

Commonwealth of Kentucky
Division for Air Quality
STATEMENT OF BASIS / SUMMARY

Title V, Operating
Permit: V-25-020

Carmeuse Lime & Stone, Inc.
Carmeuse Lime & Stone Black River Operation
9043 Highway 154
Butler, KY 41006

July 10, 2025
Kristy Reilley, Reviewer

SOURCE ID:	21-191-00002
AGENCY INTEREST:	3400
ACTIVITY:	APE20230001, APE20250003

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SECTION 1 - SOURCE DESCRIPTION

SIC Code and description: 3274, Lime

Single Source Det. ☐ Yes ☒ No If Yes, Affiliated Source AI:

Source-wide Limit ☒ Yes ☐ No If Yes, See Section 4, Table A

28 Source Category ☒ Yes ☐ No If Yes, Category: Lime plants

County: Pendleton

Nonattainment Area: ☒ N/A ☐ PM₁₀ ☐ PM_{2.5} ☐ CO ☐ NO_x ☐ SO₂ ☐ Ozone ☐ Lead

PTE* greater than 100 tpy for any criteria air pollutant: ☒ Yes ☐ No

If yes, for what pollutant(s)?

☒ PM₁₀ ☒ PM_{2.5} ☒ CO ☒ NO_x ☒ SO₂ ☒ VOC

PTE* greater than 250 tpy for any criteria air pollutant: ☒ Yes ☐ No

If yes, for what pollutant(s)?

☒ PM₁₀ ☒ PM_{2.5} ☒ CO ☒ NO_x ☒ SO₂ ☐ VOC

PTE* greater than 10 tpy for any single hazardous air pollutant (HAP): ☒ Yes ☐ No

If yes, list which pollutant(s): Hydrochloric Acid

PTE* greater than 25 tpy for combined HAP: ☒ Yes ☐ No

*PTE does not include self-imposed emission limitations.

Description of Facility:

The Black River Plant owned by Carmeuse Lime & Stone, Inc. is a limestone mine, limestone processing, and lime manufacturing plant located in Pendleton County, Kentucky.

SECTION 2 – CURRENT APPLICATION AND EMISSION SUMMARY FORM

Permit Number: V-25-020

Activity: APE20230001, APE20250003

Application Received: 12/15/2023, 5/13/2025

Application Complete: 2/20/2024, 7/10/2025

Permit Action: ☐ Initial ☒ Renewal ☐ Significant Rev. ☒ Minor Rev. ☐ Administrative

Construction/Modification Requested? ☐ Yes ☒ No NSR Applicable? ☐ Yes ☒ No

Previous 502(b)(10) or Off-Permit Changes incorporated with this permit action ☒ Yes ☐ No

Description of Action:

502(b)(10) change (APE20210001):

The source submitted a request to install a new on-site reject lime stockpile for lime that is not suitable to use as product.

- The addition of a new bore hole into the underground mine for disposal of reject lime required the addition of the new reject lime stockpile.
- This resulted in the addition of EP 32 18 (Reject Lime Stockpile (North of Hydrate Plant)).

502(b)(10) change (APE20220002):

The source submitted a request to install a portable conveyor equipped with a diesel engine and a small onboard dust collection system to accommodate railcar cleanout activities which resulted in the addition of the following emission points:

- EP 36 10 (Railcar Cleanout Operation Loading Spout)
- EP 36 11 (Railcar Cleanout Operation Dust Collection System).

502(b)(10) change (APE20240001):

The source submitted a request to install a reject landfill for the disposal of lime and limestone that is not suitable to use as product and that cannot be disposed of in the underground mine.

- Although emissions for the reject landfill fall below the threshold required to be considered an insignificant activity, the source has elected to add the emission point to the LM05 emission group and keep it in Section B of the permit.
- This requested change resulted in the addition of EP 32 17 (Reject Lime Landfill).

Minor Revision (APE20230001):

The source submitted a minor permit revision application for the addition of a multichannel burner with the ability to co-fire natural gas with coal for EP 10 01 (Rotary Kiln #4). The source originally applied for this revision on January 3, 2017; however, the modification was not completed.

- As a result, there are no additional permit changes necessary for this modification since all relevant changes were made during the previous permit revision under activity APE20170001.
- It was demonstrated that the change in emissions associated with the installation of the multichannel burner with the ability to co-fire natural gas with coal for EP 10 01 would not exceed any significant emission rates (SER) as defined in 401 KAR 51:001. The results are as follows:

PSD Criteria Pollutant	VOC	SO ₂	NO _x	CO	PM	PM ₁₀	PM _{2.5}
Emissions (tpy)	6.9	-34.5	-116.2	1.1	-4.3	-4.3	-4.3
PSD SER (tpy)	40	40	40	100	25	15	10
Further PSD Review	No	No	No	No	No	No	No

- The source is also installing a new emergency generator that will serve the Rotary Kiln #4 burner management system which resulted in the addition of the following emission point:
– EP 34 14 (Kiln #4 BMS Emergency Generator (Natural Gas, Kohler Model 20RCA, 27.1 bhp))
- Due to addition of the new emergency generator (EP 34 14), the source requested that the description of EP 34 12 be changed from “Kiln BMS Emergency Generator (Kohler Model 20RESC, 27.1 bhp)” to “Kiln #5 BMS Emergency Generator (Kohler Model 20RESC, 27.1 bhp)”

Significant Revision (APE20240002):

The source submitted an application for a Title V Significant Revision of Permit V-19-011 for the addition of Dry Sorbent Injection (DSI) systems as additional control devices for the Rotary Kilns to reduce HCl emissions which was received by the Division on October 30, 2024.

- On May 28, 2025 the source submitted a request to withdraw this significant revision stating that due to the recent and ongoing changes in the political and regulatory arena, Carmeuse has opted to not proceed with the installation of the DSI systems on the kilns at this time.

Renewal (APE20250003):

The source submitted an application for a Title V Renewal of Permit V-19-011 which was received by the Division on May 13, 2025. During the revision process the Division made the following changes and determination:

- The emission points associated with the South Hydrate Plant (EP 36 01 – EP 36 09) were previously removed from the permit and have now also been removed from Masterfile. These emission points were never installed and construction authority expired on June 1, 2020.
- Changed EP 01 09, EP 02 02, EP 02 05, EP 02 07, EP 02 08 and EP 02 10 to add the applicability of 401 KAR 59:010; changed the control device from “Moist Material” to “Moist Material Inside Building”; and changed emissions to not be fugitive.
- Changed EP 33 01 to add the applicability of 401 KAR 61:020 and remove the applicability of 401 KAR 51:017 and 401 KAR 63:010; changed the control device from “Moist Material” to “Moist Material Inside Building”; and changed emission factors based on AP-42 Chapter 11.17, Table 11.17-4 for uncontrolled product transfer and conveying. The PT emission factor from AP-42 is multiplied by nine to account for nine (9) transfer points inside Burner Building 1; PM10 is assumed to be 85% of PT; and PM2.5 is assumed to be 30% of PT:

EP	Pollutant	Emission Factor (lb/ton)	
		Previous Value	New Value
33 01	PT	4.4	19.8
	PM ₁₀	3.74	16.83
	PM _{2.5}	1.32	5.94

- Changed EP 02 02 emission factors based on AP-42 Chapter 11.19.2, Table 11.19.2-2 for uncontrolled screening operations as follows:

EP	Pollutant	Emission Factor (lb/ton)	
		Previous Value	New Value
02 02	PT	0.050	0.025
	PM ₁₀	0.0174	0.0087
	PM _{2.5}	0.00118	0.0006

- Changed EP 02 05 and EP 02 22 emission factors based on AP-42 Chapter 11.19.2, Table 11.19.2-2 for uncontrolled tertiary crusher as follows:

EP	Pollutant	Emission Factor (lb/ton)	
		Previous Value	New Value
02 05	PT	0.0108	0.0054
	PM ₁₀	0.0048	0.0024
	PM _{2.5}	0.00088	0.0004
02 22	PT	0.0024	0.0054
	PM ₁₀	0.0024	0.0024
	PM _{2.5}	0.0024	0.0004

- Changed EP 02 10 emission factors based on AP-42 Chapter 11.19.2, Table 11.19.2-2 for uncontrolled conveyor and transfer points. The emission factors from AP-42 are multiplied by two to account for two (2) transfer points inside the transfer house:

EP	Pollutant	Emission Factor (lb/ton)	
		Previous Value	New Value
02 10	PT	0.003	0.006
	PM ₁₀	0.0011	0.0022
	PM _{2.5}	0.00031	0.00062

- Changed PM_{2.5} emission factor from 0.00416 to 0.0111 lb/ton for EP 01 03, EP 01 08, EP 01 12, EP 01 16, EP 31 01, EP 31 04, EP 31 07 per the source assumption that PM_{2.5} is equal to 20% of PT.
- Changed EP 21 25 to remove the applicability of 401 KAR 59:010 and to add the applicability of 401 KAR 63:010. Although emissions from EP 21 25 are controlled by a dust collection system, that control device is listed in the permit as a separate emission point (EP 21 31) which is subject to the requirements of 401 KAR 59:010.
- Added missing HAP emissions to EP 07 01, EP 08 01, EP 09 01, EP 10 01, EP 11 01, EP 34 06, EP 34 06G, EP 34 07 – EP 34 10, EP 34 12, and EP 34 13.

V-25-020 Emission Summary		
Pollutant	2024 Actual (tpy)	PTE V-25-020 (tpy)
CO	1,078	3,488
NO _x	1,127	4,537
PT	61.36	459.5
PM ₁₀	51.84	412.5
PM _{2.5}	35.28	284.6
SO ₂	951.0	4,160
VOC	40.37	145.7
Lead	0.0003070	0.0009720
Greenhouse Gases (GHGs)		
Carbon Dioxide	977,167	3,518,319
Methane	50.45	191.0
Nitrous Oxide	7.349	28.02
CO ₂ Equivalent (CO ₂ e)	980,618	3,531,443

V-25-020 Emission Summary		
Pollutant	2024 Actual (tpy)	PTE V-25-020 (tpy)
Hazardous Air Pollutants (HAPs)		
1,3-Butadiene	0.00002198	0.0007940
Acetaldehyde	0.0004308	0.1471
Acrolein	0.00004216	0.06921
Antimony (Total and Dissolved)	0.001386	0.004139
Arsenic (Total and Dissolved)	0.03156	0.09428
Benzene	0.0005843	0.3171
Beryllium (Total and Dissolved)	0.001616	0.004829
Cadmium (Total and Dissolved)	0.003885	0.01173
Chromium	0.02001	0.05979
Formaldehyde	9.873	0.1473
Hydrochloric Acid	175.4	452.0
Manganese	0.03772	0.1127
Mercury, Total (as Hg)	0.002117	0.009571
Naphthalene	0.00004764	0.001871
Nickel; Nickel (Total and Dissolved)	0.02155	0.06439
Selenium (Total and Dissolved)	0.09595	0.2989
Toluene	0.0002561	0.06437
Total PCDD/PCDF (Dioxins and Furans)	-	0.0000004047
Xylenes (Total)	0.0001785	0.01406
Combined HAPs:	185.5	455.0

SECTION 3 – EMISSIONS, LIMITATIONS AND BASIS

Emission Points 10 01, 11 01				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
CO	< 91.67 lb/hr	401 KAR 51:017, PSD (C-93-032)	See Comments	Monitor fuel usage continuously, on a 12-month rolling total
NO _x	< 128.33 lb/hr	401 KAR 51:017, PSD (C-93-032)		Monitor fuel usage continuously, on a 12-month rolling total
SO ₂	< 22.97 lb/hr	401 KAR 51:017, PSD (C-93-032)		Monitor fuel usage continuously, on a 12-month rolling total
HCl	< 0.52 lb/ton lime produced	40 CFR 63 Subpart AAAAAA Table 1, Item 8		Initial U.S. EPA Reference Method 320 or 321 Testing; Repeat Testing Every 5 Years
Hg	< 34 lb/MMton of lime produced	40 CFR 63 Subpart AAAAAA Table 1, Item 14		Initial U.S. EPA Reference Method 29 or 30B Testing; Repeat Testing Every 5 Years
Total Organic HAP	< 2.6 ppmvd at 7% O ₂	40 CFR 63 Subpart AAAAAA Table 1, Item 15		Initial U.S. EPA Reference Method 18 and/or 320 Testing; Repeat Testing Every 5 Years
Dioxins and Furans	< 0.037 ng/dscm at 7% O ₂	40 CFR 63 Subpart AAAAAA Table 1, Item 16		Initial U.S. EPA Reference Method 23 Testing; Repeat Testing Every 5 Years
PM	E = 2.34 lb/hr for P ≤ 0.5 ton/hr E = 3.59P ^{0.62} for P from 0.5 ton/hr to 30 ton/hr E = 17.31P ^{0.16} for P > 30 ton/hr	401 KAR 59:010, Section 3(2)		Compliance with 40 CFR 63 Subpart AAAAAA PM emission limit
	< 0.12 lb/ton of stone feed	40 CFR 63 Subpart AAAAAA Table 1, Item 1		Calculate weighted average of continuous PM emissions; U.S. EPA Reference Method 5 Testing Every 5 Years
	<0.60 lb/ton of stone feed	40 CFR 60.342(a)(1)		Compliance with 40 CFR 63 Subpart AAAAAA PM emission limit

Emission Points 10 01, 11 01				
PM	< 20% Opacity	401 KAR 59:010 Section 3(1)(a)	N/A	Compliance with 40 CFR 63 Subpart AAAAA and 40 CFR 60 Subpart HH opacity limit
	< 15% Opacity	40 CFR 60.342(a)(2); 40 CFR 63 Subpart AAAAA Table 3, Item 1		Install, Calibrate, Maintain and Operate a Continuous Opacity Monitoring System (COMS)
Process Description:				
EP 10 01 (KL04)				
Process ID	Name	Capacity (tons/hr)	Construction Date	Control Device
1	Rotary Kiln #4	110*	1/1/1995	Fabric Filter/ Pulse-Jet Baghouse
2	Pulverized Fuel Burner	9.6		
EP 11 01 (KL05)				
Process ID	Name	Capacity (tons/hr)	Construction Date	Control Device
1	Rotary Kiln #5	110*	1/1/1995	Fabric Filter/ Pulse-Jet Baghouse
2	Pulverized Fuel Burner	9.6		
*Although EP 10 01 and EP 11 01 are capable of producing 110 tons/hr of lime each, the source is limited to a maximum of 46 tons/hr each as a requirement of 401 KAR 51:017 and PSD (C-93-032).				
Applicable Regulations:				
401 KAR 51:017, Prevention of significant deterioration of air quality. This regulation is applicable to the construction of a new major stationary source or a project at an existing major stationary source that commences construction after September 22, 1982, and locates in an area designated attainment or unclassifiable under 42 U.S.C. 7407(d)(1)(A)(ii) and (iii).				
401 KAR 59:010, New Process Operations. This regulation is applicable to each affected facility, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975				
401 KAR 60:005, Section 2(2)(tt), 40 C.F.R. 60.340 through 60.344 (Subpart HH), Standards of Performance for Lime Manufacturing Plants. This regulation is applicable to new rotary lime kilns used in the manufacture of lime that commences construction or modification after May 3, 1977.				
401 KAR 63:002, Section 2(4)(ffff), 40 C.F.R. 63.7080 through 63.7143, Tables 1 through 8 (Subpart AAAAA), National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants. This regulation is applicable to each existing or new lime manufacturing plant (LMP) that is a major source, or that is located at, or is part of, a major source of hazardous air pollutant (HAP) emissions.				

Emission Points 10 01, 11 01

Comments:

EP	Pollutant	Emission Factor	Emission Factor Basis
10 01	NO _x	3.095 lb/ton	2020 Stack Test (100% Coal Fired)
	SO ₂	0.5273 lb/ton	
	CO	0.688 lb/ton	2018 Stack Test (Co-fire Scenario)
	PT	0.147 lb/ton	
	PM ₁₀	0.2200 lb/ton	FPM + CPM
	PM _{2.5}	0.198 lb/ton	Assumed to be 90% of PM ₁₀
	HCl	1.438 lb/ton	2007 Stack Test
	Hg	0.051 lb/ton	NLA Test
	Dioxins and Furans	1.76 E ⁻⁰⁹	AP 42 Chapter 1.1 Table 1.1-12
11 01	NO _x	2.654 lb/ton	2020 Stack Test (100% Coal Fired)
	SO ₂	0.3373 lb/ton	
	CO	0.688 lb/ton	2018 Stack Test (Co-fire Scenario)
	PT	0.023 lb/ton	
	PM ₁₀	0.17 lb/ton	Assumed to be 90% of PM ₁₀
	PM _{2.5}	0.153 lb/ton	
	HCl	1.438 lb/ton	2007 Stack Test
	Hg	0.051 lb/ton	NLA Test
	Dioxins and Furans	1.76 E ⁻⁰⁹	AP 42 Chapter 1.1 Table 1.1-12

The PT emission factors obtained from stack testing for EP 10 01 and EP 11 01 are post-control and therefore no control efficiency is applied. The control efficiency factored into the emission points is estimated to be 99.0% per the application received on 2/26/2019 under activity APE20190001.

For the equation $E = \text{rate of emission in lb/hr}$ and $P = \text{process weight rate in tons/hour}$.

Hourly emission rate can be calculated (if needed) using the following equation:

Hourly Emission Rate = [Monthly processing rate x Emission Factor as determined from AP-42 / (Hours of operation per month)] x (1 – control efficiency).

Emission Points 16 11, 17 05, 17 10, 17 13, 17 17, 17 27, 17 32, 17 41, 18 01, 18 06, 18 09, 18 16, 18 22, 18 24, 18 27, 18 30, 32 08				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	E = 2.34 lb/hr for P ≤ 0.5 ton/hr E = 3.59P ^{0.62} for P from 0.5 ton/hr to 30 ton/hr E = 17.31P ^{0.16} for P > 30 ton/hr	401 KAR 59:010, Section 3(2)	See Comments	Hourly Emission Rate Calculation
	< 20% Opacity	401 KAR 59:010, Section 3(1)(a)		Daily Qualitative Visual Observations
	< 7% Opacity; < 15% Opacity for EP 18 27 only	401 KAR 51:017, PSD (C-93-032)		Performance Testing
	0.02 gr/acfm	401 KAR 51:017, PSD (C-93-032)		
Process Description:				
EP	Name	Capacity (tons/hr)	Construction Date	Control Device
16 11	84-018 Dust Collection System for Kiln 4 & 5 Discharge Conveyors	175	1/1/1995	N/A
17 05	89-858 Dust Collection System for Lime Bins and Truck Loadout	305	1/1/1998	
17 10	89-855 Dust Collection System for Silo #11 Feed Conveyors	175	1/1/1995	
17 13	89-856 Dust Collection System for Silo #12 Feed Conveyors	175		
17 17	89-857 Dust Collection System for Silo #13 Feed Conveyors	175	1/1/1995	
17 27	89-850 Dust Collection System for Lime Screening Area	175		
17 32	89-861 Dust Collection System for Lime Bins and Screens	155	1/1/1998	
17 41	89-851 Dust Collection System for Lime Screening and Bucket Elevator	130	1/31/1995	
18 01	94-835 Dust Collection System for #13 and #14 Kiln Run Silo Transfer to 94-801	1140	1/1/1995	
18 06	94-834 Dust Collection System for #11 and #12 Kiln Run Silo Transfer to 94-803	175		
18 09	94-836 Dust Collection System for Kiln Silo Discharge Conveyors	1140		
18 16	94-832 Dust Collection System for Product Bin Discharge Conveyors and Screens	300		

Emission Points 16 11, 17 05, 17 10, 17 13, 17 17, 17 27, 17 32, 17 41, 18 01, 18 06, 18 09, 18 16, 18 22, 18 24, 18 27, 18 30, 32 08

18 22	94-831 Dust Collection System for Product Bin Discharge Conveyors	275	1/1/1995	N/A
18 24	94-829 Dust Collection System for Lime Railcar Loadout	175		
18 27	94-837 Dust Collection System for Lime Barge Loadout	1140		
18 30	94-833 Dust Collection System for Lime Truck Loadout	275		
32 08	63-270 Bin Vent Collection System for Kiln 4 & 5	14		

Applicable Regulations:

401 KAR 51:017, Prevention of significant deterioration of air quality. This regulation is applicable to the construction of a new major stationary source or a project at an existing major stationary source that commences construction after September 22, 1982, and locates in an area designated attainment or unclassifiable under 42 U.S.C. 7407(d)(1)(A)(ii) and (iii).

401 KAR 59:010, New process operations. This regulation is applicable to each affected facility, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975.

40 CFR 64, Compliance Assurance Monitoring (CAM). This regulation is applicable to a pollutant-specific emissions unit at a major source that is required to obtain a part 70 permit that is subject to an emission limitation or standard, uses a control device to achieve compliance with any such emission limitation or standard; and has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 tons per year.

Comments:

The PM emission factors for the emission points above are calculated based on an exit grain loading of 0.02 gr/scf. The PT emission rate (lb/hr) is calculated by multiplying the exit grain loading by the system's exhaust flowrate. The emission factor for PT is then back-calculated by dividing the emission rate by the process rate (tons/hr) of the underlying process served by the dust collection system. PM₁₀ emission factors for the emission points above are assumed to be 84% of PT and PM_{2.5} emission factors for the emission points above are assumed to be 45% of PT.

EP	Emission Factors
16 11	PT = 0.02038 lb/ton PM ₁₀ = 0.01712 lb/ton PM _{2.5} = 0.009169 lb/ton
17 05	PT = 0.008037 lb/ton PM ₁₀ = 0.06751 lb/ton PM _{2.5} = 0.003617 lb/ton
17 10, 17 13	PT = 0.01078 lb/ton PM ₁₀ = 0.009051 lb/ton PM _{2.5} = 0.004849 lb/ton
17 17	PT = 0.01264 lb/ton PM ₁₀ = 0.01061 lb/ton PM _{2.5} = 0.005687 lb/ton

Emission Points 16 11, 17 05, 17 10, 17 13, 17 17, 17 27, 17 32, 17 41, 18 01, 18 06, 18 09, 18 16, 18 22, 18 24, 18 27, 18 30, 32 08

17 27	PT = 0.02498 lb/ton PM ₁₀ = 0.02098 lb/ton PM _{2.5} = 0.01124 lb/ton
17 32	PT = 0.01161 lb/ton PM ₁₀ = 0.009755 lb/ton PM _{2.5} = 0.005226 lb/ton
17 41	PT = 0.02295 lb/ton PM ₁₀ = 0.01927 lb/ton PM _{2.5} = 0.01033 lb/ton
18 01	PT = 0.001579 lb/ton PM ₁₀ = 0.001326 lb/ton PM _{2.5} = 0.0007105 lb/ton
18 06	PT = 0.01029 lb/ton PM ₁₀ = 0.008640 lb/ton PM _{2.5} = 0.004629 lb/ton
18 09	PT = 0.001203 lb/ton PM ₁₀ = 0.001011 lb/ton PM _{2.5} = 0.0005414 lb/ton
18 16	PT = 0.01686 lb/ton PM ₁₀ = 0.01416 lb/ton PM _{2.5} = 0.007586 lb/ton
18 22	PT = 0.005610 lb/ton PM ₁₀ = 0.004713 lb/ton PM _{2.5} = 0.002525 lb/ton
18 24	PT = 0.003820 lb/ton PM ₁₀ = 0.003209 lb/ton PM _{2.5} = 0.001719 lb/ton
18 27	PT = 0.0009774 lb/ton PM ₁₀ = 0.0008211 lb/ton PM _{2.5} = 0.0004398 lb/ton
18 30	PT = 0.001745 lb/ton PM ₁₀ = 0.001466 lb/ton PM _{2.5} = 0.0007855 lb/ton
32 08	PT = 0.03975 lb/ton PM ₁₀ = 0.03339 lb/ton PM _{2.5} = 0.01789 lb/ton

For the equation $E = \text{rate of emission in lb/hr}$ and $P = \text{process weight rate in tons/hour}$.

Hourly emission rate can be calculated (if needed) using the following equation:

Hourly Emission Rate = $[\text{Monthly processing rate} \times \text{Emission Factor as determined from AP-42} / (\text{Hours of operation per month})] \times (1 - \text{control efficiency})$.

Emission Points 33 02 – 33 07				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	< 7% Opacity from the Opening of the Lime System Buildings	401 KAR 51:017, PSD (C-93-032)	See Comments	Daily Qualitative Visual Observations
	No Visible Emissions Beyond Property Line	401 KAR 63:010		See Comments

Process Description:

EP	Name	Capacity (tons/hr)	Construction Date
33 02	Kilns 4 and 5 Discharge Building - Burner Building 2	92	1/1/1995
33 03	Transfer Tower 1 from Kiln to Storage	126	
33 04	Transfer Tower 2 from Kiln to Storage	92	
33 05	Product Storage Building	218	
33 06	Product Storage Silos	218	
33 07	Transfer House 3 Deg Tower	218	

Applicable Regulations:

401 KAR 51:017, Prevention of significant deterioration of air quality. This regulation is applicable to the construction of a new major stationary source or a project at an existing major stationary source that commences construction after September 22, 1982, and locates in an area designated attainment or unclassifiable under 42 U.S.C. 7407(d)(1)(A)(ii) and (iii).

401 KAR 63:010, Fugitive emissions. This regulation is applicable to each affected facility which emits or may emit fugitive emissions provided that the fugitive emissions from such facility are not elsewhere subject to an opacity standard within the administrative regulations of the Division for Air Quality.

Comments:

The PT emission factors for the emission points above came from AP-42 Chapter 11.7, Table 11.17-4; PM₁₀ emission factors for the emission points above are assumed to be 85% of PT; and PM_{2.5} emission factors for the emission points above are assumed to be 30% of PT:

EP	Emission Factor	Notes
33 02	PT = 19.80 lb/ton PM ₁₀ = 16.83 lb/ton PM _{2.5} = 5.940 lb/ton	The emission factor for PT is multiplied by nine to account for the number of transfer points inside of the building.
33 03, 33 04, 33 07	PT = 4.400 lb/ton PM ₁₀ = 3.740 lb/ton PM _{2.5} = 1.320 lb/ton	The emission factor for PT is multiplied by two to account for the number of transfer points inside of the building.

Emission Points 33 02 – 33 07			
33 05	PT = 110.0 lb/ton PM ₁₀ = 93.50 lb/ton PM _{2.5} = 33.00 lb/ton	The emission factor for PT is multiplied by fifty to account for the number of transfer points inside of the building.	
33 06	PT = 44.00 lb/ton PM ₁₀ = 37.40 lb/ton PM _{2.5} = 13.20 lb/ton	The emission factor for PT is multiplied by twenty to account for the number of transfer points inside of the building.	
If fugitive dust emissions beyond the lot line of the property are observed, the permittee shall conduct U.S. EPA Reference Method 22 (visual determination of fugitive emissions) observations per Appendix A of 40 C.F.R. Part 60. In lieu of conducting U.S. EPA Reference Method 22, the permittee shall immediately perform a corrective action which results in no visible fugitive dust emissions beyond the lot line of the property.			

Emission Points 20 20, 20 21, 21 05, 21 08, 21 12, 21 18, 21 23, 21 31 – 21 35, 22 09, 27 02, 36 11				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	E = 2.34 lb/ton for P ≤ 0.5 ton/hr E = 3.59P ^{0.62} for P from 0.5 ton/hr to 30 ton/hr E = 17.31P ^{0.16} for P > 30 ton/hr	401 KAR 59:010, Section 3(2)	See Comments	Hourly Emission Rate Calculation
	< 20% Opacity	401 KAR 59:010, Section 3(1)(a)		Qualitative Visual Observations
Process Description:				
EP	Name	Capacity (tons/hr)	Construction Date	Control Device
20 20	90-138A Bin Vent Collector on 90-135 (Hydrator #1 Feed Bin)	300	1/1/1980	N/A
20 21	90-138B Bin Vent Collector on 90-133 (Hydrator #2 Feed Bin)	300		
21 05	90-137 Dust Collection System for Mill Feed Bin	30		
21 08	90-142 Dust Collection System for Mill	30		
21 12	Hydrator/Scrubber System	30		
21 18	90-128 Dust Collection System for Classifier Operations	30	1/1/1980	N/A
21 23	90-215 Dust Collection System for #3 Product Bin Truck Loadout	100		

Emission Points 20 20, 20 21, 21 05, 21 08, 21 12, 21 18, 21 23, 21 31 – 21 35, 22 09, 27 02, 36 11				
21 31	90-170 Dust Collection System for #1 & #2 Product Bin Truck Loadout	100		
21 32	90-139A Bin Vent Collector on 90-222 (#3 Product Storage Bin)	30		
21 33	90-139B Bin Vent Collector on 90-223 (#2 Product Storage Bin)	30		
21 34	90-139C Bin Vent Collector on 90-224 (#1 Product Storage Bin)	30		
21 35	90-303 Dust Collection System for Hydrate Reject Loadout	100		
22 09	91-209 Dust Collection System for Hydrate Bagging Operation	100	1/1/2002	
27 02	90-221 Dust Collection System for 90-221LS Railcar Loadout	100		
29 03	93-111 Dust Collection System for 94-550 Belt Conveyor Transfer	300	1/1/2009	
29 04	93-112 Dust Collection System for 93-100 Belt Conveyor Transfer (when in lime service)	300	1/1/2009	
36 11	Railcar Cleanout Operation Dust Collection System	60	11/7/2022	

Applicable Regulations:

401 KAR 59:010, New process operations. This regulation is applicable to each affected facility, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975.

Comments:

The PM emission factors for the emission points are calculated based on the exit grain loading as shown in the table below. The PT emission rate (lb/hr) is calculated by multiplying the exit grain loading by the system's exhaust flowrate. The emission factor for PT is then back-calculated by dividing the emission rate by the process rate (tons/hr) of the underlying process served by the dust collection system.

EP	Emission Factor	Exit Grain Loading	Notes
20 20	PT = 0.0003143 lb/ton PM ₁₀ = 0.0003143 lb/ton PM _{2.5} = 0.0002829 lb/ton	0.01 gr/scf	PM ₁₀ is assumed to be 100% of PT PM _{2.5} is assumed to be 90% of PT
20 21	PT = 0.0005143 lb/ton PM ₁₀ = 0.0005143 lb/ton PM _{2.5} = 0.0004629 lb/ton	0.01 gr/scf	
21 18	PT = 0.006000 lb/ton PM ₁₀ = 0.006000 lb/ton PM _{2.5} = 0.005400 lb/ton	0.01 gr/scf	PM ₁₀ is assumed to be 100% of PT PM _{2.5} is assumed to be 90% of PT

Emission Points 20 20, 20 21, 21 05, 21 08, 21 12, 21 18, 21 23, 21 31 – 21 35, 22 09, 27 02, 36 11				
21 23	PT = 0.003429 lb/ton PM ₁₀ = 0.003429 lb/ton PM _{2.5} = 0.003086 lb/ton	0.02 gr/scf		
21 33, 21 34	PT = 0.002000 lb/ton PM ₁₀ = 0.002000 lb/ton PM _{2.5} = 0.001800 lb/ton	0.01 gr/scf		
21 05, 21 08	PT = 0.01143 lb/ton PM ₁₀ = 0.009600 lb/ton PM _{2.5} = 0.005143 lb/ton	0.02 gr/scf	PM ₁₀ is assumed to be 84% of PT PM _{2.5} is assumed to be 45% of PT	
21 31	PT = 0.002743 lb/ton PM ₁₀ = 0.002304 lb/ton PM _{2.5} = 0.001234 lb/ton	0.02 gr/scf		
21 32	PT = 0.002000 lb/ton PM ₁₀ = 0.001680 lb/ton PM _{2.5} = 0.0009000 lb/ton	0.01 gr/scf		
21 35	PT = 0.001714 lb/ton PM ₁₀ = 0.001440 lb/ton PM _{2.5} = 0.0007714 lb/ton	0.02 gr/scf		
22 09	PT = 0.004457 lb/ton PM ₁₀ = 0.003744 lb/ton PM _{2.5} = 0.002006 lb/ton	0.02 gr/scf		
27 02	PT = 0.002400 lb/ton PM ₁₀ = 0.002016 lb/ton PM _{2.5} = 0.001080 lb/ton	0.02 gr/scf		
29 03, 29 04	PT = 0.0008000 lb/ton PM ₁₀ = 0.0006720 lb/ton PM _{2.5} = 0.0003600 lb/ton	0.02 gr/scf		
36 11	PT = 0.0008571 lb/ton PM ₁₀ = 0.0007200 lb/ton PM _{2.5} = 0.0003857 lb/ton	0.01 gr/scf		

PM emission factors for EP 21 12 were obtained from source engineering estimates as follows:
PT = 0.02200 lb/ton
PM₁₀ = 0.01870 lb/ton
PM_{2.5} = 0.006600 lb/ton

For the equation $E = \text{rate of emission in lb/hr}$ and $P = \text{process weight rate in tons/hour}$.
Hourly emission rate can be calculated (if needed) using the following equation:
Hourly Emission Rate = [Monthly processing rate x Emission Factor as determined from AP-42 / (Hours of operation per month)] x (1 – control efficiency).

Emission Points 21 01, 29 03, 29 04, 32 06, 32 09, 32 13 – 32 16				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	E = 2.34 lb/ton for P ≤ 0.5 ton/hr E = 3.59P ^{0.62} for P from 0.5 ton/hr to 30 ton/hr E = 17.31P ^{0.16} for P > 30 ton/hr	401 KAR 59:010, Section 3(2)	See Comments	Hourly Emission Rate Calculation
	< 20% Opacity	401 KAR 59:010, Section 3(1)(a)		Qualitative Visual Observations
Process Description:				
EP	Name	Capacity (tons/hr)	Construction Date	Control Device
21 01	90-014 Dust Collection System for DEG Tower Conveyors	300	1/1/1980	N/A
29 03	93-111 Dust Collection System for 94-550 Belt Conveyor Transfer	300	1/1/2009	
29 04	93-112 Dust Collection System for 93-100 Belt Conveyor Transfer (when in lime service)	300		
32 06	89-004 Dust Collection System for CM Screw Receiving	20	1/1/2007	
32 09	63-400 Dust Collection System for Kiln 1 & 2 Dust Bin and Transfers	46.5	1/1/2011	
32 13	63-271 Dust Collection System for Kiln 1 & 2 Dust Bin Loading Spout	80	1/1/2004	
32 14	63-272 Dust Collection System for Kiln 3 Dust Bin Loading Spout	80		
32 15	63-354 Dust Collection System for Kiln 3 Dust Bin and Transfers	48		
32 16	89-848 Dust Collection System for Lime Transfers	144	1/1/2015	
Applicable Regulations:				
401 KAR 59:010, New process operations. This regulation is applicable to each affected facility, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975.				
40 CFR 64, Compliance Assurance Monitoring (CAM). This regulation is applicable to a pollutant-specific emissions unit at a major source that is required to obtain a part 70 permit that is				

Emission Points 21 01, 29 03, 29 04, 32 06, 32 09, 32 13 – 32 16

subject to an emission limitation or standard, uses a control device to achieve compliance with any such emission limitation or standard; and has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 tons per year.

Comments:

The PM emission factors for the emission points are calculated based on the exit grain loading as shown in the table below. The PT emission rate (lb/hr) is calculated by multiplying the exit grain loading by the system's exhaust flowrate. The emission factor for PT is then back-calculated by dividing the emission rate by the process rate (tons/hr) of the underlying process served by the dust collection system. PM₁₀ emission factors for the emission points above are assumed to be 84% of PT and PM_{2.5} emission factors for the emission points above are assumed to be 45% of PT.

EP	Emission Factor	Exit Grain Loading
21 01	PT = 0.0005714 lb/ton PM ₁₀ = 0.0004800 lb/ton PM _{2.5} = 0.0002571 lb/ton	0.02 gr/scf
29 03, 29 04	PT = 0.0008000 lb/ton PM ₁₀ = 0.0006720 lb/ton PM _{2.5} = 0.0003600 lb/ton	0.02 gr/scf
32 06	PT = 0.05143 lb/ton PM ₁₀ = 0.04320 lb/ton PM _{2.5} = 0.02314 lb/ton	0.02 gr/scf
32 09	PT = 0.01106 lb/ton PM ₁₀ = 0.009290 lb/ton PM _{2.5} = 0.004977 lb/ton	0.02 gr/scf
32 13, 32 14	PT = 0.003000 lb/ton PM ₁₀ = 0.002520 lb/ton PM _{2.5} = 0.001350 lb/ton	0.02 gr/scf
32 15	PT = 0.005357 lb/ton PM ₁₀ = 0.004500 lb/ton PM _{2.5} = 0.002411 lb/ton	0.02 gr/scf
32 16	PT = 0.005360 lb/ton PM ₁₀ = 0.004502 lb/ton PM _{2.5} = 0.002412 lb/ton	0.01 gr/scf

If fugitive dust emissions beyond the lot line of the property are observed, the permittee shall conduct U.S. EPA Reference Method 22 (visual determination of fugitive emissions) observations per Appendix A of 40 C.F.R. Part 60. In lieu of conducting U.S. EPA Reference Method 22, the permittee shall immediately perform a corrective action which results in no visible fugitive dust emissions beyond the lot line of the property.

Emission Point 32 10				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	E = 2.58 lb/hr for P ≤ 0.5 ton/hr E = 4.10P ^{0.67} for P from 0.5 ton/hr to 30 ton/hr E = 55P ^{0.11} - 40 for P > 30 ton/hr	401 KAR 61:020, Section 3(2)	PT = 0.004424 lb/ton PM ₁₀ = 0.003716 lb/ton PM _{2.5} = 0.001991 lb/ton; 0.02 gr/scf Exit Grain Loading	U.S. EPA Reference Method 5
	< 40% Opacity	401 KAR 61:020, Section 3(1)(a)		Operating and Properly Maintaining the Filter System
Process Description:				
EP	Name	Capacity (tons/hr)	Construction Date	Control Device
32 10	63-264 Dust Collection System for Kiln 1 & 2 Dust Bin and Transfers	46.5	1/1/1970	N/A
Applicable Regulations:				
401 KAR 61:020, Existing process operations. This regulation is applicable to each affected facility or source, associated with a process operation, which is not subject to another emission standard with respect to particulates in this chapter, commenced before July 2, 1975.				
40 CFR 64, Compliance Assurance Monitoring (CAM). This regulation is applicable to a pollutant-specific emissions unit at a major source that is required to obtain a part 70 permit that is subject to an emission limitation or standard, uses a control device to achieve compliance with any such emission limitation or standard; and has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 tons per year.				
Comments:				
The PM emission factors for the emission point above are calculated based on an exit grain loading of 0.02 gr/scf. The PT emission rate (lb/hr) is calculated by multiplying the exit grain loading by the system’s exhaust flowrate. The emission factor for PT is then back-calculated by dividing the emission rate by the process rate of the underlying process served by the dust collection system. The PM ₁₀ emission factor is assumed to be 84% of PT and the PM _{2.5} emission factor is assumed to be 45% of PT.				
For the equation E = rate of emission in lb/hr and P = process weight rate in tons/hour. Hourly emission rate can be calculated (if needed) using the following equation: Hourly Emission Rate = [Monthly processing rate x Emission Factor as determined from AP-42 / (Hours of operation per month)] x (1 – control efficiency).				

Emission Points 06 01, 06 03, 06 05, 06 07, 06 09, 06 11, 06 12, 06 16, 06 18, 28 01 – 28 03, 28 05, 28 07					
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method	
PM	< 20% Opacity	40 CFR 60.254(a)	PT = 0.0009397 lb/ton PM ₁₀ = 0.0004445 lb/ton PM _{2.5} = 0.00006730 lb/ton; AP-42 Chapter 13.2.4.3 Equation (1)	U.S. EPA Reference Method 9 Testing; Qualitative Visual Observations	
Process Description:					
EP	Name	Capacity (tons/hr)	Construction Date	Control Device	
06 01	Coal Receiving Hoppers at Truck Dump	900	1/1/1995	Moist Material	
06 03	54-801 Belt Conveyor Transfer to 54-802 Reversing Belt Conveyor or #2 Silo	450			
06 05	54-802 Reversing Belt Conveyor Transfer to #1 Silo, #2 Silo, or #3 Silo	450			
06 07	54-803 Belt Conveyor Transfer to 54-804 Belt Conveyor	450			
06 09	54-804 Belt Conveyor Transfer to 54-805 or 54-806 Belt Conveyors or #2 Coal Bin	450			
06 11	54-806 Belt Conveyor Transfer to 54-807 Belt Conveyor or #3 Coal Bin	450			
06 12	54-807 Belt Conveyor Transfer to 54-808 Belt Conveyor or #4 Coal Bin	450			
06 16	54-808 Belt Conveyor Transfer to #5 Coal Bin	450			
06 18	54-805 Belt Conveyor Transfer to #1 Coal Bin	450			
28 01	Barge Receiving Hopper	700	1/1/2006		
28 02	54-101 Belt Conveyor Transfer to 54-102 Belt Conveyor	700			
28 03	54-102 Belt Conveyor Transfer to 54-103 Belt Conveyor	700			
28 05	54-103 Belt Conveyor Transfer to 54-802 Reversing Belt Conveyor or #4 Silo	700			
28 07	54-821 Belt Conveyor Transfer to 54-803 Belt Conveyor	450	1/1/1995		
Applicable Regulations:					
401 KAR 60:005 Section 2(2)(ii), 40 C.F.R. 60.250 through 60.258 (Subpart Y), Standards of Performance for Coal Preparation and Processing Plants. This regulation is applicable to affected facilities in coal preparation and processing plants that process more than 181 megagrams (Mg) (200 tons) of coal per day constructed after October 27, 1974.					

Emission Points 06 01, 06 03, 06 05, 06 07, 06 09, 06 11, 06 12, 06 16, 06 18, 28 01 – 28 03, 28 05, 28 07

Comments:

The affected facilities constructed after October 27, 1974 but on or before April 28, 2008 that operate in association with any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal shall not exhibit gases greater than or equal to 20% opacity.

Emission Points 06 01, 06 03, 06 05, 06 07, 06 09, 06 11, 06 12, 06 16, 06 18, 28 01 – 28 03, 28 05, and 28 07 are considered fugitive emissions since they are not enclosed in buildings; hence the requirements from 401 KAR 59:010 do not apply.

Emission Point 34 06 – 34 10, 34 13

Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	0.02 g/kW-hr	40 CFR 60.4201(a); 40 CFR 1039 Subpart B Table 5	PT = 43.057 lb/ gal ¹⁰⁰⁰ PM ₁₀ = 43.057 gal ¹⁰⁰⁰ PM _{2.5} = 43.057 gal ¹⁰⁰⁰ ; AP-42 Chapter 3.3 Table 3.3-1	Certified Engine
NMHC (VOC)	0.19 g/kW-hr		49.205 lb/gal ¹⁰⁰⁰ ; AP 42 Chapter 3.3 Table 3.3-1	
CO	5.0 g/kW-hr		130.737 lb/gal ¹⁰⁰⁰ ; AP 42 Chapter 3.3 Table 3.3-1	
NOx	3.4 g/kW-hr	40 CFR 60.4201(a); 40 CFR 1039.102(e)(1)(ii)	606.714 lb/gal ¹⁰⁰⁰ ; AP 42 Chapter 3.3 Table 3.3-1	

Process Description:

EP	Name	Capacity (gal/hr)	Construction Date	Control Device
34 06	Kiln 1 Pony Motor Engine: New Holland, Model F4HFE413D*A008, 119 bhp (88.7 kW), U.S. EPA Interim Tier 4 Certified (Alt NOx)	6.080	6/3/2015	None
34 07	Kiln 2 Pony Motor Engine: New Holland, Model F4HFE413D*A008, 119 bhp (88.7 kW), U.S. EPA Interim Tier 4 Certified (Alt NOx)	6.080		
34 08	Kiln 3 Pony Motor Engine: New Holland, Model F4HFE413D*A008, 119 bhp (88.7 kW), U.S. EPA Interim Tier 4 Certified (Alt NOx)	6.080		
34 09	Kiln 4 Pony Motor Engine: New Holland, Model F4HFE413D*A008, 119 bhp (88.7 kW), U.S. EPA Interim Tier 4 Certified (Alt NOx)	6.080		

Emission Point 34 06 – 34 10, 34 13				
34 10	Kiln 5 Pony Motor Engine: New Holland, Model F4HFE413D*A008, 119 bhp (88.7 kW), U.S. EPA Interim Tier 4 Certified (Alt NOx)	6.080	6/3/2015	None
Applicable Regulations: 401 KAR 60:005, Section 2(2)(oooo), 40 C.F.R. 60.4200 through 60.4219, Tables 1 through 4 (Subpart IIII), Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. This regulation is applicable to stationary compression ignition (CI) internal combustion engines (ICE) for which construction commenced after July 11, 2005 and which are manufactured after April 1, 2006. 401 KAR 63:002, Section 2(4)(eeee), 40 C.F.R. 63.6580 through 63.6675, Tables 1a though 8, and Appendix A (Subpart ZZZZ), National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. This regulation is applicable, however, pursuant to 40 CFR 63.6590(c) stationary RICE located at a major source may comply with requirements of Subpart ZZZZ by meeting the requirements of 40 CFR 60, Subpart IIII. No further requirements apply to these under 40 CFR 63. Comments: EP 34 06 – EP 34 10 are new stationary RICE. Emission factors were obtained from AP 42 Chapter 3.3, Tables 3.3-1 and 3.3-2, and 40 CFR 98 Tables C-1 and C-2.				

Emission Point 34 06G														
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method										
NOx	9.2 g/kW-hr (6.9 g/HP-hr)	40 CFR 60.4205(a); 40 CFR 60 Subpart IIII Table 1	606.714 lb/gal ¹⁰⁰⁰ ; AP 42 Chapter 3.3 Table 3.3-1	Initial Performance Testing										
Process Description: <table> <tr> <th>EP</th><th>Name</th><th>Capacity (gal/hr)</th><th>Construction Date</th><th>Control Device</th></tr> <tr> <td>34 06G</td><td>Mine Escape Shaft Emergency Generator, 166 bhp</td><td>8.482</td><td>5/2/2006</td><td>None</td></tr> </table> Applicable Regulations: 401 KAR 60:005, Section 2(2)(oooo), 40 C.F.R. 60.4200 through 60.4219, Tables 1 through 4 (Subpart IIII), Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. This regulation is applicable to stationary compression ignition (CI) internal combustion engines (ICE) for which construction commenced after July 11, 2005 and which are manufactured after April 1, 2006.					EP	Name	Capacity (gal/hr)	Construction Date	Control Device	34 06G	Mine Escape Shaft Emergency Generator, 166 bhp	8.482	5/2/2006	None
EP	Name	Capacity (gal/hr)	Construction Date	Control Device										
34 06G	Mine Escape Shaft Emergency Generator, 166 bhp	8.482	5/2/2006	None										

Emission Point 34 06G

401 KAR 63:002, Section 2(4)(eeee), 40 C.F.R. 63.6580 through 63.6675, Tables 1a through 8, and Appendix A (Subpart ZZZZ), National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. This regulation is applicable to existing stationary RICE at a major source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand, with a site rating of less than or equal to 500 brake HP that commenced construction or reconstruction before June 12, 2006.

Comments:

EP 34 06G is a non-certified engine and is not equipped with a diesel particulate filter.

Emission factors were obtained from AP 42 Chapter 3.3, Tables 3.3-1 and 3.3-2, and 40 CFR 98 Tables C-1 and C-2.

Emission Point 34 13

Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	0.20 g/kW-hr	40 CFR 60.4202(a)(2); 40 CFR 1039 Appendix I, Table 3	PT = 3.0203 lb/ gal ¹⁰⁰⁰ PM ₁₀ = 3.0203 gal ¹⁰⁰⁰ PM _{2.5} = 3.0203 gal ¹⁰⁰⁰ ; Manufacturer Emissions Data Sheet	Certified Engine
NOx+ NMHC	4.0 g/kW-hr		NOx = 184.2 lb/gal ¹⁰⁰⁰ VOC = 4.746 lb/gal ¹⁰⁰⁰ ; Manufacturer Emissions Data Sheet	
CO	3.5 g/kW-hr		19.42 lb/gal ¹⁰⁰⁰ ; Manufacturer Emissions Data Sheet	

Process Description:

EP	Name	Capacity (gal/hr)	Construction Date	Control Device
34 13	Slope Car Emergency Generator (Caterpillar C9 ACERT DM8168) (Diesel) (444.3 bhp) (300 kW)(U.S. EPA Tier 3 Certified)	22.70	5/13/2020	None

Applicable Regulations:

401 KAR 60:005, Section 2(2)(oooo), 40 C.F.R. 60.4200 through 60.4219, Tables 1 through 4 (Subpart IIII), Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. This regulation is applicable to stationary compression ignition (CI) internal combustion engines (ICE) for which construction commenced after July 11, 2005 and which are manufactured after April 1, 2006.

Emission Point 34 13

401 KAR 63:002, Section 2(4)(eeee), 40 C.F.R. 63.6580 through 63.6675, Tables 1a through 8, and Appendix A (Subpart ZZZZ), National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. This regulation is applicable, however, pursuant to 40 CFR 63.6590(c) stationary RICE located at a major source may comply with requirements of Subpart ZZZZ by meeting the requirements of 40 CFR 60, Subpart IIII. No further requirements apply to these under 40 CFR 63.

Comments:

EP 34 13 is a new stationary RICE.

Emission factors were obtained from AP 42 Chapter 3.3, Tables 3.3-1 and 3.3-2, 40 CFR 98 Tables C-1 and C-2, and the Manufacturer Emissions Data Sheet.

Emission Points 34 12, 34 14

Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
NO _x	10 g/HP-hr	40 CFR 60, Subpart JJJJ Table 1	949.5 lb/MMscf; Manufacturer Emissions Data Sheet (THC+NO _x)	Certified Engine
CO	387 g/HP-hr	40 CFR 60, Subpart JJJJ Table 1	21,067 lb/MMscf; Manufacturer Emissions Data Sheet	Certified Engine

Process Description:

EP	Name	Capacity (MMscf/hr)	Construction Date	Control Device
34 12	Kiln #5 BMS Emergency Generator (Kohler Model 20RESC, 27.1 bhp)	0.00028	8/1/2017	None
34 14	Kiln #4 BMS Emergency Generator (Natural Gas, Kohler Model 20RCA, 27.1 bhp)	0.00028	12/15/2023	

Applicable Regulations:

401 KAR 60:005, Section 2(2)(pppp), 40 C.F.R. 60.4230 through 60.4248, Tables 1 through 8 (Subpart JJJJ), Standards of Performance for Stationary Spark Ignition Internal Combustion Engines. This regulation is applicable to stationary spark ignition (SI) emergency generator engines greater than 25 hp for which construction commenced after June 12, 2006 and which are manufactured after January 1, 2009.

401 KAR 63:002, Section 2(4)(eeee), 40 C.F.R. 63.6580 through 63.6675, Tables 1a through 8, and Appendix A (Subpart ZZZZ), National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. This regulation is applicable, however, pursuant to 40 CFR 63.6590(c) new stationary RICE located at area source may comply with requirements of Subpart ZZZZ by meeting the requirements of 40 CFR 60, Subpart JJJJ. No

Emission Points 34 12, 34 14

further requirements apply to these under 40 CFR 63.

Comments:

Emission factors were obtained from AP 42 Chapter 3.3, Table 3.3-2, 40 CFR 98 Table C-2, and the Manufacturer Emissions Data Sheet.

Emission Points 01 09, 01 11, 01 15, 02 01, 02 02, 02 05, 02 07, 02 08, 02 10, 02 12

Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	E = 2.34 lb/ton for P ≤ 0.5 ton/hr E = 3.59P ^{0.62} for P from 0.5 ton/hr to 30 ton/hr E = 17.31P ^{0.16} for P > 30 ton/hr	401 KAR 59:010, Section 3(2)	See Comments	Operating and Properly Maintaining the Control Device
	< 20% Opacity	401 KAR 59:010, Section 3(1)(a)		Initial U.S. EPA Reference Method 9 Testing; Monthly Qualitative Visual Observations
	10% Opacity for Affected Facilities	40 CFR 60.672(b)		
	7% Opacity from Building Openings	40 CFR 60.672(e)(1)		

Process Description:

EP	Name	Capacity (tons/hr)	Construction Date	Control Device
01 09	51-206 Belt Conveyor Transfer to Small Kiln Feed Stockpile	240	1/1/1995	Moist Material Inside a Building
01 11	51-208 Tripper Conveyor Transfer to Large Kiln Feed Stockpile	775		Moist Material
01 15	51-204 Radial Stacker Transfer to 1/2x150 Mesh Stockpile or 51-221 Limestone Screen	210		
02 01	51-200 Belt Conveyor Transfer to 51-201 Belt Conveyor	1250		
02 02	Screening Building Operations	1790		Moist Material Inside a Building
02 05	Crusher Building Operations	540		
02 07	51-304 Secondary Cone Crusher Transfer to 51-201 Belt Conveyor	500		
02 08	51-305 Secondary Cone Crusher Transfer to 51-201 Belt Conveyor	500		

Emission Points 01 09, 01 11, 01 15, 02 01, 02 02, 02 05, 02 07, 02 08, 02 10, 02 12

02 10	Transfer House from Screening Building to Stockpiles	1015	1/1/1995	Moist Material Inside a Building
02 12	51-203 Belt Conveyor Transfer to 51-204 Radial Stacker	210		Moist Material

Applicable Regulations:

401 KAR 59:010, New process operations. This regulation is applicable to each affected facility, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975. (Applies to EP 01 09, EP 02 02, EP 02 05, EP 02 07, EP 02 08 and EP 02 10 only)

401 KAR 60:005, Section 2(2)(zzz) 40 C.F.R. 60.670 through 60.676, Tables 1 through 3 (Subpart OOO), Standards of Performance for Nonmetallic Mineral Processing Plants. This regulation is applicable to each of the affected facilities listed above that is a crusher or operate in association with a crusher and that commenced construction, modification, or reconstruction after August 31, 1983.

Comments:

PM emission factors for the emission points above came from AP-42 Chapter 11.19.2, Table 11.19.2-2 as follows:

EP	Emission Factors	Notes
Conveyors: 01 09, 01 11, 01 15, 02 01, 02 07, 02 08, 02 12	PT = 0.003 lb/ton PM ₁₀ = 0.0011 lb/ton PM _{2.5} = 0.00031 lb/ton	Since there is no uncontrolled emission factors for PM _{2.5} in AP-42 Chapter 11.19.2, Table 11.19.2-2, the value was obtained by using a ratio of the controlled/uncontrolled PM ₁₀ and PM _{2.5} values.
Screens: 02 02	PT = 0.025 lb/ton PM ₁₀ = 0.0087 lb/ton PM _{2.5} = 0.0006 lb/ton	
Crusher: 02 05	PT = 0.0054 lb/ton PM ₁₀ = 0.0024 lb/ton PM _{2.5} = 0.0004 lb/ton	The emission factors for EP 02 10 are multiplied by two to account for the number of transfer points inside the transfer house.
Conveyors: 02 10	PT = 0.006 lb/ton PM ₁₀ = 0.0022 lb/ton PM _{2.5} = 0.00062 lb/ton	

The affected facilities constructed after August 31, 1983, but before April 22, 2008, that operate in association with a crusher shall not exhibit fugitive emissions greater than 10% opacity, and fugitive emissions from any crusher shall not exhibit greater than 15% opacity. Affected facilities shall not exhibit greater than 7% opacity from building openings. **Emission Points 01 11, 01 15, 02 01, and 02 12** are considered fugitive emissions since they are not enclosed in buildings; hence the requirements from 401 KAR 59:010 do not apply.

For the equation $E = \text{rate of emission in lb/hr}$ and $P = \text{process weight rate in tons/hour}$.

Hourly emission rate can be calculated (if needed) using the following equation:

Hourly Emission Rate = [Monthly processing rate x Emission Factor as determined from AP-42 / (Hours of operation per month)] x (1 – control efficiency).

Emission Points 02 22, 02 24 – 02 32				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	7% Opacity for Affected Facilities; 12% Opacity for Crushers	40 CFR 60.672(b)	See Comments	Initial U.S. EPA Reference Method 9 Testing; Qualitative Visual Observations
Process Description:				
EP	Name	Capacity (tons/hr)	Construction Date	Control Device
02 22	3/4 Top Size Crusher (Belt Tech Industrial® Superior Patriot 400 RD Cone Crusher Plant P400RD)	640	11/27/2019	Wet Suppression
02 24	Belt Conveyor Transfer #1 (To 3/4 Top Size Hopper) (Superior F8X16.36X40)	720		
02 25	3/4 Top Size Screener Transfer (To 3/4 Top Size Stockpile Conveyor) (Superior 36X80PRSC)	720		
02 26	Belt Conveyor Transfer (To 3/4 Top Size Stockpile) (Superior 36X80PRSC)	720		
02 27	3/4 Top Size Screener Transfer (To 3/4 Top Size Crusher Feed Conveyor) (Superior 36X60STKP)	640		
02 28	Belt Conveyor Transfer (To 3/4 Top Size Crusher) (Superior 36X80PRSC)	640		
02 29	3/4 Top Size Crusher Transfer (To 3/4 Top Size Screener Feed Conveyor) (Superior 36X60STKP)	640		
02 30	Belt Conveyor Transfer #2 (To 3/4 Top Size Screener) (Superior 36X80PRSC)	640		
02 31	3/4 Top Size Screener (Belt Tech Industrial® Superior Guardian Screen Plant 4824VGF)	720		
02 32	Belt Conveyor Transfer (CT80) (To 3/4 Top Size Crusher)	350	5/17/2019	
Applicable Regulations:				
401 KAR 60:005, Section 2(2)(zzz) 40 C.F.R. 60.670 through 60.676, Tables 1 through 3 (Subpart OOO), Standards of Performance for Nonmetallic Mineral Processing Plants. This regulation is applicable to each of the affected facilities listed above that is a crusher or operate in association with a crusher and that commenced construction, modification, or reconstruction after August 31, 1983.				
Comments:				
PM emission factors for the emission points above came from AP-42 Chapter 11.19.2, Table 11.19.2-2 as follows:				

Emission Points 02 22, 02 24 – 02 32		
EP	Emission Factors	Notes
Conveyors: 02 24, 02 25, 02 26, 02 27, 02 28, 02 29, 02 30, 02 32	PT = 0.003 lb/ton PM ₁₀ = 0.0011 lb/ton PM _{2.5} = 0.00031 lb/ton	Since there is no uncontrolled emission factors for PM _{2.5} in AP-42 Chapter 11.19.2, Table 11.19.2-2, the value was obtained by using a ratio of the controlled/uncontrolled PM ₁₀ and PM _{2.5} values.
Screens: 02 31	PT = 0.025 lb/ton PM ₁₀ = 0.0087 lb/ton PM _{2.5} = 0.0006 lb/ton	
Crusher: 02 22	PT = 0.0054 lb/ton PM ₁₀ = 0.0024 lb/ton PM _{2.5} = 0.0004 lb/ton	

The affected facilities constructed on or after April 22, 2008, that operate in association with a crusher shall not exhibit fugitive emissions greater than 7% opacity, and fugitive emissions from any crusher shall not exhibit greater than 12% opacity. **Emission Points 02 22 and 02 24 – 02 32** are considered fugitive emissions since they are not enclosed in buildings; hence the requirements from 401 KAR 59:010 do not apply.

Emission Points 07 01, 08 01, 09 01				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
HCl	< 0.52 lb/ton lime produced	40 CFR 63 Subpart AAAAA Table 1, Item 8	See Comments	Initial U.S. EPA Reference Method 320 or 321 Testing; Repeat Testing Every 5 Years
Hg	< 34 lb/MMton of lime produced	40 CFR 63 Subpart AAAAA Table 1, Item 14		Initial U.S. EPA Reference Method 29 or 30B Testing; Repeat Testing Every 5 Years
Total Organic HAP	< 2.6 ppmvd at 7% O ₂	40 CFR 63 Subpart AAAAA Table 1, Item 15		Initial U.S. EPA Reference Method 18 and/or 320 Testing; Repeat Testing Every 5 Years
Dioxins and Furans	< 0.037 ng/dscm at 7% O ₂	40 CFR 63 Subpart AAAAA Table 1, Item 16		Initial U.S. EPA Reference Method 23 Testing; Repeat Testing Every 5 Years
PM	< 0.12 lb/ton of stone feed	40 CFR 63 Subpart AAAAA Table 1, Item 1		Calculate weighted average of continuous PM emissions; U.S. EPA Reference Method 5 Testing Every 5 Years
	E = 2.58 lb/hr for P ≤ 0.5 ton/hr E = 4.10P ^{0.67} for P from 0.5 ton/hr to 30 ton/hr E = 55P ^{0.11} - 40	401 KAR 61:020, Section 3(2)		Compliance with 40 CFR 63 Subpart AAAAA PM emission limit

Emission Points 07 01, 08 01, 09 01				
	for P > 30 ton/hr			
PM	< 15% Opacity during startup/shutdown	40 CFR 63 Subpart AAAAA Table 2, Item 1 and Item 3	N/A	U.S. EPA Reference Method 9 Testing or Install, Calibrate, Maintain and Operate a Continuous Opacity Monitoring System (COMS)
	< 40% Opacity	401 KAR 61:020, Section 3(1)(a)		Differential Pressure Readings Across the Baghouse; Qualitative Visual Observations; COMS for Kiln #2
Process Description:				
EP 07 01				
Process ID	Name	Capacity (tons/hr)	Construction Date	Control Device
1	Rotary Kiln #1	61	1/1/1970	Fabric Filter/ Reverse-Air Baghouse (Wheelabrator No. 613, Model 360 Series 11.5)
2	Pulverized Coal Burner	8.9		
EP 08 01				
Process ID	Name	Capacity (tons/hr)	Construction Date	Control Device
1	Rotary Kiln #2	61	1/1/1970	Pulse Jet Baghouse (Redi-Cam) 2003
2	Pulverized Coal Burner	8.9		
EP 09 01				
Process ID	Name	Capacity (tons/hr)	Construction Date	Control Device
1	Rotary Kiln #3	61	1/1/1974	Reverse-Air Baghouse (American Air)
2	Pulverized Coal Burner	15.5		
Applicable Regulations:				
401 KAR 61:020, Existing process operations. This regulation is applicable to each affected facility or source, associated with a process operation, which is not subject to another emission standard with respect to particulates in this chapter, commenced before July 2, 1975.				

Emission Points 07 01, 08 01, 09 01

401 KAR 63:002, Section 2(4)(ffff), 40 C.F.R. 63.7080 through 63.7143, Tables 1 through 8 (Subpart AAAAA), National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants. This regulation is applicable to each existing or new lime manufacturing plant (LMP) that is a major source, or that is located at, or is part of, a major source of hazardous air pollutant (HAP) emissions.

Comments:

PM emission factors for the emission points above came from source stack testing as follows:

EP	Pollutant	Emission Factor	Emission Factor Basis
07 01	HCl	2.05618 lb/ton	2007 Stack Test
	Hg	0.051 lb/ton	NLA Test
	Dioxins and Furans	1.76 E ⁻⁰⁹	AP 42 Chapter 1.1 Table 1.1-12
	PT	0.1721 lb/ton	2017 Stack Test
	PM ₁₀	0.1721 lb/ton	Assumed to be 100% of PT
	PM _{2.5}	0.2520 lb/ton	Assumed to be 90% of PT
08 01	HCl	2.05618 lb/ton	2007 Stack Test
	Hg	0.051 lb/ton	NLA Test
	Dioxins and Furans	1.76 E ⁻⁰⁹	AP 42 Chapter 1.1 Table 1.1-12
	PT	0.0182 lb/ton	2016 Stack Test (100% Coal)
	PM ₁₀	0.0182 lb/ton	Assumed to be 100% of PT
	PM _{2.5}	0.01638 lb/ton	Assumed to be 90% of PT
09 01	HCl	2.516 lb/ton	2007 Stack Test
	Hg	0.00629 lb/ton	NLA Test
	Dioxins and Furans	1.76 E ⁻⁰⁹	AP 42 Chapter 1.1 Table 1.1-12
	PT	0.11 lb/ton	2016 Stack Test (100% Coal)
	PM ₁₀	0.11 lb/ton	Assumed to be 100% of PT
	PM _{2.5}	0.102 lb/ton	Assumed to be 90% of PT

The PT emission factors obtained from the stack testing of EP 07 01, EP 08 01, and EP 09 01 are post-control and therefore no control efficiency is applied. The control efficiency factored into the emission points is estimated to be 99.0% per the application received on 2/26/2019 under activity APE20190001.

For the equation $E = \text{rate of emission in lb/hr}$ and $P = \text{process weight rate in tons/hour}$.

Hourly emission rate can be calculated (if needed) using the following equation:

Hourly Emission Rate = $[\text{Monthly processing rate} \times \text{Emission Factor as determined from AP-42} / (\text{Hours of operation per month})] \times (1 - \text{control efficiency})$.

Emission Points 01 26, 01 27, 01 30 – 01 32, 01 35, 02 15, 02 16, 02 18, 02 20, 33 01				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	< 0.05 g/dscm for stack emissions	40 CFR 63 Subpart AAAAA Table 1, Item 17	See Comments	Initial U.S. EPA Reference Method 5 Testing; Repeat Testing Every 5 Years
	E = 2.58 lb/hr for P ≤ 0.5 ton/hr E = 4.10P ^{0.67} for P from 0.5 ton/hr to 30 ton/hr E = 55P ^{0.11} - 40 for P > 30 ton/hr	401 KAR 61:020, Section 3(2)		Operating and Properly Maintaining the Control Device
	≤ 7% Opacity for stack emissions	40 CFR 63 Subpart AAAAA Table 1, Item 18	N/A	U.S. EPA Reference Method 9 Testing; Repeat Testing Every 5 Years; Qualitative Visual Observations
	≤ 10% Opacity for fugitive emissions	40 CFR 63 Subpart AAAAA Table 1, Item 19		
	0% Opacity from buildings, except vents	40 CFR 63 Subpart AAAAA Table 1, Item 20		
	< 40% Opacity	401 KAR 61:020, Section 3(1)(a)		Monthly Qualitative Visual Observations
Process Description:				
EP	Name	Capacity (tons/hr)	Construction Date	Control Device
01 26	81-121 Belt Conveyor Transfer to 81-131 Belt Conveyor	50	1/1/1970	Moist Material
01 27	81-131 Belt Conveyor Transfer to Kiln #1	50		
01 30	82-122 Belt Conveyor Transfer to 82-132 Belt Conveyor	50		
01 31	82-132 Belt Conveyor Transfer to Kiln #2	50		
01 32	52-215 Belt Conveyor Transfer to #3 Stone Bin	875	1/1/1976	
01 35	82-228 Belt Conveyor Transfer to Kiln #3	125		
02 15	52-301 Belt Conveyor Transfer to 52-302 Belt Conveyor	875	1/1/1995	

Emission Points 01 26, 01 27, 01 30 – 01 32, 01 35, 02 15, 02 16, 02 18, 02 20, 33 01

02 16	52-302 Belt Conveyor Transfer to 52-303 Belt Conveyor or 52-215 Belt Conveyor or #1 Stone Bin or #2 Stone Bin	875	1/1/1995	Moist Material
02 18	52-303 Belt Conveyor Transfer to 52-304 Belt Conveyor or #4 Preheater	875		
02 20	52-304 Belt Conveyor Transfer to #5 Preheater	875		
33 01	Kilns 1, 2, and 3 Discharge Building - Burner Building 1	126	1/1/1970	Moist Material Inside a Building

Applicable Regulations:

401 KAR 61:020, Existing process operations. This regulation is applicable to each affected facility or source, associated with a process operation, which is not subject to another emission standard with respect to particulates in this chapter, commenced before July 2, 1975. (Applies to EP 33 01 only)

401 KAR 63:002, Section 2(4)(ffff), 40 C.F.R. 63.7080 through 63.7143, Tables 1 through 8 (Subpart AAAAA), National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants. This regulation is applicable to each existing or new lime manufacturing plant (LMP) that is a major source, or that is located at, or is part of, a major source of hazardous air pollutant (HAP) emissions.

Comments:

PM emission factors for the emission points above came from AP-42 Chapter 11.19.2, Table 11.19.2-2 as follows:

EP	Emission Factors	Notes
Conveyors: 01 26, 01 27, 01 30 – 01 32, 01 35, 02 15, 02 16, 02 18, 02 20	PT = 0.003 lb/ton PM ₁₀ = 0.0011 lb/ton PM _{2.5} = 0.00031 lb/ton	Since there is no uncontrolled emission factors for PM _{2.5} in AP-42 Chapter 11.19.2, Table 11.19.2-2, the value was obtained by using a ratio of the controlled/uncontrolled PM ₁₀ and PM _{2.5} values.

PM emission factors for the emission points above came from AP-42 Chapter 11.17, Table 11.17-4 as follows:

EP	Emission Factors	Notes
Product transfer and conveying: 33 01	PT = 19.80 lb/ton PM ₁₀ = 16.83 lb/ton PM _{2.5} = 5.940 lb/ton	The PM ₁₀ emission factor is assumed to be 85% of PT and the PM _{2.5} emission factor is assumed to be 30% of PT. The emission factors are multiplied by nine to account for the number of transfer points inside the building.

For the equation $E = \text{rate of emission in lb/hr}$ and $P = \text{process weight rate in tons/hour}$.

Hourly emission rate can be calculated (if needed) using the following equation:

Hourly Emission Rate = [Monthly processing rate x Emission Factor as determined from AP-42 / (Hours of operation per month)] x (1 – control efficiency).

Emission Points 01 01 – 01 04, 01 06, 01 08, 01 12, 01 16, 01 36, 02 23, 03 01, 04 01, 05 02, 12 01, 12 03, 13 01, 14 01 – 14 03, 20 01, 21 02, 21 25, 21 27, 21 28, 23 01, 25 01, 27 01, 29 01, 31 01 – 31 04, 31 07, 32 01 – 32 05, 32 07, 32 11, 32 12, 32 17, 36 10				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	No Visible Emissions Beyond Property Line	401 KAR 63:010	See Comments	See Comments
Process Description:				
EP	Name	Capacity (tons/hr)	Construction Date	Control Device
01 01	14-101 Belt Conveyor Transfer to 14-102 Belt Conveyor	1250	12/31/1969	Water Spray
01 02	14-102 Belt Conveyor Transfer to 14-200 Reversing Belt Conveyor	1250		Moist Material
01 04	14-200 Reversing Belt Conveyor Transfer to Stockpiles	1250	1/1/1995	
01 06	51-100 Belt Conveyor Transfer to 51-201 Belt Conveyor	1250	12/31/1969	
02 23	Front End Loader Transfer (To 3/4 Top Size Hopper) (Superior F8X16.36X40)	720	11/27/2019	Wet Suppression
03 01	93-102 Belt Conveyor and Barge Loadout	1000	12/31/2007	Moist Material
04 01	93-110 Stone Dump Hoppers Transfer to 93-100 Belt Conveyor	1000	1/1/2007	
05 02	93-100 Belt Conveyor Transfer to 93-101 Belt Conveyor (When in Limestone Service)	1000	1/1/1995	
12 01	89-800H Clinker Receiving Hopper to 89-800 Belt Conveyor	175	1/1/1997	84-018 Dust Collection System (EP 16 11)
12 03	Front End Loader to Clinker Hopper	175		
13 01	94-540 Railcar Loadout Spout (Lime)	375	12/31/1974	94-829 Dust Collection System (EP 18 24)
14 01	89-045 Truck Loadout for Lime Rejects	305	1/1/1995	89-858 Dust Collection System (EP 17 05)
14 02	94-002 Barge Loadout	1140		94-837 Dust Collection System (EP 18 27)
14 03	94-003 Barge Loadout	1140		94-833 Dust Collection System (EP 18 30)

Emission Points 01 01 – 01 04, 01 06, 01 08, 01 12, 01 16, 01 36, 02 23, 03 01, 04 01, 05 02, 12 01, 12 03, 13 01, 14 01 – 14 03, 20 01, 21 02, 21 25, 21 27, 21 28, 23 01, 25 01, 27 01, 29 01, 31 01 – 31 04, 31 07, 32 01 – 32 05, 32 07, 32 11, 32 12, 32 17, 36 10				
20 01	94-550 Belt Conveyor Transfer to 93-100 Belt Conveyor	300	1/1/1995	93-111 Dust Collection System (EP 29 03)
21 02	90-050 Belt Conveyor Transfer to Hydrate Feed Bins #1 & #2	300	1/1/1980	Shrouded
21 25	90-172 Truck Loadout	100		90-170 Dust Collection System (EP 21 31)
21 27	90-124LS Reject Truck Loadout	85		90-303 Dust Collection System (EP 21 35)
21 28	90-307 Truck Loadout	100		90-215 Dust Collection System (EP 21 23)
23 01	Haul Roads (paved)	159	1/1/1995	Wet Suppression
25 01	Haul Roads (unpaved)	47	1/1/2003	
27 01	90-221LS Railcar Loadout	100	1/1/2002	90-221 Dust Collection System (EP 27 02)
29 01	93-100 Belt Conveyor (in lime service) Transfer to 93-101 Belt Conveyor	300	12/31/1980	93-112 Dust Collection System (EP 29 04)
31 02	Limestone Transfers via Front End Loader to 93-110 Stone Dump Hoppers	1000	1/1/2007	Moist Material
31 03	Limestone Transfers via Front End Loader to Trucks	210		
32 05	89-005 CM Screw Receiving Hopper	20		89-004 Dust Collection System (EP 32 06)
32 07	Front End Loader Dump to High pH Pond	2.4		N/A
32 11	63-261LS Kiln 1 & 2 Dust Bin Loading Spout	80	1/1/1970	63-271 Dust Collection System (EP 32 13)
32 12	63-261LS Kiln 1 & 2 Dust Bin Loading Spout	80	1/1/1974	63-272 Dust Collection System (EP 32 14)
36 10	Railcar Cleanout Operation Loading Spout	60	11/7/2022	Dust Collection System (EP 36 11)

Emission Points 01 01 – 01 04, 01 06, 01 08, 01 12, 01 16, 01 36, 02 23, 03 01, 04 01, 05 02, 12 01, 12 03, 13 01, 14 01 – 14 03, 20 01, 21 02, 21 25, 21 27, 21 28, 23 01, 25 01, 27 01, 29 01, 31 01 – 31 04, 31 07, 32 01 – 32 05, 32 07, 32 11, 32 12, 32 17, 36 10

EP	Name	Capacity (Acres/hr)	Construction Date	Control Device
01 03	Limestone Stockpile (42,000 tons) (8x0 ROM)	1.1	1/1/1995	Moist Material
01 08	Small Kiln Feed Stockpile (1/2 x 1)	1.8		
01 12	Large Kiln Feed Stockpile (2-1/2 x 1)	1.8		
01 16	1/2 x 150 Mesh Stockpiles	0.1		
01 36	3/4 Top Size Stockpile	1.8	11/27/2019	
31 01	Riverside Stone Stockpile #1	1.8	1/1/2001	
31 04	Riverside Stone Stockpile #2	0.9		
31 07	Riverside Stone Stockpile #3	1.0		
32 01	Reject Lime Stockpile	0.1	1/1/2007	Wet Suppression
32 02	Reject Lime Stockpile (Reject Bunker)	0.1		
32 03	Reject Lime Stockpile (South of Hydrate Plant)	0.1		
32 04	Reject Lime Stockpile (South of Kiln #5)	0.1		
32 18	Reject Lime Stockpile (North of Hydrate Plant)	0.11	12/9/2021	

EP 32 17: Reject Lime Landfill

Process ID	Name	Capacity	Construction Date	Control Device
1	Truck Dumping	20 tons/hr	10/30/2024	Wet Suppression
2	Wind Erosion	8.0 Acres/hr		

Applicable Regulations:

401 KAR 63:010, Fugitive emissions. This regulation is applicable to each affected facility which emits or may emit fugitive emissions provided that the fugitive emissions from such facility are not elsewhere subject to an opacity standard within the administrative regulations of the Division for Air Quality.

Comments:

PM emission factors for the emission points above came from AP-42 Chapter 11.19.2, Table 11.19.2-2 as follows:

EP	Emission Factors	Notes
Conveyors: 01 01, 01 02, 01 04, 01 06, 02 23, 03 01, 04 01, 05 02, 31 02, 31 03	PT = 0.003 lb/ton PM ₁₀ = 0.0011 lb/ton PM _{2.5} = 0.00031 lb/ton	Since there is no uncontrolled emission factors for PM _{2.5} in AP-42 Chapter 11.19.2, Table 11.19.2-2, the value was obtained by using a ratio of the controlled/uncontrolled PM ₁₀ and PM _{2.5} values.

Emission Points 01 01 – 01 04, 01 06, 01 08, 01 12, 01 16, 01 36, 02 23, 03 01, 04 01, 05 02, 12 01, 12 03, 13 01, 14 01 – 14 03, 20 01, 21 02, 21 25, 21 27, 21 28, 23 01, 25 01, 27 01, 29 01, 31 01 – 31 04, 31 07, 32 01 – 32 05, 32 07, 32 11, 32 12, 32 17, 36 10

PM emission factors for the emission points above came from AP-42 Chapter 11.17, Table 11.17-4 as follows:

EP	Emission Factors	Notes
Product transfer and conveying: 12 01, 12 03, 20 01, 21 02, 29 01, 32 05	PT = 2.2 lb/ton PM ₁₀ = 1.87 lb/ton PM _{2.5} = 0.66 lb/ton	The PM ₁₀ emission factor is assumed to be 85% of PT and the PM _{2.5} emission factor is assumed to be 30% of PT.
Product loading (open truck): 13 01, 14 01 – 14 03, 21 25, 21 27, 21 28, 27 01, 32 07, 32 11, 32 12	PT = 1.5 lb/ton PM ₁₀ = 1.28 lb/ton PM _{2.5} = 0.45 lb/ton	

PM emission factors for the stockpile emission points above were obtained from EPA-450/3-88-008, Equation 2 and calculated to be the following:

EP	Emission Factors	Notes
01 36	PT = 0.0787 lb/acre PM ₁₀ = 0.0393 lb/acre PM _{2.5} = 0.00590 lb/acre	The PM ₁₀ emission factor is assumed to be 50% of PT and the PM _{2.5} emission factor is assumed to be 7.5% of PT.
01 03, 01 08, 01 12, 01 16, 31 01, 31 04, 31 07, 32 01 – 32 04, 32 17 Process ID #2, 32 18	PT = 0.0554 lb/acre PM ₁₀ = 0.0277 lb/acre PM _{2.5} = 0.0111 lb/acre	The PM ₁₀ emission factor is assumed to be 50% of PT and the PM _{2.5} emission factor is assumed to be 20% of PT.

PM emission factors for the Emission Point 36 10 were obtained from source engineering estimates derived from AP-42 Chapter 11.17, Table 11.17-4 and calculated to be the following:

PT = 0.0015 lb/ton
PM₁₀ = 0.0013 lb/ton
PM_{2.5} = 0.0005 lb/ton

PM emission factors for Emission Point 23 01 were obtained from AP-42 13.2.1 Equation (2) and calculated to be the following:

PT = 10.30 lb/ton₁₀₀₀
PM₁₀ = 2.060 lb/ton₁₀₀₀
PM_{2.5} = 0.5060 lb/ton₁₀₀₀

PM emission factors for Emission Point 25 01 were obtained from AP-42 Chapter 13.2.2, Equations (1a) and (2) and calculated to be the following:

PT = 152.9 lb/ton₁₀₀₀
PM₁₀ = 43.48 lb/ton₁₀₀₀
PM_{2.5} = 4.348 lb/ton₁₀₀₀

Emission Points 01 01 – 01 04, 01 06, 01 08, 01 12, 01 16, 01 36, 02 23, 03 01, 04 01, 05 02, 12 01, 12 03, 13 01, 14 01 – 14 03, 20 01, 21 02, 21 25, 21 27, 21 28, 23 01, 25 01, 27 01, 29 01, 31 01 – 31 04, 31 07, 32 01 – 32 05, 32 07, 32 11, 32 12, 32 17, 36 10

PM emission factors for Emission Point 32 17 Process ID #1 were obtained from source engineering estimates derived from AP-42 Chapter 11.17, Table 11.17-4 (product transfer and conveying) and AP-42 Chapter 11.19.2, Table 11.19.2-2 (conveyor transfer point and truck unloading) as the following:

PT = 0.03197 lb/ton

PM₁₀ = 0.02720 lb/ton

PM_{2.5} = 0.00992 lb/ton

The Dust Collection Systems for EP 12 01, EP 12 03, EP 13 01, EP 14 01, EP 14 02, EP 14 03, EP 20 01, EP 21 25, EP 21 27, EP 21 28, EP 27 01, EP 29 01, EP 32 05, EP 32 11, EP 32 12 and EP 36 10 are subject to **401 KAR 59:010, New process operations**. All applicable requirements pertaining to the dust collection systems are included in that section. The control efficiency of the dust collector associated with EP 36 10 was determined to be 99.9% per the application received on 11/7/2022 under activity APE20220002. The control efficiency of the remaining dust collectors were determined to be 99.9% per the application received on 8/30/2012 under activity APE20120003.

If fugitive dust emissions beyond the lot line of the property are observed, the permittee shall conduct U.S. EPA Reference Method 22 (visual determination of fugitive emissions) observations per Appendix A of 40 C.F.R. Part 60. In lieu of conducting U.S. EPA Reference Method 22, the permittee shall immediately perform a corrective action which results in no visible fugitive dust emissions beyond the lot line of the property.

SECTION 3 – EMISSIONS, LIMITATIONS AND BASIS (CONTINUED)

Testing Requirements/Results

EP	Control Device	Parameter	Regulatory Basis	Frequency	Test Method	Permit Limit	Test Result	Thruput and Operating Parameter(s) Established During Test	Activity Graybar	Date of last Compliance Testing
01 11, 01 15, 02 01, 02 12	Moist Material	Opacity	40 CFR 60.672(b)	Initial	Method 9	10%	-*	-	-	-
01 09, 02 02, 02 05, 02 07, 02 08, 02 10	Moist Material Inside a Building	Opacity	40 CFR 60.672(e)(1)	Initial	Method 9	7%	-*	-	-	-
02 32	Wet Suppression	Opacity	40 CFR 60.672(b)	Initial	Method 9	7%	-*	-	-	-
09 01	Fabric Filter/ Baghouse	FPM	40 CFR 63 Subpart AAAAA Table 1	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 5	0.12 lb/tsf	0.18 lb/tsf	-	CMN20260001	4/21/2026
		Opacity	401 KAR 61:020, Section 3(1)(a)		Method 9	15%	0%	-		
01 26, 01 27, 01 30 – 01 32, 01 35, 02 15, 02 16, 02 18, 02 20, 33 01	Moist Material/ Moist Material Inside a Building	Opacity	40 CFR 63 Subpart AAAAA Table 1	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 9	10%	0%	-		4/22/2026
08 01	Fabric Filter/ Baghouse	FPM	40 CFR 63 Subpart AAAAA Table 1	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 5	0.12 lb/tsf	0.018 lb/tsf	-	CMN20250001	4/15/2025, 4/16/2025
		Opacity	401 KAR 61:020, Section 3(1)(a)		Method 9	15%	0%	-		
11 01	Fabric Filter/ Baghouse	FPM	40 CFR 63 Subpart AAAAA Table 1	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 5	0.12 lb/tsf	0.0067 lb/tsf	-	CMN20250001	4/15/2025, 4/16/2025
		CO	401 KAR 51:017 Section 20		Method 10	91.67 lb/hr	33.0 lb/hr	-		

EP	Control Device	Parameter	Regulatory Basis	Frequency	Test Method	Permit Limit	Test Result	Thruput and Operating Parameter(s) Established During Test	Activity Graybar	Date of last Compliance Testing
11 01	Fabric Filter/ Baghouse	NO _x	401 KAR 51:017 Section 20	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 7E	128.33 lb/hr	95.4 lb/hr	-	CMN20250001	4/15/2025, 4/16/2025
		SO ₂	401 KAR 51:017 Section 20		Method 6C	22.97 lb/hr	7.2 lb/hr	-		
		Opacity	40 CFR 63 Subpart AAAAA Table 2		Method 9	15%	0%	-		
02 22, 02 24 – 02 31	Wet Suppression	Opacity	40 CFR 60.672(b)	Initial	Method 9	7% 12%	0%	-	CMN20240001	3/4/2024
07 01	Fabric Filter/ Baghouse	FPM	401 KAR 61:020, Section 3(1)(a)	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 1-4	46.45 lb/hr	2.53 lb/hr	-	CMN20220001	3/29/2022
			40 CFR 63 Subpart AAAAA Table 1		Method 5	0.12 lb/tsf	0.08 lb/tsf	-		
		Opacity	401 KAR 61:020, Section 3(1)(a)		Method 9	15%	0%	-		
09 01	Fabric Filter/ Baghouse	FPM	40 CFR 63 Subpart AAAAA Table 1	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 5	0.12 lb/tsf	0.03 lb/tsf	-	CMN20210001	8/24/2021, 8/25/2021
		Opacity	401 KAR 61:020, Section 3(1)(a)		Method 9	15%	0%	-		
33 01	Fabric Filter/ Baghouse	Opacity	40 CFR 63 Subpart AAAAA Table 1	Initial	Method 22	10%	0%	-	CMN20210001	8/24/2021, 8/25/2021
08 01	Fabric Filter/ Baghouse	FPM	40 CFR 63 Subpart AAAAA Table 1	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 5	0.12 lb/tsf	0.0087 lb/tsf	-	CMN20200001	7/14/2020, 7/15/2020
		Opacity	401 KAR 61:020, Section 3(1)(a)		Method 9	15%	0%	-		

EP	Control Device	Parameter	Regulatory Basis	Frequency	Test Method	Permit Limit	Test Result	Thruput and Operating Parameter(s) Established During Test	Activity Graybar	Date of last Compliance Testing
10 01	Fabric Filter/ Baghouse	FPM	40 CFR 63 Subpart AAAAA Table 1	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 5	0.12 lb/tsf	0.035 lb/tsf	-	CMN20200001	7/14/2020, 7/15/2020
		CO	401 KAR 51:017 Section 20		Method 10	91.67 lb/hr	25.78 lb/hr	-		
		NO _x	401 KAR 51:017 Section 20		Method 7E	128.33 lb/hr	117.85 lb/hr	-		
		SO ₂	401 KAR 51:017 Section 20		Method 6C	22.97 lb/hr	20.07 lb/hr	-		
		Opacity	40 CFR 63 Subpart AAAAA Table 2		Method 9	15%	0%	-		
11 01	Fabric Filter/ Baghouse	FPM	40 CFR 63 Subpart AAAAA Table 1	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 5	0.12 lb/tsf	0.0027 lb/tsf	-	CMN20200001	7/14/2020, 7/15/2020
		CO	401 KAR 51:017 Section 20		Method 10	91.67 lb/hr	23.53 lb/hr	-		
		NO _x	401 KAR 51:017 Section 20		Method 7E	128.33 lb/hr	94.33 lb/hr	-		
		SO ₂	401 KAR 51:017 Section 20		Method 6C	22.97 lb/hr	12.0 lb/hr	-		
		Opacity	40 CFR 63 Subpart AAAAA Table 2		Method 9	15%	0%	-		
11 01	Fabric Filter/ Baghouse	CO	401 KAR 51:017 Section 20	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 10	91.67 lb/hr	26.24 lb/hr	-	CMN20180002	6/5/2018
		CPM	40 CFR 63 Subpart AAAAA Table 1		Method 202	NA	5.63 lb/hr 0.15 lb/ton lime	-		
		FPM			Method 5	0.12 lb/tsf	0.01 lb/tsf	-		

EP	Control Device	Parameter	Regulatory Basis	Frequency	Test Method	Permit Limit	Test Result	Thruput and Operating Parameter(s) Established During Test	Activity Graybar	Date of last Compliance Testing
11 01	Fabric Filter/ Baghouse	NO _x	401 KAR 51:017 Section 20	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 7E	128.33 lb/hr	73.68 lb/hr	-	CMN20180002	6/5/2018
		Opacity	40 CFR 63 Subpart AAAAA Table 2		Method 9	15%	0%	-		
		SO ₂	401 KAR 51:017 Section 20		Method 6C	22.97 lb/hr	6.94 lb/hr	-		
		VOC			Method 25A	NA	6.12 lb/hr 0.16 lb/ton lime	-		
01 26, 01 27	Dust Suppression by Water Sprays	Opacity	40 CFR 63 Subpart AAAAA Table 1	Initial	Method 9	10%	0%	-	CMN20180001	1/15/2018, 1/17/2018
33 01	Fabric Filter/ Baghouse	Opacity	40 CFR 63 Subpart AAAAA Table 1	Initial	Method 22	10%	0%	-	CMN20180001	1/15/2018, 1/17/2018
01 30 – 01 32, 01 35, 02 15, 02 16, 02 18, 02 20, 33 01	Dust Suppression by Water Sprays	Opacity	40 CFR 63 Subpart AAAAA Table 1	Initial	Method 9	10%	0%	-	CMN20170004	9/29/2017, 10/18/2017
07 01	Fabric Filter/ Baghouse	Opacity	401 KAR 61:020, Section 3(1)(a)	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 9	40%	0%	-	CMN20170001	2/7/2017
		PM	40 CFR 63 Subpart AAAAA Table 1		Method 5	46.45 lb/hr 0.12 lb/tsf	3.953 lb/hr 0.114 lb/tsf	-	CMN20170001	2/7/2017

EP	Control Device	Parameter	Regulatory Basis	Frequency	Test Method	Permit Limit	Test Result	Thruput and Operating Parameter(s) Established During Test	Activity Graybar	Date of last Compliance Testing
09 01	Fabric Filter/Baghouse	Opacity	401 KAR 61:020, Section 3(1)(a)	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 9	15%	0%	-	CMN20160004	9/27/2016
		PM	40 CFR 63 Subpart AAAAA Table 1		Method 5D	31.2 lb/hr 0.12 lb/tsf	2.89 lb/hr 0.034 lb/tsf	-		
08 01 Coal/NG	Fabric Filter/Baghouse	FPM	40 CFR 63 Subpart AAAAA Table 1; 401 KAR 61:020, Section 3(2); 401 KAR 61:020, Section 3(1)(a)	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 5	0.12 lb/scf	0.0421 lb/tsf	-	CMN20160003	8/23/2016 – 8/24/2016
		CPM			Method 202	N/A	1.11 lb/tsf	-		
		PM ₁₀			Method 5/202	N/A	2.89 lb/hr	-		
		CO			Method 10	N/A	46.11 lb/hr	-		
		NO _x			Method 7E	N/A	60.36 lb/hr	-		
		SO ₂			Method 6C	N/A	98.55 lb/hr	-		
		VOC			Method 25 A	N/A	1.47 lb/hr	-		
		Opacity			Method 9	15%	0%	-		
08 01 Coal Only	Fabric Filter/Baghouse	FPM	40 CFR 63 Subpart AAAAA Table 1 and 401 KAR 61:020 Section 4	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 5	0.12 lb/scf	0.03 lb/tsf	-	CMN20160003	8/23/2016 – 8/24/2016
		CPM			Method 202	N/A	0.086 lb/tsf	-		
		PM ₁₀			Method 5/202	N/A	2.18 lb/hr	-		
		CO			Method 10	N/A	63.9 lb/hr	-		

EP	Control Device	Parameter	Regulatory Basis	Frequency	Test Method	Permit Limit	Test Result	Thruput and Operating Parameter(s) Established During Test	Activity Graybar	Date of last Compliance Testing
08 01 Coal Only	Fabric Filter/ Baghouse	NO _x	40 CFR 63 Subpart AAAAA Table 1 and 401 KAR 61:020 Section 4	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 7E	N/A	65.9 lb/hr	-	CMN20160003	8/23/2016 – 8/24/2016
		Method 6C			N/A	164.24 lb/hr	-			
		Method 25A			N/A	1.08 lb/hr	-			
		Method 9			15%	0%	-			
11 01 Coal/NG	Fabric Filter/ Baghouse	FPM	40 CFR 63 Subpart AAAAA Table 1	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 5	0.12 lb/tsf	0.05 lb/tsf	-	CMN20160002	6/21/2016 – 6/22/2016
		CPM			Method 202	N/A	0.11 lb/hr	-		
		PM ₁₀	40 CFR 63 Subpart AAAAA Table 1		Method 5/202	N/A	0.21 lb/hr	-		
		CO	401 KAR 51:017 Section 20		Method 10	91.67 lb/hr	23.35 lb/hr	-		
		NO _x	401 KAR 51:017 Section 20		Method 7E	128.33 lb/hr	81.23 lb/hr	-		
		Opacity	40 CFR 63 Subpart AAAAA Table 2		Method 9	15%	0%	-		
		SO ₂	401 KAR 51:017 Section 20		Method 6C	22.97 lb/hr	9.11 lb/hr	-		
		VOC			Method 25 A	N/A	4.22 lb/hr	-		

EP	Control Device	Parameter	Regulatory Basis	Frequency	Test Method	Permit Limit	Test Result	Thruput and Operating Parameter(s) Established During Test	Activity Graybar	Date of last Compliance Testing
11 01 Coal Only	Fabric Filter/ Baghouse	FPM	40 CFR 63 Subpart AAAAA Table 1	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 5	0.1 lb/tsf	0.05 lb/tsf	-	CMN20160002	6/21/2016 – 6/22/2016
		CPM			Method 202	5.21 lb/hr	0.11 lb/hr	-		
		PM ₁₀			Method 5/202	13.33 lb/hr	0.21 lb/hr	-		
		CO	401 KAR 51:017 Section 20	Yearly	Method 10	26.34 lb/hr	23.35 lb/hr	-		
		NO _x	401 KAR 51:017 Section 20	Initial	Method 7E	104.64 lb/hr	81.23 lb/hr	-		
		Opacity	40 CFR 63 Subpart AAAAA Table 2	Yearly	Method 9	0%	0%	-		
		SO ₂	401 KAR 51:017 Section 20	Yearly	Method 6C	13.89 lb/hr	9.11 lb/hr	-		
		VOC	401 KAR 51:017 Section 20	Yearly	Method 25 A	3.37 lb/hr	4.22 lb/hr	-		
32 16	None	Opacity	401 KAR 59:010 Section 3(a)	Initial	Method 9	20%	0%	-	CMN20160001	3/29/2016
		PM	401 KAR 59:010 Section 5		Method 5	40.968 lb/hr	0.06 lb/hr	-		
08 01	Fabric Filter/ Baghouse	FPM	40 CFR 63 Subpart AAAAA Table 1	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 5	0.12 lb/tsf	0.038 lb/tsf	-	CMN20150010	7/28/2015 – 7/30/2015
		Opacity	40 CFR 63 Subpart AAAAA Table 2	Yearly	Method 9	40%	0%	-		

EP	Control Device	Parameter	Regulatory Basis	Frequency	Test Method	Permit Limit	Test Result	Thruput and Operating Parameter(s) Established During Test	Activity Graybar	Date of last Compliance Testing
10 01	Fabric Filter/ Baghouse	CO	401 KAR 51:017 Section 20	Yearly	Method 10	91.67 lb/hr	27.15 lb/hr	-	CMN20150010	7/28/2015 – 7/30/2015
		FPM	40 CFR 63 Subpart AAAAA Table 1	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 5	0.12 lb/tsf	0.014 lb/tsf	-		
		NO _x	401 KAR 51:017 Section 20	Initial	Method 7E	128.33 lb/hr	91.78 lb/hr	-		
		Opacity	40 CFR 63 Subpart AAAAA Table 2	Yearly	Method 9	15%	0%	-		
		SO ₂	401 KAR 51:017 Section 20		Method 6C	22.97 lb/hr	13.23 lb/hr	-		
11 01	Fabric Filter/ Baghouse	CO	401 KAR 51:017 Section 20	Yearly	Method 10	91.67 lb/hr	40.22 lb/hr	-	CMN20150010	7/28/2015 – 7/30/2015
11 01	Fabric Filter/ Baghouse	FPM	40 CFR 63 Subpart AAAAA Table 1	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 5	0.12 lb/tsf	0.07 lb/tsf	-	CMN20150010	7/28/2015 – 7/30/2015
		NO _x	401 KAR 51:017 Section 20	Initial	Method 7E	128.33 lb/hr	74.03 lb/hr	-		
		Opacity	40 CFR 63 Subpart AAAAA Table 2	Yearly	Method 9	15%	0%	-		
		SO ₂	401 KAR 51:017 Section 20		Method 6C	22.97 lb/hr	12.46 lb/hr	-		

EP	Control Device	Parameter	Regulatory Basis	Frequency	Test Method	Permit Limit	Test Result	Thruput and Operating Parameter(s) Established During Test	Activity Graybar	Date of last Compliance Testing
18 16	None	Opacity	401 KAR 51:017 Section 20 and 401 KAR 59:010 Section 5	Initial	Method 9	7%	0%	-	CMN20150008	2/25/2015
		PM			Method 17	0.12 lb/hr 0.00047 gr/acfm	56.96 lb/hr 0.02 gr/acfm	-		
18 30	None	Opacity	401 KAR 51:017 Section 20 and 401 KAR 59:010 Section 5	Initial	Method 9	7%	0%	-	CMN20150007	2/24/2015 – 2/25/2015
		PM			Method 17	0.047 lb/hr 0.00116 gr/acfm	38.32 lb/hr 0.02 gr/acfm	-		
18 09	None	Opacity	401 KAR 51:017 Section 20 and 401 KAR 59:010 Section 5	Initial	Method 9	7%	0%	-	CMN20150006	2/26/2015
		PM			Method 17	0.164 lb/hr 0.0031 gr/acfm	55.06 lb/hr 0.02 gr/acfm	-		
17 41	None	Opacity	401 KAR 51:017 Section 20 and 401 KAR 59:010 Section 5	Initial	Method 9	7%	0%	-	CMN20150005	2/24/2015
		PM			Method 17	0.104 lb/hr 0.00097 gr/acfm	41.01 lb/hr 0.02 gr/acfm	-		
17 13	None	Opacity	401 KAR 51:017 Section 20 and 401 KAR 59:010 Section 5	Initial	Method 9	7%	0%	-	CMN20150004	2/24/2015 – 2/25/2015
		PM			Method 17	0.116 lb/hr 0.00149 gr/acfm	35.73 lb/hr 0.02 gr/acfm	-		

EP	Control Device	Parameter	Regulatory Basis	Frequency	Test Method	Permit Limit	Test Result	Thruput and Operating Parameter(s) Established During Test	Activity Graybar	Date of last Compliance Testing
17 05	None	Opacity	401 KAR 51:017 Section 20 and 401 KAR 59:010 Section 5	Initial	Method 9	7%	0%	-	CMN20150003	2/24/2015 – 2/25/2015
		PM			Method 17	0.068 lb/hr 0.00041 gr/acfm	35.5 lb/hr 0.02 gr/acfm	-		
16 11	None	Opacity	401 KAR 51:017 Section 20 and 401 KAR 59:010 Section 5	Initial	Method 9	7%	0%	-	CMN20150002	2/24/2015 – 2/25/2015
		PM			Method 17	2.091 lb/hr 0.008 gr/acfm	39.4 lb/hr 0.02 gr/acfm	-		
34 06G	None	NO _x	40 CFR 60 Subpart III Table 1	Initial	Method 7E	6.9 g/hp-hr	3.96973 g/hp-hr	-	CMN20120004	12/18/2012
07 01	Fabric Filter/ Baghouse	FPM	40 CFR 63 Subpart AAAAA Table 1	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 5	0.12 lb/tsf 41.48 lb/hr	0.23 lb/tsf 7.244 lb/hr	-	CMN20120003	4/11/2012
09 01	Fabric Filter/ Baghouse	FPM	40 CFR 63 Subpart AAAAA Table 1	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 5D	0.14 lb/tsf	0.12 lb/tsf	-	CMN20110002	10/13/2011
		PM	401 KAR 61:020, Section 3(2)			10.84 lb/hr	48.42 lb/hr	-		
08 01	Fabric Filter/ Baghouse	FPM	40 CFR 63 Subpart AAAAA Table 1	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 5	0.12 lb/tsf	0.018 lb/tsf	-	CMN20100002	7/13/2010 – 7/15/2010

EP	Control Device	Parameter	Regulatory Basis	Frequency	Test Method	Permit Limit	Test Result	Thruput and Operating Parameter(s) Established During Test	Activity Graybar	Date of last Compliance Testing
10 01	Fabric Filter/ Baghouse	CO	401 KAR 51:017 Section 20	Yearly	Method 10	91.67 lb/hr	36.05 lb/hr	-	CMN20100002	7/13/2010 – 7/15/2010
		FPM	40 CFR 63 Subpart AAAAA Table 1	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 5	0.12 lb/tsf	0.013 lb/tsf	-		
		NO _x	401 KAR 51:017 Section 20	Initial	Method 7E	128.33 lb/hr	86.51 lb/hr	-		
		SO ₂		Yearly	Method 6C	22.97 lb/hr	15.82 lb/hr	-		
11 01	Fabric Filter/ Baghouse	CO	401 KAR 51:017 Section 20	Yearly	Method 10	91.67 lb/hr	40.46 lb/hr	-	CMN20100002	7/13/2010 – 7/15/2010
		FPM	40 CFR 63 Subpart AAAAA Table 1	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 5	0.12 lb/tsf	0.017 lb/tsf	-		
		NO _x	401 KAR 51:017 Section 20	Initial	Method 7E	128.33 lb/hr	112.1 lb/hr	-		
11 01	Fabric Filter/ Baghouse	SO ₂	401 KAR 51:017 Section 20	Yearly	Method 6C	22.97 lb/hr	13.22 lb/hr	-	CMN20100002	7/13/2010 – 7/15/2010
08 01 Baseline	Fabric Filter/ Baghouse	CO	401 KAR 51:017 Section 20	Yearly	Method 10	N/A	35.7 lb/hr	-	CMN20070005	11/6/2007
		FPM	40 CFR 63 Subpart AAAAA Table 1	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 5	0.12 lb/tsf	0.0036 lb/tsf	-		

EP	Control Device	Parameter	Regulatory Basis	Frequency	Test Method	Permit Limit	Test Result	Thruput and Operating Parameter(s) Established During Test	Activity Graybar	Date of last Compliance Testing
08 01 Baseline	Fabric Filter/ Baghouse	HCL	401 KAR 51:017 Section 20	Initial	Method 26A	N/A	9.83 lb/hr	-	CMN20070005	11/6/2007
		NO _x		Yearly	Method 7E	N/A	52.57 lb/hr	-		
		SO ₂			Method 6C	N/A	68.99 lb/hr	-		
08 01 Glycerin	Fabric Filter/ Baghouse	CO	401 KAR 51:017 Section 20	Yearly	Method 10	N/A	79.07 lb/hr	-	CMN20070005	11/8/2007
		FPM	40 CFR 63 Subpart AAAAA Table 1	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 5	0.12 lb/tsf	0.014 lb/tsf	-		
		HCL	401 KAR 51:017 Section 20	Initial	Method 26A	N/A	4.55 lb/hr	-		
		NO _x		Yearly	Method 7E	N/A	59.71 lb/hr	-		
		SO ₂			Method 6C	N/A	42.69 lb/hr	-		
07 01	Fabric Filter/ Baghouse	FPM	40 CFR 63 Subpart AAAAA Table 1	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 5D	0.12 lb/tsf	0.108 lb/tsf	-	CMN20070003	5/22/2007
		Opacity	40 CFR 63 Subpart AAAAA Table 2	Yearly	Method 9	10%	0%	-		

EP	Control Device	Parameter	Regulatory Basis	Frequency	Test Method	Permit Limit	Test Result	Thruput and Operating Parameter(s) Established During Test	Activity Graybar	Date of last Compliance Testing
09 01	Fabric Filter/ Baghouse	FPM	40 CFR 63 Subpart AAAAA Table 1	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 5D	0.12 lb/tsf	0.17 lb/tsf	-	CMN20060006	10/25/2006, 10/26/2006, 10/28/2006
		Opacity	40 CFR 63 Subpart AAAAA Table 2	Yearly	Method 9	40%	0%	-		
10 01	Fabric Filter/ Baghouse	CO	401 KAR 51:017 Section 20	Yearly	Method 10	91.67 lb/hr	20.3 lb/hr	-	CMN20060006	10/25/2006, 10/26/2006, 10/28/2006
		FPM	40 CFR 63 Subpart AAAAA Table 1	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 5	0.12 lb/tsf	0.06 lb/tsf	-		
		NO _x	401 KAR 51:017 Section 20	Initial	Method 7E	128.33 lb/hr	83.08 lb/hr	-		
		Opacity	40 CFR 63 Subpart AAAAA Table 2	Yearly	Method 9	15%	7.32%	-		
		SO ₂	401 KAR 51:017 Section 20		Method 6C	22.97 lb/hr	16.54 lb/hr	-		
11 01	Fabric Filter/ Baghouse	CO	401 KAR 51:017 Section 20	Yearly	Method 10	91.67 lb/hr	23.71 lb/hr	-	CMN20060006	10/25/2006, 10/26/2006, 10/28/2006
		FPM	40 CFR 63 Subpart AAAAA Table 1	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 5	0.12 lb/tsf	0.06 lb/tsf	-		
		NO _x	401 KAR 51:017 Section 20	Initial	Method 7E	128.33 lb/hr	108.9 lb/hr	-		

EP	Control Device	Parameter	Regulatory Basis	Frequency	Test Method	Permit Limit	Test Result	Thruput and Operating Parameter(s) Established During Test	Activity Graybar	Date of last Compliance Testing
11 01	Fabric Filter/ Baghouse	Opacity	40 CFR 63 Subpart AAAAA Table 2	Yearly	Method 9	15%	1.31%	-	CMN20060006	10/25/2006, 10/26/2006, 10/28/2006
		SO ₂	401 KAR 51:017 Section 20	Yearly	Method 6C	22.97 lb/hr	15.02 lb/hr	-		
07 01	Fabric Filter/ Baghouse	FPM	40 CFR 63 Subpart AAAAA Table 1	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 5	0.12 lb/tsf	0.43 lb/tsf	-	CMN20060004	12/14/2006
		Opacity	40 CFR 63 Subpart AAAAA Table 2	Yearly	Method 9	40%	0%	-		
08 01	Fabric Filter/ Baghouse	CO	401 KAR 51:017 Section 20	Yearly	Method 10A	N/A	0.674 lb/hr	-	CMN20060003	6/16/2006
		FPM	40 CFR 63 Subpart AAAAA Table 1	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 5D	0.12 lb/tsf	0.006 lb/tsf	-		
		NO _x	401 KAR 51:017 Section 20	Yearly	Method 7E	N/A	0.977 lb/hr	-		
08 01	Fabric Filter/ Baghouse	Opacity	40 CFR 63 Subpart AAAAA Table 2	Yearly	Method 9	15%	0%	-	CMN20060003	6/16/2006
		SO ₂	401 KAR 51:017 Section 20		Method 6C	N/A	2.292 lb/hr	-		

EP	Control Device	Parameter	Regulatory Basis	Frequency	Test Method	Permit Limit	Test Result	Thruput and Operating Parameter(s) Established During Test	Activity Graybar	Date of last Compliance Testing
10 01	Fabric Filter/ Baghouse	CO	401 KAR 51:017 Section 20	Yearly	Method 10C	91.67 lb/hr	12.51 lb/hr	-	CMN19950001	5/23/1996
		FPM	40 CFR 63 Subpart AAAAA Table 1	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 5	0.41 lb/tsf	0.33 lb/tsf	-		
		NO _x	401 KAR 51:017 Section 20	Initial	Method 7D	128.33 lb/hr	125.72 lb/hr	-		
		SO ₂	401 KAR 51:017 Section 20	Yearly	Method 6	22.97 lb/hr	13.3 lb/hr	-		
11 01	Fabric Filter/ Baghouse	CO	401 KAR 51:017 Section 20	Yearly	Method 10C	91.67 lb/hr	28.08 lb/hr	-	CMN19950001	5/23/1996
		FPM	40 CFR 63 Subpart AAAAA Table 1	5 Years From Initial Performance Test & Within 5 Years of Subsequent Performance Test	Method 5	0.41 lb/tsf	1.63 lb/tsf	-		
		NO _x	401 KAR 51:017 Section 20	Initial	Method 7D	128.33 lb/hr	28.11 lb/hr	-		
		SO ₂	401 KAR 51:017 Section 20	Yearly	Method 6	22.97 lb/hr	15.06 lb/hr	-		

Footnotes:

* No record of initial testing performed.

SECTION 4 – SOURCE INFORMATION AND REQUIREMENTS

Table A - Group Requirements:

N/A

Table B - Summary of Applicable Regulations:

Applicable Regulations	Emission Points
401 KAR 51:017, Prevention of significant deterioration of air quality	10 01, 11 01, 16 11, 17 05, 17 10, 17 13, 17 17, 17 27, 17 32, 17 41, 18 01, 18 06, 18 09, 18 16, 18 22, 18 24, 18 27, 18 30, 32 08, 33 02 – 33 07
401 KAR 59:010, New process operations	01 09, 02 02, 02 05, 02 07, 02 08, 02 10, 10 01, 11 01, 16 11, 17 05, 17 10, 17 13, 17 17, 17 27, 17 32, 17 41, 18 01, 18 06, 18 09, 18 16, 18 22, 18 24, 18 27, 18 30, 20 20, 20 21, 21 01, 21 05, 21 08, 21 12, 21 18, 21 23, 21 31 – 21 35, 22 09, 27 02, 29 03, 29 04, 32 06, 32 08, 32 09, 32 13 – 32 16, 36 11
401 KAR 60:005 Section 2(2)(ii), 40 C.F.R. 60.250 through 60.258 (Subpart Y), Standards of Performance for Coal Preparation and Processing Plants	06 01, 06 03, 06 05, 06 07, 06 09, 06 11, 06 12, 06 16, 06 18, 28 01 – 28 03, 28 05, 28 07
401 KAR 60:005, Section 2(2)(tt), 40 C.F.R. 60.340 through 60.344 (Subpart HH), Standards of Performance for Lime Manufacturing Plants	10 01, 11 01
401 KAR 60:005, Section 2(2)(oooo), 40 C.F.R. 60.4200 through 60.4219, Tables 1 through 4 (Subpart IIII), Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	34 06, 34 06G, 34 07 – 34 10, 34 13
401 KAR 60:005, Section 2(2)(pppp), 40 C.F.R. 60.4230 through 60.4248, Tables 1 through 4 (Subpart JJJJ), Standards of Performance for Stationary Spark Ignition Internal Combustion Engines	34 12, 34 14
401 KAR 60:005, Section 2(2)(zzz), 40 C.F.R. 60.670 through 60.676, Tables 1 through 3 (Subpart OOO), Standards of Performance for Nonmetallic Mineral Processing Plants	01 09, 01 11, 01 15, 02 01, 02 02, 02 05, 02 07, 02 08, 02 10, 02 12, 02 22, 02 24 – 02 32
401 KAR 61:020, Existing process operations	07 01, 08 01, 09 01, 32 10, 33 01

Applicable Regulations	Emission Points
401 KAR 63:002, Section 2(4)(ffff), 40 C.F.R. 63.7080 through 63.7143, Tables 1 through 8 (Subpart AAAAA), National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants	01 26, 01 27, 01 30 – 01 32, 01 35, 02 15, 02 16, 02 18, 02 20, 07 01, 08 01, 09 01, 10 01, 11 01, 33 01
401 KAR 63:002, Section 2(4)(eeee), 40 C.F.R. 63.6580 through 63.6675, Tables 1a through 8, and Appendix A (Subpart ZZZZ), National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	34 06, 34 06G, 34 07 – 34 10, 34 12 – 34 14
401 KAR 63:010, Fugitive emissions	01 01 – 01 04, 01 06, 01 08, 01 12, 01 16, 01 26, 01 27, 01 30 – 01 32, 01 35, 01 36, 02 15, 02 16, 02 18, 02 20, 02 23, 03 01, 04 01, 05 02, 12 01, 12 03, 13 01, 14 01 – 14 03, 20 01, 21 02, 21 07, 21 08, 23 01, 25 01, 27 01, 29 01, 31 01 – 31 04, 31 07, 32 01 – 32 07, 32 11, 32 12, 32 17, 32 18, 33 01 – 33 07, 36 10
401 KAR 63:020, Potentially hazardous matter or toxic substances	01 26, 01 27, 01 30 – 01 32, 01 35, 02 15, 02 16, 02 18, 02 20, 07 01, 08 01, 09 01, 10 01, 11 01, 33 01
40 CFR 64, Compliance Assurance Monitoring (CAM)	16 11, 17 05, 17 10, 17 13, 17 17, 17 27, 17 32, 17 41, 18 01, 18 06, 18 09, 18 16, 18 22, 18 24, 18 27, 18 30 21 01, 29 03, 29 04, 32 06, 32 08 – 32 10, 32 13 – 32 16

Table C - Summary of Precluded Regulations:

N/A

Table D - Summary of Non Applicable Regulations:

N/A

Air Toxic Analysis

N/A

Single Source Determination

N/A

SECTION 5 - COMPLIANCE ASSURANCE MONITORING

40 CFR 64, *Compliance assurance monitoring* (CAM) applies to a pollutant-specific emissions unit at a major source that is required to obtain a part 70 or 71 permit if the unit satisfies all of the following criteria:

- 1) The unit is subject to an emission limitation or standard for the applicable regulated air pollutant (or a surrogate thereof), other than an emission limitation or standard that is exempt under 40 CFR 64.2(b)(1);
- 2) The unit uses a control device to achieve compliance with any such emission limitation or standard; and
- 3) The unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source.

Emission Points	Criteria 1 (Y/N)	Criteria 2 (Y/N)	Criteria 3 (Y/N)	Does CAM apply?*
10 01, 11 01, 20 20, 20 01, 21 05, 21 08, 21 12, 21 18, 21 23, 21 31 – 21 35, 22 09, 27 02, 36 11	Y	Y	N	No
01 09, 02 02, 02 05, 02 07, 02 08, 02 10, 07 01, 08 01, 09 01,	Y	N	N	No
16 11, 17 05, 17 10, 17 13, 17 17, 17 27, 17 32, 17 41, 18 01, 18 06, 18 09, 18 16, 18 22, 18 24, 18 27, 18 30 21 01, 29 03, 29 04, 32 06, 32 08 – 32 10, 32 13 – 32 16	Y	Y	Y	Yes

*If Yes, CAM applies for any of the emission points above, then see further clarification for each listed emission point in **Section 3**.

SECTION 6 - PERMITTING HISTORY

Permit	Permit Type	Activity #	Complete Date	Issuance Date	Summary of Action
V-05-003	Initial	APE20040002	10/24/2004	12/13/2005	Initial Title V Permit
V-05-003 R1	Significant Revision	APE20060001	7/27/2007	9/26/2008	Addition of Equipment and Changes in Operation
V-14-002	Renewal	APE20120003	10/27/2012	8/26/2014	Renewal of Permit V-05-003 R1
V-14-002 R1	Minor Revision	APE20140002	11/26/2014	2/25/2015	Construction of new baghouse LM04, EU 32-16
V-14-002 R2	Minor Revision	APE20150001	4/14/2015	8/14/2015	Replace Five Diesel-fired generators
V-14-002 R3	Significant Revision	APE20160001 APE20150002 APE20150003	4/12/2016	11/23/2016	Construction of a New Hydrate Plant, Duct Change for Kiln #4, New Storage Pile, and the Replacement of Bin Vent Filter on Kiln #4 & #5 Dust Bin
V-14-002 R4	Minor Revision	APE20170001	2/22/2017	6/1/2017	Construction of Multichannel Burners for Rotary Kiln #4 and Rotary Kiln #5
V-14-002 R5	Minor Revision	APE20170002	5/31/2017	8/21/2017	Addition of a New Emergency Generator for Multichannel Burners
V-14-002 R6	Minor Revision	APE20180002	6/6/2018	10/28/2018	Modification of Existing Testing Requirement
V-19-011	Renewal	APE20190001	4/26/2019	11/13/2020	Renewal of Permit V-14-002 R6

SECTION 7 – PERMIT APPLICATION HISTORY

N/A

APPENDIX A – ABBREVIATIONS AND ACRONYMS

AAQS	– Ambient Air Quality Standards
BACT	– Best Available Control Technology
Btu	– British thermal unit
CAM	– Compliance Assurance Monitoring
CO	– Carbon Monoxide
Division	– Kentucky Division for Air Quality
ESP	– Electrostatic Precipitator
GHG	– Greenhouse Gas
HAP	– Hazardous Air Pollutant
HF	– Hydrogen Fluoride (Gaseous)
MSDS	– Material Safety Data Sheets
mmHg	– Millimeter of mercury column height
NAAQS	– National Ambient Air Quality Standards
NESHAP	– National Emissions Standards for Hazardous Air Pollutants
NO _x	– Nitrogen Oxides
NSR	– New Source Review
PM	– Particulate Matter
PM ₁₀	– Particulate Matter equal to or smaller than 10 micrometers
PM _{2.5}	– Particulate Matter equal to or smaller than 2.5 micrometers
PSD	– Prevention of Significant Deterioration
PTE	– Potential to Emit
SO ₂	– Sulfur Dioxide
TF	– Total Fluoride (Particulate & Gaseous)
VOC	– Volatile Organic Compounds