MACT affected sources. Appendix B presents examples of Work Orders for Plant Process Areas B through H.

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#### 3.2 Corrective Actions

Pursuant to 40 CFR 63.1350(f)(3) of the PC MACT Rule, a MACT O & M Plan must include corrective actions to be initiated within one-hour if visible emissions are observed during any Method 22 visible emissions test conducted at the finish mills. Corrective action is initiated by Lehigh, in the form of notifying the appropriate plant personnel and subsequently performing any required repairs, when within one-hour if visible emissions are observed during any Method 22 visible emissions test conducted at the finish mills. Section 3.4 provides the details of the Method 22 testing performed at the Plant.

#### 3.3 Combustion System Inspections

Pursuant to 40 CFR 63.1347(a)(3) of the PC MACT Rule, a MACT O & M Plan must include procedures, as defined in

Table 11, to be used during an inspection of components of the combustion system of each kiln and the inline kiln raw mill located at the Plant at least once per year. The combustion system of the kiln and the inline raw mill is limited to the burner and its components. Lehigh will perform inspections of the burners and their components on an annual basis pursuant to 40 CFR 63.1347(a)(3). The specific procedures for the burner inspections of each kiln and each in-line kiln raw mill at the facility are detailed in the Plant's PMs. As discussed above in Section 3.1 of this document, the PMs pertain to the proper maintenance of the PC MACT affected sources and associated air pollution control devices based on Lehigh personnel maintenance experience. The PMs are stored in the facility's SAP system and available upon request but are not included herein. Lehigh's central control operators perform surveillance of the kiln combustion system for 24 hours per day for every day of the year the source is in operation.

#### 3.4 Opacity Monitoring of Affected Sources

Lehigh routinely performs Method 22 and Method 9 tests which meet the PC MACT Rule requirements specified below. Per 40 CFR 63.1350(f) of the PC MACT Rule, the O & M Plan must include procedures to be used to periodically monitor affected sources subject to opacity standards. These requirements include:

Conducting a monthly 10-minute visible emissions test of each affected source in accordance with Method 22 of 40 CFR 60 Appendix A-7. The performance test must be conducted while the affected source is in operation.

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, you must resume performance testing

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of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

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.

If visible emissions are observed during any Method 22 performance test, you must conduct 30 minutes of opacity observations, recorded at 15-second intervals, in accordance with Method 9 as specified in 40 CFR 60 Appendix A-4. The Method 9 performance test must begin within 1 hour of any observation of visible emissions.

Also, 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. The enclosures for these transfer points must be operated and maintained as total enclosures on a continuing basis in accordance with the Plant O & M Plan.

If any partially enclosed or unenclosed conveying system transfer point is located in a building, you must conduct a Method 22 performance test according to the requirements of paragraphs 40 CFR 63.1350(f)(1)(i) through (iv) for each such conveying system transfer point located within the building, or for the building itself, according to paragraph 40 CFR 63.1350(f)(1)(vii).

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

For any applicable raw or finish mills, you must monitor opacity by conducting daily visible emissions observations of the mill sweep and air separator PM control devices (PMCD) of these affected sources in accordance with the procedures of Method 22 specified in 40 CFR 60 Appendix A-7. The duration of the Method 22 performance test must be 6 minutes.

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.

If visible emissions are observed during the follow-up Method 22 performance test required by 40 CFR 63.1350(f)(2)(ii) of this section from any stack from which visible emissions were observed during the

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previous Method 22 performance test required by 40 CFR 63.1350(f)(2)(i) of the section, you 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 specified in 40 CFR 60 Appendix A-4. The duration of the Method 9 test must be 30 minutes.

If visible emissions are observed during any Method 22 visible emissions test conducted under paragraphs by 40 CFR 63.1350(f)(1) or (2) of this section, you must initiate, within one-hour, the corrective actions specified in your O & M Plan as required by 40 CFR 63.1347.

# 4.0 COMPLIANCE MONITORING SYSTEMS AND APPLICABLE EMISSION STANDARDS

#### 4.1 Monitoring Systems and Applicable Emission Standards

The Plant utilizes Method 22 (visible emissions)/Method 9 (opacity) monitoring for each PC MACT affected source associated with raw material, clinker, or finished product storage bin; conveying system transfer point; bagging system; bulk loading or unloading systems, and finish mills. The Plant also utilizes continuous emission monitoring systems (CEMS) located on the main kiln stack to measure emissions of total hydrocarbons (THC), mercury (Hg), and hydrogen chloride (HCl) as regulated by the PC MACT Rule.

The Plant employs continuous parametric monitoring systems (CPMS) for compliance with the dioxins/furans (D/F) emission limit where temperature is continuously record at the inlet of the kiln's particulate matter (PM) control device. The CPMS includes the use of thermocouples that have been calibrated to an NIST traceable standard. Normal operation of the monitoring system consisting of a thermocouple, temperature transmitter, and data acquisition system, does not require any particular maintenance. To satisfy the PC MACT quarterly calibration requirements, the thermocouple will be replaced by NIST-certified thermocouples no less frequent than every three months, in accordance with 63.1350(g)(iii).

Also, the Plant uses a PM CPMS on the main kiln stack and clinker cooler stack. Recorded is the PM CPMS output signal (in milliamps) which is used, along with corresponding Method 5 stack test results (performed annually), to establish a site-specific operating limit for each stack. Once established, each stack will have a site specific operating limit based on the PM CPMS output signal. The applicable PM emission standards and how they will apply to the Plant are specified in 40 CFR 63.1343 and 40 CFR 63.1345 of the PC MACT Rule.

All readings, alarms, and recorded data collected by the facility's continuous monitoring systems are registered and recorded in the data acquisition system (DAS) at the Plant's Environmental Engineer's Office. The operators and Central Control get alarms during non-normal operations.

The central control room system employed by the Plant records and catalogues all readings taken by the various types of continuous monitors used across the Plant. All of these readings from any specified time period are available from the DAS upon request.

The PC MACT Rule also requires per 40 CFR 63.1350(d) clinker production monitoring requirements. In order to determine clinker production, you must determine the hourly clinker production by one of two methods:

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(1) 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  $\pm 5$  percent accuracy, or

(2) 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 your 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, you must use the new ratio going forward, but you do not have to retroactively change clinker production rates previously estimated.

The Plant will, 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.

#### 4.2 Ongoing Operation and Quality Assurance Activities

Lehigh will complete ongoing quality assurance activities per 40 CFR 60 Appendices A, B, and F to assess the accuracy of the CEMS and CPMS used for PC MACT compliance. Verification of operational status will include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system. In addition, Lehigh will conduct ongoing daily zero and upscale drift checks as required by the applicable EPA Performance Specification as well as using routine electronic checks and audits. Additionally, for each CEM, the Plant will also prepare a CEM QA/QC Plan which will be kept onsite at the Environmental Engineer office.

#### **4.3** Maintenance Procedures

Lehigh will operate the CEMS and CPMS in a manner consistent with good air pollution control practices. The CEMS and CPMS will be in continuous operation except for periods of malfunctions, out-of-control, repairs, maintenance, and calibration checks. Any malfunction of the CEMS and CPMS will be identified and corrective actions will be implemented, as soon as practicable. Also, Lehigh performs preventative maintenance of the CEM systems weekly.

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Lehigh will perform preventative maintenance on each CEM and CPMS consistent with the manufacturer's recommendation or as warranted by past operational history. All periods of CEM and CPMS downtime will be documented as well as the records associated with preventative maintenance and quality assurance activities.

#### 4.4 Spare Parts

Lehigh minimizes CEM and CPMS downtime by maintaining spare parts for "routine" repairs or otherwise predictable malfunctions. The CEMs spare parts inventory was established based on manufacturers' recommendations and past operating history. The spare parts inventory is maintained in the Plant's SAP system and is managed by the Instrumentation Supervisor and the Plant Purchasing Department. A spare parts list is available upon request.

#### 5.0 DOCUMENTATION AND RECORDKEEPING

Appropriate documentation of the operating, maintenance, monitoring, and inspection activities conducted pursuant to the O & M Plan will be maintained on file at the facility in accordance with 40 CFR 63.1355. The relevant files will be recorded in a form suitable and readily available for inspection and review as required by 40 CFR 63.10(b)(1). The files shall be retained for at least five years following the date of each occurrence, 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.

#### 6.0 STARTUP AND SHUTDOWN PROCEDURES

Per 40 CFR 63.1341, the PC MACT Rule defines startup and shutdown as follows:

- Startup means the time from when a shutdown kiln first begins firing fuel until it begins producing clinker. Startup begins when a shutdown kiln turns on the induced draft fan and begins firing fuel in the main burner. Startup ends when feed is being continuously introduced into the kiln for at least 120 minutes or when the feed rate exceeds 60 percent of the kiln design limitation rate, whichever occurs first.
- *Shutdown* means the cessation of kiln operation. Shutdown begins when feed to the kiln is halted and ends when continuous kiln rotation ceases.

Provided below is a description of startup and shutdown procedures for each affected Plant process area. Appendix C presents details of the startup and shutdown procedures for PC MACT Kiln and Clinker Cooler Process Area. Appendix D presents details of the startup and shutdown procedures for all non-kiln PC MACT affected Plant process areas.

Per PC MACT Final Rule and Final Technical Amendments, all air pollution control devices (i.e., baghouses and activated carbon injection (ACI)) must be in operation during kiln start-up. Also, the ACI should be in operation when the inlet temperature to the Main Baghouse is greater than 300 F.

#### 6.1 Kiln and Clinker Cooler (Process Area E)

• Startup Definition & Procedures

Current Lehigh standard operating procedures for startup will be utilized for both the kiln and clinker cooler.

Table 22 provides the definition, as it pertains to the PC MACT regulation, of when startup begins and when startup ends and normal operation begins.

Table 2

Kiln and Clinker Cooler Process Area E Startup Definition

Source ID	Source Name	Startup begins when the following are met	Startup ends and normal operation begins when the following is met
6-0256	Kiln and Clinker Cooler	When the kiln ID fan is on     AND there is firing of fuel in the main kiln burner.	• When the kiln feed is on for at least 120 minutes <u>OR</u> when the kiln feed rate exceeds 60% of the kiln design ratewhichever occurs first. For Lehigh, Union Bridge, 60% of the feed rate is 300 metric tons per hour.

These procedures and work practice standards were reviewed by Lehigh, prior to the MACT compliance date, to ensure that HAP emissions are minimized during periods of startup. A copy of the startup procedure for the kiln and clinker cooler is maintained by the kiln and clinker cooler process central control operator and is presented in Appendix C.

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Also during periods of startup and shutdown you must meet the requirements listed in 40 CFR 63.1346(g)(1) through (4) which are as follows:

- (1) During startup you 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.
- (2) Combustion of the primary kiln fuel may commence once the kiln temperature reaches 1200 degrees Fahrenheit.
- (3) All air pollution control devices must be turned on and operating prior to combusting any fuel.
- (4) You must keep records as specified in 40 CFR 63.1355 during periods of startup and shutdown.

In addition, Lehigh implements good combustion practices so that emissions of regulated air pollutants should be minimized during startup procedures. Good combustion practices during startup may include: kiln temperature; carbon monoxide; and oxygen.

Appendix E presents a CEM regulatory overview, discussion of certifying CEMS, CEM testing, and CEM reporting requirements.....why here? Talking about kiln processes then all of a sudden CEMs? MAYBE SECTION 4.2 would be better?

#### • Shutdown Procedures

Current Lehigh standard operating procedures for shutdown will be utilized for both the kiln and clinker cooler. These procedures were reviewed by Lehigh prior to the MACT compliance date to ensure that HAP emissions are minimized during periods of unit shutdown. A copy of the shutdown procedure for the kiln and clinker cooler is maintained by the process department for the kiln and clinker cooler.

Table 3 provides the definition, as it pertains to the PC MACT regulation, of when normal operation ends and shutdown begins and when shutdown ends.

Table 3

Kiln and Clinker Cooler Area E Shutdown Definition

Source ID	Source Name	Shutdown begins when the following are met	Shutdown ends when the following are met
6-0256	Kiln and Clinker Cooler	When there is no feed entering the kiln	When the kiln is no longer in continuous rotation.

#### 6.2 Other Process Areas

#### 6.2.1 Raw Material Handling Area B

• Startup Definition & Procedures

Current Lehigh standard operating procedures for startup will be utilized for the raw material handling system. These procedures were reviewed by Lehigh, prior to the MACT compliance date, to ensure that HAP emissions are minimized during periods of unit startup. A copy of the startup procedure for the raw material handling system is maintained by the department.

#### • Shutdown Procedures

Current Lehigh standard operating procedures for shutdown will be utilized for the raw material handling system. These procedures were reviewed by Lehigh prior to the MACT compliance date to ensure that HAP emissions are minimized during periods of unit shutdown. A copy of the shutdown procedure for the raw material handling system is maintained by the process department

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#### 6.2.2 Raw Meal Feed System Area D

Startup Definition & Procedures

Current Lehigh standard operating procedures for startup will be utilized for the raw meal feed systems. These procedures were reviewed by Lehigh, prior to the MACT compliance date to ensure that HAP emissions are minimized during periods of unit startup. A copy of the startup procedure for the raw meal feed system is maintained by the raw meal feed system process process department

#### **Shutdown Procedures**

Current Lehigh standard operating procedures for shutdown will be utilized for the raw meal feed systems. These procedures were reviewed by Lehigh prior to the MACT compliance date to ensure that HAP emissions are minimized during periods of unit shutdown. A copy of the shutdown procedure for the raw meal feed system is maintained by the process department

#### 6.2.3 Raw and Coal Mills Areas C and F

• Startup Definition & Procedures

Current Lehigh standard operating procedures for startup will be utilized for the raw and coal mill systems. These procedures were reviewed by Lehigh, prior to the MACT compliance date, to ensure that HAP emissions are minimized during periods of unit startup. A copy of the startup procedure for the raw and coal mills is maintained by process department.

• Shutdown Procedures

Current Lehigh standard operating procedures for shutdown will be utilized for the raw and coal mill systems. These procedures were reviewed by Lehigh prior to the MACT compliance date to ensure that HAP emissions are minimized during periods of unit shutdown. A copy of the shutdown procedure for the raw and coal mills is maintained by the process department.

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#### 6.2.4 Material Handling Areas G and I

• Startup Definition & Procedures

Current Lehigh standard operating procedures for startup will be utilized for the material handling systems. These procedures were reviewed by Lehigh, prior to the MACT compliance date, to ensure that HAP emissions are minimized during periods of unit startup. A copy of the startup procedure for the material handling system is maintained by the process department.

• Shutdown Procedures

Current Lehigh standard operating procedures for shutdown will be utilized for the material handling systems. These procedures were reviewed by Lehigh prior to the MACT compliance date to ensure that HAP emissions are minimized during periods of unit shutdown. A copy of the shutdown procedure for the material handling system is maintained by the material handling system process central control operator.

#### 6.2.5 Finish Mills Area H

• Startup Definition & Procedures

Current Lehigh standard operating procedures for startup will be utilized for the finish mill systems. A copy of the startup procedure for the finish mills is maintained by the finish mills process department

Shutdown Procedures

Current Lehigh standard operating procedures for shutdown will be utilized for the finish mill systems. A copy of the shutdown procedure for the finish mills is maintained by the finish mills processdepartment.

#### 7.0 NON-PC MACT Sources: New Windsor Quarry

AS required by the newly issued Title V Operating Permit (January 2017), the New Windsor Quarry sources and equipment are including in this plan. Preventive Maintenance Procedures (PM) for the following equipment and sources are included in Appendix F.

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- Dust Collectors
- Water Sprays
- Fan Motors
- Belt Conveyors
- Crushing Equipment

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# APPENDIX A LIST OF PC MACT AFFECTED SOURCES

Appendix A presents a listing of the PC MACT affected sources located at the Union Bridge Plant.

# List of Sources Subject to PC MACT Requirements Union Bridge Plant Effective September 9, 2015

Area B – Raw Material Transport and Storage				
Emissions Unit Number	MDE Registration Number	Emissions Unit Name and Control(s)		
B01-011	6-0327	Enclosed Limestone Dome		
B02-007 6-0327 Belt Conveyor – Baghouse B02-008				
B02-011	6-0327 Silica Bearing Material Bin – Baghouse B02-008			
B02-012	6-0327	Iron Bearing Material Bin – Baghouse B02-008		
B02-017	6-0327 Reversible Belt Conveyor – Baghouse B02-008			
B03-004	B03-004 6-0327 Fly Ash Blending Silo System - Baghouse B03-008			
B04-019	6-0327	Limestone Bin - Baghouse B04-016		
TT3	6-0327	Transfer Tower #3 – Baghouses B04-011, B04-016		
TT4	6-0327	Transfer Tower #4 - Baghouse B02-019)		

Area C – Raw Grinding				
Emissions Unit MDE Registration Number Number		Emissions Unit Name and Control(s)		
C01-002	6-0328	Limestone Weighfeeder- Baghouse C01-007		
C01-004	6-0328	Iron Weighfeeder - Baghouse C01-007		
C01-006	6-0328	Silica Weighfeeder - Baghouse C01-007		
C01-011	6-0328	Belt Conveyor – Baghouse C01-007, C02-021		
C01-015	6-0328	Fly Ash Weigh Bin – Baghouse C01-019		
C02-001	6-0328	Bucket Elevator – Baghouse C02-011, C02-021		
C02-006	6-0328	100 Ton Bin – Baghouse C02-011		
C04-068	6-0328	Airslide – Baghouse C04-050, C04-075		
C04-070	6-0328	Airslide – Baghouse C04-075		
C04-072	6-0328	Airslide – Baghouse C04-075		
C04-074	6-0328	Airslide – Baghouse C04-075		
C04-037	6-0328	Bucket Elevator – Baghouses C04-050, C04-075		
C04-038	6-0328	600 Ton Bin – Baghouse C04-075, C04-050		
C02-038	6-0328	Rejects Belt Conveyor - Baghouse C02-021		
C02-060	6-0328	Reversible Belt Conveyor (to Raw Mill) - Baghouse C02-011		
C03-034	6-0328	Airslide - Baghouse C03-001		
C03-035	6-0328	Airslide - Baghouse C03-001		
C03-040	6-0328	Airslide - Baghouse C03-001		
C03-042	6-0328	Airslide - Baghouse C03-001		
C03-045	6-0328	Airslide - Baghouses C03-047, C03-050		
C03-008	6-0328	Airslide - Baghouse C03-050		
C03-054	6-0328	Airslide - Baghouse C03-050		
C03-046	6-0328	Bucket Elevator - Baghouse C03-030, D01-037		
C03-017	6-0328	Airslide - D01-037		
C03-010	6-0328	Airslide - Baghouse C03-030		
C03-013	6-0328	Airslide - Baghouse C03-030		
C02-025	6-0328	Raw Mill - Baghouse C04-014		
C04-066	6-0328	Airslide - C03-050		

Area D – Raw Meal – Kiln Feed				
Emissions Unit Number	MDE Registration Number	Emissions Unit Name and Control(s)		
D01-001	6-0329	Blending Silo - Baghouse D01-037		
D01-002	6-0329	Recirculation Airslide - Baghouse D01-037		
D01-003	6-0329	Recirculation Airslide - Baghouse D01-037		
D01-020	6-0329	185 Metric Ton Feed Bin - Baghouse D01-034		
D02-004	6-0329	Airslide - Baghouse D01-034		
D02-006	6-0329	Flow Meter - Baghouse D01-034		
D02-017	6-0329	Airslide - Baghouse D01-034		
D02-019	6-0329	Flow Meter - Baghouse D01-034		
D01-023	6-0329	Airslide - Baghouse D01-040		
D01-026	6-0329	Airslide - Baghouse D01-040		
D02-007	6-0329	Airslide - Baghouse D01-040		
D02-020	6-0329	Airslide - Baghouse D01-040		
D02-010	6-0329	Airslide - Baghouse D02-041		
D02-023	6-0329	Airslide - Baghouse D02-041		
D02-049	6-0329	Airslide - Baghouse D02-041		
D02-025	6-0329	Bucket Elevator - Baghouse D02-041, D02-027		
D02-026	6-0329	Bucket Elevator - Baghouse D02-041, D02-027		
D02-033	6-0329	Airslide - Baghouse D02-027		
D02-045	6-0329	Airslide - Baghouse D02-027		
D02-047	6-0329	Airslide - Baghouse D02-027		

Area E – Kiln and Clinker Cooler			
Emissions Unit Number Emissions Unit Name and Control(s)			
E01-001	6-0256	Kiln - Baghouse C04-014	
E02-001 6-0256 Preheater / Precalciner - baghouse C04-014		Preheater / Precalciner - baghouse C04-014	
E03-001	6-0256	Clinker Cooler - Baghouse E04-016	

	Area F – Coal Grinding Mill for Kiln			
Emissions Unit Number	MDE Registration Number	<b>Emissions Unit Name and Control(s)</b>		
F02-007	6-0330	Belt Conveyor		
TT5	Transfer Tower #5 – baghouse F02-027			
F03-016	6-0330	Coal Mill System - Baghouses F03-028,F03-032, F03-036, F03-040, F03-044, F03-048 (Associated with kiln)		
F04-009	6-0330	Pneumatic Pump for Fine Coal Dust Bin - Baghouse F04-010		
F04-018	6-0330	Kiln Fuel Bin Pressure Relief - Baghouse C04-014		
F04-026	6-0330	Calciner Fuel Bin Pressure Relief - Baghouse C04-014		

Area G – Clinker Transport & Storage – Craneway Building				
Emissions Unit Number	MDE Registration Number	Emissions Unit Name and Control(s)		
TT8/9	6-0125	Transfer Tower #8/9 – Baghouse G02-041, Baghouse B01-018		
TT6	6-0125	Transfer Tower #6 – Baghouse G02-025		
G01-001	6-0125	Main Pan Conveyor - Baghouse E04-016		
G03-010	6-0125	Clinker into Craneway - Baghouse G03-011		
CWAY	6-0125	Craneway		
G04-014	6-0125	450 Metric Ton Clinker Bin - Baghouse G04-011		
G04-020	6-0125	Belt Conveyor - Baghouse G04-011		
G04-010	6-0125	Bucket Elevator - Baghouse G04-011, Baghouse G04-034		
G04-009	6-0125	Belt Conveyor Baghouse G04-034		
G04-016	6-0125	Belt Feeder - Baghouse G04-034		
G04-056	6-0125	100 Metric Ton Clinker Bin Weighfeeder - Baghouse G04-034		
G04-058	6-0125	Clinker Bin, H01-006 Belt - Baghouse H01-220 (G04-034)		
G04-059	6-0125	H01-015 Clinker Feeder, G04-018 Belt - Baghouse H01-220		
G01-012	6-0125	Clinker Storage Silo - Baghouse G01-009		
G02-002	6-0125	Transfer Tower #11, #12, #13 Belt Conveyors - Baghouse G02-047, G02-044, G02-021		
G04-018	6-0125	Belt Conveyor - Baghouse G04-037		
G04-019	6-0125	CE2 Bucket Elevator - Baghouse G04-037		
G04-031	6-0125	Drag Conveyor B3 - Baghouse H09-073		
TL1	6-0125	Clinker Truck/Rail Loadout - Baghouse G02-053		
TT7	6-0125	Transfer Tower #7 - Baghouse G03-004		
TT9/10	6-0125	Transfer Tower #9/10 - Baghouse G03-011		

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Area H – Clinker Finish Mills				
Emissions Unit Number	MDE Registration Number	<b>Emissions Unit Name and Control(s)</b>		
H04-001	6-0331	Gypsum Bin 409		
H04-003	6-0331	Limestone Tank 416		
H05-001	6-0331	Gypsum Bin 509		
H06-001	6-0331	Gypsum Bin 609		
H07-001	6-0331	Gypsum Bin		
H08-001	6-0331	Gypsum Bin		
H04-004	6-0331	Clinker Bin 403		
H05-004	6-0331	Gypsum Bin 403		
H06-004	6-0331	Clinker Bin 603		
H07-004	6-0331	Clinker Bin		
H01-040	6-0331	Finish Mill #1 - Baghouse H01-070		
H01-061	6-0331	Cyclone and Belts - Baghouse H01-070		
H01-063	6-0331	Cyclone and Belts - Baghouse H01-070		
H01-080	6-0331	Elevator and Tipping Valves - Baghouse H01-230		
H01-090	6-0331	Finish Mill #1 Burner - Baghouse H01-070		
H01-105	6-0331	Belt Conveyor and Tipping Valves - Baghouse H01-210		
H01-110	6-0331	Bin - Baghouse H01-210		
H01-112	6-0331	Belt Conveyor and Tipping Valves - Baghouse H01-210		
Н07-015	6-0331	Cement to Cement Cooler - Finish Mill #7 - Baghouse H01-240		
Н07-016	6-0331	Airslide - Baghouse Ho1-240		
H04-006	6-0331	Belt Conveyor - Finish Mill #4 System - Baghouse H04-044		
H04-014	6-0331	Finish Mill #4 System - Baghouse H04-044		
Н05-014	6-0331	Finish Mill #5 System - Baghouse H05-044		
H06-014	6-0331	Finish Mill #6 System - Baghouse H06-044		
H06-017	6-0331	Cyclone 642 - Finish Mill #6 System - Baghouse H06-044		
H06-037	6-0331	Separator 627 - Finish Mill #6 System - Baghouse H06-044		
Н07-014	6-0331	Finish Mill #7 System - Baghouses H07-056, H07-057		
Н07-018	6-0331	Finished Cement Transfer System - Baghouses H07-056, H07-057		
Н07-068	6-0331	Finished Cement Transfer System -Baghouses H07-056, H07-057		

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# APPENDIX B EXAMPLES OF WORK ORDERS FOR PROCESS AREAS B – H

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# APPENDIX C STARTUP AND SHUTDOWN PROCEDURES FOR THE KILN AND CLINKER COOLER PROCESS AREA

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# Standard Operating Procedure Kiln Start-Ups & Shut-Downs

#### I. Area Description:

In this part of the manual the SOP's for the pyroprocess and the auxiliary parts, necessary to operate the pyroprocess, are dealt with. In the pyroprocess clinker, the main component for cement is produced.

It consists of the rotary kiln, the precalciner and the preheater.

Important auxiliary parts necessary in the chain of production for clinker are the spray tower, the main baghouse, the clinker cooler and the exhaust air baghouse as well as the clinker transport to the clinker storage. Those areas as well as the dosing and supply for fuel as well as the dosing and supply for kiln feed have to run on continuous basis for clinker production while other areas as the preparation for raw feed (raw mill) and coal (coal mill) may only run sporadically.

The pyroprocess in Union Bridge is Polysius made and has the following main data:

- Clinker Capacity: 5500 7000mt/day
- Rotary Kiln: inner shell diameter: 5,2m, length 70 m;
- Calciner: Prepol-AS-CC type, single low-NOx calciner, air separate, off line, down draft, mixing chamber with loop duct (goose neck)
- Preheater: one string 5 stage preheater.
- Kiln ID Fan

#### II. Overview:

The Standard Operational Procedures within this document for the Pyroprocess (further referred to as Kiln) include:

Pre-System Check Out

- Pre-Heat
- Kiln meal feeding
- Optimizing Production
- Kiln Shutdowns

#### **III.** Environmental Considerations

During all phases of operation (Preheat, Start-up, Stable Operation, and Shutdowns) the Kiln Exhaust Opacity must NEVER exceed 10%.

#### Particulate Matter:

It is of paramount importance that both the Kiln Exhaust Baghouse and the Cooler Vent Baghouse have minimum particulate discharge at all time, including during Warm-up and Preheat. This means operating the appropriate dust arrestors in due time. The appropriate transport systems must also run to collect this accumulated dust.

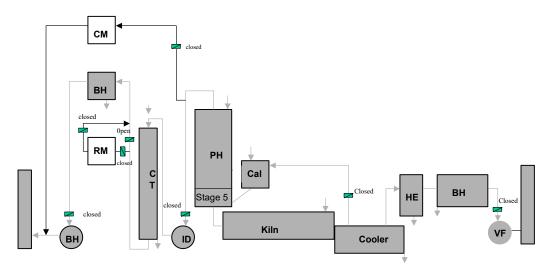
Realize - The Kiln will have at least some dust in the system, even after major refractory work has been done. Once airflow is established, this dust must be collected in order to allow only minimum discharge to atmosphere.

#### Temperature:

Kiln control operators during start up shall monitor flame temperature during start up procedures. Fossil fuel will not be fed to the pyro-processing line until the flame temperature reaches 1200 °F. Note that the back end temperature must be monitored as an estimate of front end flame temperature. There is no reasonable location for placement of thermocouples at the kiln burner area.

# IV. Pre-System Check Out

# Prestart, Check-out (Pyropocess)



Master Screen 10/05/01

Prior to start-up a complete checkout for the operational readiness of the individual components is necessary including:

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Electrical and mechanical checks have to be made at the main equipment for the areas shown in the flow sheet in grey. That has to include the transports for kiln feed, dust and clinker including the nuisance dust arrestors.

The proper position of the motor switches, the proper oil level and grease at the lubrication systems e.g. gears, the sufficient flow of water or air for the different systems to be cooled, the proper function of the instruments for measuring drafts, pressures, flows, gas composition and temperatures has to be checked. Of importance e.g. are especially the gas analysers, the CEM system and the detection indicators for full hoppers (blockages) at the preheater, the clinker cooler and the baghouses, kiln camera and kiln scanner, full and empty silos, big blasters.

Be aware too to check the V-belts, the compensators and correct damper positions see flow chart. In addition both slide gates for the kiln feed on the top of the preheater should be closed.

Of great importance is especially the check of all the filters needed, beginning at the big baghouses down to all the nuisance dust collectors.

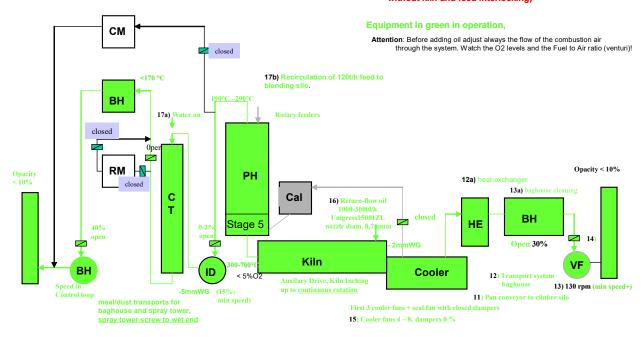
Visual checks have to ensure that nothing and nobody is inside the equipment and that all doors and openings are properly closed. The tipping valves of the preheater cyclones, the baghouses and at the clinker cooler should work properly. The proper storage levels for kiln feed, dust; fuel (fine coal bins, oil tank) water and clinker have to be checked.

Checks for the proper position of the raw mill bypass damper (should stay open all the time), the kiln and calciner burner and the availability of the kiln main and auxiliary drives as well as the drives for the clinker cooler (hydraulics) are important too.

#### V. Pre-heat

# Pre-Heat (Pyroprocess)

Interlock Mode: Hot Gas Generation (Global Resets without kiln and feed interlocking)



Master Screen revision 10/26/01

#### Objectives:

To raise the temperature profile of the kiln to the operating conditions for clinker production in a safe manner for workers, environment and equipment.

When the Main Baghose, the Spray Tower, Preheater, Kiln and Grate Cooler with Clinker Conveying and Cooler Exhaust Air System have been checked out and closed up, and the Supervisor has given the "all clear to commence" with the preheat, then systems may be started up.

Start the equipment with "Heat-up Mode" interlocking in a sequence according the steps below.

The equipment in green should be running during the warm up period.

#### Sequence:

- 1. Start meal/dust transport for kiln/raw mill baghouse and spray tower
- 2. Start C04-041 kiln/mill baghouse fan with min speed (15%); the baghouse cleaning will be started with the fan group
  - 2.1. Once running, set controller C04-041/CR02 into closed loop control (CLC) with a set point of -1.0 mbar. This controls the draft set-point after the ID fan. In order to get the closed loop working at the low flow rate needed for warming-up the kiln, the C04-040 damper may needed closed to ensure the tower is not being over drafted.
- 3. Starting the E01-005 ID Fan
  - 3.1. Ensure that the C04-012 bypass damper around the raw mill is open 100%.
  - 3.2. Start kiln ID fan with minimum speed and closed damper.
  - 3.3. Don't worry about the pressures in the tower; there will be enough air flow (chimney effect) through the kiln to support combustion.
  - 3.4. E01-005 ID Fan Inter-Locking
    - 3.4.1. The minimum speed of the Fan is set for "Idling". The speed range of the Kiln ID Fan for regulation is 110-894 rpm. The minimum speed is given by lubrication needs. When there is a 'Global reset' the system sets to "Idling" (110 rpm).
    - 3.4.2. The Kiln ID Fan is rated for a normal operating 350°C discharge temperature
    - 3.4.3. Kiln ID Fan inlet temperature is set for: Alarm (HH) at 400 °C and will open the bleed air damper in the down comer to cool down the gas. If this event occurs be aware that the gas flow indication E01-004/IF01 in the control room is no longer correct in respect to the kiln combustion air as the bleed air damper is located in the down comer before the venture flow meter.
    - 3.4.4. At 400 °C before the kiln fan the fan will go to idling and the damper before the fan will close totally.

- 4. Adjust the dampers in the tertiary air ducts:
  - 4.1. Top air at 36 % open, main guillotine damper closed for the start. Tertiary air not will not be required before starting calciner firing!
- 5. Cooler fans & draft
  - 5.1. Start all the cooler fans, but let the dampers stay closed. Note: If the E04-015 fan needs to be test run, open the second grate line fan dampers to ensure the flame is not being pulled back.
- 6. Start calciner primary fan
  - 6.1. Damper at the calciner should be nearly closed (Check burner interlock screen for prestart conditions)
  - 6.2. This will act as cooling air, ensuring that the calciner burner will not be damaged during the pre-heat.
- 7. Ignition of the kiln burner
  - 7.1. Start F05-030 primary fan
    - 7.1.1. Adjust manual valves on burner as suggested in table below

Pillard Burner Settings During Kiln Preheat 2/16/2013						
	Burner Heat	PAF Inlet	Primary Air		Cental Air	Burner Swirl
Burner Operating Phase	Valve (GJ/H)	Damper Position (%)	Pressure (mbar)	Total Air Flow (m3/h)	Pressure (mbar)	Air Postion (%)
	F05-014/IH03	F05-030/IZ02	F05-035/IP04	F05-30/IF01	F05-035/IP03	On Burner
Burner iginition with fuel oil	0-40	TBD	50	3000-6000	80-100	0-5
Preheat about 20% burner load	40-60	TBD	50	3000-6000	80-100	0-5
Burner Load 20%-35%	60-120	TBD	100	6000-8500	100-120	0-5
Burner Load 35%-55%	120-170	TBD	150	8500-10000	100-120	0-5
Burner Load 55%-100%	170-300	TBD	200-210	10000-12000	100-120	0-5

#### 7.2. Ignition with Coal

7.2.1. Secondary Air Temperature (E03-001/IT10) or kiln inlet temperature MUST be above 650 °C

#### 7.3. Ignition with Oil

7.3.1. Start the recirculation of the fuel oil, with the F07-901 group and then the F05-901 group.

- 7.3.2. Propane Igniter In order to light off the oil a propane igniter must be used, the propane gas bottle is on the burner cart. The valve on the tank will need manually opened for ignition.
- 7.3.3. The burner is ready for ignition.
- 7.4. Failure to achieve a flame:
  - 7.4.1. Immediately shut down the fuel group
  - 7.4.2. Determine root cause of the failure to light
    - 7.4.2.1. To much primary air
    - 7.4.2.2. Too much draft in the kiln, either from the E01-005 or E04-015 fans
  - 7.4.3. If Carbon Monoxide (CO) is present, crack open the ID fan damper (E01-002) until the fuel is pulled throughout the system. This will limit the risk of an explosion during the next light-off attempt.

#### 8. Heating Schedule

- 8.1. Follow the heat-up schedule selected, which is dependent on refractory replacement during the shutdown. The schedules are designed to allow a controllable system expansion rate and proper dry-out of the refractory materials.
  - 8.1.1. This schedule will be provided by the Kiln Engineer or Foreman
- 8.2. A properly controlled heat-up prolongs refractory life and safeguards mechanical equipment during expansion. The same care should also be exercised for cooling down.
- 8.3. Temperature Profile
  - 8.3.1. The rotary kiln is where the heat must be concentrated, not the Preheater.
  - 8.3.2. The Cooler Vent Fan can greatly assist this collaboration of heat concentration as the heat profile develops.
  - 8.3.3. In effect, the heat should be 'bottled up' in the kiln by reducing the flow of gases to the minimum and still have enough flow to keep the system under negative pressure (suction).
  - 8.3.4. Heat up with the oxygen with the oxygen levels low, but enough to ensure complete combustion occurs.

#### Kiln Feed End Oxygen/CO Analyzer

O2 < 4%

CO = 0%

8.3.5. Heating up the PREHEATER to the required temperature profile for kiln feed can be achieved quite easily during the final stages of the heat-up. The fuel rate increases over the prescribed heat-up schedule will eventually raise the Kiln Feed End Temperature to 900-1000 °C.

#### 8.4. Items to pay attention to:

- 8.4.1. Watch the flame shape. If there is too much draft to sustain low fire, then reduce Kiln Exhaust Draft. The flame should be such that the Kiln refractory is not 'licked' and a minimum amount of ambient air is introduced.
- 8.4.2. Watch the Oxygen/ CO/ NO Analyzers. There should always be sufficient Oxygen (but not too much!), without CO and low NOx. Remember too much oxygen will lead to problems in the later preheat as the temperature in the preheater will increase while there is not enough heat in the kiln.
- 8.4.3. The Kiln Preheating shall be accomplished with fuel oil as long as the feed end temperature is lower than 650°C. Once the inlet temperature is above 650°C coal firing can commence, if inventories allow. As soon coal is on, fuel oil can be gradually reduced down to minimum flow.

#### 9. Kiln Rotation Procedure for Start up's

- 9.1. The kiln turning schedule ensures:
  - 9.1.1. A more uniform heating of the kiln components, otherwise the top of the kiln will heat up more rapidly.
  - 9.1.2. Periodic rotations allow uniform expansion of the kiln refractory and the kiln shell, reducing the stress and optimizing the equipment life.
  - 9.1.3. The kiln is not turned continuously until the refractory is fully expanded and locked in position inside the shell.
  - 9.1.4. At lower temperatures the refractory may get loose and may collapse under the dynamic loads inflicted by continuous rotation.

- 9.2. Before turning the kiln for the first time pour about 0.5 liters of lubrication oil on the roller bearing shafts. Turn the kiln for the first time after 2 hours 180angle degree, afterwards every 120 minutes 90 angle degree.
- 9.3. The recommended Turning Schedule on Auxiliary Drive is as follows:
  - 9.3.1. Based on Kiln Feed End Temperatures

0 – 300°C	turn 100 angle degrees every 2,400 seconds.
300 – 450°C	turn 100 angle degrees every 1,800 seconds.
450 - 600°C	turn 100 angle degrees every 1,200 seconds,
650 – 700°C	turn 100 angle degrees every 900 seconds.
700 – 800°C	turn 100 angle degrees every 600 seconds.
>950°C	Continuous rotation - ready for Feed

- 9.3.2. During the entire period, keep a close check on the longitudinal expansion of the kiln and the position on the supporting rollers. When normal temperature has been obtained in a kiln, it must not be stopped for more than 10 minutes without rotation during the entire period.
- 10. Confirm there is a Relative Movement between the loose tire and the kiln
  - 10.1. During heat-up the Kiln Shell and Kiln Tire temperatures should be monitored to make sure that there is still a gap at the loose tire.
  - 10.2. The kiln shell will increase in temperature more rapidly than the tires, reducing the clearances between both objects. If the shell expands to rapidly there is a risk of damaging the kiln shell.
  - 10.3. Measuring tire / shell movement
    - 10.3.1. Make a single chalk line mark which overlaps a Kiln Filler Bar and the tire
    - 10.3.2. After one rotation there should be some distance between the chalk line on the Filler Bar and the chalk line on the tire, indicating some relative movement.
  - 10.4. Measuring tire / shell temperatures

10.4.1. Tire 1+3 (kiln inlet side, floating tires): < 150°C

10.4.2. Tire 2 (splined mounting tire): <180°C

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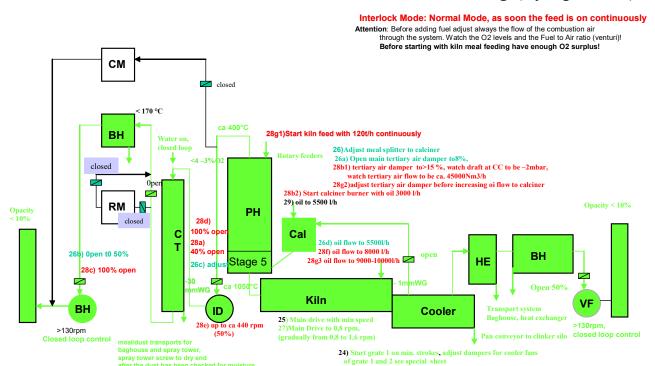
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10.4.3. The temperature of the tire has to be measured at the surface.

10.5. IF THERE IS NO GAP BETWEEN TIRE AND SHELL OR NO RELATIVE MOVEMENT SLOW DOWN THE HEATING UP PROCESS AND INFORM THE PRODUCTION AND MAINTENANCE SUPERVISORS FOR THE APPROPRIATE ACTION TO TAKE.

VI. Kiln Meal Feeding

# Kiln Meal Feeding (Pyroprocess)



Master Screen revision 11/11/01

### Sequence to start kiln feeding

- 1. Have kiln feed in recirculation with both bucket elevator-weigh feeder routes at 120t/h each
- 2. Have both preheater feeding air locks are running. One route to the preheater is preselected but the slide gates are still closed
- 3. Have process department check that the meal flow is correct and flowing.
- 4. in the preheater at the D02-032 or D02-035 diverter to Set kiln hood draft to -0.3 mbar.
- 5. Put cooler fans in closed loop control, 1-2 fans at a time
  - 5.1. This will ensure that the cooler will not become positive

- 6. Start kiln main drive on min speed (0,4 rpm)
- 7. Open main tertiary air damper to 50%
- 8. Using controller C04-041/CR02, set the pressure behind the ID fan (E01-005/IP02) to -3.0 mbar,
- 9. Open kiln ID fan damper to 15%, increase fan speed to 25%
- 10. Adjust burner settings as indicated below:
  - 10.1. Primary air 240 mbar and swirl at 8/11 postion
- 11. Adjust oil flow at the kiln burner to 5500l/h or to 8 t/h coal when on 100% coal
  - 11.1. Watch the O2 at the kiln inlet!
  - 11.2. Remember: 700 l/h fuel oil equals to 1 mt/h coal
- 12. Increase the speed of the main drive to 0.8 rpm
- 13. As soon the target temperatures below are reached. Perform the following steps in a rapid, but correct sequence:
  - 13.1. Stage I exit gas 380 400°C
  - 13.2. Stage V exit gas temperature in excess of 750°C
  - 13.3. Kiln inlet temperature 950-1050°C
  - 13.4. Sintering zone 1300-1400°C
- 14. Prepare Calciner for Ignition
  - 14.1. Open kiln fan damper to about 40% to get enough draft and airflow through the calciner for starting the calciner burner
  - 14.2. Open tertiary air main damper to >30%, watch draft at calciner tangential ducts to be –2 mbar
    - 14.2.1. Note: An indication for air flow from the tertiary air duct to the calciner is: temperature drop in the duct after the Calciner and a drop of the O2 content at the kiln inlet
- 15. Start Calciner Burner

- 15.1. Have a PUP open the valve on propane tank
- 15.2. Start oil firing,
  - 15.2.1. Flow rates available are dependent upon oil nozzle size installed.
    - 15.2.1.1. Nozzle #1 Max Flow rate 14,000 l/h Minimum Flow rate 4,500 l/h
    - 15.2.1.2. Nozzle #2 Max Flow rate 8,000 l/h Minimum Flow rate 2,500 l/h
- 16. Go on without delay
- 17. Open kiln the E01-002 ID fan damper to 100%
- 18. Speed up the E01-005 ID fan to 50 %
- 19. Increase heat input on kiln main burner to 8000 l/h of oil or 11.5 t/h of coal
- 20. Watch temperatures in tower; wait until E01-023/IT03 5<sup>th</sup> Stage gas inlet temperature exceeds 850 °C.
- 21. Start continuously feeding the kiln with 220 t/h total kiln feed set-point
- 22. Adjust the E01-028 T/A damper to 100% open
- 23. Watch the 02 in the downcomer, this should never be below 2% during start-up.
- 24. Begin adjusting kiln ID fan speed, kiln feed, kiln speed, and fuel in THAT order.
- 25. Change to "**Normal Mode**" as soon feed is on continuously for 120 minutes or 60% of the kiln design feed rate (300 mtph) and the kiln has stabilised to improve the global interlocking

#### VII. Optimizing Production

There has been a huge shock to the system, since large amounts of feed and fuel have been added to the system within a matter of minutes. The most important thing now is to try and stabilize the operation so we can quickly produce a quality clinker under optimal conditions. Below are the items to watch to ensure a stable operation is taking place.

#### 1. Kiln Feed Increases

- 1.1. When Feed is first introduced to the system, the rate of increase can be quite large. This is because a large amount of fuel has been added to the system and the temperature profile may be subject to overheating.
- 1.2. Warning: Do not increase production at the expense of quality.
- 1.2.1. Not only is high free-lime material costly to handle, additionally it is often associated with fine material and the kiln under 'pushing' (rushing) conditions.
- 1.2.2. This tends to put the Kiln and Cooler under positive pressure, which can be hazardous to personnel and detrimental to equipment. It also makes a mess. Again, don't add feed to a cold kiln, unless the Preheater temperatures are excessively high. Then, only add enough feed to control the temperatures, and in an amount which can be properly burned in the Kiln.
- 1.3. As the system begins to stabilize the whole operation improves and the system settles down even more. Therefore, it is desirable to not disturb the system too much with large Kiln Feed increases. As the Kiln gets into even higher production, then the increases should become even less. Large changes can disturb this delicate process balance. The final stages of production are best fine-tuned by smaller increments.

#### 2. Monitor Air Flows And Draft

As the fuel is increased due to increased kiln feed rates, a corresponding change has to be made too in the quantity of air introduced in order to facilitate complete combustion.

#### 2.1. Excess Oxygen

2.1.1. Obviously, running the system with excess oxygen does waste energy, but running with deficient oxygen, or CO is worse. Therefore, a balance must be sought which ensures complete combustion, without running into an oxygen deficient (reducing) atmosphere.

#### 2.2. Deficient Oxygen (CO)

2.2.1. Running the Kiln system without sufficient oxygen can also be wasteful. Think about it!

- 2.2.2. For combustion, there must be fuel, heat and oxygen. Running at low oxygen levels can lead to reducing conditions and the fuel may not burn where we want it to burn in the burning zone. Instead, the fuel burns somewhere else in the system, like the Preheater, wherever it finds enough oxygen to burn. As a result, the Kiln gets colder, because the heat is not liberated from the fuel in the burning zone and the Preheater gets hot.
- 2.2.3. A reducing atmosphere (less oxygen) can be extremely hazardous to the Kiln Refractories. The slag resistance or its ability to withstand chemical attack can be severely compromised in a reducing atmosphere.
- 2.2.4. A reducing atmosphere also promotes increased recycling elements associated with Alkalis, Sulphur and Chlorides to be more prevalent. This leads to increased reactions of volatile matters and subsequent build-ups in the narrow orifices and meal pipes in the Preheater.
- 2.2.5. Most Importantly, a lack of oxygen can mean combustibles are present. These may only occur in small pockets, but they still represent a potential hazard if they come into contact with an ignition source and oxygen.
- 2.2.6. DO NOT RUN WITH REDUCING (CO) CONDITIONS.

#### 3. Cooler Fans

- 3.1. The cooler fans are to be controlled in closed loop external control. The set points for flow are provided by an airflow table. These flow rates will provide enough air for combustion and cooling based on kiln feed rates.
- 3.2. The introduced air coming from Cooler Fans makes up > 92% of the total combustion air, while primary air including conveying air for the coal (ca 4%) and false air (ca. 3% in a well-sealed system) count for the rest.
- 3.3. The air provided in total is exhausted in two ways: through the Kiln Exhaust Baghouses and through the Cooler Vent Baghouse.
- 3.4. Therefore, for every increase in Kiln ID Fan speed, there is a resulting movement in the balance of air being pulled through the cooler vent. A so-called 'zero point' exists between these exhaust systems which is centered in the Grate Cooler. Pulling more through one exhaust system will move that 'zero point' one way or the other.
- 3.5. It is important once in production, to monitor the air intake into the cooler to bring about an acceptable balance to the system, both in heat recovery when the air passes through the clinker bed and the amount of air to properly cool the clinker below 100°C.

3.6. As the Kiln temperature increases with fuel, then so must the cooler air for combustion and the corresponding exhaust draft. The dependence of proper Grate Cooler operation in relationship to the Kiln operation will become more apparent as the Kiln is brought into production. The Kiln and Cooler are **dependent** on each other for proper optimization of the system.

#### 4. Monitor the Kiln Hood Draft

4.1. As a result of all the additional air just introduced, the Kiln Hood Pressure will have a tendency to go positive. This is because of the control loop reaction time is usually tuned for smaller changes to the changes in the amount of air, which will normally occur during operation. At this time, when large air changes are made, it may be more convenient to run the Kiln Hood Draft control at a more negative value until the flows are balanced and a reasonable Hood Pressure is attained.

#### 4.2. Set Points -

- 4.2.1. Kiln Hood Pressure during start-up operation should be at -0.5 mbar.
- 4.2.2. Kiln Hood Pressure during normal operation should be at -0.35 mbar.
- 4.3. Realize: Any air introduced to the system, which is not exhausted through the Preheater to the exhaust Baghouse will automatically have to be handled by the Cooler Vent, via the Hood Draft control.

#### 5. Monitor the 5<sup>th</sup> Stage Temperature

- 5.1. To stabilize the operation as quickly as possible, the Preheater 5<sup>th</sup> Stage Gas and Meal temperatures should have been steadily increasing to the desired value of about 830 850°C.
- 5.2. It is desirable to achieve these elevated temperatures as soon as possible, once all the other essential actions have been taken. The object here is to raise the temperature of the 5th Stage Outlet gas in the order of about 850 °C, which we know from experience corresponds to a degree of calcination for the 5th Stage meal entering the Kiln of over 90%.
- 5.3. In other words, this is the most critical operating temperature in the Preheater. All other temperatures are a consequence of this.

### 6. Gas Velocity

- 6.1. As the kiln feed enters the Preheater there will be an instant pressure drop in the system.
- 6.2. The draft must immediately compensate for this.
- 6.3. Watch the flow in the down comer and the related value for combustion gas/heat input rate
- 6.4. Remember: In a Preheater system there must always be sufficient gas velocity to keep the feed material in suspension. Inadequate flow can cause the material to fall down and, in effect, by-pass a stage of heat exchange. This can severely affect Preheater performance. Pressure indicators are invaluable in aiding the proper gas flow settings.
- 6.5. The draft adjustments are not only to provide enough oxygen for the complete combustion of fuel, but also to enable the Preheater to act as designed a Suspension Preheater.

#### 7. Temperature & Pressure Profile

- 7.1. Wait and observe the Preheater temperature and pressure profile to ensure the trends are nearing the normal levels for each successive stage.
- 7.2. Notice the changing temperature and pressure profile with the addition of feed. These values will be a benchmark from which you can judge cyclone efficiency, component deterioration and potential material plugging. Get a feel for these values. Note the increasing pressure drop with kiln feed.
- 7.3. In normal operation, under stable conditions with a clean Kiln inlet throat, the Kiln inlet pressure will be relatively constant for a given oxygen range. If stage 1 outlet pressure gradually starts to increase, i.e. the Preheater Fan draft has to be increased, then there could be material build-up at the Kiln inlet. Study the Kiln/Preheater/Cooler profiles, so that with experience, abnormalities can be swiftly recognized and dealt with.

#### 8. Kiln Amps

8.1. If possible, wait for the feed to enter the burning zone before increasing the Kiln Feed rate in order to confirm the proper clinkering of material. This is particularly important for the Grate Cooler. This increase in clinkering can be detected by the rising trend in the Kiln Amps.

- 8.2. It is possible to estimate the condition of the burning zone quite accurately by observing the trend of the kiln drive Amps.
- 8.3. Kiln Amps are actually a function of the kiln torque- how much effort is required to turn the kiln. This effort is determined by two factors:
  - 8.3.1. The length of the burning zone (major)
  - 8.3.2. The angle of repose of the material (minor)
- 8.4. A change in the length of the burning zone is a major cause of a change in the kiln Amps.

  The longer the burning zone the higher the kiln Amps.
- 8.5. Unprepared raw meal in the kiln tube reacts very much similar to water! It runs along the bottom of the kiln and has little or no influence on the kiln torque. Clinker nodules which are created in the burning zone start to ride up the kiln wall. For a constant chemical composition the hotter the material the higher it will ride up the side of the kiln wall. This has a direct impact on the kiln Amps.
- 8.6. By observing the rise and fall of the kiln Amps (trend) indications of the kiln conditions are given. The width of the kiln Amps over one revolution also reveals additional information.
  - 8.6.1. A narrow band indicates there is little or no coating in the kiln.
  - 8.6.2. A very wide band indicates that there is a large build-up of coating and that it is not evenly distributed. In such a case be aware of the danger of a ring fall which may lead to a "push" and to upset conditions. In such a case the kiln has to be slowed down in order to avoid damage to the cooler.
- 8.7. Anyhow during start-up when there is yet no coating the preparedness of the material before the clinkering zone is hard to judge.
- 8.8. Therefore visual inspection (PUP, PCS) should always be done periodically to confirm actual Kiln burning conditions. If the material is clinkering, coating is forming (new bricks) and conditions permit, commence with kiln feed increases as per the schedule for bringing the kiln up to production. This can be done relatively fast with a Precalciner Kiln, assuming there has been no new brick repairs prior to the start-up.

#### 9. Clinker Bed-depth in Cooler

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9.1. Soon, large quantities of clinker will be discharged into the Grate Cooler. Don't be too impatient to convey this clinker from the Cooler. In fact, the Grate speed should be run at minimum speed. This ensures a bed-depth of clinker will quickly be built upon the grates.

- 9.2. Remember: The Grate Cooler has two main functions:
  - 9.2.1.1. To recover the largest amount of heat from the clinker in the form of secondary and tertiary air for combustion and thus enhance efficiency.
  - 9.2.1.2. To cool the clinker fast in the high temperature region for quality reasons and to cool it down to an acceptable handling temperature and without adverse effects to the quality when processed through the Cement Mill.
- 9.3. With these two criteria in mind, we can visualize in general terms, the work areas of the Grate Cooler.
- 9.4. In general, for most Coolers, Undergrate air introduced into the various compartments at the front part of the Cooler Grate is primarily for heat recovery, while Undergrate air introduced at the rear compartments are primarily for clinker cooling.
- 9.5. As more clinker is pushed to the back of the cooler through the reciprocating action the Cooler Grate, then more cooling air will be introduced through the cooler fans at the rear of the cooler
- 9.6. So the soon there is some load on the mid roll crusher (watch the AMP's)

#### VIII. Kiln Shutdowns

1. Keep the heat in the kiln

There is no sense in wasting heat from the system. In fact, we want to take the necessary steps to maximize the heat retention in the Kiln. This will also assist in the subsequent start-up and help the Kiln recover more quickly to the production level it was prior to the shutdown.

- **1.1.** If the Raw Mill and/or the Coal Mill are running stop those first
- **1.2.** Stop feed to the kiln and switch to the Blend Silo recirculation, if the Kiln Feed system is not the reason why the kiln is to be shutdown.
  - **1.2.1.** By deselecting the kiln feed the follow actions will occur (These are the same series of events which occur when a GLOBAL inter-lock has been triggered.
    - **1.2.1.1.** All fuels will by cut off of both kiln and calciner burner

- **1.2.1.2.** E01-005 ID Fan will go down to 15% speed over a 20 minute period
- **1.2.1.3.** Cooler fans will go to minimum flow as indicated in cooler air flow table at a 0 tph kiln feed set-point
- **1.2.1.4.** Kiln will go to minimum speed, 0.4 rpm.
- **1.2.1.5.** Cooler grates speed for #1 compartment goes to minimum speed 6 st/min, and second grate speed stays the same.
- **1.3.** Close the E01-002 ID fan damper in a series of steps to prevent the "flushing" of the remaining kiln feed left in the tower
  - **1.3.1.** Note: This must be done fast enough however, so that top of the tower does not become over heated.
- **1.4.** Decrease the draft behind the ID, by putting controller C04-041/CR02 into closed loop control (CLC) with a set point of –1.0 mbar.
- **1.5.** Decrease hood draft to -0.1 mbar, using the E04-015/CR01 controller.
- **1.6.** Have a PUP open coal channel cooling valve on the kiln burner.
  - **1.6.1.** Note: This valve will have to be closed in-order to be able to fire coal.

#### 2. Short Downtimes

**2.1.** If the Kiln has to be shut down for any reason, which does not necessitate entry to the Preheater, Kiln and Cooler systems, and the duration of the shutdown is believed to be short, say less than 4 hours, then follow the procedure for putting on kiln feed as mention above.

#### 3. Long Downtimes

**3.1.** If the Kiln has to be shut down for entry to the Preheater, Kiln and Cooler systems then the following procedure should be followed.

#### 3.2. ASSIST THE COOL DOWN

- **3.2.1.** Remember: A proper cool down is as important as a properly regulated heat up.
  - **3.2.1.1.** The kiln must always be cooled off as slowly as possible to prevent too rapid cooling of the refractory lining in relation to the kiln shell. Otherwise, the

lining may work loose, involving attendant risk of twisting and dropping out of bricks.

#### **3.2.2.** Kiln Exhaust

- 3.2.2.1. By maintaining a more negative Kiln ID Fan exit Pressure, the Kiln heat can be exhausted more rapidly. This can be achieved by opening the E01-002 ID fan damper.
- 3.2.2.2. However, this should only be done as long as the Preheater temperature profile permits. To rapid of a rate will cause thermal shock to refractories and mechanical components in the system.

#### 3.2.3. Cooler Vent

3.2.3.1. The Cooler Vent draft can also be increased in order to assist the cooling down of the system.

#### 3.3. Kiln Rotation

- 3.3.1. If the kiln is stopped while hot, the kiln must be rotated to avoid kiln shell deformation.
- **3.3.2.** Normally, kiln rotation should always be restricted to absolute minimum to prevent damage to the refractory lining.
- **3.3.3.** The hydraulic thrust device and the spray lubrication system of kiln drive must be in operation during kiln rotation.
- **3.3.4.** If the kiln is going to be down for an extended period of time, stop the Kiln Main Drive and start the Kiln Auxiliary Drive. The rotation schedule based on kiln inlet temperatures is as follows:

#### Based on Kiln Feed End Temperatures -

>950°C	Continuous rotation
700 – 800°C	turn 100 angle degrees every 600 seconds.
650 – 700°C	turn 100 angle degrees every 900 seconds.
450 - 600°C	turn 100 angle degrees every 1,200 seconds,
300 – 450°C	turn 100 angle degrees every 1,800 seconds.
0 – 300°C	turn 100 angle degrees every 2,400 seconds.

- **3.3.5.** If the kiln shell is exposed to strong external cooling, e.g. due to heavy rainfall, continuous rotation is required.
- **3.3.6.** Items to monitor:
  - **3.3.6.1.** During the entire period, keep a close check on the longitudinal expansion of the kiln and the position on the supporting rollers.
  - **3.3.6.2.** The graphite lubrication of the supporting roller surface must be in order. The graphite blocks must rest loose in their holders so that the pressure against the supporting roller surfaces is not hampered.
  - **3.3.6.3.** To protect the surfaces of supporting rollers against damages when the riding-ring slides over the supporting rollers during the axial movement of the kiln it is important that the mentioned dry matter lubrication is in order.
  - 3.3.6.4. Cooling down of the kiln must always take place as slowly as possible so as to avoid that the lining is cooled too fast relative the kiln shell. Too fast cooling may cause the lining to come off the kiln shell, involving the risk of twisting and bricks falling out.
- **3.3.7.** THE COOLER grate lines and pan conveyor should always be running if the kiln is still rotating
- **3.3.8.** Once kiln rotation has stopped it is now considered safe shut off the cooler fans.

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# APPENDIX D

# EXAMPLES OF STARTUP AND SHUTDOWN PROCEDURES FOR NON-KILN SYSTEM PC MACT AFFECTED PLANT PROCESS AREAS

## **PC MACT Information Worksheet**

**Equipment Name:** Finish Mills #4, #5, #6 and #7, #8

Def	ine 'start up'
•	Start-up begins when the cement feed systems are fully running.
•	Start-up ends when the mill feed systems and mill drive are running
Def	ine 'shut down'
•	Shut-down begins when the feed group is stopped.
•	Shut down ends when the mill drive is stopped or the cement feed system is stopped.
Du	ration of start up/shut down?
•	Startup takes 30 minutes.
•	Shut-down takes 30 minutes.

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Parameters monitored (i.e. time,	temperature, pressure	drop, fan speed,	etc.) and data	collected for
start-up and shut-down.				

### Start-up parameters:

- Mill vent fan dP = -14 mBar
- Mill vent fan electrical current not to exceed 52 amps

#### Shut-down parameters:

- Mill drive speed
- Mill feed rate

What malfunctions could cause an excess dust/opacity emissions? (fugitive or stack) How do we monitor them?

Mill dust collection system – potential for leaks or poor performance during operation. Monitor pressure drop along with regular preventative maintenance.

#### **+PC MACT Information Worksheet**

Equipment Name: Finish Mill #1	
Define 'start up'	
•	Start-up begins when the cement cooler (group 10) is turned on.
•	Start-up ends when the desired blaine of 375 m <sup>2</sup> /kg is achieved. Blaine values are determined hourly by the quality control lab.
De	fine 'shut down'
•	Shut-down begins when the feed (group 9) is stopped.

## **Duration of startup/shut down?**

Shut down ends when the main mill motor is stopped.

• Cold start-up for 2 hours, depending on the temperature of the roller lubrication tank. Lubrication system must be above 40 °C for start-up to begin.

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• A warm start-up can be accomplished in 30 minutes, depending on the length of the stoppage.

• Shut-down takes approximately 20 minutes.

Parameters monitored (i.e. time, temperature, pressure drop, fan speed, etc.) and data collected for start-up and shut-down.

Start-up parameters:

- Mill DP: 60 mbar by changing feed rate.

- Mill feed: 150 tons per hour is the initial set point target

Adjust separator to achieve blaine target. reasonable change = 0.5%

Shut-down parameters:

- Mill DP: Feed group is stopped when DP reaches 35 mbar

- Mill feed: 100 tons per hour is the target for stopping the feed group

What malfunctions could cause excess dust/opacity emissions? (fugitive or stack) How do we monitor them?

Baghouses – potential for broken bag during operation. Monitor opacity, inlet temperature and pressure drop along with regular preventative maintenance.

H01-006 belt – main feed belt for FM 1 belt could fail creating fugitive dust.

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#### **PC MACT Information Worksheet**

**Equipment Name:** Raw Material Handling Systems

## Define 'start up'

- Start-up begins when the belts are turned on.
- Start-up ends when feed is added to the belts.

#### Define 'shut down'

- Shut-down begins when feed is removed from the belts.
- Shut-down ends when the belts are turned off.

#### **Duration of startup/shut down?**

- Start-up takes 5-10 minutes
- Shut-down takes 5-10 minutes depending on the length of the belt.

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Parameters monitored (i.e. time, temperature, pressure drop, fan speed, etc.) and data collected for			
start-up and shut-down.			

- visual observations
- belt speed

What malfunctions could cause excess dust/opacity emissions? (fugitive or stack) How do we monitor them?

- splice joint failure.
- leaks from baghouses.

Monitor opacity along with regular preventative maintenance and visual observation.

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#### **PC MACT Information Worksheet**

Equipment Name: Raw Meal Feed Systems

#### Define 'start up'

- Start-up begins when the belts are turned on.
- Start-up ends when feed is added to the belts.

#### Define 'shut down'

- Shut-down begins when feed is removed from the belts.
- Shut-down ends when the belts are turned off.

#### **Duration of startup/shut down?**

- Start-up takes 5-10 minutes
- Shut-down takes 5-10 minutes depending on the length of the belt.

Parameters monitored (i.e. time, temperature, pressure drop, fan speed, etc.) and data collected for start-up and shut-down.

- visual observations
- belt speed

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What malfunctions could cause excess dust/opacity emissions?	(Fugitive or stack)	How do we monitor
them?		

- splice joint failure.
- leaks from baghouses.

Monitor opacity along with regular preventative maintenance and visual observation.

#### **PC MACT Information Worksheet**

Equipment Name: Raw Mill

#### Define 'start up'

- Start-up begins when the main mill motor is turned on and the table is turning.
- Start-up ends when the raw feed is introduced and the rollers are lowered

#### Define 'shut down'

• Shut-down begins when the feed group is stopped.

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• Shut down ends when the main mill motor stopped.

#### Duration of startup/shut down?

- Cold start-up takes an hour.
- A warm start-up can be accomplished in 30 minutes
- Shut-down 30 minutes.

Parameters monitored (i.e. time, temperature, pressure drop, fan speed, etc.) and data collected for start-up and shut-down.

Start-up parameters:

- Mill dP/vibrations: 60 65 mbar when in operation
- Raw mill fan/classifier speed: 75% when in operation

Shut-down parameters:

- Mill DP
- Mill feed rate

What malfunctions could cause excess dust/opacity emissions? (Fugitive or stack) How do we monitor them?

Cyclone – potential for leaks or poor performance during operation. Monitor pressure drop along with regular preventative maintenance.

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To: All Transportation Services for Bulk Trucks Exiting Lehigh Cement Company, Union Bridge,

MD.

Re: Truck Wash

It has been observed by Lehigh personnel that many bulk cement trucks failed to pass through the automated truck wash located at the west entrance of the plant. Under environmental laws enforced by Maryland Department of Environment (MDE), Lehigh Cement Company is required to assure that all bulk trucks exit the property through the truck wash. This applies to all bulk trucks including, but not limited to: cement, flyash and biosolid bulk trucks. Full compliance with the regulation is expected and enforced by MDE.

Be advised that this letter is informing all bulk transportation services entering Lehigh Cement Company that they must exit through one of two truck washes located on-site. The location of the truck washes are: (1) at the west entrance near the scales and (2) at the east side of the plant near the limestone storage dome.

Lehigh will not tolerate non-compliance with this regulation.

Thank you in advance for your cooperation in this critical matter.

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# APPENDIX E CEM REGULATORY OVERVIEW

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#### **APPENDIX F**

# NEW WINDSOR QUARRY EQUIPMENT PREVENTATIVE MAINTENANCE PROCEDURES

#### Appendix E Application Completeness Checklist

#### VI .Application Completeness Checklist

The purpose of this part is to list the information required to achieve a Part 70 application shield.

#### **Cover Page**

- (z) Name and address of owner or operator, including telephone number.
- (z) Name and address of facility, including the plant manager's name and telephone number.
- (z) A 24-hour emergency telephone number for air pollution matters.

#### Section 1 CERTIFICATION STATEMENTS

(z) The certification statement completed and signed by a responsible official.

#### **Section 2 FACILITY DESCRIPTION SUMMARY**

- (z) A brief description of each of the source's process(es), including all applicable SIC codes and end products.
- (P1C) Flow diagrams indicating all emissions units, emission points, and control devices.
- (P IC) A plot plan of the entire facility.
- (z) Emission Certification Report.
- (z) General Emissions Information.

#### **Section 3 EMISSIONS UNIT DESCRIPTIONS –**

This section must be completed for each emissions unit.

#### Part A

- (z ) Emissions unit number.
- (z) Detailed description of unit, including all emission points.
- (z) Federally enforceable limit(s) on the operating schedule.

Fuel consumption information fo<u>r</u> any emissions unit that consumes fuel including the type of fuel, percent sulfur, and annual usage of fuel.

#### Part B

- (z) A citation and description of each federally enforceable requirement, including all emission standards, for each emissions unit.
- (z) A statement of compliance demonstration techniques for each requirement, including a description of monitoring, record keeping, reporting requirements, and test methods.
- (z ) The frequency of submittal of the compliance demonstration during the permit term.

#### Part C

- (z ) Emissions unit number.
- (z) Permit to construct number.
- (z) Emissions point number(s).
- (z) Date(s) the permit to construct was issued.
- (z) Condition number(s) as indicated on the permit to construct.
- (z) Description of the permit condition(s) and the reason(s) why they are believed to be obsolete, extraneous, or insignificant.

#### Part D

- (z ) Description of all alternate operating scenarios that apply to an emissions unit.
- (z) Number assigned to each scenario.
- (z ) Emissions unit number.

(z ) Description of the operating parameters for the emissions unit and other information which describes the how the operation of the unit will change under the different scenario.

#### Part E

- (z) A citation and description of each federally enforceable requirement triggered by an operating scenario, including all emission standards, for each emissions unit.
- (z) As an attachment, the date and results of the most recent compliance demonstration for each emission standard and/or emissions certification report with relevant supporting documentation.
- (z ) A statement of compliance demonstration techniques for each requirement, including a description of monitoring, record keeping, reporting requirements, and test methods.
- (z) The frequency of submittal of the compliance demonstration during the permit term.

#### **Section 4 CONTROL EQUIPMENT**

- (z) The type of each piece of air pollution control equipment
- (z) The capture and control efficiencies of the control equipment.

#### Section 5 SUMMARY SHEET OF POTENTIAL EMISSIONS

- (z) Quantity of potential emissions for criteria pollutants and HAPs emitted in tons per year for each emissions unit.
- Fugitive emission estimations for the entire facility for criteria pollutants and HAPs emitted in tons per year.
- (z) Basis for all emission calculations.

### Section 6 AN EXPLANATION OF PROPOSED EXEMPTIONS FROM OTHERWISE APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

(z) An explanation of the proposed exemption.

### Section 7 COMPLIANCE SCHEDULE FOR NONCOMPLYING EMISSIONS UNITS

- (x) Identification of emissions unit(s) not in compliance, including the requirement being violated and the effective compliance date.
  - (x) Detailed description of methods to be used to achieve compliance.
  - (x) A schedule of remedial measures, including an enforceable sequence of actions with milestones.

#### Attachment

- (x) Checklist of Insignificant Activities
- (x) CAM Plan (If Applicable)

# Appendix F Electronic Copy of the Application, 2019 Annual Emissions Certification Report, & 2019 Annual Compliance Certification Report