West Virginia Department of Environmental Protection

Harold D. Ward
Cabinet Secretary

Permit to Operate

Pursuant to
Title V
of the Clean Air Act

Issued to:
Greer Industries, Inc. d.b.a. Greer Lime Company
Riverton, Pendleton County, WV
R30-07100001-2025

Laura M. Crowder
Director, Division of Air Quality

Issued: [Date of issuance] • *Effective: [Equals issue date plus two weeks]*
Expiration: [5 years after issuance date] • *Renewal Application Due: [6 months prior to expiration]*

Permit Number: **R30-07100001-2025**
Permittee: **Greer Industries, Inc. d.b.a. Greer Lime Company**
Facility Name: **Riverton Facility**
Permittee Mailing Address: **1088 Germany Valley Limestone Road, Riverton, WV 26814**

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45CSR30 - Requirements for Operating Permits. The permittee identified at the above-referenced facility is authorized to operate the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Facility Location:	Riverton, Pendleton County, West Virginia
Facility Mailing Address:	1088 Germany Valley Limestone Road, Riverton, WV 26814
Telephone Number:	(304)567-2141
Type of Business Entity:	Corporation
Facility Description:	Limestone Quarry and Lime Manufacturing Operation
SIC Codes:	Primary 3274; Secondary 1422
UTM Coordinates:	640.00 km Easting • 4293.00 km Northing • Zone 17

Permit Writer: Robert Mullins

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.

Issuance of this Title V Operating Permit does not supersede or invalidate any existing permits under 45CSR13, 14 or 19, although all applicable requirements from such permits governing the facility's operation and compliance have been incorporated into the Title V Operating Permit.

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1.0. Emission Units and Active R13, R14, and R19 Permits

1.1. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity[1]	Control Device[2]
PRIMARY AND SECONDARY CRUSHING (Group 002)					
1-DH-1	1-DH-1	Dump Hopper with Impact Hammer	1994	50 Tons/1.5 MMTPY	WS, PE
1-IH-1	1-IH-1	Impact Hammer	Pre 1975	250 TPH/1.5 MMTPY	WS, PE
1-VGF-1	1-VGF-1	Vibrating Grizzly Feeder; (54"x24') Diester Model: VFG-5424	1994	800 TPH/1.5 MMTPY	WS, PE
1-CR-1	1-CR-1	Primary Jaw Crusher; Nordberg Model No. C-140B; (41"x55") Single Toggle	1994	800 TPH/0.6 MMTPY	WS, PE
1-BC-1	1-BC-1	Stone Belt	1994	800 TPH/1.5 MMTPY	FE
1-VS-1	1-VS-1, 1-DC-1	Vibrating Screen Triple Deck (8x20); Diester Model No. XHM-20OT	1994	800 TPH/1.5 MMTPY	FE, WS, BH (TP8)
1-DC-1	1-DC-1	Dust Collector	1996	NA	NA
1-BC-2	1-BC-2	Stone Belt	1994	500 TPH/1.04 MMTPY	FE
1-SB-1	1-SB-1	Secondary Crusher Surge Bin	1994	75 Tons/1.04 MMTPY	PE
1-VF-1	1-VF-1	Electromechanical Vibrating Feeder; Syntron Model: MF400-D	1994	500 TPH/1.04 MMTPY	PE
1-CR-2	1-CR-2	Secondary Cone Crusher (5½'); Nordberg Model: Standard Heavy Duty Symons	1994	500 TPH/1.04 MMTPY	WS, PE
1-BC-3	1-BC-3	Stone Belt	1994	800 TPH/1.5 MMTPY	FE
1-BC-4	1-BC-4	Stone Belt	1994	800 TPH/1.5 MMTPY	FE
1-BC-5	1-BC-5	Stone Belt	2021	800 TPH/1.5 MMTPY	FE
1-SI-1	1-SI-1	Stone Silo 1	2021	2,000 Tons, 1.5 MMTPY	FE
2-VF-3	2-VF-3	Vibrating Feeder	Pre 1976	800 TPH/1.5 MMTPY	FE
2-VF-4	2-VF-4	Vibrating Feeder	Pre 1976	800 TPH/1.5 MMTPY	FE
1-SI-2	1-SI-2	Stone Silo 2	2021	2,000 Tons, 1.5 MMTPY	FE
2-VF-1	2-VF-1	Vibrating Feeder	1999	800 TPH/1.5 MMTPY	FE
2-VF-2	2-VF-2	Vibrating Feeder	1999	800 TPH/1.5 MMTPY	FE
2-BC-1	2-BC-1	Tunnel Belt	1999	800 TPH/1.5 MMTPY	FE
2-BC-2	2-BC-2	Scale Belt	1996	800 TPH/1.5 MMTPY	FE

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity[1]	Control Device[2]
2-VS-1	2-VS-1	Vibrating Screen Triple Deck (8'x24')	1994	800 TPH/1.5 MMTPY	FE, WS
2-BC-3	2-BC-3	Stone Belt	1996	400 TPH/0.6 MMTPY	FE
2-SI-1	2-SI-1	Storage Silo	1960	400 TPH/0.6 MMTPY	FE
2-BC-9	2-BC-9	Belt Conveyor	1997	400 TPH/0.6 MMTPY	FE
2-OS-2	2-OS-2	Open Stockpile	1996	400 TPH/0.6 MMTPY	WS
2-BC-4	2-BC-4	Stockpile Belt	1996	400 TPH/0.6 MMTPY	FE
2-OS-1	2-OS-1	Open Stockpile	2009	14,500 Tons/0.6MMTPY	WS
2-BC-5	2-BC-5	Kiln Stone Belt	Pre 1990	400 TPH/0.9 MMTPY	FE
2-BC-6	2-BC-6	Kiln Stone Conveyor Belt	Pre 1990	400 TPH/0.9 MMTPY	FE
2-BC-7	2-BC-7	Kiln Stone Conveyor Belt	Pre 1990	400 TPH/0.9 MMTPY	FE
2-BC-8	2-BC-8	Kiln Stone Conveyor Belt	Pre 1990	400 TPH/0.9 MMTPY	FE
400 TPD LIME KILN (Group 004)					
4-SI-3	E-4-DC-4	Hydrate Storage Bin	2024	2,000 CF	BH
4-BL-5	1E	Blower	2024	20 HP	BH
4-OS-1	4-OS-1	Kiln Stone Stockpile No. 1	Pre 1990	6,000 Tons/0.9 MMTPY	WS
4-BC-1	4-BC-1	Belt Conveyor	1995	150 TPH/0.9 MMTPY	FE
4-BC-2	4-BC-2	Belt Conveyor	1995	150 TPH/0.9 MMTPY	FE
4-BC-3	4-BC-3	Belt Conveyor	Pre 1990	400 TPH/0.5819 MMTPY	FE
4-BC-4	4-BC-4	Belt Conveyor	Pre 1990	400 TPH/0.276 MMTPY	FE
4-STB-1	4-STB-1	Stone Bin	Pre 1990	250 TPH/0.276 MMTPY	FE
4-PH-1	1E	6 Bay LPD Pre-Heater	Pre 1990	31.5 TPH/0.276 MMTPY	4-DC-1
4-TC-1	1E	Transfer Chute	Pre 1990	31.5 TPH/0.276 MMTPY	4-DC-1
4-RK-1 400-105	1E	400 TPD Rotary Kiln (11'6"x150'); KVS Heat Rating; 5.0 MMBtu/ton Lime; Fuel: Coal	1995	16.7 TPH/0.146 MMTPY	4-DC-1
4-NC-1	E-6-DC-1	NIEMS Lime Cooler	Pre 1990	16.7 TPH/0.146 MMTPY	6-DC-1
4-VF-1	1E	Vibrating Feeder	Pre 1990	16.7 TPH/0.146 MMTPY	4-DC-1
4-VF-2	1E	Vibrating Feeder	Pre 1990	16.7 TPH/0.146 MMTPY	4-DC-1
4-VF-3	1E	Vibrating Feeder	Pre 1990	16.7 TPH/0.146 MMTPY	4-DC-1
4-VF-4	1E	Vibrating Feeder	Pre 1990	16.7 TPH/0.146 MMTPY	4-DC-1
5-SI-2	5-SI-2	Coal Bin	Pre 1990	30 Tons/0.0263 MMTPY	FE
5-WF-1	5-WF-1	Coal Weigh Feeder	Pre 1990	3 TPH/0.0263 MMTPY	FE

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity[1]	Control Device[2]
5-BM-1	1E	Ball Mill	Pre 1990	3 TPH/0.0263 MMTPY	4-DC-1
5-AS-1	1E	Classifier	Pre 1990	3 TPH/0.0263 MMTPY	4-DC-1
4-PC-1	1E	Primary Collector	Pre 1990	3 TPH/0.015 MMTPY	4-DC-1
4-SI-1	4-SI-1	Dust Bin	Pre 1990	30 TPH/0.015 MMTPY	FE
4-LS-2	4-LS-2	Loading Spout	Pre 1990	30 TPH/0.015 MMTPY	FE
4-DC-1	4-DC-1	Dust Collector	Pre 1990	NA	NA
4-SC-1	4-SC-1	Baghouse Screw Conveyor	Pre 1990	3 TPH/0.015 MMTPY	FE
4-SC-2	4-SC-2	Baghouse Screw Conveyor	Pre 1990	3 TPH/0.015 MMTPY	FE
4-SC-3	4-SC-3	Baghouse Collection Screw	Pre 1990	3 TPH/0.015 MMTPY	FE
4-SC-4	4-SC-4	Dust Screw Conveyor	Pre 1990	3 TPH/0.015 MMTPY	FE
4-BEL-1	4-BEL-1	Dust Elevator	Pre 1990	3 TPH/0.015 MMTPY	FE
5-CS-1	5-CS-1	3-Sided Covered Coal Storage Pile	2002	5,000 Tons/0.054 MMTPY	PE
5-CS-1A	5-CS-1A	Coal Storage Pile	2014	15,000 TPY	NA
5-CS-2	5-CS-2	Coal Storage Pile	2014	15,000 TPY	NA
5-DH-1	5-DH-1	Dump Hopper - Coal	2006	50 TPH/0.054 MMTPY	PE
5-VF-1	5-VF-1	Vibrating Feeder - Coal	2006	50 TPH/0.054 MMTPY	PE
5-BC-0	5-BC-0	Belt Conveyor - Coal	2006	50 TPH/0.054 MMTPY	FE
5-CR-1	5-CR-1	Coal Grinder	2006	50 TPH/0.054 MMTPY	FE
5-SI-1	5-SI-1	Coal Silo	2006	2,500 Tons/0.054 MMTPY	FE
5-VF-2	5-VF-2	Vibrating Feeder - Coal	2006	60 TPH/0.054 MMTPY	FE
5-BC-1	5-BC-1	Belt Conveyor - Coal	2006	60 TPH/0.054 MMTPY	FE
5-BC-2	5-BC-2	Belt Conveyor - Coal	2006	60 TPH/0.054 MMTPY	FE
5-BC-3	5-BC-3	Belt Conveyor	1960s	60 TPH/0.054 MMTPY	FE
500 TPD LIME KILN (Group 005)					
4-SI-4	E-4-DC-5	Hydrate Storage Bin	2024	2,000 CF	BH
4-BL-6	500-115	Blower	2024	20 HP	BH
4-BC-5	4-BC-5	Belt Conveyor	1995	400 TPH/0.306 MMTPY	FE
4-STB-2	4-STB-2	Stone Bin	1995	300 Tons/0.306 MMTPY	FE
4-PH-2	500-115	8-Bay LPD Preheater	1995	38.62 TPH/0.306 MMTPY	4-DC-2
4-TC-2	500-115	Transfer Chute	1995	38.62 TPH/0.306 MMTPY	4-DC-2

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity[1]	Control Device[2]
4-RK-2	500-115	500 Ton per day KVS Rotary Lime Kiln - Lime Calcining System; Kennedy Van Saun, Allis Mineral Systems Burner 89 MMBtu/hr; Fuel: Coal	1995	38.62 TPH/0.306 MMTPY	4-DC-2
4-NC-2	500-P1	NIEMS - Lime Cooler	1995	20.8 TPH/0.165 MMTPY	6-DC-4
4-VF-5	500-115	Vibrating Feeder	1995	20.8 TPH/0.165 MMTPY	4-DC-2
4-VF-6	500-115	Vibrating Feeder	1995	20.8 TPH/0.165 MMTPY	4-DC-2
4-VF-7	500-115	Vibrating Feeder	1995	20.8 TPH/0.165 MMTPY	4-DC-2
4-VF-8	500-115	Vibrating Feeder	1995	20.8 TPH/0.165 MMTPY	4-DC-2
5-BC-4	5-BC-4	Conveyor Belt	1995	60 TPH/0.028 MMTPY	FE
5-SI-3	5-SI-3	Coal Bin	1995	50 Tons/0.028 MMTPY	FE
5-WF-2	5-WF-2	Coal Weigh Feeder	1995	3.5 TPH/0.028 MMTPY	FE
5-BM-2	500-115	Ball Mill	1995	3.5 TPH/0.028 MMTPY	4-DC-2
5-AS-2	500-115	Classifier	1995	3.5 TPH/0.028 MMTPY	4-DC-2
4-PC-2	500-115	Primary Separator	1995	3 TPH/0.015 MMTPY	4-DC-2
4-SC-9	500-119b	Screw Conveyor	1995	3 TPH/0.015 MMTPY	4-DC-3
4-SC-10	500-119b	Screw Conveyor	1995	3 TPH/0.015 MMTPY	4-DC-3
4-BEL-2	500-119b	Bucket Conveyor	1995	3 TPH/0.015 MMTPY	4-DC-3
4-SI-2	500-119b	Dust Bin for Bag House Dust	1995	50 Tons/0.015 MMTPY	4-DC-3
4-LS-1	500-119b	Loading Spout	1995	30 TPH/0.015 MMTPY	4-DC-3
500-BOB	500-119b	Blow Off Bin for Truck Cleaning	1997	20 TPH/0.003 MMTPY	4-DC-3
4-DC-2	500-115	Dust Collector	1995	NA	NA
4-SC-5	500-119b	Module C-D Screw Conveyor	1995	3 TPH/0.015 MMTPY	4-DC-3
4-SC-6	500-119b	Module A-B Screw Conveyor	1995	3 TPH/0.015 MMTPY	4-DC-3
4-SC-7	500-119b	Baghouse Conveyor	1995	3 TPH/0.015 MMTPY	4-DC-3
4-SC-8	500-119b	Dust Screw Conveyor	1995	3 TPH/0.015 MMTPY	4-DC-3
4-DC-3	500-119b	Dust Collector	1995	NA	NA
LIME HANDLING SYSTEM (Group 006)					
6-BC-1	6-BC-1	Belt Conveyor	Pre 1990	16.7 TPH/0.146 MMTPY	FE
6-BC-2	E-6-DC-1	Belt Conveyor	Pre 1990	50 TPH/0.311 MMTPY	6-DC-1
6-BEL-2	E-6-DC-3	Bucket Elevator	Pre 1990	50 TPH/0.1 MMTPY	6-DC-3
6-BC-3	E-6-DC-1	Belt Conveyor	Pre 1990	50 TPH/0.311 MMTPY	6-DC-1

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity[1]	Control Device[2]
6-CR-3	E-6-DC-1	Roll Crusher; McLanahan Roll Crusher Model No. Black Diamond 18" x 18" Type: Double Roll	1998	50 TPH/0.311 MMTPY	6-DC-1
6-DC-1	E-6-DC-1	Dust Collector	1991	NA	NA
6-BEL-1	6-BEL-1	Bucket Elevator	1998	50 TPH/0.311 MMTPY	FE
6-VS-4	E-6-DC-3	5 Deck Vibrating Screen (5' x 10')	1998	50 TPH/0.311 MMTPY	6-DC-3
6-DC-3	E-6-DC-3	Dust Collector	1991	NA	NA
6-SC-1	6-SC-1	Screw Conveyor	Pre 1990	50 TPH/0.311 MMTPY	FE
6-SC-2	6-SC-2	Screw Conveyor	1998	50 TPH/0.311 MMTPY	FE
6-SC-3	6-SC-3	Screw Conveyor	1998	50 TPH/0.311 MMTPY	FE
6-SC-4A	6-SC-4A	Screw Conveyor	1998	50 TPH/0.1 MMTPY	FE
6-SC-4B	6-SC-4B	Screw Conveyor	1998	50 TPH/0.1 MMTPY	FE
6-SC-5	6-SC-5	Screw Conveyor	Pre 1990	50 TPH/0.311 MMTPY	FE
6-SI-1	6-SI-1	Lime Storage Silo No. 1	1960s	125 Tons/0.311 MMTPY	FE
6-SI-2	6-SI-2	Lime Storage Silo No. 2	1960s	125 Tons/0.311 MMTPY	FE
6-SI-3	6-SI-3	Lime Storage Silo No. 3	1960s	125 Tons/0.311 MMTPY	FE
6-SI-4	6-SI-4	Lime Storage Silo No. 4	1960s	125 Tons/0.311 MMTPY	FE
6-SI-5	6-SI-5	Lime Storage Silo No. 5	1960s	125 Tons/0.311 MMTPY	FE
6-SI-6	6-SI-6	Lime Storage Silo No. 6	1960s	125 Tons/0.311 MMTPY	FE
6-SI-7	6-SI-7	Hydrate Feed Storage Silo No. 7	1960s	735 Tons/0.1 MMTPY	FE
6-SI-8	6-SI-8	Hydrate Feed Storage Silo No. 8	1960s	735 Tons/0.1 MMTPY	FE
6-SI-9A	6-SI-9A	Hydrate Feed Storage Silo No. 9A	1960s	735 Tons/0.1 MMTPY	FE
6-BB-1	6-BB-1	Granular Lime Bagging Bin	Pre 1990	25 TPH/0.311 MMTPY	FE+FE
6-VF-1	6-VF-1	Vibrating Feeder	1998	150 TPH/0.311 MMTPY	FE
6-VF-2	6-VF-2	Vibrating Feeder	1998	150 TPH/0.311 MMTPY	FE
6-VF-3	6-VF-3	Vibrating Feeder	1998	150 TPH/0.311 MMTPY	FE
6-VF-4	6-VF-4	Vibrating Feeder	1998	150 TPH/0.311 MMTPY	FE
6-VF-5	6-VF-5	Vibrating Feeder	1998	150 TPH/0.311 MMTPY	FE
6-VF-6	6-VF-6	Vibrating Feeder	1998	150 TPH/0.311 MMTPY	FE
6-BC-8	6-BC-8	Belt Conveyor	1998	150 TPH/0.1 MMTPY	FE
6-BC-9	6-BC-9	Belt Conveyor	1998	150 TPH/0.1 MMTPY	FE
6-BC-10	6-BC-10	Belt Conveyor	1998	150 TPH/0.1 MMTPY	FE
6-GB-1	6-GB-1	Granular Bagger	1998	25 TPH/0.311MMTPY	FE+FE

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity[1]	Control Device[2]
6-SC-8	6-SC-8	Screw Conveyor	1998	150 TPH/0.311 MMTPY	FE
6-SC-9	6-SC-9	Screw Conveyor	1998	150 TPH/0.311 MMTPY	FE
6-SC-11	6-SC-11	Screw Conveyor	2016	50 TPH/0.311MMTPY	FE
6-LS-1	E-6-DC-3	Retractable Loading Spout	1998	150 TPH/0.311 MMTPY	6-DC-3
6-BC-11	6-BC-11	Belt Conveyor	1998	150 TPH/0.1 MMTPY	FE
6-BEL-5	6-BEL-5	Bucket Elevator	1984	150 TPH/0.1 MMTPY	FE
6-SC-6	E3	Screw Conveyor	2018	50 TPH/0.125 MMTPY	7-DC-3
6-BC-13	6-BC-13	Belt Conveyor	1998	150 TPH/0.311 MMTPY	FE
6-BC-14	6-BC-14	Belt Conveyor	1998	150 TPH/0.311 MMTPY	FE
6-DC-4	500-P1	Dust Collector	1995	NA	NA
6-BC-15	500-P1	Belt Conveyor	1995	20.8 TPH/0.165 MMTPY	6-DC-4
6-BC-16	500-P1	Belt Conveyor	1995	20.8 TPH/0.165 MMTPY	6-DC-4
6-BC-4	500-P1	Product Belt Conveyor	1995	50 TPH/0.311 MMTPY	6-DC-4
6-DC-2	E-6-DC-2	Dust Collector	1998	NA	NA
6-BC-5	E-6-DC-2	Product Belt Conveyor	Pre 1990	50 TPH/0.311 MMTPY	FE
6-VS-3	E-6-DC-2	Double Deck Vibrating Screen (4'x8')	Pre 1990	50 TPH/0.311 MMTPY	6-DC-2
6-BEL-3	6-BEL-3	Bucket Elevator	Pre 1990	50 TPH/0.311 MMTPY	FE
6-CR-2	E-6-DC-2	Roll Crusher	1998	50 TPH/0.311 MMTPY	6-DC-2
6-SI-10	E-6-DC-2	Storage Silo	1991	1,200 Tons/0.311 MMTPY	6-DC-2
6-BC-6	6-BC-6	Conveyor Belt	1991	150 TPH/0.311 MMTPY	FE (Dust Sock)
6-BC-7	6-BC-7	Conveyor Belt	1991	150 TPH/0.311 MMTPY	
6-BEL-4	6-BEL-4	Bucket Elevator	1991	50 TPH/0.311 MMTPY	FE
6-SI-9B	E-6-DC-2	Storage Silo	1991	1,200 Tons/0.311 MMTPY	6-DC-2
6-VS-5	6-VS-5	Single Deck Vibrating Screen	2006	50 TPH/0.06 MMTPY	FE
6-SC-10	6-SC-10	Screw Conveyor	2006	50 TPH/0.06 MMTPY	FE
6-BL-1	6-BL-1	DensPhase Pump System	2006	50 TPH/0.06 MMTPY	FE
6-FG-6	6-FG-6	This flop gate diverts lime leaving bucket elevator 6-BEL-3 to crusher 6-CR-2.	1998	50 TPH/0.311MMTPY	FE
HYDRATE PLANT (Group 007)					
7-SB-1	E3	Hydrate Feed Bin	1984	50 TPH	7-DC-3
7-DC-3	E3	Dust Collector	1984	NA	NA

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity[1]	Control Device[2]
7-BC-1	7-BC-1	Belt Conveyor	1984	15 TPH	FE+FE
7-SC-0	7-SC-0	Screw Conveyor	1984	15 TPH	FE+FE
7-BEL-1	7-BEL-1	Bucket Elevator	1984	15 TPH	FE+FE
7-SC-1	E4	Screw Conveyor	2013	15 TPH	7-SCR-1
7-SCR-1	E4	Wet Scrubber	1999	NA	NA
7-MT-1	7-MT-1	Mixing Tub	1999	15 TPH	FE+FE
7-HY-1	E4	Atmospheric Hydrator	1999	15 TPH	7-SCR-1
7-SC-2	E20	Screw Conveyor	1984	15 TPH	7-DC-20
7-BEL-2	E20	Bucket Elevator	2013	25 TPH	7-DC-20
7-AS-20	E20	Air Separator	2013	25 TPH	7-DC-20
7-SM-1	E20	Pin Mill	2018	20 TPH	7-DC-20
7-SC-8	E20	Screw Conveyor	1984	20 TPH	7-DC-20
7-SC-9	E20	Screw Conveyor	1984	20 TPH	7-DC-20
7-BEL-3	E1	Bucket Elevator	1984	20 TPH	7-DC-1
7-SC-10	E1	Screw Conveyor	1984	20 TPH	7-DC-1
7-SC-11	E1	Screw Conveyor	1984	20 TPH	7-DC-1
7-BL-1	E2, E5, E21	Blower	2018	25 TPH	7-DC-2 7-DC-5 7-DC-21
7-DC-1	E1	Dust Collector	1984	NA	NA
7-SI-1	E1	Hydrate Bin	1984	150 Tons	7-DC-1
7-SI-2	E1	Hydrate Bin	1984	150 Tons	7-DC-1
7-SC-12	E1	Screw Conveyor	1984	25 TPH	7-DC-1
7-SC-13	E1	Screw Conveyor	1984	25 TPH	7-DC-1
7-SI-4	E5	Hydrate Silo	1997	200 Tons	7-DC-5
7-LS-2	7-LS-2	Truck Loading Spout	1997	100 TPH	PE
7-BEL-4	E1	Bucket Elevator	1984	25 TPH	7-DC-1
7-SC-14	E1	Screw Conveyor	1984	25 TPH	7-DC-1
7-LS-1	7-LS-1	Truck Loading Spout	1991	25 TPH	PE
7-SI-5	E21	Hydrate Bagging Bin	2018	25 Tons	7-DC-21
7-DC-21	E21	Dust Collector	2018	NA	NA
7-SC-23	E20	Screw Conveyor	2013	25 TPH	7-DC-20

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity[1]	Control Device[2]
7-SC-24	E20	Screw Conveyor	2013	20 TPH	7-DC-20
7-SC-25	E1	Screw Conveyor	2013	20 TPH	7-DC-1
7-SC-27	E6	Screw Conveyor	2018	5 TPH	7-DC-6
7-SC-28	E2	Screw Conveyor	2018	20 TPH	7-DC-2
7-DC-2	E2	Dust Collector	1991	NA	NA
7-BG-1	E6	Hydrate Bagging Machine	2018	25 TPH	7-DC-6
7-CDC-1	E6	Chain Drag Conveyor	2018	2.5 TPH	7-DC-6
7-BGR-1	E2	Hydrate Bulk Bin	2018	15 Tons	7-DC-2
7-SC-29	E20	Screw Conveyor	2019	20 TPH	7-DC-20
7-SC-30	E20	Screw Conveyor	2019	20 TPH	7-DC-20
7-BM-1	E20	Ball Mill	2019	20 TPH	7-DC-20
7-SC-31	E20	Screw Conveyor	2019	20 TPH	7-DC-20
7-SC-32	E20	Screw Conveyor	2019	20 TPH	7-DC-20
7-DC-20	E20	Duct Collector	2013	NA	NA
7-DC-5	E5	Dust Collector	2018	NA	NA
7-DC-6	E6	Dust Collector	2018	NA	NA
PORTABLE PLANT (Group 008)					
GF1	GF1	Grizzly Feeder	2002	300 TPH/0.6 MMTPY	WS
PC1	PC1	Jaw Crusher	2002	300 TPH/0.6 MMTPY	WS
BC1	BC1	Under Crusher Belt Conveyor	2002	300 TPH/0.6 MMTPY	WS
BC2	BC2	Screen Feed Radial Stacker	2002	300 TPH/0.6 MMTPY	COM
PS1/BC5	PS1/BC5	Triple Deck Scalping Screen and Under Screen take-away belt	2002	300 TPH/0.6 MMTPY	PE, WS
BC3	BC3	Stockpile Feed Radial Stacker Belt	2002	110 TPH/0.6 MMTPY	COM
PSP1	PSP1	Limestone Open Stockpile 1 Area: 8,460 ft2 Height: 32 Feet	2002	8,000 Tons/0.6 MMTPY	COM
BC4	BC4	Stockpile Feed Radial Stacker	2002	190 TPH/0.6 MMTPY	WS
PSP2	PSP2	Gabion Open Stockpile 2 Area: 8,460 ft2 Height: 32 Feet	2002	8,000 Tons,/0.05 MMTPY	COM
BC6	BC6	Surge Bin Feed Radial Stacker	2002	300 TPH/0.6 MMTPY	COM
B1	B1	Surge Bin	2002	50 Tons/0.6 MMTPY	COM
BC7	BC7	Under-Bin Main Feed Belt Conveyor	2002	300 TPH/1.2 MMTPY	COM

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity[1]	Control Device[2]
PS2/BC12	PS2/BC12	Triple Deck Screen and Conveyor	2002	300 TPH/1.2 MMTPY	FE, WS
PC2	PC2	Cone Crusher	2002	300 TPH/0.6 MMTPY	WS
BC8	BC8	Belt Conveyor	2002	300 TPH/0.6 MMTPY	COM
BC9	BC9	Stockpile Feed Radial Stacker	2002	150 Tons/0.6 MMTPY	COM
PSP3	PSP3	Limestone Open Stockpile Area: 8,460 ft2 Height: 32 Feet	2002	8,000 Tons/0.6 MMTPY	COM
BC10	BC10	Stock Feed Radial Stacker	2002	190 TPH/0.6 MMTPY	COM
PSP4	PSP4	Open Stockpile 4 Area: 8,460 ft2 Height: 32 Feet	2002	8,000 Tons/0.6 MMTPY	COM
BC11	BC11	Stock Feed Radial Stacker	2002	75 TPH/0.6 MMTPY	COM
PSP5	PSP5	Open Stockpile 5 Area: 8,460 ft2 Height: 32 Feet	2002	8,000 Tons/0.6 MMTPY	COM
VEHICULAR TRAFFIC (Group 009)					
VT	VT	Vehicles Traveling Plant Haulroads	Pre 1972	NA	WT
LIMESTONE GRINDING SYSTEM (Group 011)					
11-DH-1	11-DH-1	Feed Hopper	2009	100 TPH/0.1 MMTPY	PE
11-BC-4	11-BC-4	Belt Conveyor	2009	100 TPH/0.1 MMTPY	PE
11-BC-1	11-BC-1	Belt Conveyor	2007	200 TPH/0.5694 MMTPY	FE
11-BEL-1	11-BEL-1	Bucket Elevator	2007	200 TPH/0.5694 MMTPY	FE
11-SI-3	E-11-DC-1	Mill Feed Bin	2007	500 Tons/0.5694 MMTPY	11-DC-1
11-BC-2	11-BC-2	Belt Conveyor	2007	65 TPH/0.5694 MMTPY	FE
11-SB-2	11-SB-2	Surge Bin	2007	10 Ton/0.5694 MMTPY	FE
11-BM-1	E-11-DC-1	Bradley Mill	2007	65 TPH/0.5694 MMTPY	11-DC-1
11-DS-1	E-11-DC-1	Dynamic Separator	2007	65 TPH/0.5694 MMTPY	11-DC-1
11-HG-1	E-11-DC-1	Hot Air Generator	2007	7.5 MM Btu/Hr	11-DC-1
11-CY-1	E-11-DC-1	Cyclone Separator	2007	65 TPH/0.5694 MMTPY	11-DC-1
11-BL-3	E-11-DC-1	Blower	2007	65 TPH/0.5694 MMTPY	11-DC-1
11-FT-1	11-FT-1	Fuel Oil Storage Tank	Modified 2007	8,000 gal	None
11-CL-1	E-11-DC-1	Classifier Separator	2007	65 TPH/0.5694 MMTPY	11-DC-1
11-BL-2	E-11-DC-1	Blower	2007	65 TPH/0.5694 MMTPY	11-DC-1
11-SI-1	E-11-DC-1	Sand Storage Silo	2007	350 Tons/0.5694 MMTPY	11-DC-1
11-CY-2	E-11-DC-1	Cyclone Separator	2007	65 TPH/0.5694 MMTPY	11-DC-1

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity[1]	Control Device[2]
11-SI-2	E-11-DC-1	Ag Lime Storage Silo	2007	150 Tons/0.5694 MMTPY	11-DC-1
11-DC-1	E-11-DC-1	Dust Collector	2007	NA	NA
11-SC-1	11-SC-1	Screw Conveyor	2007	1 TPH/0.0028 MMTPY	FE
11-DC-4	E-11-DC-4	Dust Collector	2011	0.022 gr/dscf	NA
11-SI-5	E-11-DC-4	Rock Dust Silo	2007	400 Tons/0.5694 MMTPY	11-DC-4
11-SI-6	E-11-DC-2	Rock Dust Bulk Silo	2007	400 Tons/0.5694 MMTPY	11-DC-2
11-SC-3	E-11-DC-2	Screw Conveyor	2007	65 TPH/0.5694 MMTPY	11-DC-2
11-DC-2	E-11-DC-2	Dust Collector	2008/ 2011	NA	NA
11-DV-5	E-11-DC-3	Divertor	2008	NA	11-DC-3
11-DV-20	E-11-DC-2	Divertor	2011	65 TPH/0.5694 MMTPY	11-DC-2
11-DV-21	E-11-DC-2	Divertor	2011	65 TPH/0.5694 MMTPY	11-DC-2
11-SB-1	E-11-DC-3	Rock Dust Bin	2008	100 Tons/0.5694 MMTPY	11-DC-3
11-SSB-1	E-11-DC-3	Super Sack Bagger	2008	30 TPH/0.2628 MMTPY	11-DC-3
11-SI-7	E-11-DC-3	Ultra-Fine Rock Dust Bin	2008	125 Tons/0.5694 MMTPY	11-DC-3
11-SC-7	E-11-DC-3	Screw Conveyor	2008	65 TPH/0.5694 MMTPY	11-DC-3
11-LS-4	E-11-DC-3	Truck Loading Spout	2008	65 TPH/0.5694 MMTPY	11-DC-3
11-DC-3	E-11-DC-3	Dust Collector	2008/ 2011	NA	NA
11-SC-4	E-11-DC-3	Screw Conveyor	2008	2 TPH/0.002934 MMTPY	11-DC-3
11-SC-5	E-11-DC-3	Screw Conveyor	2008	2 TPH/0.002934 MMTPY	11-DC-3
11-SC-6	E-11-DC-3	Screw Conveyor	2008	2 TPH/0.002934 MMTPY	11-DC-3
11-SI-4	E-11-DC-3	Baghouse Dust Bin	2008	50 Tons/0.002934 MMTPY	11-DC-3
11-LS-3	E-11-DC-2	Truck Loading Spout	2008	65 TPH/0.5694 MMTPY	11-DC-2
11-LS-2	E-11-DC-1	Truck Loading Spout	2007	65 TPH/0.5694 MMTPY	11-DC-1
11-LS-1	E-11-DC-1	Truck Loading Spout	2007	65 TPH/0.5694 MMTPY	11-DC-1
11-SC-20	E-11-DC-20	Screw Conveyor	2011	30 TPH/262,800 TPY	11-DC-20
11-BEL-20	E-11-DC-20	Bucket Elevator	2011	38.5 TPH/332,880 TPY	11-DC-20
11-BG-20	E-11-DC-20	Bagger	2011	30 TPH/262,800 TPY	11-DC-20
11-SC-21	E-11-DC-20	Screw Conveyor	2011	7.5 TPH/65,700 TPY	11-DC-20
11-WC-20	NA	Wire Conveyor	2011	30 TPH/262,800 TPY	No Emissions

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity[1]	Control Device[2]
11-BC-20	NA	Belt Conveyor (bagged product)	2011	30 TPH/262,800 TPY	No Permitted Emissions
11-BC-21	NA	Belt Conveyor (bagged product)	2011	30 TPH/262,800 TPY	No Permitted Emissions
11-BC-22	NA	Belt Conveyor (empty bags)	2011	30 TPH/262,800 TPY	No Permitted Emissions
11-SC-22	E-11-DC-20	Screw Conveyor	2011	7.5 TPH	11-DC-20
11-DC-20	E-11-DC-20	Dust Collector	2011	0.014 gr/dscf	NA

(1) Compliance with the maximum design capacity limitations as given under Emission Units Table 1.1 shall be based on a clear and visible boilerplate rating or on product literature, manufacturer's data, or equivalent documentation that shows that the specific emission unit(s) or processing line in question is limited by design or an upstream/downstream bottleneck to a throughput or production rate that does not exceed the specified value under Table 1.1.

(2) Control Device abbreviations: FE = Full Enclosure, FE+FE = Full Enclosure in Building, PE = Partial Enclosure, NE = No Enclosure, BH = Baghouse, WT = Water Truck, WS = Water Spray, COM = Carry Over Moisture from an Upstream Water Spray, NA = Not Applicable

1.2. Active R13, R14, and R19 Permits

The underlying authority for any conditions from R13, R14, and/or R19 permits contained in this operating permit is cited using the original permit number (e.g. R13-1234). The current applicable version of such permit(s) is listed below.

Permit Number	Date of Issuance
R13-1396E	September 10, 2019
R13-1381B	May 29, 2024
R13-1685C	June 27, 2025
R13-2113K	April 21, 2016
R13-2222-P2	March 19, 2002
R13-2670B	May 1, 2014

2.0. General Conditions

2.1. Definitions

2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.

2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.

2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.39.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

2.1.4. Unless otherwise specified in a permit condition or underlying rule or regulation, all references to a "rolling yearly total" shall mean the sum of the monthly data, values or parameters being measured, monitored, or recorded, at any given time for the previous twelve (12) consecutive calendar months.

2.2. Acronyms

CAAA	Clean Air Act Amendments	**NO_x**	Nitrogen Oxides
CBI	Confidential Business Information	**NSPS**	New Source Performance Standards
CEM	Continuous Emission Monitor	**PM**	Particulate Matter
CES	Certified Emission Statement	**PM_{10}**	Particulate Matter less than 10µm in diameter
C.F.R. *or* CFR	Code of Federal Regulations		
CO	Carbon Monoxide	**pph**	Pounds per Hour
C.S.R. *or* CSR	Codes of State Rules	**ppm**	Parts per Million
DAQ	Division of Air Quality	**PSD**	Prevention of Significant Deterioration
DEP	Department of Environmental Protection	**psi**	Pounds per Square Inch
FOIA	Freedom of Information Act	**SIC**	Standard Industrial Classification
HAP	Hazardous Air Pollutant		
HON	Hazardous Organic NESHAP	**SIP**	State Implementation Plan
HP	Horsepower	**SO_2**	Sulfur Dioxide
lbs/hr *or* lb/hr	Pounds per Hour	**TAP**	Toxic Air Pollutant
LDAR	Leak Detection and Repair	**TPY**	Tons per Year
m	Thousand	**TRS**	Total Reduced Sulfur
MACT	Maximum Achievable Control Technology	**TSP**	Total Suspended Particulate
		USEPA	United States Environmental Protection Agency
mm	Million		
mmBtu/hr	Million British Thermal Units per Hour	**UTM**	Universal Transverse Mercator
		VEE	Visual Emissions Evaluation
$mmft^3$/hr *or* mmcf/hr	Million Cubic Feet Burned per Hour	**VOC**	Volatile Organic Compounds
NA *or* N/A	Not Applicable		
NAAQS	National Ambient Air Quality Standards		
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		

2.3. Permit Expiration and Renewal

2.3.1. Permit duration. This permit is issued for a fixed term of five (5) years and shall expire on the date specified on the cover of this permit, except as provided in 45CSR§30-6.3.b. and 45CSR§30-6.3.c.
[45CSR§30-5.1.b.]

2.3.2. A permit renewal application is timely if it is submitted at least six (6) months prior to the date of permit expiration.
[45CSR§30-4.1.a.3.]

2.3.3. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with 45CSR§30-6.2. and 45CSR§30-4.1.a.3.
[45CSR§30-6.3.b.]

2.3.4. If the Secretary fails to take final action to deny or approve a timely and complete permit application before the end of the term of the previous permit, the permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time.
[45CSR§30-6.3.c.]

2.4. Permit Actions

2.4.1. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
[45CSR§30-5.1.f.3.]

2.5. Reopening for Cause

2.5.1. This permit shall be reopened and revised under any of the following circumstances:

a. Additional applicable requirements under the Clean Air Act or the Secretary's legislative rules become applicable to a major source with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 45CSR§§30-6.6.a.1.A. or B.

b. Additional requirements (including excess emissions requirements) become applicable to an affected source under Title IV of the Clean Air Act (Acid Deposition Control) or other legislative rules of the Secretary. Upon approval by U.S. EPA, excess emissions offset plans shall be incorporated into the permit.

c. The Secretary or U.S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

d. The Secretary or U.S. EPA determines that the permit must be revised or revoked and reissued to assure compliance with the applicable requirements.

[45CSR§30-6.6.a.]

2.6. Administrative Permit Amendments

2.6.1. The permittee may request an administrative permit amendment as defined in and according to the procedures specified in 45CSR§30-6.4.
[45CSR§30-6.4.]

2.7. Minor Permit Modifications

2.7.1. The permittee may request a minor permit modification as defined in and according to the procedures specified in 45CSR§30-6.5.a.
[45CSR§30-6.5.a.]

2.8. Significant Permit Modification

2.8.1. The permittee may request a significant permit modification, in accordance with 45CSR§30-6.5.b., for permit modifications that do not qualify for minor permit modifications or as administrative amendments.
[45CSR§30-6.5.b.]

2.9. Emissions Trading

2.9.1. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit and that are in accordance with all applicable requirements.
[45CSR§30-5.1.h.]

2.10. Off-Permit Changes

2.10.1. Except as provided below, a facility may make any change in its operations or emissions that is not addressed nor prohibited in its permit and which is not considered to be construction nor modification under any rule promulgated by the Secretary without obtaining an amendment or modification of its permit. Such changes shall be subject to the following requirements and restrictions:

a. The change must meet all applicable requirements and may not violate any existing permit term or condition.

b. The permittee must provide a written notice of the change to the Secretary and to U.S. EPA within two (2) business days following the date of the change. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.

c. The change shall not qualify for the permit shield.

d. The permittee shall keep records describing all changes made at the source that result in emissions of regulated air pollutants, but not otherwise regulated under the permit, and the emissions resulting from those changes.

e. No permittee may make any change subject to any requirement under Title IV of the Clean Air Act (Acid Deposition Control) pursuant to the provisions of 45CSR§30-5.9.

f. No permittee may make any changes which would require preconstruction review under any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) pursuant to the provisions of 45CSR§30-5.9.

[45CSR§30-5.9.]

2.11. Operational Flexibility

2.11.1. The permittee may make changes within the facility as provided by § 502(b)(10) of the Clean Air Act. Such operational flexibility shall be provided in the permit in conformance with the permit application and applicable requirements. No such changes shall be a modification under any rule or any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) promulgated by the Secretary in accordance with Title I of the Clean Air Act and the change shall not result in a level of emissions exceeding the emissions allowable under the permit.
[45CSR§30-5.8]

2.11.2. Before making a change under 45CSR§30-5.8., the permittee shall provide advance written notice to the Secretary and to U.S. EPA, describing the change to be made, the date on which the change will occur, any changes in emissions, and any permit terms and conditions that are affected. The permittee shall thereafter maintain a copy of the notice with the permit, and the Secretary shall place a copy with the permit in the public file. The written notice shall be provided to the Secretary and U.S. EPA at least seven (7) days prior to the date that the change is to be made, except that this period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard. If less than seven (7) days notice is provided because of a need to respond more quickly to such unanticipated conditions, the permittee shall provide notice to the Secretary and U.S. EPA as soon as possible after learning of the need to make the change.
[45CSR§30-5.8.a.]

2.11.3. The permit shield shall not apply to changes made under 45CSR§30-5.8., except those provided for in 45CSR§30-5.8.d. However, the protection of the permit shield will continue to apply to operations and emissions that are not affected by the change, provided that the permittee complies with the terms and conditions of the permit applicable to such operations and emissions. The permit shield may be reinstated for emissions and operations affected by the change:

a. If subsequent changes cause the facility's operations and emissions to revert to those authorized in the permit and the permittee resumes compliance with the terms and conditions of the permit, or

b. If the permittee obtains final approval of a significant modification to the permit to incorporate the change in the permit.

[45CSR§30-5.8.c.]

2.11.4. "Section 502(b)(10) changes" are changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
[45CSR§30-2.40]

2.12. Reasonably Anticipated Operating Scenarios

2.12.1. The following are terms and conditions for reasonably anticipated operating scenarios identified in this permit.

a. Contemporaneously with making a change from one operating scenario to another, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating and to document the change in reports submitted pursuant to the terms of this permit and 45CSR30.

b. The permit shield shall extend to all terms and conditions under each such operating scenario; and

c. The terms and conditions of each such alternative scenario shall meet all applicable requirements and the requirements of 45CSR30.

[45CSR§30-5.1.i.]

2.13. Duty to Comply

2.13.1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
[45CSR§30-5.1.f.1.]

2.14. Inspection and Entry

2.14.1. The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:

a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;

d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

[45CSR§30-5.3.b.]

2.15. Schedule of Compliance

2.15.1. For sources subject to a compliance schedule, certified progress reports shall be submitted consistent with the applicable schedule of compliance set forth in this permit and 45CSR§30-4.3.h., but at least every six (6) months, and no greater than once a month, and shall include the following:

a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and

b. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measure adopted.

[45CSR§30-5.3.d.]

2.16. Need to Halt or Reduce Activity not a Defense

2.16.1. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.
[45CSR§30-5.1.f.2.]

2.17. Reserved

2.18. Federally-Enforceable Requirements

2.18.1. All terms and conditions in this permit, including any provisions designed to limit a source's potential to emit and excepting those provisions that are specifically designated in the permit as "State-enforceable only", are enforceable by the Secretary, USEPA, and citizens under the Clean Air Act.
[45CSR§30-5.2.a.]

2.18.2. Those provisions specifically designated in the permit as “State-enforceable only” shall become “Federally-enforceable” requirements upon SIP approval by the USEPA.

2.19. Duty to Provide Information

2.19.1. The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records required to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall

directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.
[45CSR§30-5.1.f.5.]

2.20. Duty to Supplement and Correct Information

2.20.1. Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.
[45CSR§30-4.2.]

2.21. Permit Shield

2.21.1. Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance provided that such applicable requirements are included and are specifically identified in this permit or the Secretary has determined that other requirements specifically identified are not applicable to the source and this permit includes such a determination or a concise summary thereof.
[45 CSR§30-5.6.a.]

2.21.2. Nothing in this permit shall alter or affect the following:

a. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance; or

b. The applicable requirements of the Code of West Virginia and Title IV of the Clean Air Act (Acid Deposition Control), consistent with § 408 (a) of the Clean Air Act.

c. The authority of the Administrator of U.S. EPA to require information under § 114 of the Clean Air Act or to issue emergency orders under § 303 of the Clean Air Act.

[45CSR§30-5.6.c.]

2.22. Credible Evidence

2.22.1. Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee including but not limited to any challenge to the credible evidence rule in the context of any future proceeding.
[45CSR§30-5.3.e.3.B.]

2.23. Severability

2.23.1. The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid by a court of competent jurisdiction, the remaining permit terms and conditions or their application to other circumstances shall remain in full force and effect.
[45CSR§30-5.1.e.]

2.24. Property Rights

2.24.1. This permit does not convey any property rights of any sort or any exclusive privilege.
[45CSR§30-5.1.f.4]

2.25. Acid Deposition Control

2.25.1. Emissions shall not exceed any allowances that the source lawfully holds under Title IV of the Clean Air Act (Acid Deposition Control) or rules of the Secretary promulgated thereunder.

a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid deposition control program, provided that such increases do not require a permit revision under any other applicable requirement.

b. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement.

c. Any such allowance shall be accounted for according to the procedures established in rules promulgated under Title IV of the Clean Air Act.

[45CSR§30-5.1.d.]

2.25.2. Where applicable requirements of the Clean Air Act are more stringent than any applicable requirement of regulations promulgated under Title IV of the Clean Air Act (Acid Deposition Control), both provisions shall be incorporated into the permit and shall be enforceable by the Secretary and U. S. EPA.
[45CSR§30-5.1.a.2.]

3.0. Facility-Wide Requirements

3.1. Limitations and Standards

3.1.1. **Open burning.** The open burning of refuse by any person is prohibited except as noted in 45CSR§6-3.1. **[45CSR§6-3.1.]**

3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause or allow any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible. **[45CSR§6-3.2.]**

3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them. **[40 C.F.R. §61.145(b) and 45CSR34]**

3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public. **[45CSR§4-3.1 State-Enforceable only.]**

3.1.5. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11. **[45CSR§11-5.2]**

3.1.6. **Emission inventory.** The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality. **[W.Va. Code § 22-5-4(a)(15)]**

3.1.7. **Ozone-depleting substances.** For those facilities performing maintenance, service, repair or disposal of appliances, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to 40 C.F.R. §§ 82.154 and 82.156.

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 C.F.R. § 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 C.F.R. § 82.161.

[40 C.F.R. 82, Subpart F]

3.1.8. **Risk Management Plan.** Should this stationary source, as defined in 40 C.F.R. § 68.3, become subject to Part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in 40 C.F.R. § 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 C.F.R. Part 70 or 71.
[40 C.F.R. 68]

3.1.9. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 45CSR§§7- 3.2 (See Section 3.1.10.), 3.3, 3.4, 3.5, 3.6, and 3.7 (See Section 3.1.11.).
[45CSR§7-3.1.; 45CSR13, R13-1396, 4.1.10.; 45CSR13, R13-1685, 4.1.5.a]

3.1.10. The provisions of Section 3.1.9 [45CSR§7-3.1] shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.
[45CSR§7-3.2; 45CSR13, R13-1396, 4.1.10.; 45CSR13, R13-1685, 4.1.5.b]

3.1.11. No person shall cause, suffer, allow or permit visible emissions from any storage structure(s) associated with any manufacturing process(es) that pursuant to Section 3.1.14 [45CSR§7-5.1.] is required to have a full enclosure and be equipped with a particulate matter control device.
[45CSR§7-3.7.]

3.1.12. No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in 45CSR7 Table 45-7A.
[45CSR§7-4.1.; 45CSR13, R13-1396, 4.1.10.; 45CSR13, R13-1685, 4.1.5.c]

3.1.13. Any stack serving any process source operation or air pollution control equipment on any process source operation shall contain flow straightening devices or a vertical run of sufficient length to establish flow patterns consistent with acceptable stack sampling procedures.
[45CSR§7-4.12.]

3.1.14. No person shall cause, suffer, allow, or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design, or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable.
[45CSR§7-5.1.; 45CSR13, R13-1685, 4.1.5.d]

3.1.15. The owner or operator of a plant shall maintain particulate matter control of the plant premises, and plant owned, leased or controlled access roads, by paving, application of asphalt, chemical dust suppressants or other suitable dust control measures. Good operating practices shall be implemented and when necessary particulate matter suppressants shall be applied in relation to stockpiling and general material handling to prevent particulate matter generation and atmospheric entrainment.
[45CSR§7-5.2.; 45CSR13, R13-1685, 4.1.5.e]

3.1.16. Affected facilities as defined in 40 C.F.R. §§60.670 and 60.671 must meet the stack emission limits and compliance requirements in Table 2 of 40 C.F.R. Part 60 Subpart OOO within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under 40 C.F.R. §60.8. The requirements in Table 2 of 40 C.F.R. Part 60 Subpart OOO apply for affected facilities with capture systems used to capture and transport particulate matter to a control device.

a. Affected facilities that commenced construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008 must meet the following stack emission limits:
   1. A particulate matter (PM) limit of 0.05 g/dscm (0.022 gr/dscf), except for equipment identified in 40 C.F.R. §§60.672(d) through (f); and

   2. An opacity limit of 7 percent for dry control devices.

b. Affected facilities that commenced construction, modification, or reconstruction on or after April 22, 2008 must meet the following stack emission limits:

   1. A particulate matter (PM) limit of 0.032 g/dscm (0.014 gr/dscf), except for equipment identified in 40 C.F.R. §§60.672(d) through (f); and

   2. An opacity limit of 7 percent for dry control devices on individual enclosed storage bins.

[45CSR16, 40 C.F.R. §60.672(a) and Table 2; 45CSR13, R13-1685, 4.1.6.a] (Groups 002, 004, 005, 008, 011)

3.1.17. Affected facilities as defined in 40 C.F.R. §§60.670 and 60.671 must meet the fugitive emission limits and compliance requirements in Table 3 of 40 C.F.R. Part 60 Subpart OOO within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under 40 C.F.R. §60.11. The requirements in Table 3 of 40 C.F.R. Part 60 Subpart OOO apply for fugitive emissions from affected facilities without capture systems and for fugitive emissions escaping capture systems.

Affected facilities that commenced construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008 must meet the following fugitive emission limits:

a. Ten (10) percent opacity for grinding mills, screening operations, bucket elevators, transfer points on belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations or from any other affected facility.

b. Fifteen (15) percent opacity for crushers without a capture system.

Affected facilities that commenced construction, modification, or reconstruction on or after April 22, 2008 must meet the following fugitive emission limits:

c. Seven (7) percent opacity for grinding mills, screening operations, bucket elevators, transfer points on belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations or from any other affected facility.

d. Twelve (12) percent opacity for crushers without a capture system.

[45CSR16, 40 C.F.R. §60.672(b) and Table 3; 45CSR13, R13-1685, 4.1.6.b] (Groups 002, 004, 005, 008, 011)

3.1.18. Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of 40 C.F.R. §60.672.
[45CSR16, 40 C.F.R. §60.672(d); 45CSR13, R13-1685, 4.1.6.c] (Groups 002 and 008)

3.1.19. If any transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each enclosed affected facility must comply with the emission limits in 40 C.F.R. §60.672(a) and (b) [Sections 3.1.16 and 3.1.17.], or the building enclosing the affected facility or facilities must comply with the following emission limits:

a. Fugitive emissions from the building openings (except for vents as defined in 40 C.F.R. §60.671) must not exceed 7 percent opacity; and

b. Vents (as defined in 40 C.F.R. §60.671) in the building must meet the applicable stack emission limits and compliance requirements in Table 2 of 40 C.F.R. Part 60 Subpart OOO (see Section 3.1.16.).

[45CSR16, 40 C.F.R. §60.672(e); 45CSR13, R13-1685, 4.1.6.d] (Groups 002, 004, 005, 008, 011)

3.1.20. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-2113, R13-2113A, R13-2113B, R13-2113C, R13-2113D, R13-2113E, R13-2113F, R13-2113G, R13-2113H, R13-0725, R13-1788 and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to.
[45CSR13, R13-2113, 2.5.1.]

3.1.21. The transfer points, as identified in the Process Flow Diagram included as Attachment F in Permit Application R13-1396E, shall use the following control devices:

a. The following transfer points shall be required to use partial enclosures: TP287 and TP292;

b. The following transfer points shall be required to use double full enclosures (FE/FE): TP254, TP256 -TP258 ; and

c. Transfer point TP259 shall be controlled by the scrubber 7-SCR-1; and

d. All other transfer points that have the potential to emit particulate matter, with the exception of TP260 and TP261, shall use Dust Collectors as specified under in the Process Flow Diagram included as Attachment F in Permit Application R13-1396D.

[45CSR13, R13-1396, 4.1.7.]

3.2. Monitoring Requirements

3.2.1. The permittee shall implement the following maintenance and monitoring work practices in order to demonstrate continuous compliance with opacity requirements of 45CSR7 and 40 C.F.R. Part 60 Subparts

OOO and HH. [Not required for open stockpiles (2-OS-1 and 4-OS-1), Coal and Limestone Feed Stockpile Common to 400 TPD & 500 TPD Lime Kilns, PSP1, PSP2, PSP3, PSP4, PSP5, and haulroads]

Visible emission observations shall be conducted at least once per calendar quarter by a certified Method 9 observer for all transfer points and fugitive dust sources during periods of operation for 5 minutes to determine if any of the emission units or transfer points have visible emissions. If emissions are evident and quantifiable, their opacity shall be determined by conducting a documented Method 9 observation. If any emission unit or transfer point has visible emissions exceeding the applicable regulatory limit, then it should be documented as such and the permittee shall initiate corrective actions to minimize emissions in a timely manner in accordance with the maintenance and monitoring work practice procedures established below (See Section 3.2.3. for exceptions).

a. Monitoring in the form of inspections shall be conducted at least once per calendar quarter on all transfer points and emission units subject to the opacity requirements of 45CSR7 and 40 C.F.R. Part 60 Subpart OOO or HH. The inspections shall utilize a certified Method 9 observer to evaluate each source of emissions using Method 22. If during the inspection or anytime the permittee recognizes visual emissions approaching opacity limits, maintenance activities shall be initiated to minimize PM emissions and maintain opacity within compliance levels based on the applicable opacity standard. Maintenance activities shall be completed, and a satisfactory inspection documented before the end of the following quarterly inspection.

b. A record of each visible emissions observation shall be maintained, including any data required by 40 C.F.R. Part 60 Appendix A, Method 22 or Method 9, whichever is appropriate. The record shall include, at a minimum, the date, time, name of the emission unit, the applicable visible emissions requirement, the results of the observation, and the name of the observer. Records shall be maintained on site stating any maintenance or corrective actions taken as a result of the quarterly inspections, and the times the fugitive dust control system(s) are inoperable, and any corrective actions taken.

[45CSR§30-5.1.c.] (Groups 002, 004, 005, 006, 007, 008, 011)

3.2.2. The permittee shall conduct weekly visual emission observations on all dust collectors and the permittee shall maintain a pressure gauge on all dust collectors for pressure drop observations. The permittee shall operate each baghouse within its pressure drop (ΔP) range listed in the table below. Records of the weekly pressure drops for each baghouse shall be maintained. The permittee shall also maintain records of the maintenance performed on each baghouse. These records shall include all maintenance work performed on each dust collector including the frequency of bag/filter change outs. Records shall state the date and time of each dust collector inspection, the inspection results including the pressure drop, and corrective action taken, if any. Records shall be maintained on site for five (5) years from its origination date.

Emission Unit ID	ΔP Compliant Range (inches of H_2O)
1-DC-1	0.5 – 9.0
4-DC-1, 4-DC-2	2.0 – 15.0
4-DC-3	0.5 – 6.0
6-DC-1, 6-DC-2, 6-DC-3, 6-DC-4, 7-DC-1, 11-DC-1, 11-DC-2, 11-DC-3, 11-DC-4, 11-DC-20	0.5 – 8.0

Emission Unit ID	ΔP Compliant Range (inches of H_2O)
7-DC-2, 7-DC-3, 7-DC-5, 7-DC-6, 7-DC-20, 7-DC-21	0.5 – 10.0

[45CSR§30-5.1.c.] (Section 1.0 (Dust Collectors))

3.2.3. Except as specified in 40 C.F.R. §60.674(e) [Section 3.2.4.], the owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses a baghouse to control emissions must conduct quarterly 30-minute visible emissions inspections using EPA Method 22 (40 C.F.R. Part 60, Appendix A–7). The Method 22 (40 C.F.R. Part 60, Appendix A–7) test shall be conducted while the baghouse is operating. The test is successful if no visible emissions are observed. If any visible emissions are observed, the owner or operator of the affected facility must initiate corrective action within 24 hours to return the baghouse to normal operation. The owner or operator must record each Method 22 (40 C.F.R. Part 60, Appendix A–7) test, including the date and any corrective actions taken, in the logbook required under 40 C.F.R. §60.676(b). The owner or operator of the affected facility may establish a different baghouse-specific success level for the visible emissions test (other than no visible emissions) by conducting a PM performance test according to 40 C.F.R. §60.675(b) [Section 3.3.5.] simultaneously with a Method 22 (40 C.F.R. Part 60, Appendix A–7) to determine what constitutes normal visible emissions from that affected facility's baghouse when it is in compliance with the applicable PM concentration limit in Table 2 of 40 C.F.R. Part 60 Subpart OOO. The revised visible emissions success level must be incorporated into the permit for the affected facility.
[45CSR16, 40 C.F.R. § 60.674 (c)] (11-SI-7, 11-SC-7, 11-LS-4, 11-DC-3)

3.2.4. As an alternative to the periodic Method 22 (40 C.F.R. Part 60, Appendix A–7) visible emissions inspections specified in 40 C.F.R. §60.674(c) [Section 3.2.3.], the owner or operator of any affected facility that is subject to the requirements for processed stone handling operations in the Lime Manufacturing NESHAP (40 C.F.R. Part 63 Subpart AAAAA) may follow the continuous compliance requirements in row 1 items (ii) through (iii) of Table 6 to 40 C.F.R. Part 63 Subpart AAAAA [Section 12.2.5].
[45CSR16, 40 C.F.R. §60.674(e)] (11-SI-7, 11-SC-7, 11-LS-4)

3.3. Testing Requirements

3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable.

b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit shall be revised in accordance with 45CSR§30-6.4 or 45CSR§30-6.5 as applicable.

c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

d. The permittee shall submit a report of the results of the stack test within 60 days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:

1. The permit or rule evaluated, with the citation number and language.

2. The result of the test for each permit or rule condition.

3. A statement of compliance or non-compliance with each permit or rule condition.

[WV Code §§ 22-5-4(a)(15-16) and 45CSR13]

3.3.2. At such reasonable times as the Director may designate, the operator of any manufacturing process source operation may be required to conduct or have conducted stack tests to determine the particulate matter loading in exhaust gases. Such tests shall be conducted in such manner as the Secretary may specify and be filed on forms and in a manner acceptable to the Secretary. The Secretary may at his option witness or conduct such stack tests. Should the Secretary exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices.
[45CSR§7-8.1.]

3.3.3. The Secretary may conduct such other tests as he or she may deem necessary to evaluate air pollution emissions.
[45CSR§7-8.2.]

3.3.4. In conducting the performance tests required in 40 C.F.R. §60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 C.F.R. Part 60 Appendices A–1 through A–7 or

other methods and procedures as specified in this section, except as provided in 40 C.F.R. § 60.8(b). Acceptable alternative methods and procedures are given in 40 C.F.R. §60.675(e) [Section 3.3.8.].
[45CSR16, 40 C.F.R. §60.675(a)] (Groups 002, 004, 005, 008, 011)

3.3.5. The owner or operator shall determine compliance with the particulate matter (PM) standards in 40 C.F.R. §60.672(a) [Section 3.1.16.] as follows:

a. Method 5 of 40 C.F.R. Part 60 Appendix A–3 or Method 17 of 40 C.F.R. Part 60 Appendix A–6 shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5 (40 C.F.R. Part 60, Appendix A–3), if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter.

b. Method 9 of 40 C.F.R. Part 60 Appendix A–4 and the procedures in 40 C.F.R. §60.11 shall be used to determine opacity.

[45CSR16, 40 C.F.R. §60.675(b)] (Groups 002, 004, 005, 008, 011)

3.3.6. The permittee shall utilize the test methods and procedures of 40 C.F.R. §60.675(c) as follows:

a. In determining compliance with the particulate matter standards in 40 C.F.R. §60.672(b) [Section 3.1.17.] or 40 C.F.R. §60.672(e)(1) [Section 3.1.19.a.], the owner or operator shall use Method 9 of 40 C.F.R. Part 60 Appendix A–4 and the procedures in 40 C.F.R. § 60.11, with the following additions:

1. The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).

2. The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9 of 40 C.F.R. Part 60 Appendix A–4, Section 2.1) must be followed.

3. For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.

b. 1. In determining compliance with the opacity of stack emissions from any baghouse that controls emissions only from an individual enclosed storage bin under 40 C.F.R. § 60.672(f), using Method 9 (40 C.F.R. Part 60 Appendix A–4), the duration of the Method 9 (40 C.F.R. Part 60 Appendix A– 4) observations shall be 1 hour (ten 6-minute averages).

2. The duration of the Method 9 (40 C.F.R. Part 60 Appendix A–4) observations may be reduced to the duration the affected facility operates (but not less than 30 minutes) for baghouses that control storage bins or enclosed truck or railcar loading stations that operate for less than 1 hour at a time.

c. When determining compliance with the fugitive emissions standard for any affected facility described under 40 C.F.R. § 60.672 (b) [Section 3.1.17.] or 40 C.F.R. § 60.672(e)(1) [Section 3.1.19.a.], the

duration of the Method 9 (40 C.F.R. Part 60 Appendix A–4) observations must be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits in Table 3 of 40 C.F.R. Part 60 Subpart OOO must be based on the average of the five 6-minute averages.

[45CSR16, 40 C.F.R. §60.675(c) and Table 3] (Groups 002, 004, 005, 008, 011)

3.3.7. To demonstrate compliance with the fugitive emission limits for buildings specified in 40 C.F.R. §60.672 (e)(1) [Section 3.1.19.a.], the owner or operator must complete the testing specified in 40 C.F.R. §60.675 (d)(1) and (2) [Section 3.3.7.a. and b.]. Performance tests must be conducted while all affected facilities inside the building are operating.

a. If the building encloses any affected facility that commences construction, modification, or reconstruction on or after April 22, 2008, the owner or operator of the affected facility must conduct an initial Method 9 (40 C.F.R. Part 60 Appendix A–4) performance test according to this section and 40 C.F.R. § 60.11.

b. If the building encloses only affected facilities that commenced construction, modification, or reconstruction before April 22, 2008, and the owner or operator has previously conducted an initial Method 22 (40 C.F.R. Part 60 Appendix A–7) performance test showing zero visible emissions, then the owner or operator has demonstrated compliance with the opacity limit in 40 C.F.R. § 60.672 (e) (1) [Section 3.1.19.a]. If the owner or operator has not conducted an initial performance test for the building before April 22, 2008, then the owner or operator must conduct an initial Method 9 (40 C.F.R. Part 60 Appendix A–4) performance test according to this section and 40 C.F.R. § 60.11 to show compliance with the opacity limit in 40 C.F.R. § 60.672 (e) (1) [Section 3.1.19.a.].

[45CSR16, 40 C.F.R. §60.675(d)] (Groups 002, 004, 005, 008, 011)

3.3.8. The owner or operator may use the following as alternatives to the reference methods and procedures specified in 40 C.F.R. § 60.675:

a. For the method and procedure of 40 C.F.R. § 60.675 (c) [Section 3.3.6.], if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:

1. Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream.

2. Separate the emissions so that the opacity of emissions from each affected facility can be read.

b. A single visible emission observer may conduct visible emission observations for up to three fugitive, stack, or vent emission points within a 15-second interval if the following conditions are met:

1. No more than three emission points may be read concurrently.

2. All three emission points must be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points.

3. If an opacity reading for any one of the three emission points equals or exceeds the applicable standard, then the observer must stop taking readings for the other two points and continue reading just that single point.

c. Method 5I of 40 C.F.R. Part 60, Appendix A–3 may be used to determine the PM concentration as an alternative to the methods specified in 40 C.F.R. §60.675(b)(1). Method 5I (40 C.F.R. Part 60, Appendix A–3) may be useful for affected facilities that operate for less than 1 hour at a time such as (but not limited to) storage bins or enclosed truck or railcar loading stations.

d. In some cases, velocities of exhaust gases from building vents may be too low to measure accurately with the type S pitot tube specified in EPA Method 2 of 40 C.F.R. Part 60 Appendix A–1 of this part [i.e., velocity head <1.3 mm H2O (0.05 in. H_2O)] and referred to in EPA Method 5 of 40 C.F.R. Part 60 Appendix A–3. For these conditions, the owner or operator may determine the average gas flow rate produced by the power fans (e.g., from vendor-supplied fan curves) to the building vent. The owner or operator may calculate the average gas velocity at the building vent measurement site using Equation 1 of this section and use this average velocity in determining and maintaining isokinetic sampling rates.

$$V_e = \frac{Q_f}{A_e} \qquad \text{(Eq. 1)}$$

Where:
V_e = average building vent velocity (feet per minute);
Q_f = average fan flow rate (cubic feet per minute); and
A_e = area of building vent and measurement location (square feet).

[45CSR16, 40 C.F.R. §60.675(e)] (Groups 002, 004, 005, 008, 011)

3.3.9. For performance tests involving only Method 9 (40 C.F.R. Part 60 Appendix A–4) testing, the owner or operator may reduce the 30-day advance notification of performance test in 40 C.F.R. §60.7(a)(6) and 40 C.F.R. §60.8(d) to a 7-day advance notification.
[45CSR16, 40 C.F.R. §60.675(g)] (Groups 002, 004, 005, 008, 011)

3.4. Recordkeeping Requirements

3.4.1. **Monitoring information.** The permittee shall keep records of monitoring information that include the following:

a. The date, place as defined in this permit and time of sampling or measurements;

b. The date(s) analyses were performed;

c. The company or entity that performed the analyses;

d. The analytical techniques or methods used;

e. The results of the analyses; and

f. The operating conditions existing at the time of sampling or measurement.
[45CSR§30-5.1.c.2.A.; 45CSR13, R13-1396, 4.4.1.; 45CSR13, R13-2670, 4.4.1.; 45CSR13, R13-1685, 4.4.1, R13-1381, 4.4.1.]

3.4.2. **Retention of records.** The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of monitoring sample, measurement, report, application, or record creation date. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Where appropriate, records may be maintained in computerized form in lieu of the above records.
[45CSR§30-5.1.c.2.B.]

3.4.3. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.
[45CSR§30-5.1.c. State-Enforceable only.]

3.4.4. The permittee shall maintain records indicating the use of any dust suppressants or any other suitable dust control measures applied at the facility. The permittee shall also inspect all fugitive dust control systems weekly from May 1 through September 30 and monthly from October 1 through April 30 to ensure that they are operated and maintained in conformance with their designs. The permittee shall maintain records of all scheduled and non-scheduled maintenance and shall state any maintenance or corrective actions taken as a result of the weekly and/or monthly inspections, the times the fugitive dust control system(s) were inoperable, and any corrective actions taken.
[45CSR§30-5.1.c.]

3.4.5. Each owner or operator seeking to comply with 40 C.F.R. § 60.670 (d) shall submit to the Administrator the following information about the existing facility being replaced and the replacement piece of equipment.

a. For a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station:

1. The rated capacity in megagrams or tons per hour of the existing facility being replaced and

2. The rated capacity in tons per hour of the replacement equipment.

b. For a screening operation:

1. The total surface area of the top screen of the existing screening operation being replaced and

2. The total surface area of the top screen of the replacement screening operation.

c. For a conveyor belt:

1. The width of the existing belt being replaced and

2. The width of the replacement conveyor belt.

d. For a storage bin:

1. The rated capacity in megagrams or tons of the existing storage bin being replaced and

2. The rated capacity in megagrams or tons of replacement storage bins.

[45CSR16, 40 C.F.R. §60.676(a)] (Groups 002, 004, 005, 008, 011)

3.4.6. Owners or operators of affected facilities for which construction, modification, or reconstruction commenced on or after April 22, 2008, must record each periodic inspection required under 40 C.F.R. §60.674(b) or (c), including dates and any corrective actions taken, in a logbook (in written or electronic format). The owner or operator must keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Administrator upon request.
[45CSR16, 40 C.F.R. §60.676(b)(1)] (11-SI-7, 11-SC-7, 11-LS-4)

3.4.7. The owner or operator of each affected facility demonstrating compliance according to 40 C.F.R. §60.674(e) by following the requirements for processed stone handling operations in the Lime Manufacturing NESHAP (40 C.F.R. part 63, subpart AAAAA) must maintain records of visible emissions observations required by §63.7132(a)(3) and (b) of 40 C.F.R. part 63, subpart AAAAA.
[45CSR16, 40 C.F.R. §60.676(b)(3)] (11-SI-7, 11-SC-7, 11-LS-4)

3.4.8. The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in 40 C.F.R. §60.672, including reports of opacity observations made using Method 9 (40 C.F.R. Part 60 Appendix A–4) to demonstrate compliance with 40 C.F.R. §§60.672(b) and (e) [Sections 3.1.17 and 3.1.19] and 40 C.F.R. §60.672(f).
[45CSR16, 40 C.F.R. §60.676(f)] (Groups 002, 004, 005, 008, 011)

3.4.9. The owner or operator of any wet material processing operation that processes saturated and subsequently processes unsaturated materials, shall submit a report of this change within 30 days following such change. At the time of such change, this screening operation, bucket elevator, or belt conveyor becomes subject to the applicable opacity limit in 40 C.F.R. §60.672(b) and the emission test requirements of 40 C.F.R. §60.11.
[45CSR16, 40 C.F.R. §60.676(g)] (Groups 002, 004, 005, 008, 011)

3.4.10. The 40 C.F.R. Part 60 Subpart A requirement under 40 C.F.R. §60.7(a)(1) for notification of the date construction or reconstruction commenced is waived for affected facilities under 40 C.F.R. Part 60 Subpart OOO.
[45CSR16, 40 C.F.R. §60.676(h), Group (002, 004, 005, 008, 011)]

3.4.11. A notification of the actual date of initial startup of each affected facility shall be submitted to the Administrator.

a. For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted by the owner or operator to the Administrator. The notification shall be postmarked within 15 days after such date and shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available.

b. For portable aggregate processing plants, the notification of the actual date of initial startup shall include both the home office and the current address or location of the portable plant.

[45CSR16, 40 C.F.R. §60.676(i)] (Group 002, 004, 005, 008, 011)

3.5. Reporting Requirements

3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states

that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
[45CSR§§30-4.4. *and* 5.1.c.3.D.]

3.5.2. A permittee may request confidential treatment for the submission of reporting required under 45CSR§30-5.1.c.3. pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
[45CSR§30-5.1.c.3.E.]

3.5.3. Except for the electronic submittal of the annual compliance certification and semi-annual monitoring reports to the DAQ and USEPA as required in 3.5.5 and 3.5.6 below, all notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class or by private carrier with postage prepaid to the address(es), or submitted in electronic format by e-mail as set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

DAQ:

Director
WVDEP
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

US EPA:

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

DAQ Compliance and Enforcement[1]:
DEPAirQualityReports@wv.gov

[1]For all self-monitoring reports (MACT, GACT, NSPS, etc.), stack tests and protocols, Notice of Compliance Status reports, Initial Notifications, etc.

3.5.4. **Fees.** The permittee shall pay fees on an annual basis in accordance with 45CSR§30-8.
[45CSR§30-8.]

3.5.5. **Compliance certification.** The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification. The annual certification shall be submitted in electronic format by e-mail to the following addresses:

DAQ:
DEPAirQualityReports@wv.gov

US EPA:
R3_APD_Permits@epa.gov

[45CSR§30-5.3.e.]

3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4. The semi-annual monitoring reports shall be submitted in electronic format by e-mail to the following address:

DAQ:
DEPAirQualityReports@wv.gov

[45CSR§30-5.1.c.3.A.]

3.5.7. **Reserved.**

3.5.8. **Deviations.**

a. In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:

1. Reserved.

2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or email. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.

3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.

4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken.

[45CSR§30-5.1.c.3.C.]

b. The permittee shall, in the reporting of deviations from permit requirements, including those attributable to upset conditions as defined in this permit, report the probable cause of such deviations and any corrective actions or preventive measures taken in accordance with any rules of the Secretary.
[45CSR§30-5.1.c.3.B.]

3.5.9. **New applicable requirements.** If any applicable requirement is promulgated during the term of this permit, the permittee will meet such requirements on a timely basis, or in accordance with a more detailed schedule if required by the applicable requirement.
[45CSR§30-4.3.h.1.B.]

3.6. Compliance Plan

3.6.1. None.

3.7. Permit Shield

3.7.1. The permittee is hereby granted a permit shield in accordance with 45CSR§30-5.6. The permit shield applies provided the permittee operates in accordance with the information contained within this permit.

3.7.2. The following requirements specifically identified are not applicable to the source based on the determinations set forth below. The permit shield shall apply to the following requirements provided the conditions of the determinations are met.

a. **45CSR§10-5.1** - This process is not defined as a refinery process gas stream or any other process gas stream that contains hydrogen sulfides to be combusted.

b. **45CSR17** - Greer Lime Company is subject to 45CSR7 which exempts it from 45CSR17, To Prevent and Control Particulate Matter Air Pollution from Materials Handling, Preparation, Storage and Other Sources of Fugitive Particulate Matter, as stated in 45CSR§7-10.2.

c. **40 C.F.R. §§ 60.380 - 60.386 Subpart LL** - Standards of Performance for Metallic Mineral Processing do not apply because lime or limestone is not a metallic mineral.

d. **40 C.F.R. §§ 60.674(a) and 60.676(c), (d), and (e) Subpart OOO** - These sections of 40 C.F.R. Part 60 Subpart OOO do not apply to Greer Lime Company since Greer Lime Company does not incorporate a wet scrubber in their non-metallic mineral processing plant subject to 40 C.F.R. 60 Subpart OOO. Wet scrubber 7-SCR-1 is not located in a process that is defined as a non-metallic mineral processing plant.

e. **40 C.F.R. §§ 60.730 - 60.737 Subpart UUU** - Standards of Performance for Calciners and Dryers in Mineral Industries do not apply because lime is not listed as a mineral processed or produced in a mineral processing plant.

f. **40 C.F.R. 64 Compliance Assurance Monitoring (CAM)** - The two rotary kilns have uncontrolled potential to be Title V major for PM, however they are subject to 40 C.F.R. 63 Subpart AAAAA standards, which were proposed after 11/15/1990 and therefore, exempts the pollutant specific emission unit “PSEU” from “CAM”.

The coal handling system (5-DH-1, 5-VF-1, 5-BC-0, 5-CR-1, 5-SI-1, 5-VF-2, 5-BC-1, 5-BC-2 and 5-BC-3) employs only passive control measures to meet the opacity requirements of 40 C.F.R. Part 60 Subpart Y and therefore, do not employ any add on control equipment that would require CAM monitoring.

The lime handling system (Group 006) does not encompass any individual PSEU having pre-controlled emissions exceeding major source thresholds for Title V.

The Hydrate Plant (Group 007) does not encompass any individual PSEU having pre-controlled emissions exceeding major source thresholds for Title V.

The fine grinding lines (Group 011) do not encompass any individual PSEU having pre-controlled emissions exceeding major source thresholds for Title V.

The open coal stockpiles (5-CS-1A and 5-CS-2) authorized by R13-2670B employ only passive control measures to meet the opacity requirements of 40 C.F.R. Part 60 Subpart Y and therefore, do not employ any add on control equipment that would require CAM monitoring.

4.0. Requirements for Primary and Secondary Crushing (Group 002) [Emission Unit IDs: 1-CR-1, 1-CR-2; 1-IH-1; 1-VS-1, 2-VS-1; 1-DH-1; 1-VGF-1; 1-VF-1, 2-VF-1, 2-VF-2, 2-VF-3, 2-VF-4; 1-SB-1; 1-SI-1, 1-SI-2, 2-SI-1; 1-BC-1, 1-BC-2, 1-BC-3, 1-BC-4, 1-BC-5, 2-BC-1, 2-BC-2, 2-BC-3, 2-BC-4, 2-BC-5, 2-BC-6, 2-BC-7, 2-BC-8, 2-BC-9; 2-OS-1, 2-OS-2]

4.1. Limitations and Standards

4.1.1. Only the emission units/sources identified in Table 1.0 of R13-1685C, with the exception of any de minimis sources as identified under Table 45-13B of 45CSR13, is authorized at the permitted facility by permit R13-1685C. In accordance with the information filed in Permit Applications R13-1685, R13-1685A, R13-1685B, and R13-1685C the emission units/sources identified under Table 1.0 of R13-1685C shall not exceed the listed maximum design capacity where listed, shall utilize the specified emission control device, and comply with any other information provided under Table 1.0 of R13-1685C.
[45CSR13, R13-1685, 4.1.1]

4.1.2. Input of stone to the primary crusher shall not exceed 800 tons per hour or 1,500,000 tons per year.
[45CSR13, R13-1685, 4.1.2] (1-CR-1, TS1, TS-DG1)

4.1.3. Fugitive dust control equipment as proposed in Permit Application R13-1685 and its supplements shall be installed, operated and maintained in such a manner as to minimize fugitive dust generation and atmospheric entrainment. Such measures shall include:

a. Pressurized water sprays located at the primary and secondary crushers, primary and secondary screens, conveyor belt discharge for stockpile 2-OS-1, truck dump hopper, and truck dump hopper vibrating feeder.

b. Primary and secondary screens (1-VS-1 and 2-VS-1) shall be fully enclosed except for entry and discharge points.

c. Water sprays at stockpile, 2-OS-2, during material storage.

d. Water truck utilizing pressurized spray nozzles for dust control of haulroads and stockpile areas.

[45CSR13, R13-1685, 4.1.3] (1-CR-1, 1-CR-2, 1-VS-1, 2-VS-1, 2-BC-4, 1-DH-1, 1-VGF-1, 2-OS-1, 2-OS-2)

4.1.4. Pressurized water spray system shall be winterized by equipping each spray manifold with a drain and heat taping all exposed piping in accordance with Permit Application R13-1685.
[45CSR13, R13-1685, 4.1.4]

4.1.5. **Operation and Maintenance of Air Pollution Control Equipment**
The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR§13-5.10.; 45CSR13, R13-1685, 4.1.7]

4.1.6. **Applicable Rules**
The permittee shall meet all applicable requirements, including those not specified above, as given under 45CSR7 and 40 C.F.R. 60, Subpart OOOO. Any final revisions made to the above rules will, where applicable, supersede those specifically cited in this permit.
[45CSR13, R13-1685, 4.1.8]

4.1.7. See Sections 3.1.16 through 3.1.19 for all affected facilities. The vibrating feeders (2-VF-3 and 2-VF-4) are not subject to NSPS, Subpart OOO, since construction of this facility commenced prior to 1983. The open stockpile (2-OS-1) is not subject to the NSPS, Subpart OOO.
[45CSR16, 40 C.F.R. 60 Subpart OOO]

4.2. Monitoring Requirements

4.2.1. See Section 3.2 for opacity and dust collector monitoring requirements.

4.3. Testing Requirements

4.3.1. At such reasonable time(s) as the Secretary may designate, in accordance with the provisions of 3.3 of this permit, the permittee shall conduct or have conducted test(s) to determine compliance with the emission limitations established in this permit and/or applicable regulations.
[45CSR13, R13-1685, 4.3.1]

4.3.2. See Sections 3.3.4 through 3.3.9 for opacity and PM testing requirements from 40 C.F.R. Part 60 Subpart OOO.

4.4. Recordkeeping Requirements

4.4.1. The following information shall be recorded on a daily basis, and maintained at the permitted facility for a period of three years, and made available to the Director, or his designated representative upon request:

a. Limestone charged through primary and secondary crushing and screening circuit in tons per day; and

b. Water used for particulate control in gallons per day; and

A report of monthly totals shall be submitted to the Director on suitable forms. Such monthly reports shall be certified to be accurate by the Chief Executive Officer or owner of the permitted facility, or their designee and shall be submitted by the fifteenth day following the end of each calendar month.

[45CSR13, R13-1685, 4.2.1]

4.4.2. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
[45CSR13, R13-1685, 4.4.2]

4.4.3. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

a. The equipment involved.

b. Steps taken to minimize emissions during the event.

c. The duration of the event.

d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

e. The cause of the malfunction.

f. Steps taken to correct the malfunction.

g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[45CSR13, R13-1685, 4.4.3]

4.5. Reporting Requirements

4.5.1. None.

4.6. Compliance Plan

4.6.1. None.

5.0. Requirements for Limestone Grinding (Group 011) [Emission Unit IDs: 11-BC-1, 11-BC-2, 11-BC-4; 11-SC-1, 11-SC-20, 11-SC-3, 11-SC-4, 11-SC-5, 11-SC-6, 11-SC-7; 11-WC-20; 11-BEL-1, 11-BEL-20; 11-SI-1, 11-SI-2, 11-SI-3, 11-SI-4, 11-SI-5, 11-SI-6, 11-SI-7; 11-SB-1, 11-SB-2; 11-DS-1; 11-CL-1; 11-HG-1; 11-BM-1; 11-CY-1, 11-CY-2; 11-DC-1, 11-DC-2, 11-DC-3, 11-DC-4; 11-LS-1, 11-LS-2, 11-LS-3, 11-LS-4; 11-BG-20; 11-SSB-1; 11-BL-2, 11-BL-3; 11-DH-1, 11-BC-20, 11-BC-21, 11-BC-22, 11-SC-21, 11-DV-20, and 11-DV-21]

5.1. Limitations and Standards

5.1.1. The maximum processing rate of limestone to the Fine Grinding System from the Secondary Crushing System shall not exceed 400 tons per hour (TPH) and 600,000 tons per year (TPY).
[45CSR13, R13-2113, 4.1.1.] (11-SI-3)

5.1.2. The fine grinding circuit shall employ a hot air generator, grinding mill, dynamic separator, cyclone #1, cyclone #2, classifier separator and two centrifugal blowers identified as 11-HG-1, 11-BM-1, 11-DS-1, 11-CY-1, 11-CY-2, 11-CL-1, 11-BL-2, and 11-BL-3 respectively. The operation of this circuit shall not exceed the following maximum operating and emission limitations:

a. Emissions from the emission point E-11-DC-1 shall not exceed the maximum individual hourly and annual emission limits set forth below:

Emission Source ID	Pollutant	Maximum Emissions	
		Hourly (lb/hr)	Annual TPY
11-HG-1, 11-BM-1, 11-DS-1, 11-CY-1, 11-CY-2, 11-CL-1, 11-BL-2, 11-BL-3, 11-SI-1, 11-SI-2, 11-SI-3	PM	1.75	7.64
	PM_{10}	0.83	3.64
	SO_2	3.84	16.8
	NO_X	0.72	3.2
	CO	0.59	2.6

[40 C.F.R. §60.672(a)(1) for PM and 45CSR§10-4.1 for SO_2]

b. The hot air generator shall not consume more than 54 gallons per hour or 473,040 gallons per year of No. 2 fuel oil;

c. The No. 2 fuel oil consumed by the hot air generator shall not contain sulfur greater than 0.5 percent by weight. This limit and the fuel restriction limit in 5.1.2.b coincides with the SO_2 limits in Table 5.1.2.a.;

d. The feed rate of material (limestone or lime) into the circuit shall not exceed 65 tons per hour or 569,400 tons per year;

e. Visible PM from emission point E-11-DC-1 shall not be exhibited greater than 7 percent opacity.

[45CSR13, R13-2113, 4.1.5., 45CSR16, 40 C.F.R. §60.672(a)(2)] (11-HG-1, 11-BM-1, 11-DS-1, 11-CY-1, 11-CY-2, 11-CL-1, 11-BL-2, 11-BL-3, 11-SI-1, 11-SI-2, 11-SI-3)

5.1.3. Emissions discharged to the atmosphere from emission points E-11-DC-20, E-11-DC-4, E-11-DC-3 and E-11-DC-2 shall be limited to the following maximum emission limitations:

a. PM concentration in the exhaust stream from the emission points E-11-DC-2, E-11-DC-4, and E-11-DC-3 shall not exceed 0.022 gr/dscf while emissions from emission point E-11-DC-20 shall not exceed 0.014 gr/dscf;

b. Annual PM_{10} and PM emissions from emission point E-11-DC-3 shall not exceed 1.18 TPY and 2.48 TPY respectively;

c. Annual PM_{10} and PM emissions from emission point E-11-DC-2/E-11-DC-4 (combined) shall not exceed 1.18 TPY and 2.48 TPY respectively;

d. Annual PM_{10} and PM emissions from E-11-DC-20 shall not exceed 1.00 TPY and 2.1 TPY respectively; and

e. Visible PM from the emission point shall not exceed greater than 7 percent opacity.

[45CSR13, R13-2113, 4.1.6., 45CSR16, 40 C.F.R. §60.672(a)] (E-11-DC-3, E-11-DC-2, E-11-DC-4, E-11-DC-20)

5.1.4. The equipment listed below shall not exhibit visible PM emissions greater than 10 percent opacity, unless the transfer points of belt conveyors or the unit is located in an enclosed building. Then, the enclosed building shall not exhibit visible PM emissions greater than 7 percent opacity.

Emission Unit ID	Emission Point ID	Emission Unit Description
11-BC-1	11-BC-1	Belt Conveyor
11-BEL-1	11-BEL-1	Bucket Elevator
11-BC-2	11-BC-2	Belt Conveyor
11-BC-4*	11-BC-4	Belt Conveyor
11-SB-2	11-SB-2	Surge Bin
11-DH-1*	11-DH-1	Feed Hopper
11-SC-4	E-11-DC-3	Screw Conveyor

*Since 11-DH-1 and 11-BC-4 were installed after April 22, 2008, they are subject to 7 percent opacity requirement [see Section 3.1.20.c].
[45CSR13, R13-2113, 4.1.7., 45CSR16, 40 C.F.R. §§60.672(a)(2), (b), and (e)]

5.1.5. Compliance with all annual limits stated in Section 5.1 shall be demonstrated using a 12 month rolling total.
[45CSR13, R13-2113, 4.1.8.]

5.1.6. The equipment listed below shall not exhibit visible PM emissions greater than 7 percent opacity.

Emission Unit ID	Emission Point ID	Emission Unit Description
11-BC-20	NA	Belt Conveyor
11-BC-21	NA	Belt Conveyor
11-BC-22	NA	Belt Conveyor

[45CSR13, R13-2113, 4.1.9., 45CSR16, 40 C.F.R. §60.672(b)]

5.1.7. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in the Fine Grinding Circuit [dust collectors (11-DC-1, 11-DC-2, 11-DC-3, 11-DC-4, 11-DC-20)] and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR13, R13-2113, 4.1.10, 45CSR§13-5.10] (11-DC-1, 11-DC-2, 11-DC-3, 11-DC-4, 11-DC-20)

5.2. Monitoring Requirements

5.2.1. For the purpose of determining compliance with the opacity limits in Sections 5.1.2.e, 5.1.3.e and 5.1.4, the permittee shall conduct visible emission checks and/or opacity monitoring and recordkeeping for all emission sources subject to an opacity limit.

The visible emission check shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 C.F.R. Part 60 Appendix A, Method 22 or from the lecture portion of the 40 C.F.R. Part 60 Appendix A, Method 9 certification course.

Visible emission checks shall be conducted at least once per calendar month with a maximum of forty-five (45) days between consecutive readings. These checks shall be performed at each source (stack, transfer point, fugitive emission source, etc.) for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Visible emission checks shall be performed during periods of normal facility operation and appropriate weather conditions.

If visible emissions are present at a source(s) for six (6) consecutive monthly checks, the permittee shall conduct an opacity reading at that source(s) using the procedures and requirements of 45CSR7A for the sources subject to 45CSR§§7-.3.1 and 3.2, and Method 9 for all other sources as soon as practicable, but within seventy-two (72) hours of the final visual emission check. A 45CSR7A observation at a source(s) restarts the count of the number of consecutive readings with the presence of visible emissions.

[45CSR13, R13-2113, 4.2.1.] (E-11-DC-1, E-11-DC-3, E-11-DC-2, and Section 5.1.4 Transfer Points)

5.2.2. The owner or operator shall determine compliance with the opacity limits in Section 5.1.6. in accordance with the requirements of 40 C.F.R. Part 60, Subpart OOO, Section §60.675(b)(2) and Table 3 with an initial

Method 9 performance test and a repeat performance test within 5 years from the previous performance test.
[45CSR13, R13-2113, 4.2.1., 45CSR16, and 40 C.F.R. Part 60, Subpart OOO]

5.3. Testing Requirements

5.3.1. See Section 3.3.4 through 3.3.9 for 40 C.F.R. Part 60 Subpart OOO testing requirements.
[45CSR16, 40 C.F.R. Part 60 Subpart OOO] (Group 011)

5.4. Recordkeeping Requirements

5.4.1. For the purpose of determining compliance with the maximum processing limits set forth in Sections 5.1.1 and 5.1.2.d., the company shall maintain certified monthly and annual records of limestone processing rates of the Fine Grinding System. An example data form is given in Appendix A of R13-2113. Such records shall be maintained in accordance with Section 3.4.2.
[45CSR13, R13-2113, 4.4.4.] (2-OS-2, 11-BM-1)

5.4.2. For the purpose of determining compliance with the maximum fuel consumption limit set forth for in Section 5.1.2.b, the company shall maintain certified monthly and annual records of #2 fuel oil consumption. An example data form is given in Appendix B of R13-2113. Such records shall be maintained in accordance with Section 3.4.2.
[45CSR13, R13-2113, 4.4.5.] (11-HG-1)

5.4.3. The permittee shall maintain records from fuel oil supplier certifying the fuel sulfur content in order to demonstrate compliance with Section 5.1.2.c.
[45CSR§30-5.1.c.] (11-HG-1)

5.4.4. The permittee shall maintain records of all monitoring data required by Section 5.2.1 documenting the date and time of each visible emission check, the emission point or equipment/source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80 ºF, 6 - 10 mph NE wind) during the visual emission check(s). An example data form is given in Appendix C of R13-2113. Should a visible emission observation be required to be performed per the requirements specified in 45CSR7A, the data records of each observation shall be maintained per the requirements of 45CSR7A. For an emission unit out of service during the normal monthly evaluation, the record of observation may note "out of service" (O/S) or equivalent.
[45CSR13, R13-2113, 4.4.6.] (E-11-DC-1, E-11-DC-2, E-11-DC-3, and Section 5.1.4. Transfer Points)

5.4.5. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Emission Group (011) of Section 1.0 as dust collectors (11-DC-1, 11-DC-2, 11-DC-3, 11-DC-4, and 11-DC-20), the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
[45CSR13, R13-2113, 4.4.2.]

5.4.6. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed Emission Group (011) of Section 1.0 as dust collectors (11-DC-1, 11-DC-2, 11-DC-3, 11-DC-4, and 11-DC-20), the permittee shall maintain records of the occurrence and duration of any malfunction or

operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

a. The equipment involved.

b. Steps taken to minimize emissions during the event.

c. The duration of the event.

d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

e. The cause of the malfunction.

f. Steps taken to correct the malfunction.

g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[45CSR13, R13-2113, 4.4.3.]

5.5. Reporting Requirements

5.5.1. Any violation(s) of the allowable visible emission requirement for any emission source discovered during observations using 45CSR7A must be reported in writing to the Director of the Division of Air Quality as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.
[45CSR13, R13-2113, 4.5.1.]

5.5.2. The permittee shall submit a written report of the results of testing required in 40 C.F.R. Part 60, Subpart OOO before the close of business on the 60th day following the completion of such testing to the Director and U.S. EPA Administrator. Such report(s) shall include all records of the opacity observations made during such testing.
[45CSR13, R13-2113, 4.5.2., 45CSR16, 40 C.F.R. §60.676(f)]

5.6. Compliance Plan

5.6.1. None.

6.0. Requirements for 400 TPD Rotary Lime Kiln (Group 004) [Emission Unit IDs: 4-BC-1, 4-BC-2, 4-BC-3, 4-BC-4, 5-BC-2, 5-BC-3; 4-SC-1, 4-SC-2, 4-SC-3, 4-SC-4; 4-BEL-1; 4-TC-1; 4-PH-1; 4-STB-1, 4-SI-1; 5-SI-2; 4-VF-1, 4-VF-2, 4-VF-3, 4-VF-4; 5-BM-1; 5-AS-1; 5-WF-1; 5-CS-1; 4-NC-1; 4-RK-1; 4-DC-1; 4-PC-1; 4-LS-2; 4-OS-1; E-4-DC-4]

6.1. Limitations and Standards

6.1.1. Total particulate emissions to the atmosphere from the one (1) stack (4-DS-2) which constitute emission point 1E (emissions from the 400 TPD lime kiln 105 [4-RK-1] after baghouse 112 [4-DC-1]) shall not exceed the more stringent limitation of either 0.6 pounds particulate matter per ton of limestone feed according to 40 C.F.R. Part 60 Subpart HH (following), "Standards of Performance for Lime Manufacturing Plants," or that particulate matter emission limitation in Section 6.1.2.

On and after the date on which the performance test required to be conducted by 40 C.F.R. §60.8 is completed, no owner or operator subject to the provisions of this 40 C.F.R. Part 60, Subpart HH, shall cause to be discharged into the atmosphere from any rotary lime kiln any gases which:

a. Contain particulate matter in excess of 0.30 kilogram per megagram (0.60 lb/ton) of stone feed.

b. Exhibit greater than 15 percent opacity when exiting from a dry emission control device.

Compliance with Section 6.1.1.a is streamlined by demonstrating compliance with 40 C.F.R. Part 63 Subpart AAAAA [0.12 lb/ton stone feed (tsf)] incorporated within Section 12.1.4.
[45CSR16, 40 C.F.R. § 60.342 (a), 45CSR13, R13-1381, 4.1.1. ,1E]

6.1.2. Emissions to the atmosphere from emission point 1E [4-DS-2] that is controlled by the 4 module baghouse (4-DC-1) shall not exceed the following maximum rates:

Pollutant	lb/hr	TPY
Particulate Matter	0.5	2.19
Sulfur Dioxide	16	70
Nitrogen Oxides	30	131.4
Carbon Monoxide	17	74.5
Non-Methane Hydrocarbons	4	17.5

[45CSR13, R13-1381, 4.1.2.]

6.1.3. The maximum throughputs associated with the 400 TPD lime kiln (4-RK-1) shall not exceed:

Substance	TPH	TPD	TPY
Limestone Feed	31.5	756.16	275,997
Bituminous Coal Burned	3	72	26,280

Substance	TPH	TPD	TPY
Lime Product	16.7	400	146,000

[45CSR13, R13-1381, 4.1.3.] (4-RK-1)

6.1.4. Bituminous coal as fired in the rotary lime kiln 4-RK-1 shall not exceed 1.1% sulfur by weight and 10% by weight in ash content.
[45CSR13, R13-1381, 4.1.4.] (4-RK-1)

6.1.5. No person shall cause, suffer, allow, or permit the emission into open air from any source operation an in-stack sulfur dioxide concentration exceeding 2000 parts per million by volume from existing source operations, except as provided in subdivisions of 45CSR§10-4.1.
[45CSR§10-4.1., 45CSR13, R13-1381, 4.1.5.] (4-RK-1)

6.1.6. Compliance with the allowable sulfur dioxide concentration limitations from manufacturing process source operation(s) set forth in this rule shall be based on a block three (3) hour averaging time.
[45CSR§10-4.2., 45CSR13, R13-1381, 4.1.6.]

6.1.7. See Sections 3.1.16 and 3.1.17 for belt conveyor, transfer points and affected facilities (4-BC-3 and 4-BC-4).
[45CSR16, 40 C.F.R. §§60.672(a) and (b)] (Limestone transfer operations into kiln)

6.1.8. No person shall cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable.
[45CSR§7-5.1., 45CSR13, R13-1381, 4.1.7.]

6.1.9. The permitted facility must be constructed and operated in accordance with information filed in Permit Application R13-1381, R13-1381A, R13-1381B and R13-1788 and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to.
[45CSR13, R13-1381, 2.5.1.]

6.1.10. The owner or operator of fuel burning unit(s), manufacturing process source(s) or combustion source(s) shall demonstrate compliance with 45CSR§§10-3, 4 and 5 by testing and /or monitoring in accordance with one or more of the following: 40 C.F.R. Part 60, Appendix A, Method 6, Method 15, and 45CSR16, continuous emissions monitoring systems (CEMS) or fuel sampling and analysis as set forth in an approved monitoring plan for each emission unit. Compliance with this requirement may be satisfied through compliance with the requirements of the approved 45CSR10 Monitoring Plan (Appendix A) submitted on March 30, 2001 and any amendments thereto.
[45CSR§10-8.2.3] (4-RK-1 and 4-RK-2)

6.1.11. The owner or operator of fuel burning unit(s), manufacturing process source(s) or combustion source(s) subject to 45CSR§§10-3, 4 and 5 shall maintain on-site a record of all required monitoring data as established in a monitoring plan pursuant to 45CSR§10-8.2.3. Such records shall be made available to the Director or his duly authorized representative upon request. Such records shall be retained on-site for a minimum of five years. Compliance with this requirement may be satisfied through compliance with the

requirements of the approved 45CSR10 Monitoring Plan (Appendix A) submitted on March 30, 2001 and any amendments thereto.
[45CSR§10-8.3.1] (4-RK-1 and 4-RK-2)

6.1.12. The owner or operator shall submit a periodic exception report to the Secretary , in a manner specified by the Secretary. Such an exception report shall provide details of all excursions outside the range of measured emissions or monitored parameters established in an approved monitoring plan and shall include, but not be limited to, the time of the excursion, the magnitude of the excursion, the duration of the excursion, the cause of the excursion and the corrective action taken. Compliance with this requirement may be satisfied through compliance with the requirements of the approved 45CSR10 Monitoring Plan (Appendix A) submitted on March 30, 2001 and any amendments thereto.
[45CSR§10-8.3.2] (4-RK-1 and 4-RK-2)

6.1.13. The owner or operator of a fuel burning unit(s) or a combustion source(s) shall maintain records of the operating schedule and the quantity and quality of fuel consumed in each unit in a manner specified by the Secretary. Such records are to be maintained on-site and made available to the Secretary or his duly authorized representative upon request. Compliance with this requirement may be satisfied through compliance with the requirements of the approved 45CSR10 Monitoring Plan (Appendix A) submitted on March 30, 2001 and any amendments thereto.
[45CSR§10-8.3.3] (4-RK-1 and 4-RK-2)

6.1.14. $PM/PM_{2.5}$ emissions from Hydrated Lime Silo (4-SI-3) shall not exceed 0.03 pounds per hour. $PM/PM_{2.5}$ emissions from both Hydrated Lime Silos (4-SI-3 and 4-SI-4) combined shall not exceed 0.01 tons per year. (Compliance with this streamlined PM lb/hr limit assures compliance with 45CSR§7-4.1)
[45CSR13, R13-1381, 4.1.19., 45CSR§7-4.1] (E-4-DC-4)

6.1.15. Maximum loading of hydrated lime to the Hydrated Lime Silo (4-SI-3) shall not exceed 2,000 tons per year. Compliance with said limit shall be based on a 12 month rolling total.
[45CSR13, R13-1381, 4.1.20.] (E-4-DC-4)

6.1.16. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Group 004 of Section 1.1. and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR13, R13-1381, 4.1.21.]

6.2. Monitoring Requirements

6.2.1. The owner or operator of a facility that is subject to the provisions of 40 C.F.R. Part 60 Subpart HH, shall install, calibrate, maintain, and operate a continuous monitoring system (4-OM-2), except as provided in 40 C.F.R. §§60.343(b) and (c), to monitor and record the opacity of a representative portion of the gases discharged into the atmosphere from any rotary lime kiln. The span of this system shall be set at 40% opacity
[45CSR16, 40 C.F.R. § 60.343 (a), 45CSR13, R13-1381, 4.2.1.] (Emission Point 1E)

6.2.2. For the purpose of conducting a performance test under 40 C.F.R. §60.8, the owner or operator of any lime manufacturing plant subject to the provisions of 40 C.F.R. Part 60 Subpart HH, shall install, calibrate,

maintain, and operate a device for measuring the mass rate of stone feed to any affected rotary lime kiln. The measuring device used must be accurate to within ±5 percent of the mass rate over its operating range. **[45CSR16, 40 C.F.R. §60.343(d), 45CSR13, R13-1381, 4.2.2.] (4-RK-2)]**

6.2.3. At the request of the Secretary the owner and/or operator of a source shall install such stack gas monitoring devices as the Secretary deems necessary to determine compliance with the provisions of 45CSR§10. The data from such devices shall be readily available at the source location or such other reasonable location that the Secretary may specify. At the request of the Secretary such data shall be made available for inspection or copying. Failure to promptly provide such data shall constitute a violation of 45CSR10. **[45CSR§10-8.2.1., 45CSR13, R13-1381, 4.2.3.] (4-RK-1 and 4-RK-2)**

6.3. Testing Requirements

6.3.1. 45CSR10 testing requirements.

a. At such reasonable times as the Secretary may designate, the owner or operator of any fuel burning unit(s), manufacturing process source(s) or combustion source(s) may be required to conduct or have conducted tests to determine the compliance of such source(s) with the emission limitations of 45CSR10 sections 3, 4 or 5. Such tests shall be conducted in accordance with the appropriate test method set forth in 40 C.F.R. Part 60, Appendix A, Method 6, Method 15, and 45CSR16 or other equivalent EPA testing method approved by the Secretary. The Secretary may at his or her option witness or conduct such tests. Should the Secretary exercise his or her option to conduct such tests, the operator will provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment, and the required safety equipment such as scaffolding, railings, and ladders to comply with generally accepted good safety practices.

b. The Secretary may conduct such other tests as he or she may deem necessary to evaluate air pollution emissions other than those noted in section 3 of 45CSR10.

[45CSR§§10-8.1.1. and 2., 45CSR13, R13-1381, 4.3.1.a. and b.] (4-RK-1 and 4-RK-2)

c. Prior to the installation of calibrated stack gas monitoring devices, sulfur dioxide emission rates shall be calculated on an equivalent fuel sulfur content basis.
[45CSR§10-8.2.2., 45CSR13, R13-1381, 4.3.1.c.] (4-RK-1 and 4-RK-2)

6.3.2. In conducting the performance tests required in 40 C.F.R. § 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 C.F.R. Part 60 Appendix A or other methods and procedures as specified in 40 C.F.R. § 60.344, except as provided in 40 C.F.R. § 60.8 (b).
[45CSR16, 40 C.F.R. §60.344(a), 45CSR13, R13-1381, 4.3.2.]

6.3.3. The owner or operator shall determine compliance with the particulate matter standards in 40 C.F.R. §60.342(a) [Section 6.1.1.] as follows:

a. The emission rate (E) of particulate matter shall be computed for each run using the following equation:

$$E = \frac{\left(C_s Q_{sd}\right)}{PK}$$

where:
E = emission rate of particulate matter, kg/Mg (1b/ton) of stone feed.
C_s = concentration of particulate matter, g/dscm (gr/dscf).
Q_{sd} = volumetric flow rate of effluent gas, dscm/hr (dscf/hr).
P = stone feed rate, Mg/hr (ton/hr).
K = conversion factor, 1000 g/kg (7000 gr/lb).

b. Method 5 (40 C.F.R. Part 60 Appendix A) shall be used at negative-pressure fabric filters and other types of control devices and Method 5D (40 C.F.R. Part 60 Appendix A) shall be used at positive-pressure fabric filters to determine the particulate matter concentration (cs) and the volumetric flow rate (Qsd) of the effluent gas. The sampling time and sample volume for each run shall be at least 60 minutes and 0.90 dscm (31.8 dscf).

c. The monitoring device of 40 C.F.R. §60.343(d) [Section 6.2.2.] shall be used to determine the stone feed rate (P) for each run.

d. Method 9 (40 C.F.R. Part 60 Appendix A) and the procedures in 40 C.F.R. § 60.11 shall be used to determine opacity.

[45CSR16, 40 C.F.R. §60.344(b)]

6.3.4. The permittee shall conduct tests to determine compliance with the nitrogen oxides (NO_X) and carbon monoxide (CO) emission limitations in Section 6.1.2 for the one (1) vent stack (4-DC-1). The Methods listed below from Appendix A of 40 C.F.R. Part 60 shall be utilized for purposes of conducting performance tests, unless the Director approves an alternate or equivalent method. Requirements shall be met with respect to submission of a test protocol and notification of testing.

Pollutant	Method
Carbon Monoxide	10
Nitrogen Oxides	7

Testing to determine compliance with the nitrogen oxides (NO_X) and carbon monoxide (CO) limitations of Section 6.1.2 shall be conducted in accordance with the schedule set forth in the following table.

Test	Test Results	Testing Frequency
Annual	If annual testing is required, after two successive tests indicate mass emission rates between 50% and 90% of nitrogen oxides (NO_X) or carbon monoxide (CO) limit	Once/3 years
Annual	If annual testing is required, after three successive tests indicate mass emission rates ≤50% of nitrogen oxides (NO_X) or carbon monoxide (CO) limit	Once/5 years
Once/3 years	If testing is required once/3 years, after two successive tests indicate mass emission rates ≤50% of nitrogen oxides (NO_X) or carbon monoxide (CO) limit	Once/5 years
Once/3 years	If testing is required once/3 years and any test indicates a mass emission rate ≥90% of nitrogen oxides (NO_X) or carbon monoxide (CO) limit	Annual

Test	Test Results	Testing Frequency
Once/5 years	If testing is required once /5 years and any test indicates mass emission rates between 50% and 90% of nitrogen oxides (NO_X) or carbon monoxide (CO) limit	Once/3 years
Once/5 years	If testing is required once/5 years and any test indicates a mass emission rate ≥90% of nitrogen oxides (NO_X) or carbon monoxide (CO) limit	Annual

[45CSR§30-5.1.c.] (4-RK-1)

6.3.5. In the event that the Secretary requests emissions tests to be conducted to determine the particulate matter, sulfur dioxide, nitrogen oxides, carbon monoxide, and total hydrocarbon emissions from emission point 1E, the methods listed below from Appendix A of 40 C.F.R. Part 60 shall be utilized for purposes of conducting performance tests, unless the Secretary approves an alternate or equivalent method. For any tests to be conducted by the permittee, a test protocol shall be submitted to the DAQ by the permittee at least thirty (30) days prior to the test and shall be approved by the Secretary. The Secretary shall be notified at least fifteen (15) days in advance of the actual dates and times during which the test will be conducted.

Pollutant	Method
Particulate Matter	5D
Sulfur Dioxide	6B
Nitrogen Oxides	7
Carbon Monoxide	10
Total Non-methane Hydrocarbons	25

[45CSR13, R13-1381, 4.3.3.] (4-DC-1)

6.3.6. See Sections 3.3.4 through 3.3.9 for NSPS testing requirements.

6.4. Recordkeeping Requirements

6.4.1. For the purpose of determining compliance with Sections 6.1.1 through 6.1.6, the company shall maintain certified monthly and annual records on the following for the 400 TPD Rotary Lime Kiln. Such records shall be retained by the permittee for at least five (5) years. Certified records shall be made available to the Director or the duly authorized representative upon request.

a. daily usage of the amount of coal purchased to determine the monthly usage and the twelve (12) month rolling total

b. sulfur content on a weight basis of the coal purchased

c. ash content on a weight basis of the coal purchased

d. the approximate heating value of the coal purchased

e. limestone feed rates to determine the monthly usage and the twelve (12) month rolling total

f. lime production to determine the monthly usage and the twelve (12) month rolling total

[45CSR§30-5.1.c., 45CSR§30-5.1.c.2.B., 45CSR13, R13-1381, 4.4.4] (4-RK-1)

6.4.2. Compliance with the emission limits set forth in Section 6.1.2.and 7.1.3, for VOC, SO_2 and PM from bag houses (4-DC-1 and 4-DC-2) shall be demonstrated by complying with Sections 6.1.4. and 7.1.2.
[45CSR13, R13-1381, 4.4.5.] (4-RK-1)and (4-RK-2)

6.4.3. In accordance with Greer's 45CSR10 Monitoring Plan that was submitted on March 30, 2001, Greer will maintain sulfur content statements from the fuel suppliers on-site for a period of at least five (5) years in accordance with 45CSR10A, Section 7. Greer will submit a "Monitoring Summary Report" and an "Excursion and Monitoring Plan Performance Report" on a quarterly basis to the Secretary by the 30th day of the month following the calendar quarter. Greer's 45CSR10 Monitoring Plan for the 400 and 500 TPD Rotary Lime Kilns (4-RK-1 and 4-RK-2) is attached in Appendix A.
[45CSR§10-8.3., 45CSR13, R13-1381, 4.4.6] (4-RK-1 and 4-RK-2)

6.4.4. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Group 004 of Section 1.1,, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
[45CSR13, R13-1381, 4.4.2.]

6.4.5. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Group 004 of Section 1.1., the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

a. The equipment involved.

b. Steps taken to minimize emissions during the event.

c. The duration of the event.

d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

e. The cause of the malfunction.

f. Steps taken to correct the malfunction.

g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[45CSR13, R13-1381, 4.4.3.]

6.4.6. In order to determine compliance with 6.1.15., the permittee shall maintain records of the amount of hydrated lime loaded to each silo on a monthly basis.
[45CSR13, R13-1381, 4.4.7.]

6.5. Reporting Requirements

6.5.1. For the purpose of reports required under 40 C.F.R. §60.7(c), periods of excess emissions that shall be reported are defined as all 6-minute periods during which the average opacity of the visible emissions from any lime kiln Section 6.1.1. [40 C.F.R. §60.342(a)] is greater than 15 percent.
[45CSR16, 40 C.F.R. §60.343(e)]

6.6. Compliance Plan

6.6.1. None.

7.0. Requirements for 500 TPD Rotary Lime Kiln (Group 005) [Emission Unit IDs: 4-BC-5, 5-BC-4; 4-SC-5, 4-SC-6, 4-SC-7, 4-SC-8, 4-SC-9, 4-SC-10; 4-BEL-2; 4-VF-5, 4-VF-6, 4-VF-7, 4-VF-8; 4-SI-2, 5-SI-3, 4-STB-2; 5-AS-2; 5-WF-2; 5-BM-2; 4-PC-2; 4-LS-1; 4-TC-2; 4-NC-2; 4-PH-2; 4-RK-2; 4-DC-2; 4-DC-3; 500-BOB; E-4-DC-5]

7.1. Limitations and Standards

7.1.1. Total particulate emissions to the atmosphere from emission point 500-115, the 500 TPD lime kiln (4-RK-2) baghouse (4-DC-2), shall not exceed the more stringent limitation of either 0.6 pounds of particulate matter per ton of limestone feed according to 40 C.F.R. 60 Subpart HH, "Standards of Performance for Lime Manufacturing Plants," or that particulate matter emission limitation in Section 7.1.3.

On and after the date on which the performance test required to be conducted by 40 C.F.R. §60.8 is completed, no owner or operator subject to the provisions of 40 C.F.R. Part 60 Subpart HH, shall cause to be discharged into the atmosphere from any rotary lime kiln any gases which:

a. Contain particulate matter in excess of 0.30 kilogram per megagram (0.60 lb/ton) of stone feed.

b. Exhibit greater than 15 percent opacity when exiting from a dry emission control device

Compliance with Section 7.1.1.a is streamlined by demonstrating compliance with 40 C.F.R. Part 63 Subpart AAAAA [0.12 lb/ton stone feed (tsf)] incorporated within Section 12.1.4.
[45CSR16, 40 C.F.R. §60.342(a)(1), 45CSR13, R13-1381, 4.1.8, 40 C.F.R. §60.342(a)(2)] (500-115)

7.1.2. Bituminous coal as fired in the rotary lime kiln (4-RK-2), shall not exceed 1.1% sulfur by weight and 10% by weight in ash content.
[45CSR13, R13-1381, 4.1.4] (4-RK-2)

7.1.3. Emissions to the atmosphere from emission point 500-115, the 500 TPD lime kiln (4-RK-2) baghouse (4-DC-2), shall not exceed the following maximum rates.

Pollutant	lb/hr	TPY
Particulate Matter	4.1	16.2
Sulfur Dioxide	12.08	47.8
Nitrogen Oxides	42	166
Carbon Monoxide	21	83.2
Non-Methane Hydrocarbons	5	19.8

[45CSR13, R13-1381, 4.1.9]

7.1.4. The maximum throughputs associated with lime kiln (4-RK-2) shall not exceed.

Substance	TPH	TPD	TPY
Limestone Feed	38.62	926.88	305,870
Bituminous Coal Burned	3.5	84	27,720
Lime Product	20.8	500	165,000

[45CSR13, R13-1381, 4.1.10] (4-RK-2)

7.1.5. The bituminous coal fuel stockpile, common to both lime kilns (4-RK-1) and (4-RK-2), shall not exceed 5,000 tons at any given time.
[45CSR13, R13-1381, 4.1.10] (4-RK-1 and 4-RK-2)

7.1.6. The limestone feed stockpile (4-OS-1) common to both lime kilns (4-RK-2) and (4-RK-1), shall not exceed 6,000 tons at any given time.
[45CSR13, R13-1381, 4.1.11] (4-OS-1)

7.1.7. Dust Collector (4-DC-2) controls shall include equipment to monitor and maintain a negative pressure drop of 16 inches of water across the baghouse.
[45CSR13, R13-1381, 4.1.12] (4-DC-2)

7.1.8. The following equipment shall vent to baghouse (4-DC-3).

Emission Unit ID	Equipment Description
4-SI-2	Baghouse Dust Bin
4-SC-7	Dust Screw Conveyor #1
4-SC-8	Dust Screw Conveyor #2
4-BEL-2	Dust Bucket Elevator
4-LS-1	Dust Truck Loading Spout

[45CSR13, R13-1381, 4.1.13] (4-DC-3)

7.1.9. Maximum particulate emissions from baghouse (4-DC-3) emission point 500-119b shall not exceed 0.273 lb/hr.
[45CSR13, R13-1381, 4.1.14] (4-DC-3)

7.1.10. Side of baghouse (4-DC-3) emission point 500-119b shall be equipped in such a manner as to discharge emissions vertically into the atmosphere.
[45CSR13, R13-1381, 4.1.15] (4-DC-3)

7.1.11. The following equipment shall vent to baghouse (6-DC-4).

Emission Unit ID	Equipment Description
6-BC-15	Product Conveyor #1

Emission Unit ID	Equipment Description
6-BC-16	Product Conveyor #2
6-BC-4	Product Conveyor #3

[45CSR13, R13-1381, 4.1.16] (6-DC-4, 6-BC-15, 6-BC-16, 6-BC-4)

7.1.12. Maximum particulate emissions from baghouse (6-DC-4) emission point 500-P1 shall not exceed 1.89 lb/hr.
[45CSR13, R13-1381, 4.1.17] (6-DC-4)

7.1.13. Side of baghouse (6-DC-4) emission point 500-P1 shall be equipped in such a manner as to discharge emissions vertically into the atmosphere.
[45CSR13, R13-1381, 4.1.18] (6-DC-4)

7.1.14. The maximum processing rate of material to or from the Blow Off Bin (500-BOB) shall not exceed 20 TPH and 3,000 TPY.
[45CSR13, R13-2113, 4.1.4.] (500-BOB)

7.1.15. No person shall cause, suffer, allow, or permit the emission into open air from any source operation an in-stack sulfur dioxide concentration exceeding 2000 ppm by volume from existing source operations, except as provided in subdivisions of 45CSR§10-4.1.
[45CSR§10-4.1., 45CSR13, R13-1381, 4.1.5] (4-RK-2)

7.1.16. No person shall cause, suffer, allow or permit visible emissions from any storage structure(s) associated with any manufacturing process(es) that pursuant to 45CSR§7-5.1 is required to have a full enclosure and be equipped with a particulate matter control device. Compliance with this streamlined opacity limit assures compliance with 40 C.F.R. 60 Subpart OOO.
[45CSR§7-3.7.] (4-SI-2 and 500-BOB)

7.1.17. $PM/PM_{2.5}$ emissions from Hydrated Lime Silo (4-SI-4) shall not exceed 0.03 pounds per hour. $PM/PM_{2.5}$ emissions of from both Hydrated Lime Silos (4-SI-3 and 4-SI-4) combined shall not exceed 0.01 tons per year. (Compliance with this streamlined PM lb/hr limit assures compliance with 45CSR§7-4.1)
[45CSR13, R13-1381, 4.1.19., 45CSR§7-4.1] (E-4-DC-5)

7.1.18. Maximum loading of hydrated lime to the Hydrated Lime Silo (4-SI-4) shall not exceed 2,000 tons per year. Compliance with said limit shall be based on a 12 month rolling total.
[45CSR13, R13-1381, 4.1.20.] (E-4-DC-5)]

7.1.19. Refer to Sections 6.1.10 – 6.1.13 for 45CSR10 sulfur dioxide monitoring requirements, which also pertain to the 500 TPD kiln.

7.1.20. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Group 005 of Section 1.1. and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR13, R13-1381, 4.1.21.]

7.2. Monitoring Requirements

7.2.1. The owner or operator of a facility that is subject to the provisions of this 40 C.F.R. Part 60 Subpart HH, shall install, calibrate, maintain, and operate a continuous monitoring system (4-OM-1), except as provided in 40 C.F.R. §§60.343(b) and (c), to monitor and record the opacity of a representative portion of the gases discharged into the atmosphere from any rotary lime kiln. The span of this system shall be set at 40 percent opacity.
[45CSR16, 40 C.F.R. §60.343(a), 45CSR13, R13-1381, 4.2.1.]

7.2.2. See Section 6.2.2 for 40 C.F.R. Part 60 Subpart HH, operating requirements for devices measuring mass rate of stone feed.

7.2.3. See Section 6.2.3 for the 500 TPD Rotary Lime Kiln, (4-RK-2), 45CSR10 stack monitoring provisions.

7.3. Testing Requirements

7.3.1. See Section 3.3.4 through 3.3.9 for NSPS testing requirements.

7.3.2. See Sections 6.3.2 and 6.3.3 for 40 C.F.R. Part 60 Subpart HH testing requirements.

7.3.3. See Sections 6.3.1 for 45CSR10 SO_2 testing requirements.

7.3.4. The permittee shall conduct tests to determine compliance with the nitrogen oxides (NOx) and carbon monoxide (CO) emission limitations in Section 7.1.3 for the one (1) vent stack (4-DC-2). The Methods listed below from 40 C.F.R. Part 60 Appendix A shall be utilized for purposes of conducting performance tests, unless the Director approves an alternate or equivalent method. Requirements shall be met with respect to submission of a test protocol and notification of testing.

Pollutant	Method
Carbon Monoxide	10
Nitrogen Oxides	7

Testing to determine compliance with the nitrogen oxides (NOx) and carbon monoxide (CO) limitations of Section 7.1.3 shall be conducted in accordance with the schedule set forth in the following table.

Test	Test Results	Testing Frequency
Annual	If annual testing is required, after two successive tests indicate mass emission rates between 50% and 90% of nitrogen oxides (NO_X) or carbon monoxide (CO) limit	Once/3 years
Annual	If annual testing is required, after three successive tests indicate mass emission rates ≤50% of nitrogen oxides (NO_X) or carbon monoxide (CO) limit	Once/5 years
Once/3 years	If testing is required once/3 years, after two successive tests indicate mass emission rates ≤50% of nitrogen oxides (NO_X) or carbon monoxide (CO) limit	Once/5 years
Once/3 years	If testing is required once/3 years and any test indicates a mass emission rate ≥90% of nitrogen oxides (NO_X) or carbon monoxide (CO) limit	Annual

Test	Test Results	Testing Frequency
Once/5 years	If testing is required once /5 years and any test indicates mass emission rates between 50% and 90% of nitrogen oxides (NO_X) or carbon monoxide (CO) limit	Once/3 years
Once/5 years	If testing is required once/5 years and any test indicates a mass emission rate ≥90% of nitrogen oxides (NO_X) or carbon monoxide (CO) limit	Annual

45CSR§30-5.1.c.] (4-RK-2)

7.4. Recordkeeping Requirements

7.4.1. For the purpose of determining compliance with Sections 7.1.1 through 7.1.6, the company shall maintain certified monthly and annual records on the following for the 500 TPD Rotary Lime Kilns. Such records shall be retained by the permittee for at least five (5) years. Certified records shall be made available to the Director or the duly authorized representative upon request.

a. daily usage of the amount of coal purchased to determine the monthly usage and the twelve- (12) monthly rolling total

b. sulfur content on a weight basis of the coal purchased

c. ash content on a weight basis of the coal purchased

d. the approximate heating value of the coal purchased

e. limestone feed rates to determine the monthly usage and the twelve- (12) monthly rolling total

f. lime production to determine the monthly usage and the twelve- (12) monthly rolling total

[45CSR§30-5.1.c., 45CSR§30-5.1.c.2.B., 45CSR13, R13-1381, 4.4.4.] (4-RK-2)

7.4.2. For the purpose of determining compliance with the maximum processing limits set forth in Section 7.1.14, the company shall maintain certified monthly and annual records of blow off processing rates from the Blow Off Bin. An example data form is given in Appendix A of R13-2113. Such records shall be maintained in accordance with Section 3.4.2.
[45CSR13, R13-2113, 4.4.4.] (500-BOB)

7.4.3. See Section 6.4.3. for 45CSR10 SO_2 recordkeeping requirements.

7.4.4. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Group 005 of Section 1.1., the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
[45CSR13, R13-1381, 4.4.2.]

7.4.5. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Group 005 of Section 1.1., the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

a. The equipment involved.

b. Steps taken to minimize emissions during the event.

c. The duration of the event.

d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

e. The cause of the malfunction.

f. Steps taken to correct the malfunction.

g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[45CSR13, R13-1381, 4.4.3.]

7.4.6. In order to determine compliance with 7.1.18., the permittee shall maintain records of the amount of hydrated lime loaded to each silo on a monthly basis.
[45CSR13, R13-1381, 4.4.7.]

7.5. Reporting Requirements

7.5.1. For the purpose of reports required under 40 C.F.R. §60.7(c), periods of excess emissions that shall be reported are defined as all 6-minute periods during which the average opacity of the visible emissions from any lime kiln in Section 7.1.1 [40 C.F.R. §60.342(a)] is greater than 15 percent.
[45CSR16, 40 C.F.R. §60.343(e)]

7.6. Compliance Plan

7.6.1. None.

8.0. Requirements for Lime Handling System (Group 006) [Emission Unit IDs: 6-BC-1, 6-BC-2, 6-BC-3, 6-BC-4, 6-BC-5, 6-BC-6, 6-BC-7, 6-BC-8, 6-BC-9, 6-BC-10, 6-BC-11, 6-BC-13, 6-BC-14, 6-BC-15, 6-BC-16; 6-SC-1, 6-SC-2, 6-SC-3, 6-SC-4A, 6-SC-4B, 6-SC-5, 6-SC-6, 6-SC-8, 6-SC-9, 6-SC-11; 6-BEL-1, 6-BEL-3, 6-BEL-4, 6-BEL-5; 6-SI-1, 6-SI-2, 6-SI-3, 6-SI-4, 6-SI-5, 6-SI-6, 6-SI-7, 6-SI-8, 6-SI-9A, 6-SI-9B, 6-SI-10; 6-BB-1; 6-VF-1, 6-VF-2, 6-VF-3, 6-VF-4, 6-VF-5, 6-VF-6; 6-GB-1; 6-DC-1, 6-DC-2, 6-DC-3, 6-DC-4; 6-CR-2 and 6-CR-3; 6-VS-3 , 6-VS-4, 6-VS-5; 6-LS-1; 6-BL-1; 6-BEL-2, 6-SC-10, 6-FG-6]

8.1. Limitations and Standards

8.1.1. In the Lime Handling Area, the maximum processing rate of lime through the replacement Roll Crusher (6-CR-3) and the new Roll Crusher (6-CR-2) shall not exceed 50 TPH and 311,000 TPY.
[45CSR13, R13-2113, 4.1.2.] (6-CR-2 and 6-CR-3)

8.1.2. Emission points identified as E-6-DC-1, E-6-DC-2, E-6-DC-3, and 6-VS-5 shall not emit visible particulate matter greater than 20% opacity except for visible particulate matter emission less than 40% for a period or periods aggregating no more than 5 minutes in any 60 minute period.
[45CSR13, R13-2113, 4.1.3., 45CSR§7-3.1. and 45CSR§7-3.2.] (6-CR-3, 6-CR-2, 6-VS-4, 6-VS-5)

8.2. Monitoring Requirements

8.2.1. See Sections 3.2.1 and 3.2.2 for 45CSR7 opacity monitoring requirements and dust collector monitoring.

8.3. Testing Requirements

8.3.1. See Sections 3.3.1 and 3.3.2.

8.4. Recordkeeping Requirements

8.4.1. For the purpose of determining compliance with the maximum processing limits set forth in 8.1.1., the company shall maintain certified monthly and annual records of lime processing rates in the Lime Storage and Truck Loading System. An example data form is given in Appendix A of R13-2113. Such records shall be maintained in accordance with condition 3.4.1.
[45CSR13, R13-2113, 4.4.4]

8.5. Reporting Requirements

8.5.1. Reserved.

8.6. Compliance Plan

8.6.1. None.

9.0. Requirements for Hydrate System (Group 007) [Emission Unit IDs: 7-BC-1, 7-SC-0, 7-SC-1, 7-SC-2, 7-SC-8, 7-SC-9, 7-SC-10, 7-SC-11, 7-SC-12, 7-SC-13, 7-SC-14, 7-SC-23, 7-SC-24, 7-SC-25, 7-SC-27, 7-SC-28; 7-SC-29, 7-SC-30, 7-SC-31, 7-SC-32, 7-BM-1, 7-SI-1, 7-SI-2, 7-SI-4, 7-AS-20; 7-LS-1, 7-LS-2; 7-MT-1; 7-HY-1; 7-SM-1, 7-BL-1, 7-SI-5, 7-BG-1, 7-CDC-1, 7-BGR-1; 7-DC-1, 7-DC-2, 7-DC-3, 7-DC-5, 7-DC-6, 7-DC-20, 7-DC-21; 7-SCR-1; 7-SB-1; 7-BEL-1, 7-BEL-2, 7-BEL-3, 7-BEL-4]

9.1. Limitations and Standards

9.1.1. Only those emission units/sources as identified in Table 1.0 of R13-1396, with the exception of any de minimis sources as identified under Table 45-13B of 45CSR13, are authorized at the Hydrate Plant (the Equipment identified as the Hydrate System (Group 007) in Section 1.1 Emission Units). In accordance with the information filed in Permit Application R13-1396E, the emission units/sources identified under Table 1.0 of R13-1396 shall be installed, maintained, and operated so as to minimize any fugitive escape of pollutants, shall not exceed the listed maximum design capacities, and shall use the specified control devices.
[45CSR13, R13-1396, 4.1.1.]

9.1.2. Hydrated Lime production shall not exceed 125,000 tons per year.
[45CSR13, R13-1396, 4.1.2.]

9.1.3. Emissions of particulate matter for the listed emission points shall not exceed the limits given in the following table:

Table 9.1.3.: Hydrate Plant Point Source Emission Limits[(1),(2)]

Emission Point	PM		PM_{10}		$PM_{2.5}$	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
E1 (7-DC-1)	0.85	3.72	0.85	3.72	0.85	3.72
E2 (7-DC-2)	0.43	1.88	0.43	1.88	0.43	1.88
E3 (7-DC-3)	0.39	1.69	0.39	1.69	0.39	1.69
E4 (7-SCR-1)	2.25	9.38	1.74	7.27	0.35	1.45
E5 (7-DC-5)	0.43	1.88	0.43	1.88	0.43	1.88
E6 (7-DC-6)	0.94	4.13	0.94	4.13	0.94	4.13
E20 (7-DC-20)	0.47	2.06	0.47	2.06	0.47	2.06
E21 (7-DC-21)	0.43	1.88	0.43	1.88	0.43	1.88

(1) Condensables assumed to be zero from these sources.
(2) PM_{10} and $PM_{2.5}$ emissions based on particle size distribution of hydrated lime provided by the permittee.

Compliance with these limits will ensure compliance with 45CSR§7-4.1
[45CSR13, R13-1396, 4.1.3.]

9.1.4. Dust collectors 7-DC-1 and 7-DC-3 shall be installed, operated, and maintained so as to not exceed a maximum particulate matter stack emission concentration of 0.03 grains/ACF.
[45CSR13, R13-1396, 4.1.4.]

9.1.5. Dust collectors 7-DC-2, 7-DC-5, 7-DC-6, and 7-DC-21 shall be installed, operated, and maintained so as to not exceed a maximum particulate matter stack emission concentration of 0.02 grains/ACF.
[45CSR13, R13-1396, 4.1.5.]

9.1.6. Dust collector 7-DC-20 shall be installed, operated, and maintained so as to not exceed a maximum particulate matter stack emission concentration of 0.01 grains/ACF.
[45CSR13, R13-1396, 4.1.6.]

9.1.7. The permittee shall maintain a water truck on site and in good operating condition, and shall utilize same to apply water as often as is necessary in order to minimize the atmospheric entrainment of fugitive particulate emissions that may be generated from haul roads and other work areas where mobile equipment is used. The spray bar shall be equipped with commercially available spray nozzles, of sufficient size and number, so as to provide adequate coverage to the area being treated.

The pump delivering the water, shall be of sufficient size and capacity so as to be capable of delivering to the spray nozzle(s) an adequate quantity of solution, and at a sufficient pressure, so as to assure that the treatment process will minimize the atmospheric entrainment of fugitive particulate emissions generated from the haul roads and work areas where mobile equipment is used.
[45CSR13, R13-1396, 4.1.8.]

9.1.8. The permittee shall properly install, operate and maintain winterization systems for all water trucks and/or water sprays in a manner that all such fugitive dust control systems remain effective and functional, to the maximum extent practicable, during winter months and cold weather. At all times, including periods of cold weather, the registrant shall comply with the water trucks and/or water sprays requirements of this permit.
[45CSR13, R13-1396, 4.1.9.]

9.1.9. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 of R13-1396 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR13, R13-1396, 4.1.11.]

9.1.10. No person shall cause, suffer, allow or permit visible emissions from any storage structure(s) associated with any manufacturing process(es) that pursuant to 45CSR§7-5.1 is required to have a full enclosure and be equipped with a particulate matter control device.
[45CSR§7-3.7.] (7-SB-1, 7-SI-1, 7-SI-2, 7-SI-4, and 7-SI-5)

9.1.11. See Sections 3.1.9 through 3.1.15 for 45CSR7 limitation and standard requirements for the Hydrate System.

9.2. Monitoring Requirements

9.2.1. For the purpose of demonstrating compliance with the maximum production limit set forth in 9.1.1, the permittee shall monitor and record the monthly and rolling twelve-month amount of hydrated lime produced.
[45CSR13, R13-1396, 4.2.1.]

9.2.2. **Visible Emissions Compliance Demonstrations**
For the purposes of demonstrating compliance with visible emissions limitations set forth in 3.1.9, the permittee shall:

a. Conduct monthly Method 22 visible emission observations of the applicable units (or associated control devices) to ensure proper operation for a sufficient time interval, but no less than one (1) minute each month the units are in operation.

b. In the event visible emissions are observed in excess of the limitations given under 3.1.9, take immediate corrective action.

c. Maintain records of all visual emission observations pursuant to the monitoring required under 9.2.2. including any corrective action taken.

d. In the event of any deviation(s) from the allowable visible emission requirement for any emission source discovered during observations using 40C.F.R. Part 60, Appendix A, Method 9 or 22, report in writing to the Director of the Division of Air Quality as soon as practicable, but in any case within ten (10) calendar days of the occurrence and shall include at least the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.

[45CSR13, R13-1396, 4.2.2.]

9.3. Testing Requirements

9.3.1. At such reasonable time(s) as the Secretary may designate, in accordance with the provisions of 3.3 of this permit, the permittee shall conduct or have conducted test(s) to determine compliance with the emission limitations established in the permit application and/or applicable regulations.
[45CSR13, R13-1396, 4.3.1.]

9.3.2. The permittee shall meet all applicable Performance Testing Requirements as given under 45CSR7.
[45CSR13, R13-1396, 4.3.2.]

9.4. Recordkeeping Requirements

9.4.1. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0 of R13-1396, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
[45CSR13, R13-1396, 4.4.2.]

9.4.2. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0 of R13-1396, the permittee shall maintain records of the occurrence and duration of

any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

a. The equipment involved.

b. Steps taken to minimize emissions during the event.

c. The duration of the event.

d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

e. The cause of the malfunction.

f. Steps taken to correct the malfunction.

g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[45CSR13, R13-1396, 4.4.3.]

9.5. Reporting Requirements

9.5.1. Reserved.

9.6. Compliance Plan

9.6.1. None.

10.0. Requirements for Portable Crushing and Screening Plant (Group 008) [Emission point IDs: GF1; PC1, PC2; BC1, BC2, BC3, BC4, BC5, BC6, BC7, BC8, BC9, BC10, BC11; BC12; PS1, PS2; PSP1, PSP2, PSP3, PSP4, PSP5; B1]

10.1. Limitations and Standards

10.1.1. In accordance with the information filed in Permit Application R13-2222-P2, the following process/transfer rates shall not be exceeded, and the following methods of control shall be installed, maintained, and operated so as to minimize particulate matter (PM) emissions:

Emission Point ID	Description	Control Method(1)	Maximum Processing Rate		Associated Transfer Points or Equipment		
			TPH	TPY	Location	ID No.	Control Method(1)
GF1	Grizzly Feeder - Receives limestone from front endloader, transfers it to Jaw Crusher (PC1)	N	300	600000	Before After	TP1 ---	WS ---
PC1	450 TPH Jaw Crusher - Receives limestone from the Grizzly Feeder, transfers it to Under Crusher Belt Conveyor (BC1)	WS	300	600000	Before After	--- TP2	--- WS
BC1	Under Crusher Belt Conveyor - Receives limestone from Jaw Crusher (PC1), transfers it to Screen Feed Radial Stacker (RS2)	WS	300	600000	Before After	TP2 TP3	WS COM
RS2	Screen Feed Radial Stacker - Receives limestone from Under Crusher Belt Conveyor (BC1), transfers it to Double-deck Scalping Screen (PS1)	COM	300	600000	Before After	TP3 TP4	COM COM
PS1	550 TPH Double-deck Scalping Screen - Receives limestone from Screen Feed Radial Stacker (RS2), transfers it to three (3) different locations	FE/WS	300	600000	Before After	TP4 TP5 TP8 TP11	COM WS WS WS

Emission Point ID	Description	Control Method[1]	Maximum Processing Rate		Associated Transfer Points or Equipment		
			TPH	TPY	Location	ID No.	Control Method[1]
RS3	Radial Stacker - Receives crusher run limestone from Scalping Screen (PS1), transfers it to Stockpile (PSP1)	WS	110	600000	Before After	TP5 TP6	WS COM
PSP1	Stockpile - Receives crusher run limestone from Radial Stacker (RS3), transfers it by front endloader into dump trucks	COM	110	600000	Before After	TP6 TP7	COM MD
RS4	Radial Stacker - Receives gabion (lime-stone) from Scalping Screen (PS1), transfers it to Stockpile (PSP2)	WS	190	600000	Before After	TP8 TP9	WS COM
PSP2	Stockpile - Receives gabion (limestone) from Radial Stacker (RS4), transfers it by front endloader into dump trucks	COM	190	50000	Before After	TP9 TP10	COM COM
BC5	Under Screen Belt Conveyor - Receives limestone from Scalping Screen (PS1), transfers it to Surge Bin Feed Radial Stacker (RS6)	WS	300	600000	Before After	TP11 TP12	WS COM
RS6	Surge Bin Feed Radial Stacker - Receives limestone from Belt Conveyor (BC5), transfers it to 50 Ton Bin	COM	300	600000	Before After	TP12 TP13	COM COM
B1	50 Ton Bin - Receives limestone from Radial Stacker (RS6), transfers it to Under-Bin Belt Conveyor (BC7)	COM	300	600000	Before After	TP13 TP14	COM MD

Emission Point ID	Description	Control Method[1]	Maximum Processing Rate		Associated Transfer Points or Equipment		
			TPH	TPY	Location	ID No.	Control Method[1]
BC7	Under-Bin Main Feed Belt Conveyor to screen - Receives limestone from 50 Ton Bin and Belt Conveyor (BC8), transfers it to Three Deck (TD) Screen (PS2)	COM	300	1200000	Before After	TP14 TP17 TP15	COM COM COM
PS2	600 TPH Three Deck (TD) Screen - Receives limestone from Belt Conveyors (BC7 and BC8), transfers it to four (4) different locations	FE/WS	300	1200000	Before After	TP15 TP16 TP18 TP19 TP20	COM WS WS WS WS
PC2	350 TPH Cone Crusher - Receives limestone from Chute exiting TD Screen (PS2), transfers it to Belt Conveyor (BC8)	WS	300	600000	Before After	--- TP16	--- WS
BC8	Belt Conveyor - Receives limestone from Cone Crusher (PC2), transfers it to back to Belt Conveyor (BC7) for reprocessing through TD Screen (PS2)	WS	300	600000	Before After	TP16 TP7	WS COM
RS9	Radial Stacker - Receives 57's (limestone) from TD Screen (PS2), transfers it to Stockpile (PSP3)	WS	150	600000	Before After	TP18 TP25	WS COM
PSP3	Stockpile - Receives 57's (limestone) from Radial Stacker (RS9), transfers it with a front endloader into dump trucks	COM	150	600000	Before After	TP25 TP26	COM MD
RS10	Radial Stacker - Receives crusher limestone from TD Screen (PS2), transfers it to Stockpile (PSP4)	WS	190	600000	Before After	TP19 TP21	WS COM

Emission Point ID	Description	Control Method[1]	Maximum Processing Rate		Associated Transfer Points or Equipment		
			TPH	TPY	Location	ID No.	Control Method[1]
PSP4	Stockpile - Receives crusher run limestone from Radial Stacker (RS10), transfers it with a front endloader into dump trucks	COM	190	600000	Before After	TP21 TP22	COM MD
RS11	Radial Stacker - Receives 8's (limestone) from TD Screen (PS2), transfers it to Stockpile (PSP5)	WS	75	600000	Before After	TP20 TP23	WS COM
PSP5	Stockpile - Receives 8's (limestone) from Radial Stacker (RS11), transfers it with a front endloader into dump trucks	COM	75	600000	Before After	TP23 TP24	COM MD

(1) Control Equipment Abbreviations: N - None, COM - Carry Over Moisture, FE - Full Enclosure, MD - Minimize Drop Height, WS - Water Spray

[45CSR13, R13-2222, A.1.]

10.1.2. In the event that this facility is modified for any reason(s), the facility and its associated emissions shall be reviewed in their entirety for 45CSR14 applicability.
[45CSR13, R13-2222, A.2.]

10.1.3. The permitted facility shall be constructed and operated in accordance with information filed in Permit Application R13-2222-P2 and any amendments thereto. The Director may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to.
[45CSR13, R13-2222, C.3.]

10.1.4. See Sections 3.1.16 through 3.1.19 for 40 C.F.R. Part 60 Subpart OOO requirements.

10.2. Monitoring Requirements

10.2.1. See Sections 3.1.17 (b) and (d) for fugitive emissions from any crushers without a capture system.
[45CSR16, 40 C.F.R. §60.672(b) and Table 3, 45CSR13, R13-2222, B.4.c.] (PC1 and PC2)

10.3. Testing Requirements

10.3.1. Reserved.

10.4. Recordkeeping Requirements

10.4.1. The company shall maintain certified monthly and annual records of limestone processing rate by the Portable Limestone Crushing and Sizing facility. The annual limestone processing rate shall be calculated using a rolling total for any continuous span of twelve (12) months. The company may use the forms identified as Attachment A in Permit R13-2222-P2.
[45CSR13, R13-2222, B.3.]

10.5. Reporting Requirements

10.5.1. Reserved.

10.6. Compliance Plan

10.6.1. None.

11.0. Source-Specific Requirements for Coal Handling [Emission Point IDs: 5-DH-1; 5-VF-1, 5-VF-2; 5-CR-1; 5-BC-0, 5-BC-1; 5-SI-1; 5-CS-1; 5-CS-1A, 5-CS-2]

11.1. Limitations and Standards

11.1.1. The amount of coal processed or conveyed shall not exceed 54,000 tons per year. Compliance with the throughput limit shall be determined using a rolling yearly total. A rolling yearly total shall mean the sum of coal throughput at any given time for the previous twelve (12) consecutive calendar months.
[45CSR13, R13-2670, 4.1.1.]

11.1.2. The permittee shall maintain a water truck on site and in good operating condition, and shall utilize same to apply water, or a mixture of water and an environmentally acceptable dust control additive, hereinafter referred to as solution, as often as is necessary in order to minimize the atmospheric entrainment of fugitive particulate emissions that may be generated from haul roads and other work areas where mobile equipment is used.

The spray bar shall be equipped with commercially available spray nozzles, of sufficient size and number, so as to provide adequate coverage to the area being treated. The pump delivering the water, or solution, shall be of sufficient size and capacity so as to be capable of delivering to the spray nozzle(s) an adequate quantity of water, or solution, and at a sufficient pressure, so as to assure that the treatment process will minimize the atmospheric entrainment of fugitive particulate emissions generated from the haul roads and work areas where mobile equipment is used.

The permittee shall properly install, operate and maintain designed winterization systems for all water trucks and/or water sprays in a manner that all such fugitive dust control systems remain functional during winter months and cold weather.
[45CSR13, R13-2670, 4.1.2.]

11.1.3. **Opacity Limit.** No person shall cause, suffer, allow or permit emission of particulate matter into the open air from any fugitive dust control system which is twenty percent (20%) opacity or greater.
[45CSR13, R13-2670, 4.1.3., 45CSR§5-3.4]

11.1.4. Standards for Particulate Matter.

a. On and after the date on which the performance test is conducted or required to be completed under 40 C.F.R. § 60.8, whichever date comes first, an owner or operator shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, reconstructed, or modified on or before April 28, 2008, gases which exhibit ≥20% opacity. [5-DH-1, 5-VF-1, 5-VF-2, 5-CR-1, 5-BC-0, 5-BC-1, 5-SI-1, 5-CS-1]

b. On and after the date on which the performance test is conducted or required to be completed under 40 C.F.R. § 60.8, whichever date comes first, an owner or operator of any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, reconstructed, or modified after April 28, 2008, must meet the requirements in paragraphs b.1. through 3. of this section, as applicable to the affected facility. [5-CS-1A, 5-CS-2]

1. Except as provided in paragraph b.3. of this section, the owner or operator must not cause to be discharged into the atmosphere from the affected facility any gases which exhibit ≥10% opacity.

2. The owner or operator must not cause to be discharged into the atmosphere from any mechanical vent on an affected facility gases which contain particulate matter in excess of 0.023 g/dscm (0.010 gr/dscf).

3. Equipment used in the loading, unloading, and conveying operations of open storage piles are not subject to the opacity limitations of paragraph b.1. of this section.

[45CSR13, R13-2670, 4.1.4.1. and 4.1.4.2., 45CSR16, 40 C.F.R. §§60.254(a) and (b)]

11.1.5. The owner or operator of an open storage pile, which includes the equipment used in the loading, unloading, and conveying operations of the affected facility, constructed, reconstructed, or modified after May 27, 2009, must prepare and operate in accordance with a submitted fugitive coal dust emissions control plan that is appropriate for the site conditions as specified in paragraphs a. through f. of this section.

a. The fugitive coal dust emissions control plan must identify and describe the control measures the owner or operator will use to minimize fugitive coal dust emissions from each open storage pile.

b. For open coal storage piles, the fugitive coal dust emissions control plan must require that one or more of the following control measures be used to minimize to the greatest extent practicable fugitive coal dust: Locating the source inside a partial enclosure, installing and operating a water spray or fogging system, applying appropriate chemical dust suppression agents on the source (when the provisions of paragraph f. of this section are met), use of a wind barrier, compaction, or use of a vegetative cover. The owner or operator must select, for inclusion in the fugitive coal dust emissions control plan, the control measure or measures listed in this paragraph that are most appropriate for site conditions. The plan must also explain how the measure or measures selected are applicable and appropriate for site conditions. In addition, the plan must be revised as needed to reflect any changing conditions at the source.

c. Any owner or operator of an affected facility that is required to have a fugitive coal dust emissions control plan may petition the Administrator to approve, for inclusion in the plan for the affected facility, alternative control measures other than those specified in paragraph (b) of this section as specified in paragraphs c.i. through iv. of this section.

i. The petition must include a description of the alternative control measures, a copy of the fugitive coal dust emissions control plan for the affected facility that includes the alternative control measures, and information sufficient for EPA to evaluate the demonstrations required by paragraph c.ii. of this section.

ii. The owner or operator must either demonstrate that the fugitive coal dust emissions control plan that includes the alternate control measures will provide equivalent overall environmental protection or demonstrate that it is either economically or technically infeasible for the affected facility to use the control measures specifically identified in paragraph b.

iii. While the petition is pending, the owner or operator must comply with the fugitive coal dust emissions control plan including the alternative control measures submitted with the petition. Operation in accordance with the plan submitted with the petition shall be deemed to constitute compliance with the requirement to operate in accordance with a fugitive coal dust emissions

control plan that contains one of the control measures specifically identified in paragraph b. of this section while the petition is pending.

iv. If the petition is approved by the Administrator, the alternative control measures will be approved for inclusion in the fugitive coal dust emissions control plan for the affected facility. In lieu of amending this subpart, a letter will be sent to the facility describing the specific control measures approved. The facility shall make any such letters and the applicable fugitive coal dust emissions control plan available to the public. If the Administrator determines it is appropriate, the conditions and requirements of the letter can be reviewed and changed at any point.

d. The owner or operator must submit the fugitive coal dust emissions control plan to the Administrator or delegated authority as specified in paragraphs d.i. and d.ii. of this section.

i. The plan must be submitted to the Administrator or delegated authority prior to startup of the new, reconstructed, or modified affected facility, or 30 days after the effective date of this rule, whichever is later.

ii. The plan must be revised as needed to reflect any changing conditions at the source. Such revisions must be dated and submitted to the Administrator or delegated authority before a source can operate pursuant to these revisions. The Administrator or delegated authority may also object to such revisions as specified in paragraph e. of this section.

e. The Administrator or delegated authority may object to the fugitive coal dust emissions control plan as specified in paragraphs e.i. and e.ii. of this section.

i. The Administrator or delegated authority may object to any fugitive coal dust emissions control plan that it has determined does not meet the requirements of paragraphs a. and b. of this section.

ii. If an objection is raised, the owner or operator, within 30 days from receipt of the objection, must submit a revised fugitive coal dust emissions control plan to the Administrator or delegated authority. The owner or operator must operate in accordance with the revised fugitive coal dust emissions control plan. The Administrator or delegated authority retain the right, under paragraph e. of this section, to object to the revised control plan if it determines the plan does not meet the requirements of paragraphs a. and b. of this section.

f. Where appropriate chemical dust suppression agents are selected by the owner or operator as a control measure to minimize fugitive coal dust emissions, (1) only chemical dust suppressants with Occupational Safety and Health Administration (OSHA)-compliant material safety data sheets (MSDS) are to be allowed; (2) the MSDS must be included in the fugitive coal dust emissions control plan; and (3) the owner or operator must consider and document in the fugitive coal dust emissions control plan the site-specific impacts associated with the use of such chemical dust suppressants. [5-CS-1A, 5-CS-2]

[45CSR13, R13-2670, 4.1.4.3., 45CSR16, 40 C.F.R. §60.254(c)]

11.1.6. The amount of coal loaded into open stockpiles 5-CS-1A and 5-CS-2 shall not exceed 15,000 tons per year. **[45CSR13, R13-2670, 4.1.5.]**

11.1.7. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 of R13-2670B and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary. **[45CSR13, R13-2670, 4.1.6, 45CSR§13-5.10] (5-DH-1, 5-VF-1, 5-BC-0, 5-CR-1, 5-SI-1, 5-VF-2, 5-BC-1)**

11.2. Monitoring Requirements

11.2.1. For the purpose of determining compliance with the maximum throughput limit set forth in Section 11.1.1, the permittee shall maintain certified monthly and annual records of the amount of coal transferred or processed. Such records shall be retained onsite by the permittee for at least five (5) years. Certified records shall be made available to the Director or his duly authorized representative upon request. **[45CSR13, R13-2670, 4.2.1.]**

11.2.2. For the purposes of determining compliance with water truck usage set forth in Section 11.1.2, the permittee shall monitor water truck activity and maintain certified daily records. Such records shall be retained onsite by the permittee for at least five (5) years. Certified records shall be made available to the Director or his duly authorized representative upon request. **[45CSR13, R13-2670, 4.2.2.]**

11.2.3. For the purpose of determining compliance with the opacity limits of Section 11.1.3 or 11.1.4, the permittee shall conduct visible emission checks and/or opacity monitoring and recordkeeping for all emission sources subject to an opacity limit.

The visible emission check shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 C.F.R. Part 60 Appendix A, Method 22 or from the lecture portion of the 40 C.F.R. Part 60 Appendix A, Method 9 certification course.

Visible emission checks shall be conducted at least once per calendar month with a maximum of forty-five (45) days between consecutive readings. These checks shall be performed at each source (stacks, conveyors, crushers, silos, bins, and screens) for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Visible emission checks shall be performed during periods of normal facility operation and appropriate weather conditions.

If visible emissions are present at a source(s) for six (6) consecutive monthly checks, the permittee shall conduct an opacity reading at that source(s) using the procedures and requirements of Method 9 as soon as practicable, but within seventy-two (72) hours of the final visual emission check. Method 9 checks shall be performed on the source for at least six (6) minutes. A Method 9 observation at a source(s) restarts the count of the number of consecutive readings with the presence of visible emissions. **[45CSR13, R13-2670, 4.2.3.]**

11.2.4. For the purpose of determining compliance with the maximum throughput limit set forth in Section 11.1.6., the permittee shall maintain certified monthly and annual records of the amount of coal transferred to open stockpiles 5-CS-1A and 5-CS-2. Such records shall be retained onsite by the permittee for at least five (5)

years. Certified records shall be made available to the Director or his duly authorized representative upon request. **[45CSR13, R13-2670, 4.2.4.]**

11.3. Testing Requirements

11.3.1. The permittee shall conduct tests to determine compliance with the visible emission limitation of Section 11.1.3; tests shall be conducted by certified visible emission observers in accordance with Method 9 of 40 C.F.R. Part 60 Appendix A and 45CSR16.
[45CSR13, R13-2670, 4.3.1., 45CSR§5-12.4.]

11.3.2. The owner or operator must determine compliance with Section 11.1.4. opacity standards as specified in paragraphs a. through c. of this section.

a. Method 9 of 40C.F.R.60, appendix A-4 and the procedures in 40 C.F.R. §60.11 must be used to determine opacity, with the exceptions specified in paragraphs a.i. and ii. below:

i. The duration of the Method 9 performance test shall be 1 hour (ten 6-minute averages).

ii. If, during the initial 30 minutes of the observation of a Method 9 performance test, all of the 6-minute average opacity readings are less than or equal to half the applicable opacity limit, then the observation period may be reduced from 1 hour to 30 minutes.

b. To determine opacity for fugitive coal dust emissions sources, the additional requirements specified in paragraphs b.i. through iii. must be used.

i. The minimum distance between the observer and the emission source shall be 5.0 meters (16 feet), and the sun shall be oriented in the 140-degree sector of the back.

ii. The observer shall select a position that minimizes interference from other fugitive coal dust emissions sources and make observations such that the line of vision is approximately perpendicular to the plume and wind direction.

iii. The observer shall make opacity observations at the point of greatest opacity in that portion of the plume where condensed water vapor is not present. Water vapor is not considered a visible emission.

c. A visible emissions observer may conduct visible emission observations for up to three fugitive, stack, or vent emission points within a 15-second interval if the following conditions specified in paragraphs c.i. through iii. of this section are met.

i. No more than three emissions points may be read concurrently.

ii. All three emissions points must be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points.

iii. If an opacity reading for any one of the three emissions points is within 5 percent opacity from the applicable standard (excluding readings of zero opacity), then the observer must stop taking readings for the other two points and continue reading just that single point.

[45CSR16, 40 C.F.R. §60.257(a)]

11.4. Recordkeeping Requirements

11.4.1. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0 of R13-2670B, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
[45CSR13, R13-2670, 4.4.2.] (5-DH-1, 5-VF-1, 5-BC-0, 5-CR-1, 5-SI-1, 5-VF-2, 5-BC-1)

11.4.2. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0 of R13-2670B, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

a. The equipment involved.

b. Steps taken to minimize emissions during the event.

c. The duration of the event.

d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

e. The cause of the malfunction.

f. Steps taken to correct the malfunction.

g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[45CSR13, R13-2670, 4.4.3.] (5-DH-1, 5-VF-1, 5-BC-0, 5-CR-1, 5-SI-1, 5-VF-2, 5-BC-1)

11.4.3. The permittee shall maintain records of all monitoring data required by 11.2.3 documenting the date and time of each visible emission check, the emission point or equipment/source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80ºF, 6 - 10 mph NE wind) during the visual emission check(s). An example form is supplied as Appendix A of R13-2670B. Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9. For an emission unit out of service during the normal monthly evaluation, the record of observation may note “out of service” (O/S) or equivalent.
[45CSR13, R13-2670, 4.4.4.]

11.4.4. The owner or operator of a coal preparation and processing plant that commenced construction, reconstruction, or modification after April 28, 2008, shall maintain in a logbook (written or electronic) on-site and make it available upon request. The logbook shall record the following:

a. The manufacturer's recommended maintenance procedures and the date and time of any maintenance and inspection activities and the results of those activities. Any variance from manufacturer recommendation, if any, shall be noted.

b. The date and time of periodic coal preparation and processing plant visual observations, noting those sources with visible emissions along with corrective actions taken to reduce visible emissions. Results from the actions shall be noted.

c. The amount and type of coal processed each calendar month.

d. The amount of chemical stabilizer or water purchased for use in the coal preparation and processing plant.

e. Monthly certification that the dust suppressant systems were operational when any coal was processed, and that manufacturer's recommendations were followed for all control systems. Any variance from the manufacturer's recommendations, if any, shall be noted.

f. Monthly certification that the fugitive coal dust emissions control plan was implemented as described. Any variance from the plan, if any, shall be noted. A copy of the applicable fugitive coal dust emissions control plan and any letters from the Administrator providing approval of any alternative control measures shall be maintained with the logbook. Any actions, e.g., objections, to the plan and any actions relative to the alternative control measures, e.g., approvals, shall be noted in the logbook as well.

After July 1, 2011, within 60 days after the date of completing each performance evaluation conducted to demonstrate compliance with this subpart, the owner or operator of the affected facility must submit the test data to EPA. For opacity performance tests, the owner or operator of the affected facility must mail a summary copy to United States Environmental Protection Agency; Energy Strategies Group; 109 TW Alexander DR; mail code: D243-01; RTP, NC 27711.

[45CSR16, 40 C.F.R. §§60.258(a) and (d)]

11.5. Reporting Requirements

11.5.1. Any violation(s) of the allowable visible emission requirement for any emission source discovered during observations using 40 C.F.R. Part 60 Appendix A, Method 9 must be reported in writing to the Director of the Division of Air Quality as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.
[45CSR13, R13-2670, 4.5.1.]

11.6. Compliance Plan

11.6.1. None.

12.0. Source-Specific Requirements Pertaining to National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Facilities (40 C.F.R. Part 63 Subpart AAAAA) [Equipment IDs: 4-RK-1, 4-RK-2; 4-BC-1; 4-BC-2; 4-BC-4, 4-BC-5; 4-STB-1, 4-STB-2 and Control Equipment: Fabric Filters 4-DC-1, 4-DC-2; Emission Point ID 1E, 500-115]

12.1. Limitations and Standards

12.1.1. As an existing affected source you must comply with the applicable PM emission limitations for the existing affected source, and you must have completed all applicable performance tests no later than January 5, 2007, except as noted in paragraphs 40 C.F.R. §§63.7083(g)(1) and (2).
[45CSR34, 40 C.F.R. §63.7083(b)]

12.1.2. As an existing affected source you must comply with all applicable emission limitations for the existing affected source, and you must have completed all applicable performance tests no later than July 16, 2027, except as noted in paragraphs 40 C.F.R. §§63.7083(h)(1) and (2).
[45CSR34, 40 C.F.R. §63.7083(d)]

12.1.3. If your affected source commenced construction or reconstruction on or before January 5, 2023, then the compliance date for HCl, mercury, total organic HAP, and D/F emissions limitations is July 16, 2027.
[45CSR34, 40 C.F.R. §63.7083(h)(1)]

12.1.4. The permittee must meet each emission limit in Table 1 to 40 C.F.R. 63 Subpart AAAA that applies:

Table 1 to Subpart AAAAA of Part 63—Emission Limits

For…	You must meet the following emission limit
1. All existing lime kilns and their associated lime coolers that did not have a wet scrubber installed and operating prior to January 5, 2004. **(1E and 500-115)**	PM emissions must not exceed 0.12 pounds per ton of stone feed (lb/tsf).
10. All preheater rotary lime kilns and their associated coolers producing high-calcium quick lime **(1E and 500-115)**	HCl emissions must not exceed 0.096 lb/ton of lime produced.
14. All existing lime kilns and their associated coolers **(1E and 500-115)**	Mercury emissions must not exceed 34 lb/MMton of lime produced.
15. All lime kilns and their associated coolers **(1E and 500-115)**	Total Organic HAP emissions must not exceed 2.6 ppmvd @7% O_2.
16. All lime kilns and their associated coolers **(1E and 500-115)**	D/F emissions must not exceed 0.037 ng/dscm (TEQ) [1] @7% O_2.
19. Fugitive emissions from all process stone handling (PSH) operations at a new or existing affected source, except as provided by item 8 of this table 1. **(4-BC1, 4-BC-2, 4-BC-4, 4-BC-5, 4-STB-1, 4-STB-2)**	Emissions must not exceed 10 percent opacity.

[1] Determined using the toxic equivalency factors listed in Table 2 of Recommended Toxicity Equivalence Factors (TEFs) for Human Health Risk Assessments of 2, 3, 7,

8-Tetrachlorodibenzo-p-dioxin and Dioxin-Like Compounds (incorporated by reference, see § 63.14). When calculating TEQ, zero may be used for congeners that are below the estimated detection level (EDL).

[45CSR34, 40 C.F.R. §63.7090(a), Table 1]

12.1.5. The permittee shall meet the following operating limits from Table 3 of 40 C.F.R. Part 63 Subpart AAAAA:

a. Each lime kiln equipped with a fabric filter (FF) shall maintain a 6-minute average opacity for any 6-minute block period that does not exceed 15% percent; and comply with the requirements in 40 C.F.R. §§63.7113(f) and (g) and Table 6 of 40 C.F.R. Part 63 Subpart AAAAA. The referenced requirements are incorporated in Sections 12.2.1 and 12.2.2.
[45CSR34, 40 C.F.R. § 63.7090(b), Table 3 - #1] (1E and 500-115)

b. The permittee shall prepare and implement for each lime manufacturing plant (LMP) a written operations, maintenance, and monitoring (OM&M) plan in accordance with 40 C.F.R. §63.7100(d) and the corrective actions to be taken when required in Table 6 to Subpart AAAAA of Part 63. This plan has been approved and is provided for reference as Appendix B. Any subsequent changes to the plan must be submitted to the applicable permitting authority, WVDEP Division of Air Quality, for review and approval. Pending approval of an initial or amended plan, the permittee must comply with the provisions of the submitted plan. Each plan must contain the information listed in 40 C.F.R. §§63.7100(d)(1) through (7).
[45CSR34, 40 C.F.R. § 63.7090(b), Table 3 - #5, 40 C.F.R. § 63.7100(d)]

c. Each emission unit equipped with an add-on air pollution control device shall vent captured emissions through a closed system, except that dilution air may be added to emission streams for the purpose of controlling temperature at the inlet to a fabric filter (FF); and operate each capture/collection system in accordance with the procedures and requirements defined in the OM&M plan required by Section 12.1.5.(b).
[45CSR34, 40 C.F.R. § 63.7090(b), Table 3 - #6] (4-DC-1, 4-DC-2)

12.1.6. On or after the relevant compliance date for your source as specified in 40 C.F.R. § 63.7083(g), you must meet each startup and shutdown period emission limit in table 2 to this subpart that applies to you.

Table 2 to Subpart AAAAA of Part 63—Startup and Shutdown Emission Limits for Kilns and Coolers

For . . .	You must meet the following emission limit	You have demonstrated compliance, if after following the requirements in § 63.7112 . . .
1. All new and existing lime kilns and their associated coolers equipped with an FF or an ESP during each startup **(1E and 500-115)**	Emissions must not exceed 15 percent opacity (based on startup period block average)	i. Installed, maintained, calibrated and operated a COMS as required by 40 C.F.R. part 63, subpart A, General Provisions and according to PS-1 of appendix B to part 60 of this chapter, except as specified in § 63.7113(g)(2);
		ii. Collected the COMS data at a frequency of at least once every 15 seconds, determining block averages for each startup period and demonstrating for each startup block period the average opacity does not exceed 15 percent.

For . . .	You must meet the following emission limit	You have demonstrated compliance, if after following the requirements in § 63.7112 . . .
3. All new and existing lime kilns and their associated coolers equipped with an FF or an ESP during shutdown **(1E and 500-115)**	Emissions must not exceed 15 percent opacity (based on 6-minute average opacity for any 6-minute block period does not exceed 15 percent)	i. Installed, maintained, calibrated and operated a COMS as required by 40 C.F.R. part 63, subpart A, General Provisions and according to PS-1 of appendix B to part 60 of this chapter, except as specified in § 63.7113(g)(2);
		ii. Collecting the COMS data at a frequency of at least once every 15 seconds, determining block averages for each 6-minute period and demonstrating for each 6-minute block period the average opacity does not exceed 15 percent.

[45CSR34, 40 C.F.R. §63.7090(c), Table 2]

12.1.7. For those LMP using emissions averaging for either HCl emission limits or mercury emission limits in accordance with the procedures in § 63.7114(b) and (c), must not exceed the applicable emission limits in table 9 to this subpart.

Table 9 to Subpart AAAAA of Part 63—Emissions Averaging Emission Limits

For . . .	You must meet the following emission limit
4. Existing preheater rotary lime kilns and their associated coolers producing high-calcium quick lime **(1E and 500-115)**	HCl emissions must not exceed 0.087 lb/ton of lime produced.
7. Existing lime kilns and their associated coolers **(1E and 500-115)**	Mercury emissions must not exceed 31 lb/MMton of lime produced.

[45CSR34, 40 C.F.R. §63.7090(d), Table 9]

12.1.8. You must prepare and implement for each LMP, a written operations, maintenance, and monitoring (OM&M) plan. You must submit the plan to the applicable permitting authority for review and approval as part of the application for a 40 C.F.R. part 70 or 40 C.F.R. part 71 permit. Any subsequent changes to the plan must be submitted to the applicable permitting authority for review and approval. Pending approval by the applicable permitting authority of an initial or amended plan, you must comply with the provisions of the submitted plan. Each plan must contain the following information:

a. Process and control device parameters to be monitored to determine compliance, along with established operating limits or ranges, as applicable, for each emission unit.

b. A monitoring schedule for each emission unit.

c. Procedures for the proper operation and maintenance of each emission unit and each air pollution control device used to meet the applicable emission limitations and operating limits in tables 1, 2, and 3 to this subpart, respectively. On and after the relevant compliance date for your source as specified in § 63.7083(g), your OM&M plan must address periods of startup and shutdown.

d. Procedures for the proper installation, operation, and maintenance of monitoring devices or systems used to determine compliance, including:

i. Calibration and certification of accuracy of each monitoring device;

ii. Performance and equipment specifications for the sample interface, parametric signal analyzer, and the data collection and reduction systems;

iii. Prior to the relevant compliance date for your source as specified in § 63.7083(g), ongoing operation and maintenance procedures in accordance with the general requirements of §§ 63.8(c)(1)(i) and (ii), (3), and (4)(ii). On and after the relevant compliance date for your source as specified in § 63.7083(g), ongoing operation and maintenance procedures in accordance with the general requirements of paragraph (c) of this section and §§ 63.8(c)(1)(ii), (3), and (4)(ii); and

iv. Ongoing data quality assurance procedures in accordance with the general requirements of § 63.8(d).

e. Procedures for monitoring process and control device parameters.

f. Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the operating limits specified in Table 3 to this subpart, including:

i. Procedures to determine and record the cause of a deviation or excursion, and the time the deviation or excursion began and ended; and

ii. Procedures for recording the corrective action taken, the time corrective action was initiated, and the time and date the corrective action was completed.

g. A maintenance schedule for each emission unit and control device that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance.

Note: 40 C.F.R. 63 Subpart AAAAA OMM Plan Revision No. 2 dated January 2021 was reviewed and approved during this Title V Renewal.
[45CSR34, 40 C.F.R. §63.7100(d)]

12.1.9. The permittee shall comply with the General Provisions of 40 C.F.R. §63.1 through §63.16 that apply in accordance with Table 9 of 40 C.F.R. Part 63 Subpart AAAAA. When there is overlap between 40 C.F.R. Part 63 Subpart A and 40 C.F.R. Part 63 Subpart AAAAA, as indicated in the Explanations" column in Table 8, 40 C.F.R. Part 63 Subpart AAAAA takes precedence.
[45CSR34, 40 C.F.R. §63.7140]

12.1.10. **Initial Compliance with the Emission Limit Standards.**

a. You must demonstrate initial compliance with each emission limit in Table 1 to 40 C.F.R. 63 Subpart AAAAA that applies to you, according to Table 4 to 40 C.F.R. 63 Subpart AAAAA.

b. For those LMP that comply with either the HCl emissions limit or the mercury emission limit using emissions averaging, the average HCl or mercury emissions determined according to the procedures in § 63.7112(n), must not exceed the applicable emission limit in table 9 to this subpart.

c. For those LMP that comply with either the HCl emissions limit or the mercury emission limit using emissions averaging, you must comply with the requirements in paragraphs (c)(1) through (4) of this section.

1. You must complete the stack testing required in paragraph § 63.7112(n) for all lime kilns you wish to include in the emission average before submitting the implementation plan required in paragraph (c)(2) of this section.

2. You must develop and submit to the applicable regulatory authority for review and approval, an implementation plan for emission averaging no later than 180 days before the date you intend to demonstrate compliance using the emission averaging option. You must include the information contained in paragraphs (c)(2)(i) through (iii) of this section in your implementation plan.

i. Identification of all lime kilns in the averaging group, including the lime kiln subcategory, type of lime produced, typical stone production rate, control technology installed, and types of fuel(s) that will be burned.

ii. The HCl or mercury emission rate for each lime kiln for each of the fuels identified in paragraph (c)(2)(i) of this section.

iii. The date on which you are requesting emission averaging to commence.

3. The regulatory authority shall review and approve or disapprove the plan according to the following criteria:

i. Whether the content of the plan includes all the information specified in paragraph (c)(2) of this section; and

ii. Whether the plan presents sufficient information to determine that compliance will be achieved and maintained.

4. The applicable regulatory authority shall not approve an emission averaging implementation plan containing any of the following provisions:

i. Averaging between emissions of differing pollutants;

ii. Averaging that includes lime kilns constructed or reconstructed on or after July 16, 2024; or

iii. Averaging between lime kilns located at different facilities.

iv. Averaging between lime kilns in different subcategories.

d. You must establish each site-specific operating limit in Table 3 to 40 C.F.R. 60 Subpart AAAAA that applies to you according to the requirements in § 63.7112(j) and Table 5 to 40 C.F.R.63 Subpart AAAAA. Alternative parameters may be monitored if approval is obtained according to the procedures in § 63.8(f).

e. You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.7130(e).

[45CSR34, 40 C.F.R. §63.7114]

12.2. Monitoring Requirements

12.2.1. The permittee must install, operate, and maintain each continuous opacity monitoring system (COMS) in accordance with the following:

For each COMS used to monitor an add-on air pollution control device, you must install the COMS at the outlet of the control device and install, maintain, calibrate, and operate the COMS as required by 40 C.F.R. Part 63 Subpart A, General Provisions and according to 40 C.F.R. Part 60 Appendix B, Performance Specifications (PS)-1. Facilities that operate COMS installed before February 6, 2001, may continue to meet the requirements in effect at the time of COMS installation unless specifically required to recertify the COMS by their permitting authority.

Continuous compliance shall be established by collecting the COMS data at a frequency of at least once every 15 seconds, determining block averages for each 6-minute period and demonstrating for each 6-minute block period the average opacity does not exceed 15 percent.
[45CSR34, 40 C.F.R. §§ 63.7113(a) and (g), 40 C.F.R. § 63.7121(a), Table 6, Item 4] (1E and 500-115)

12.2.2. For each emission unit equipped with an add-on air pollution control device you must inspect each capture/collection and closed vent system at least once each calendar year to ensure each system is operating in accordance with the operating requirements of 40 C.F.R. Part 63 Subpart AAAAA, Table 3 Item 6, incorporated herein as Section 12.1.5(c), and record the results of each inspection.
[45CSR34, 40 C.F.R. § 63.7113(f)] (4-RK-1 and 4-RK-2)

12.2.3. Except for monitor malfunctions, associated repairs, required quality assurance or control activities (including, as applicable, calibration checks and required zero adjustments), and except for PSH operations subject to monthly VE testing, you must monitor continuously (or collect data at all required intervals) at all times that the emission unit is operating.
[45CSR34, 40 C.F.R. § 63.7120(b)]

12.2.4. Data recorded during the conditions described in 40 C.F.R. §§63.7120(c)(1) and (2) [Section 12.2.4.] may not be used either in data averages or calculations of emission or operating limits; or in fulfilling a minimum data availability requirement. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system.

a. Monitoring system breakdowns, repairs, preventive maintenance, calibration checks, and zero (low-level) and high-level adjustments;

b. Periods of non-operation of the process unit (or portion thereof), resulting in cessation of the emissions to which the monitoring applies; and

[45CSR34, 40 C.F.R. § 63.7120(c)]

12.2.5. Ongoing compliance with the fugitive opacity requirements referenced in Section 12.1.4 Table 1 to Subpart AAAAA of Part 63—Emission Limits Item #19 shall be demonstrated by conducting monthly visual

emission checks for at least 1 minute per each emission unit while the affected source is in operation in accordance with 40 C.F.R. §63.7121(e), which is stated as follows:

a. For each PSH operation subject to an opacity limit as specified in 40 C.F.R. Part 63 Subpart AAAAA, Table 1, and any vents from buildings subject to an opacity limit, you must conduct a VE check according to item 1 in 40 C.F.R. Part 63 Subpart AAAAA, Table 7, and as follows:

1. Conduct visual inspections that consist of a visual survey of each stack or process emission point over the test period to identify if there are VE, other than condensed water vapor.

2. Select a position at least 15 but not more 1,320 feet from the affected emission point with the sun or other light source generally at your back.

3. The observer conducting the VE checks need not be certified to conduct 40 C.F.R. Part 60 Appendix A, Method 9, but must meet the training requirements as described in 40 C.F.R. Part 60 Appendix A, Method 22.

b. Additionally, 40 C.F.R. Part 63 Subpart AAAAA, Table 7, items 1 (a) (ii), (iii), and (iv) allows a tiered monitoring frequency to be utilized in accordance with the following criteria:

1. If no VE are observed in 6 consecutive monthly checks for any emission unit, you may decrease the frequency of VE checking from monthly to semi-annually for that emission unit; if VE are observed during any semiannual check, you must resume VE checking of that emission unit on a monthly basis and maintain that schedule until no VE are observed in 6 consecutive monthly checks;

2. If no VE are observed during the semiannual check for any emission unit you may decrease the frequency of VE checking from semi-annually to annually for that emission unit; if VE are observed during any annual check, you must resume VE checking of that emission unit on a monthly basis and maintain that schedule until no VE are observed in 6 consecutive monthly checks; and

3. If VE are observed during any VE check, you must conduct a 6-minute test of opacity in accordance with 40 C.F.R. Part 60 Appendix A, Method 9; you must begin the method 9 test within 1 hour of any observation of VE and the 6-minute opacity reading must not exceed the applicable opacity limit.

[45CSR34, 40 C.F.R. §§ 63.7121(a) and (e) and Table 7, Item 1 of 40 C.F.R. Part 63 Subpart AAAAA] (4-BC-1, 4-BC-2, 4-BC-4, 4-BC-5, 4-STB-1, 4-STB-2)

12.2.6. If you elect to comply with either the HCl emission limit or the mercury emission limit in table 9 to 40 C.F.R. 63 Subpart AAAAA using emissions averaging in accordance with an implementation plan approved under the provisions in § 63.7114(c) you must comply with the requirements in paragraphs (1) through (8) of this section.

a. For lime kilns included in the emissions averaging group that are equipped with dry sorbent injection (DSI) or activated carbon injection (ACI) systems, you must comply with the requirements in § 63.7113(h).

b. For kilns included in the emissions averaging group that use a control device or method other than DSI or ACI, you must comply with your site-specific monitoring plan of this section, in accordance with the requirements of § 63.7100(d).

c. Calculate the monthly production-weighted average emission rate using the HCl or mercury emission rate determined during the last performance test and the actual production data for each kiln included in the emissions averaging option, as shown in equation 1 to 40 C.F.R. § 63.7121(g)(3).

Equation 1 to 40 C.F.R. § 63.7121(g)(3)

$$E_g = \frac{\sum_{k=1}^{n}\left(E_k \times P_k\right)}{\sum_{k=1}^{n}\left(P_k\right)}$$

Where:
E_g = Monthly production-weighted average emission rate for month "g" for the group of kilns;
E_k = Average emission rate for kilns "k", as determined during the last compliance stack test;
P_k = Total monthly production of lime produced for kilns "k"; and
n = Number of kilns in the averaging group.

4. Until 12 monthly weighted average emission rates have been accumulated, the monthly weighted average emissions rate, calculated as shown in 40 C.F.R. § 63.7121(g)(3), must not exceed the emission limit in table 9 to this subpart in any calendar month.

5. After 12 monthly weighted average emission rates have been accumulated, for each subsequent calendar month, you must use equation 2 to 40 C.F.R. § 63.7121 (g)(5) to calculate the 12-month rolling average of the monthly weighted average emission rates for the current month and the previous 11 months. The 12-month rolling weighted average emissions rate for the kilns included in the group must not exceed the emission limits in table 9 to this subpart.

Equation 2 to 40 C.F.R. § 63.7121 (g)(5)

$$E_{avg} = \frac{\sum_{i=1}^{12} E_i}{12}$$

Where:
E_{avg} = 12-month rolling average emission rate.
E_i = Monthly weighted average for month "i" calculated as shown in equation 1 to 40 C.F.R. § 63.7121(g)(3).

6. For those kilns that produce multiple types of lime in the HCl subcategory (e.g., high calcium quick lime and dolomitic quick lime) you must establish a kiln-specific emission limit using equation 3 to 40 C.F.R. § 63.7121(g)(6).

Equation 3 to 40 C.F.R. § 63.7121 (g)(6)

$$EL_k = \left(P_{QL} \times EL_{QL}\right) + \left(P_{DL} \times EL_{DL}\right)$$

Where:
EL_K = kiln-specific allowable emission limit, lb/yr.
P_{QL} = Actual 12-month production of high calcium quick lime, ton lime produced/yr.
EL_{QL} =Emission limit for high calcium quick lime taken from table 9 to this subpart, lb HCl/ton lime produced.
P_{DL} = Actual 12-month production of dolomitic quick lime, ton lime produced/yr.
EL_{DL} = Emission limit for dolomitic quick lime taken from table 9 to this subpart, lb HCl/ton lime produced.

7. For those kilns that produce multiple types of lime in the HCl subcategory, after the close of each calendar month compliance with the kiln-specific emission limit developed in 40 C.F.R. § 63.7121(g) would be calculated using equation 4 to 40 C.F.R. § 63.7121(g)(7).

Equation 4 to 40 C.F.R. § 63.7121(g)(7)

$$E_k = \left(P_{QL} \times TER_{QL}\right) + \left(P_{DL} \times TER_{DL}\right)$$

Where:

E_K = Average emission rate for kiln "k", as determined during the last compliance stack test, lb HCl/ton production.
P_{QL} = Actual 12-month production of high calcium quick lime, ton lime produced/yr.
E_{QL} = Average emission rate for kiln "k" while producing high calcium quick lime, as determined during the last compliance stack test.
P_{DL} = Actual 12-month production of dolomitic quick lime, ton lime produced/yr.
E_{DL} = Average emission rate for kiln "k" while producing dolomitic quick lime, as determined during the last compliance stack test, lb HCl/ton production.

[45CSR34, 40 C.F.R. § 63.7121(g)]

12.3. Testing Requirements

12.3.1. The permittee must conduct a performance test within 5 years following the initial performance test and within 5 years following each subsequent performance test thereafter.
[45CSR34, 40 C.F.R. § 63.7111] (1E, 500-115) and Fugitive Unit IDs (4-BC-1, 4-BC-2, 4-BC-4, 4-BC-5, 4-STB-1, 4-STB-2)

12.3.2. You must conduct each performance test in Table 5 to 40 C.F.R. 63 Subpart AAAAA that applies to you.
[45CSR34, 40 C.F.R. §63.7112(a)]

12.3.3. Except for opacity and VE observations, you must conduct three separate test runs for each performance test required in this section, as specified in § 63.7(e)(3). Each test run must last at least 1 hour or as specified in table 5 to this subpart.
[45CSR34, 40 C.F.R. §63.7112(d)]

12.3.4. The emission rate of particulate matter (PM) from each lime kiln (and each lime cooler if there is a separate exhaust to the atmosphere from the lime cooler) must be computed for each run using Equation 1 of 40 C.F.R. § 63.7112:

$$E = \left(C_k Q_k + C_c Q_c\right)/PK \qquad \text{(Eq. 1)}$$

Where:
E = Emission rate of PM, pounds per ton (lb/ton) of stone feed.
C_k = Concentration of PM in the kiln effluent, grain/dry standard cubic feet (gr/dscf).
Q_k = Volumetric flow rate of kiln effluent gas, dry standard cubic feet per hour (dscf/hr).
C_c = Concentration of PM in the cooler effluent, grain/dscf. This value is zero if there is not a separate cooler exhaust to the atmosphere.
Q_c = Volumetric flow rate of cooler effluent gas, dscf/hr. This value is zero if there is not a separate cooler exhaust to the atmosphere.
P = Stone feed rate, tons per hour (ton/hr).
K = Conversion factor, 7000 grains per pound (grains/lb).

[45CSR34, 40 C.F.R. § 63.7112(e)]

12.3.5. Performance test results must be documented in complete test reports that contain the information required by 40 C.F.R. § 63.7112(h)(1) through (10), as well as all other relevant information. The plan to be followed during testing must be made available to the Administrator at least 60 days prior to testing.

a. A brief description of the process and the air pollution control system;
b. Sampling location description(s);
c. A description of sampling and analytical procedures and any modifications to standard procedures;
d. Test results, including opacity;
e. Quality assurance procedures and results;
f. Records of operating conditions during the test, preparation of standards, and calibration procedures;
g. Raw data sheets for field sampling and field and laboratory analyses;
h. Documentation of calculations;
i. All data recorded and used to establish operating limits; and
j. Any other information required by the test method.

[45CSR34, 40 C.F.R. § 63.7112(h)]

12.3.6. You must establish any applicable 3-hour block average operating limit indicated in Table 3 to this subpart according to the applicable requirements in Table 4 to 40 C.F.R. 63 Subpart AAAAA and 40 C.F.R. § 63.7112 (j)(1) through (4).

a. Continuously record the parameter during the performance test and include the parameter record(s) in the performance test report.

b. Determine the average parameter value for each 15-minute period of each test run.

c. Calculate the test run average for the parameter by taking the average of all the 15-minute parameter values for the run.

d. Calculate the 3-hour operating limit by taking the average of the three test run averages.

[45CSR34, 40 C.F.R. § 63.7112(j)]

12.3.7. On and after the relevant compliance date for your source as specified in § 63.7083(g), during startup, kilns must be tested hourly to determine when lime product meets the definition of on-specification lime product. **[45CSR34, 40 C.F.R. § 63.7112(m)]**

12.3.8. The emission rate of mercury and hydrogen chloride (HCl) from each lime kiln (and each lime cooler as applicable) must be computed for each run using equation 4 to 40 C.F.R. § 63.7112(n):

Equation 4 to 40 C.F.R. § 63.7112(n)

$$E = \frac{\left(C_k Q_k + C_c Q_c\right)}{KP}$$

Where:

E = Emission rate of mercury, pounds per thousand tons (lb/MMton) of lime produced or HCl pounds per ton (lb/ton) of lime produced.
C_k = Concentration in the kiln effluent of mercury, micrograms/dry standard cubic feet (µg/dscf) or HCl, parts per million by volume on a dry basis (ppmvd).
Q_k = Volumetric flow rate of kiln effluent gas, dry standard cubic feet per hour (dscf/hr).
C_c = Concentration in the cooler effluent of mercury, µg/dscf or HCl, ppmvd. This value is zero if there is not a separate cooler exhaust to the atmosphere.
Q_c = Volumetric flow rate of cooler effluent gas, dscf/hr. This value is zero if there is not a separate cooler exhaust to the atmosphere.
P = Lime production rate, tons per hour (ton/hr).
K = Conversion factor, for mercury, 4.4×10^8 micrograms per pound (µg/lb) for HCL 1.09×10^7 ppmvd HCl per lb/dscf HCl.

[45CSR34, 40 C.F.R. § 63.7112(n)]

12.3.9. The concentration of total organic HAP and dioxins/furans shall be corrected to 7 percent oxygen using equation 5 to 40 C.F.R. § 63.7112(o):

Equation 5 to 40 C.F.R. § 63.7112(o)

$$C_{7\%} = C_{unc} * \frac{13.9}{\left(20.9 - C_{O2}\right)}$$

Where:

$C_{7\%}$ = concentration of total organic HAP, ppmv on a dry basis or dioxins/furans in ng/dscm corrected to 7 percent oxygen.
C_{unc} = uncorrected total organic HAP, ppmv on a dry basis or dioxins/furans in ng/dscm.
C_{O2} = concentration of oxygen (percent).

[45CSR34, 40 C.F.R. § 63.7112(o)]

12.4. Recordkeeping Requirements

12.4.1. You must keep the records specified in 40 C.F.R. §§ 63.7132(a)(1) through (3) [Section 12.4.1 (a)].

a. A copy of each notification and report that you submitted to comply with 40 C.F.R. 63 Subpart AAAA, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirements in 40 C.F.R. § 63.10(b)(2)(xiv).

b. On and after the relevant compliance date for your source as specified in 40 C.F.R. § 63.7083(g), the records in paragraphs 40 C.F.R. §§ 63.7132(a)(2)(i) and (ii).

i. You must keep records for each startup period of the date, the time startup began, the time began producing on-specification lime product, and the time discharge from the kiln began for any affected source that is subject to a standard during startup that differs from the standard applicable at other times.

ii. You must keep records of the date, time, cause and duration of each malfunction (as defined in 40 C.F.R. 63.2) that causes an affected source to fail to meet an applicable standard; if there was also a monitoring malfunction, the date, time, cause, and duration of the monitoring malfunction; the record must list the affected source or equipment; if there was a failure to meet a particulate matter emissions limit, an estimate of the volume of each regulated pollutant emitted over the limit, and a description of the method used to estimate the emissions.

c. Records of performance tests, performance evaluations, and opacity and VE observations as required in 40 C.F.R. §63.10(b)(2)(viii).

[45CSR34, 40 C.F.R. §63.7132(a)]

12.4.2. You must keep the records in 40 C.F.R. § 63.6(h)(6) for VE observations. Compliance with this condition shall be satisfied by documenting the VE monitoring required by Section 12.2.5.
[45CSR34, 40 C.F.R. §63.7132(b)]

12.4.3. You must keep the records required by 40 C.F.R. Part 63 Subpart AAAAA, Tables 6 and 7 incorporated as Sections 12.2.1 and 12.2.5, to show continuous compliance with each emission limitation that applies to you.
[45CSR34, 40 C.F.R. §63.7132(c)]

12.4.4. You must keep the records which document the basis for the initial applicability determination as required under § 63.7081.
[45CSR34, 40 C.F.R. §63.7132(d)]

12.4.5. Your records must be in a form suitable and readily available for expeditious review, according to 40 C.F.R. §63.10(b)(1).
[45CSR34, 40 C.F.R. §63.7133(a)]

12.4.6. As specified in 40 C.F.R. §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
[45CSR34, 40 C.F.R. §63.7133(b)]

12.4.7. You must keep each record onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 C.F.R. §63.10(b)(1). You may keep the records offsite for the remaining 3 years.
[45CSR34, 40 C.F.R. §63.7133(c)]

12.4.8. Any records required to be maintained by this part that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation.
[45CSR34, 40 C.F.R. §63.7133(d)]

12.5. Reporting Requirements

12.5.1. You must report each instance in which you did not meet each operating limit, opacity limit, and VE limit in Tables 2, 3 and 7 of 40 C.F.R. Part 63 Subpart AAAAA that applies to you. These deviations must be reported according to the requirements in 40 C.F.R. §63.7131 incorporated herein as Section 12.5.3.
[45CSR34, 40 C.F.R. § 63.7121(b)]

12.5.2. When conducting performance test, such as those incorporated by Section 12.3, the permittee shall submit a notification of intent to conduct such testing at least 60 calendar days before the performance test is scheduled to begin, as required in 40 C.F.R. §63.7(b)(1).
[45CSR34, 40 C.F.R. §63.7130(d)]

12.5.3. The permittee shall submit each report listed in 40 C.F.R. Part 63 Subpart AAAAA, Table 8 as applicable.

You must submit a . . .	**The report must contain . . .**	**You must submit the report . . .**
1. Compliance report	a. If there are no deviations from any emission limitations (emission limit, operating limit, opacity limit, and VE limit) that applies to you, a statement that there were no deviations from the emission limitations during the reporting period;	Semiannual compliance reports shall be submitted in accordance with the Title V schedule defined by Section 3.5.6.
	b. If there were no periods during which the CMS, including any operating parameter monitoring system, was out-of-control as specified in §63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period;	
	c. If you have a deviation from any emission limitation (emission limit, operating limit, opacity limit, and VE limit) during the reporting period, the report must contain the information in §63.7131(d);	
	d. If there were periods during which the CMS, including any operating parameter monitoring system, was out-of-control, as specified in §63.8(c)(7), the report must contain the information in §63.7131(e); and	
	e. On and after the relevant compliance date	

You must submit a . . .	The report must contain . . .	You must submit the report . . .
	for your source as specified in § 63.7083(g), if you had a startup, shutdown or malfunction during the reporting period and you failed to meet an applicable standard, the compliance report must include the information in § 63.7131(c)(3).	
4. Performance Test Report	The information required in § 63.7(g) and § 63.7112(h)	According to the requirements of § 63.7131.

[45CSR34, 40 C.F.R. §§63.7131(a), and (b), 40 C.F.R. Part 63 Subpart AAAAA, Table 8]

12.5.4. Each semiannual compliance report must contain the information specified by 40 C.F.R. §§63.7131(c)(1) through (6).

a. Company name and address.

b. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

c. Date of report and beginning and ending dates of the reporting period.

d. If there were no deviations from any emission limitations (emission limit, operating limit, opacity limit, and VE limit) that apply to you, the compliance report must include a statement that there were no deviations from the emission limitations during the reporting period.

e. If there were no periods during which the continuous monitoring systems (CMS) were out-of-control as specified in §63.8(c)(7), a statement that there were no periods during which the CMS were out-of-control during the reporting period.

[45CSR34, 40 C.F.R. §63.7131(c)]

12.5.5. For each deviation from an emission limitation (emission limit, operating limit, opacity limit, and VE limit) that occurs at an affected source where you are not using a CMS to comply with the emission limitations in this subpart, the compliance report must contain the information specified in 40 C.F.R. §§ 63.7131(c)(1) through (4) and 40 C.F.R. §§ 63.7131(d)(1) and (2). The deviations must be reported in accordance with the requirements in 40 C.F.R. § 63.10(d) prior to the relevant compliance date for your source as specified in § 63.7083(g) and the requirements in § 63.10(d)(1) through (4) beginning on the relevant compliance date for your source as specified in § 63.7083(g).

a. The total operating time of each emission unit during the reporting period.

b. Information on the number, duration, and cause of deviations (including unknown cause, if applicable), and the corrective action taken.

c. An estimate of the quantity of each regulated pollutant emitted over a non-opacity or VE emission limit, and a description of the method used to estimate the emissions.

[45CSR34, 40 C.F.R. §63.7131(d)]

12.5.6. For each deviation from an emission limitation (emission limit, operating limit, opacity limit, and VE limit) occurring at an affected source where you are using a CMS to comply with the emission limitation in 40 C.F.R. 63 Subpart AAAAA, you must include the information specified in 40 C.F.R. §§ 63.7131(c)(1) through (4) and 40 C.F.R. §§ 63.7131(e)(1) through (11), except that beginning on the relevant compliance date for your source as specified in § 63.7083(g), the semiannual compliance report must also include the information included in 40 C.F.R. § 63.7131(e)(12). This includes periods of startup, shutdown, and malfunction.

a. The date and time that each malfunction started and stopped.

b. The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.

c. The date, time and duration that each CMS was out-of-control, including the information in 40 C.F.R. § 63.8(c)(8).

d. The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

e. A summary of the total duration of the deviations during the reporting period and the total duration as a percent of the total affected source operating time during that reporting period.

f. A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

g. A summary of the total duration of CMS downtime during the reporting period and the total duration of CMS downtime as a percent of the total emission unit operating time during that reporting period.

h. A brief description of the process units.

i. A brief description of the CMS.

j. The date of the latest CMS certification or audit.

k. A description of any changes in CMS, processes, or controls since the last reporting period.

l. An estimate of the quantity of each regulated pollutant emitted over a non-opacity or VE emission limit, and a description of the method used to estimate the emissions

[45CSR34, 40 C.F.R. §63.7131(e)]

12.5.7. Each facility that has obtained a title V operating permit pursuant to 40 C.F.R. Part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report 40 C.F.R. §§ 70.6(a)(3)(iii)(A) or 71.6 (a)(3)(iii)(A). If you submit a compliance report specified in 40 C.F.R. Part 63 Subpart AAAAA, Table 8 along with, or as part of, the semiannual monitoring report required by 40 C.F.R. §§

70.6(a)(3)(iii)(A) or 71.6 (a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limitation (including any operating limit), submission of the compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report shall not otherwise affect any obligation you may have to report deviations from permit requirements to the permit authority.
[45CSR34, 40 C.F.R. §63.7131(f)]

12.5.8. If you are required to submit reports following the procedure specified in 40 C.F.R. 63.7131(g), you must submit reports to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the EPA's Central Data Exchange (CDX) (https://cdx.epa.gov/). You must use the appropriate electronic report template on the CEDRI website (https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri) for this subpart. The date report templates become available will be listed on the CEDRI website. The report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted. The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information you claim as Confidential Business Information (CBI). Although we do not expect persons to assert a claim of CBI, if you wish to assert a CBI claim for some of the information in the report, you must submit a complete file, including information claimed to be CBI, to the EPA following the procedures in 40 C.F.R. 63.7131(g). Clearly mark the part or all of the information that you claim to be CBI. Information not marked as CBI may be authorized for public release without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 C.F.R. part 2. All CBI claims must be asserted at the time of submission. Anything submitted using CEDRI cannot later be claimed CBI. Furthermore, under CAA section 114(c), emissions data is not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available. You must submit the same file submitted to the CBI office with the CBI omitted to the EPA via the EPA's CDX as described earlier in 40 C.F.R. §63.7131(g).

a. The preferred method to receive CBI is for it to be transmitted electronically using email attachments, File Transfer Protocol, or other online file sharing services. Electronic submissions must be transmitted directly to the Office of Air Quality Planning and Standards (OAQPS) CBI Office at the email address *oaqpscbi@epa.gov,* and as described above, should include clear CBI markings and be flagged to the attention of the Lime Manufacturing Sector Lead. If assistance is needed with submitting large electronic files that exceed the file size limit for email attachments, and if you do not have your own file sharing service, please email *oaqpscbi@epa.gov* to request a file transfer link.

b. If you cannot transmit the file electronically, you may send CBI information through the postal service to the following address: OAQPS Document Control Officer (C404-02), OAQPS, U.S. Environmental Protection Agency, P.O. Box 12055, Research Triangle Park, North Carolina 27711, Attention Lime Manufacturing Sector Lead. The mailed CBI material should be double wrapped and clearly marked. Any CBI markings should not show through the outer envelope.

[45CSR34, 40 C.F.R. §63.7131(g)]

12.5.9. Within 60 days after the date of completing each performance test required by this subpart, you must submit the results of the performance test following the procedures specified in 40 C.F.R. §§63.7131(h)(1) through (3).

a. **Data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website**

(https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert) at the time of the test. Submit the results of the performance test to the EPA via CEDRI, which can be accessed through the EPA's CDX (https://cdx.epa.gov/). The data must be submitted in a file format generated through the use of the EPA's ERT. Alternatively, you may submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website.

b. **Data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test.** The results of the performance test must be included as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the ERT generated package or alternative file to the EPA via CEDRI.

c. Confidential business information (CBI).

i. The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information you claim as CBI. Although we do not expect persons to assert a claim of CBI, if you wish to assert a CBI claim for some of the information submitted under paragraph (a)(1) or (2) of 40 C.F.R. § 63.7131, you must submit a complete file, including information claimed to be CBI, to the EPA.

ii. The file must be generated using the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website.

iii. Clearly mark the part or all of the information that you claim to be CBI. Information not marked as CBI may be authorized for public release without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 C.F.R. part 2.

iv. The preferred method to receive CBI is for it to be transmitted electronically using email attachments, File Transfer Protocol, or other online file sharing services. Electronic submissions must be transmitted directly to the OAQPS CBI Office at the email address oaqpscbi@epa.gov, and as described above, should include clear CBI markings and be flagged to the attention of the Group Leader, Measurement Policy Group. If assistance is needed with submitting large electronic files that exceed the file size limit for email attachments, and if you do not have your own file sharing service, please email oaqpscbi@epa.gov to request a file transfer link.

v. If you cannot transmit the file electronically, you may send CBI information through the postal service to the following address: OAQPS Document Control Officer (C404-02), OAQPS, U.S. Environmental Protection Agency, P.O. Box 12055, Research Triangle Park, North Carolina 27711, Attention Group Leader, Measurement Policy Group. The mailed CBI material should be double wrapped and clearly marked. Any CBI markings should not show through the outer envelope.

vi. All CBI claims must be asserted at the time of submission. Anything submitted using CEDRI cannot later be claimed CBI. Furthermore, under CAA section 114(c), emissions data is not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available.

vii. You must submit the same file submitted to the CBI office with the CBI omitted to the EPA via the EPA's CDX as described in 40 C.F.R. § 63.7131(h)(1) and (2).

[45CSR34, 40 C.F.R. §63.7131(h)]

12.5.10. If you are required to electronically submit a report or notification through CEDRI in the EPA's CDX, you may assert a claim of EPA system outage for failure to timely comply with the reporting requirement. To assert a claim of EPA system outage, you must meet the requirements outlined in 40 C.F.R. §63.7131(i)(1) through (7).

a. You must have been or will be precluded from accessing CEDRI and submitting a required report within the time prescribed due to an outage of either the EPA's CEDRI or CDX systems.

b. The outage must have occurred within the period of time beginning five business days prior to the date that the submission is due.

c. The outage may be planned or unplanned.

d. You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

e. You must provide to the Administrator a written description identifying:

i. The date(s) and time(s) when CDX or CEDRI was accessed and the system was unavailable;

ii. A rationale for attributing the delay in reporting beyond the regulatory deadline to EPA system outage;

iii. Measures taken or to be taken to minimize the delay in reporting; and

iv. The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.

f. The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

g. In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved.

[45CSR34, 40 C.F.R. §63.7131(i)]

12.5.11. If you are required to electronically submit a report through CEDRI in the EPA's CDX, you may assert a claim of force majeure for failure to timely comply with the reporting requirement. To assert a claim of force majeure, you must meet the requirements outlined in 40 C.F.R. §63.7131(j)(1) through (5).

a. You may submit a claim if a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning five business days prior to the date the submission is due. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (*e.g.,* hurricanes, earthquakes, or floods), acts of war or terrorism, or

equipment failure or safety hazard beyond the control of the affected facility (*e.g.,* large scale power outage).

b. You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

c. You must provide to the Administrator:

i. A written description of the force majeure event;

ii. A rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event;

iii. Measures taken or to be taken to minimize the delay in reporting; and

iv. The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.

d. The decision to accept the claim of force majeure and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

e. In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs.

[45CSR34, 40 C.F.R. §63.7131(j)]

12.6. Compliance Plan

12.6.1. None.

Appendix A

45CSR10 Monitoring Plan for Greer Industries, Inc. d.b.a. Greer Lime

- No. 2 Fuel Oil Fired 65 TPH Rotary Dryer (AOS "A")
- Coal Fired 400 TPD Lime Kiln
- Coal Fired 500 TPD Lime Kiln

March 30, 2001

Ms. Laura Crowder, Enforcement
West Virginia Office of Air Quality
7012 MacCorkle Avenue, S.E.
Charleston, West Virginia 25304

RE: Greer Industries, Inc.
45CSR10 Monitoring Plan for Manufacturing Processes
Hand Delivered

Dear Ms. Crowder:

Potesta & Associates, Inc. (POTESTA), on behalf of Greer Industries, Inc. (Greer), is submitting a monitoring plan, in accordance with 45CSR10, for Greer's manufacturing process sources for the following operations and affected equipment for the West Virginia Office of Air Quality's approval:Greer Industries, Inc. d.b.a. Greer Lime
Riverton, Pendleton County, West Virginia
Plant ID No.: 071-00001

No. 2 fuel oil fired 65 tph rotary dryer
Coal fired 400 tpd lime kiln
Coal fired 500 tpd lime kiln

Regulation 10 Testing Requirements

Greer hereby petitions the Director for an alternative to stack testing and requests that fuel analysis for sulfur and the corresponding calculation of in-stack sulfur dioxide concentration be used as a substitute in demonstrating compliance with the 2,000 ppm standard from 45CSR10, Section 4. The attached calculations, based on existing permit limits, demonstrate that each affected unit operated by Greer has maintained and will continue to maintain compliance with the in-stack sulfur dioxide concentration. The results of the in-stack concentration calculations are shown in Table 1:

Table 1: In-stack SO2 concentration calculation results

Plant	Unit	Result (ppm)
Greer Lime	65 tph rotary dryer	22.27
Greer Lime	400 tpd lime kiln	51.15
Greer Lime	500 tpd lime kiln	31.67

By maintaining compliance with existing permit conditions and limitations, it can be reasonably expected that the in-stack sulfur dioxide concentration will be well below the 2,000 ppm standard. Greer requests that the Director accept these results for the initial test as they are a reliable indication of Greer's ability to meet the standard.

Regulation 10 Monitoring Requirements

Greer proposes to monitor the sulfur content percentage of permitted fuels in the affected units by obtaining sulfur content statements from the fuel suppliers. Operating these permitted units as they were intended while utilizing fuels with sulfur contents at or below existing permitted levels will assure that Greer continues to maintain compliance with the 2,000 ppm standard from 45CSR10, Section 4. Maximum sulfur content percentages for each affected unit for the given, permitted fuels are shown below in Table 2:

Table 2: Maximum sulfur content percentages

Plant	Unit	Fuel Type	Max. Sulfur Content (%)
Greer Lime	65 tph rotary dryer	No. 2 fuel oil	0.5
Greer Lime	400 tpd lime kiln	coal	1.1
Greer Lime	500 tpd lime kiln	coal	1.1

By utilizing fuels that do not exceed the maximum sulfur content percentages listed in Table 2, which maintains compliance with existing permit conditions and limitations, it can be reasonably expected that the in-stack sulfur dioxide concentration will be well below the 2,000 ppm standard as indicated in Table 1. Greer requests that the Director accept fuel sulfur content as the trackable basis of a Regulation 10 monitoring plan for the affected units.

Regulation 10 Recordkeeping and Reporting Requirements

Greer will maintain sulfur content statements from the fuel suppliers on-site at each affected facility for a period of at least five (5) years in accordance with 45CSR10A, Section 7. Upon approval of this monitoring plan by the Director, Greer will submit a “Monitoring Summary Report” and an “Excursion and Monitoring Plan Performance Report”. In accordance with 45CSR10A, Section 7.2.b., Greer will submit these reports on a quarterly basis to the Director by the 30th day of the month following the calendar quarter. The purpose of these reports is to provide the Director with sulfur content statements for the fuels utilized during the quarter and to report any excursions in accordance with 45CSR10A, Section 7.2.b.3.

If you have any questions, or require additional information, please contact me at (304) 342-1400.

Sincerely,

Scott R. Kisner
Senior Engineer

Attachments: SO2 in-stack concentration calculations

c: Mr. Joseph B. Dean
Greer Industries, Inc.

Appendix B

40 C.F.R. Part 63 Subpart AAAAA

Operating, Maintenance and Monitoring (OM&M) Plan

west virginia department of environmental protection

Division of Air Quality
601 57th Street, SE
Charleston, WV 25304
(304) 926-0475

Harold D. Ward, Cabinet Secretary
dep.wv.gov

MEMORANDUM

To: File

From: Robert Mullins

Date: July 15, 2025

Subject: Greer Industries, Inc
Riverton Facility
Facility ID No. 071-00001

Greer Industries, Inc's Riverton Facility is subject to the requirements of 40 C.F.R. 63, Subpart AAAAA – "National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants." Under 40 C.F.R. §63.7100(d), the permittee must submit an operations, maintenance, and monitoring (OMM) plan to the Administrator for review and approval as part of the application for the Title V permit. Greer Industries, Inc last revised their OMM plan in January 2021. This plan was submitted to WV DAQ on July 10, 2025 as additional information for the Title V Renewal application.

40 C.F.R. §63.7100(d) outlines the elements that must be included in the OMM plan. These are as follows:

1. Process and control device parameters to be monitored to determine compliance, along with established operating limits or ranges, as applicable, for each emission unit.

2. A monitoring schedule for each emission unit.

3. Procedures for the proper operation and maintenance of each emission unit and each air pollution control device used to meet the applicable emission limitations and operating limits in tables 1, 2, and 3 to this subpart, respectively. On and after the relevant compliance date for your source as specified in § 63.7083(g), your OM&M plan must address periods of startup and shutdown.

4. Procedures for the proper installation, operation, and maintenance of monitoring devices or systems used to determine compliance, including:

    i. Calibration and certification of accuracy of each monitoring device;

    ii. Performance and equipment specifications for the sample interface, parametric signal analyzer, and the data collection and reduction systems;

iii. Prior to the relevant compliance date for your source as specified in § 63.7083(g), ongoing operation and maintenance procedures in accordance with the general requirements of § 63.8(c)(1)(i) and (ii), (c)(3), and (c)(4)(ii). On and after the relevant compliance date for your source as specified in § 63.7083(g), ongoing operation and maintenance procedures in accordance with the general requirements of paragraph (c) of this section and §§ 63.8(c)(1)(ii), (c)(3), and (c)(4)(ii); and

iv. Ongoing data quality assurance procedures in accordance with the general requirements of § 63.8(d).

5. Procedures for monitoring process and control device parameters.

6. Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the operating limits specified in table 3 to this subpart, including:

   i. Procedures to determine and record the cause of a deviation or excursion, and the time the deviation or excursion began and ended; and

   ii. Procedures for recording the corrective action taken, the time corrective action was initiated, and the time and date the corrective action was completed.

7. A maintenance schedule for each emission unit and control device that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance.

A review of Greer Industries, Inc.'s OMM plan has been conducted, and it has been determined that the plan contains the elements outlined in 40 C.F.R. §63.7100(d) for the rotary lime kiln (4-RK-1 and 4-RK-2) and the process stone handling equipment (4-BC-1, 4-BC-2, 4-BC-4, 4-BC-5, 4-STB-1, and 4-STB-2) subject to the requirements of 40 C.F.R. 63, Subpart AAAAA. As such, this plan has been approved in accordance with 40 C.F.R. §63.7100(d). The OMM plan approval has been incorporated by reference in condition 12.1.8 and the OMM plan has been included as an attachment in R30-07100001-2025 .

40 CFR Part 63, Subpart AAAAA – Lime Manufacturing MACT

Operations, Maintenance, & Monitoring Plan

Startup, Shutdown, & Malfunction Plan

Greer Lime Company
Riverton, West Virginia

Revision No. 2
January 2021

Table of Contents

1. Introduction

1.1 Background

Greer Lime Company (Greer) operates a lime manufacturing plant near Riverton, Pendleton County, West Virginia. Emissions testing of the rotary lime kilns, conducted during October 2004, indicate that hydrochloric acid (HCl) emissions are greater than 10 tons/year, classifying the facility as a major source of hazardous air pollutants (HAP). As a major source of HAP, Greer is subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Lime Manufacturing Plants, detailed in Title 40, Part 63, Subpart AAAAA of the Code of Federal Regulations (40 CFR 63 Subpart AAAAA). Typically, NESHAP regulations are also referred to as Maximum Achievable Control Technology (MACT) standards.

Both rotary lime kiln systems (4-RK-1 and 4-RK-2) are considered "existing sources" under the regulations. The compliance date for the equipment associated with these systems is January 5, 2007. Affected equipment subject to the Lime MACT rule is required to have in place an Operations, Maintenance, and Monitoring Plan (OM&MP) and a Startup, Shutdown, and Malfunction Plan (SSMP).

This document contains the OM&MP and the SSMP for the rotary lime kilns and processed stone handling equipment. As defined within the rule, the processed stone handling equipment at Greer consists of tunnel belt 4-BC-1, reclaim belt 4-BC-2, stone bin feed belt 4-BC-4, stone bin feed belt 4-BC-5, stone bin 4-STB-1, and stone bin 4-STB-2.

This document was revised during January 2021to reflect changes made to the Rule following a Risk and Technology Review (RTR) conducted under the Clean Air Act. On June 4, 2020, the US EPA finalized amendments to the 2004 NESHAP for Lime Manufacturing Plants. The changes become effective on January 20, 2021. Specifically, the US EPA changed the following:

- Revised requirements for startup, shutdown and malfunction (SSM) to be consistent with recent court decisions; and
- Require electronic reporting of performance test results and compliance reports.

1.2 Action Items & Responsible Personnel

The following table address the critical action items and responsible personnel associated with the OM&M Plan and the SSMP provisions.

Action Item	Responsible Personnel	Discussion
Maintain the written OM&M Plan.	Environmental Manager	Will maintain the written plan and will update as necessary.
Submit the OM&M Plan to WVDAQ for review and approval.	Environmental Manager	Will submit to WVDAQ upon finalization with the updated Title V application. Changes to OM&M Plan must also be submitted to WVDAQ for review and approval.
Maintain the written startup, shutdown, and malfunction procedures.	Environmental Manager	Will maintain the written startup, shutdown, and malfunction procedures and update as necessary.
Keep records on each startup, shutdown, and malfunction.	Kiln Control Operator	Will keep records on each startup, shutdown, and malfunction event.
Submit a Compliance Report	Environmental Manager	Semiannually according to the requirements in §63.7131(b)
Submit a Performance Test Report	Environmental Manager	As required according to the requirements of §63.7131.

2. Operations, Maintenance, and Monitoring Plan

The OM&M plan requirements of 40 CFR §63.7100(d) are discussed in detail below. The actual regulatory language appears in *italic* font. Greer's response to each requirement appears in plain text.

(d) You must prepare and implement for each LMP, a written operations, maintenance, and monitoring (OM&M) plan. You must submit the plan to the applicable permitting authority for review and approval as part of the application for a 40 CFR part 70 or 40 CFR part 71 permit. Any subsequent changes to the plan must be submitted to the applicable permitting authority for review and approval. Pending approval by the applicable permitting authority of an initial or amended plan, you must comply with the provisions of the submitted plan. Each plan must contain the following information:

(1) Process and control device parameters to be monitored to determine compliance, along with established operating limits or ranges, as applicable for each emission unit.

Emission Unit	**Discussion**
Rotary Lime Kiln – 400 TPD 4-RK-1 Rotary Lime Kiln – 500 TPD 4-RK-2	The opacity from the fabric filter dust collectors serving each lime kiln system is continuously monitored with a continuous opacity monitoring system (COMS). A computerized data acquisition system records all opacities in electronic form. The opacity limit is 15% per startup period block average per Item 1 in Table 2, Startup and Shutdown Emission Limits, and 15% per 6-minute block average all other times per Item 1 of Table 3, Operating Limits, but the actual opacity is typically less during startup, shutdown and operation. Measured opacity for compliance purposes will be taken from the data acquisition system.
Tunnel Belt: 4-BC-1 Reclaim Belt: 4-BC-2 4-STB-1 Feed Belt: 4-BC-4 4-STB-2 Feed Belt: 4-BC-5 Stone Bin: 4-STB-1 Stone Bin: 4-STB-2	The opacity limit for processed stone handling (PSH) equipment is 10% per Item 7 in Table 1, Emission Limits, and Item 4 in Table 4, Initial Compliance, of the Lime MACT rule. Dust emissions from the affected equipment are minimized through full enclosures and water sprays.

(2) A monitoring schedule for each emission unit.

Emission Unit	Discussion
Rotary Lime Kiln – 400 TPD 4-RK-1 Rotary Lime Kiln – 500 TPD 4-RK-2	The opacity from each fabric filter dust collector serving its respective lime kiln is continuously monitored with a COMS. Data is stored electronically.
Tunnel Belt: 4-BC-1 Reclaim Belt: 4-BC-2 4-STB-1 Feed Belt: 4-BC-4 4-STB-2 Feed Belt: 4-BC-5 Stone Bin: 4-STB-1 Stone Bin: 4-STB-2	The Title V permit (R30-07100001-2020) the Lime MACT Rule, specifically, Item 1 in Table 7, Periodic Monitoring for Compliance with Opacity and Visible Emissions Limits, requires monthly visible emission observations for these sources. Data is stored in a written or electronic log and maintained on-site.

(3) Procedures for the proper operation and maintenance of each emission unit and each air pollution control device used to meet the applicable emission limitations and operating limits in Tables 1, 2 and 3 to this subpart, respectively. Your OM&M plan must address periods of startup and shutdown.

Emission Unit	Discussion
Rotary Lime Kiln – 400 TPD 4-RK-1 Rotary Lime Kiln – 500 TPD 4-RK-2	The dust collectors are operated in conjunction with the lime kilns due to the system's physical design and process control interlocks. The induced draft fan is the first item in sequence of process equipment to be started on kiln startup and the last item to shut down after lime kiln shutdown. This must occur to control preheat and cool down of the kilns to prevent damage to internal refractory. Computer system interlocks are used to assure proper startup and shutdown. The condition of the fabric filter bags is monitored continuously by the COMS. Each dust collector is equipped with a Bag Leak Detection System (BLDS) for operational purposes only. The BLDS is able to detect excess particulate matter exiting the dust collector in very small quantities, often prior to causing a significant increase in opacity on the COMS. The BLDS is able to determine the specific module (there are four in each dust collector) and row of bags causing the particulate matter detection. That

Emission Unit	Discussion
	information, combined with regular tracking of stack opacity through the COMS, allows Greer to determine when bag(s) may need replaced. Kilns are shutdown for scheduled, preventative maintenance approximately every six months. During this time, kiln systems, including the induced draft fan and dust collector are inspected, with work conducted as needed. Preventative maintenance is performed by Greer's on-site maintenance crew or contractors as needed.
Tunnel Belt: 4-BC-1 Reclaim Belt: 4-BC-2 4-STB-1 Feed Belt: 4-BC-4 4-STB-2 Feed Belt: 4-BC-5 Stone Bin: 4-STB-1 Stone Bin: 4-STB-2	The PSH equipment has an opacity limit of 10%. Full enclosures and water sprays are used to minimize dust generation from the affected equipment. The Title V permit and Lime MACT Rule requires monthly visible emission observations and fugitive dust control system inspections for these sources. Any issues identified during VE observations will be corrected using Greer's on-site maintenance crew or contractors as needed.

(4) Procedures for the proper installation, operation, and maintenance of monitoring devices or systems used to determine compliance, including:

(i) Calibration and certification of accuracy of each monitoring device;

(ii) Performance and equipment specifications for the sample interface, parametric signal analyzer, and the data collection and reduction systems;

(iii) Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1)(ii), (3), and (4)(ii); and

(iv) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d).

Emission Unit	Discussion
Rotary Lime Kiln – 400 TPD 4-RK-1 Rotary Lime Kiln – 500 TPD 4-RK-2	The opacity of exhaust gas released via the stack through the dust collectors is continuously monitored with a COMS. Data is maintained in electronic format by the plant's data acquisition system. The COMS are installed, maintained, calibrated, and operated in accordance with PS-1 of 40 CFR Part 60, Appendix B (specification in effect at the time the monitor was installed).

Tunnel Belt: 4-BC-1 Reclaim Belt: 4-BC-2 4-STB-1 Feed Belt: 4-BC-4 4-STB-2 Feed Belt: 4-BC-5 Stone Bin: 4-STB-1 Stone Bin: 4-STB-2	There are no monitoring devices on these fugitive emissions sources. The Title V permit and Lime MACT Rule requires monthly visible emission observations.

(5) Procedures for monitoring process and control device parameters.

Emission Unit	**Discussion**
Rotary Lime Kiln – 400 TPD 4-RK-1 Rotary Lime Kiln – 500 TPD 4-RK-2	The kilns utilize an Optimizing Control System (OCS) to supplement traditional PLC controls. The OCS continuously determines and implements optimized set points to maintain a required product quality. The system assists the kiln operator is determining the necessary balance of fuel, air, and stone input that results in consistent operation. Over 70 parameters on each kiln are continuously monitored, recorded, and displayed on the kiln operator's computer screens with other remote access terminals available within the plant. Opacity from the dust collectors serving the lime kilns is continuously monitored with a COMS. The measurements are continuously recorded from the monitor and displayed to the kiln operator's computer screens and other remote access plant terminals as with the process parameters. The measurements are viewable as an instantaneous opacity and 6-minute average. Exceedances of the 6-minute block average are recorded and maintained for compliance determination. The kiln operator is in nearly continuous attendance to monitor system alarms and is trained to take any necessary corrective action. Fault conditions occurring with the COMS are also recorded in order to determine if data collected is valid. Total fault condition time will be used to determine if the 95% data availability standard is being met. Startup block averages will be calculated based upon time at coal start to time at production of on spec lime. The opacity average during that period will be compared to the kiln startup emission limit standard.

Tunnel Belt: 4-BC-1 Reclaim Belt: 4-BC-2 4-STB-1 Feed Belt: 4-BC-4 4-STB-2 Feed Belt: 4-BC-5 Stone Bin: 4-STB-1 Stone Bin: 4-STB-2	The Title V permit and Lime MACT Rule requires monthly visible emission observations. The results of these observations are recorded in a log that is maintained on site.

(6) Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the operating limits specified in Table 3 to this subpart, including:

(i) Procedures to determine and record the cause of a deviation or excursion, and the time the deviation or excursion began and ended; and

(ii) Procedures for recording the corrective action taken, the time corrective action was initiated, and the time and date the corrective action was completed.

Emission Unit	**Discussion**
Rotary Lime Kiln – 400 TPD 4-RK-1 Rotary Lime Kiln – 500 TPD 4-RK-2	The opacity limit is 15% per startup period block average per Item 1 in Table 2, Startup and Shutdown Emission Limits, and 15% per 6-minute block average all other times per Item 1 of Table 3, Operating Limits. The COMS will be used to determine if a deviation of the operating limit has occurred. If a deviation occurs, the kiln system and dust collector will be inspected as soon as practicable to determine the cause and necessary corrective action. If a shutdown is necessary to implement repairs, then the kiln will not restart until those repairs are complete. Information on each deviation will be collected and used to record the cause, duration and corrective action taken.

Emission Unit	Discussion
Tunnel Belt: 4-BC-1 Reclaim Belt: 4-BC-2 4-STB-1 Feed Belt: 4-BC-4 4-STB-2 Feed Belt: 4-BC-5 Stone Bin: 4-STB-1 Stone Bin: 4-STB-2	These are fugitive emissions sources. The only requirement for these sources is to follow this OM&M plan per Item 5 in Table 3, Operating Limits, and Item 1 of Table 7, Periodic Monitoring for Compliance with Opacity and Visible Emissions Limits.

(7) A maintenance schedule for each emission unit and control device that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance.

Emission Unit	Discussion
Rotary Lime Kiln – 400 TPD 4-RK-1 Rotary Lime Kiln – 500 TPD 4-RK-2	The opacity monitor provides an indication of the performance condition of the respective dust collector in conjunction with other constantly measured parameters such as temperature and pressure drop. The opacity monitor thereby may be used as a predictive tool. Maintenance functions, bag usage, inventory, and parts purchase orders are tracked and recorded. Maintenance history is used to determine semi-annual outage needs. Kilns are shutdown for scheduled, preventative maintenance approximately every six months. Preventative maintenance is performed by Greer's on-site maintenance crew with assistance from outside contractors as needed. Additionally, in accordance with 40 CFR §63.7113(f), an annual inspection of the ductwork leading to the fabric filter dust collector will be conducted. The results of this annual inspection will be recorded in a log that is maintained on site.

Tunnel Belt: 4-BC-1 Reclaim Belt: 4-BC-2 4-STB-1 Feed Belt: 4-BC-4 4-STB-2 Feed Belt: 4-BC-5 Stone Bin: 4-STB-1 Stone Bin: 4-STB-2	Potential fugitive emissions are minimized by full enclosures. The Title V permit and Lime MACT Rule requires monthly fugitive dust control system inspections.

3. Startup, Shutdown, and Malfunction Plan

A startup, shutdown, and malfunction plan (SSMP) is required by 40 CFR §63.7100(e). The requirements of the SSMP are contained in 40 CFR §63.6(e)(3).

3.1 SSMP Requirements Checklist

The critical elements of the SSMP are shown in the following table.

Item	Summary	Discussion
§63.6(e)(3)(i)	Develop and implement written SSMP.	Ensure emissions are minimized at all times, correct malfunctions as soon as practicable and reduce the reporting burden associated with SSM.
§63.6(e)(3)(iii)	Keep records of SSM events where consistent with the SSMP.	Keep records of SSM events where actions are consistent with the SSMP, but the event may cause an exceedance to an applicable emissions standard. Report these in the semiannual Compliance Report.
§63.6(e)(3)(iv)	Keep records of SSM events where not consistent with the SSMP and immediate reporting obligations.	Keep records of SSM events where actions are NOT consistent with the SSMP, and the event causes an exceedance to an applicable emissions standard. Report actions inconsistent with the SSMP within working 2 days, followed by a letter within 7 working days after the end of the event.
§63.6(e)(3)(v)	Maintain current and previous versions of SSMP.	Current and previous versions of the SSMP are maintained at the affected source and will be made available upon request.
§63.6(e)(3)(vi)	May use other documents to satisfy SSMP requirements.	A formal SSMP has been developed (this document). Other documents and records maintained by the affected facility may be used for recordkeeping.
§63.6(e)(3)(vii)	Administrator may require changes in SSMP.	Revision may be required by the Administrator if the SSMP is inadequate.

§63.6(e)(3)(viii)	Owner may periodically revise SSMP as necessary.	Revision of the SSMP may be made by the owner as necessary to satisfy requirements. Revision must be reported in the semiannual compliance report required by §63.10(d)(5).
§63.6(e)(3)(ix)	Title V permit must address requirement for SSMP.	This requirement will be addressed in the Title V application update to be submitted to WVDAQ as required by the Lime MACT rule.

3.2 Startup and Shutdown Procedures

Emission Unit	Startup and Shutdown Procedures
Rotary Lime Kiln – 400 TPD 4-RK-1 Rotary Lime Kiln – 500 TPD 4-RK-2	Startup: Before starting a kiln, ensure that the respective fabric filter dust collector and continuous opacity monitoring system (COMS) is operating properly. This is accomplished by the fabric filter dust collector being control interlocked with the lime kiln. COMS operation will be verified visually through the kiln control program by the Kiln Control Operator. If the dust collector and COMS were operating properly prior to shutdown, it is satisfactorily assumed that this equipment will operate properly prior to startup. For purposes of startup, proper operation is defined as no 6-minute block average of 15% or greater for the previous 24-hour period of operation, unless the kiln system was shutdown to correct opacity compliance issues. Shutdown: Before intentionally taking the fabric filter dust collector and COMS out of operation, ensure that the kiln is out of operation which is defined as no longer firing on coal.
Tunnel Belt: 4-BC-1 Reclaim Belt: 4-BC-2 4-STB-1 Feed Belt: 4-BC-4 4-STB-2 Feed Belt: 4-BC-5 Stone Bin: 4-STB-1 Stone Bin: 4-STB-2	The full enclosures are in place to minimize fugitive dust regardless if equipment is operating or not.

3.3 Malfunction Events

Emission Unit	Malfunction Events
Rotary Lime Kiln – 400 TPD 4-RK-1 Rotary Lime Kiln – 500 TPD 4-RK-2	Fabric filter dust collector malfunction: If a fabric filter dust collector system is malfunctioning in a manner that consistently causes the opacity limit (>15% in a 6-minute block average) to be exceeded, then the dust collector will be inspected by Greer's maintenance crew and repaired as soon as safely practicable. If a shutdown is necessary to implement repairs, then the kiln will not restart until those repairs are complete. The cause of the malfunction, malfunction start and end times, and corrective action taken will be recorded. COMS malfunction: If the continuous opacity monitoring system (COMS) is malfunctioning, repairs will be made as soon as practicable. COMS malfunctions are identified by a fault alarm. Fault alarms are recorded by the data acquisition system. Fault alarms will be investigated in a timely manner to determine if the underlying fault condition is harming the validity of COMS data. Most faults can be cleared in-house by performing the manufacturer's prescribed routine maintenance followed by an on-stack calibration. If this does not correct the fault condition, then the COMS manufacturer will be contacted to secure their technical services. There are some fault alarms that do not negatively impact the validity of the COMS data, but instead are used to notify the operator of an undesirable condition that needs addressed. If the fault alarm is not related to a condition causing invalid data, then those fault times will not be counted as a malfunction. A COMS malfunction is a condition causing invalid data. During a COMS outage caused by a malfunction lasting longer than 24-hours, visible emissions observations by a Method 9 certified observer will be conducted at least once per day during daylight hours. The results will be maintained in a written log and made available for review upon request.

Emission Unit	Malfunction Events
Tunnel Belt: 4-BC-1 Reclaim Belt: 4-BC-2 4-STB-1 Feed Belt: 4-BC-4 4-STB-2 Feed Belt: 4-BC-5 Stone Bin: 4-STB-1 Stone Bin: 4-STB-2	If dust emissions are evident and the 10% opacity limit is in jeopardy of being violated, the full enclosures and/or water sprays will be inspected for defects and corrected as necessary.

Section 4

40 CFR Part 63, Subpart AAAAA
(Lime MACT Rule)

Section 5

Opacity Monitor Calibration & Maintenance

Opacity Monitor Calibration & Maintenance

Greer Lime Company maintains a continuing annual contract with Teledyne Instruments Monitor Labs (Teledyne) for preventative maintenance, corrective maintenance, monitor auditing, and clear stack calibration for both kiln opacity monitors. The contract specifies that the required maintenance and auditing will be conducted by a Teledyne technician on a semi-annual basis.

In addition to Teledyne's contract services, plant personnel have been trained to perform routine maintenance including purge air system filter replacement, lens cleaning, unit alignment, and on-stack calibration should it be needed between Teledyne's semi-annual visits.

Section 6

Template SSMP Forms, Reports, and Notifications and Completed SSMP Forms, Reports, and Notifications

- **Startup/Shutdown Report**
- **Malfunction Report**
- **“Immediate” SSMP Reporting Requirements**
- **“Periodic” SSMP Reporting Requirements**

Rotary Lime Kiln Startup/Shutdown Report - Lime MACT

Greer Lime Company – Riverton, West Virginia

Note: This report is to be completed only for startups and shutdowns of either rotary lime kiln system.

A. Person Completing Report: _____

B. Which Kiln? _____

C. Date & Time of Shutdown: _____

D. Date & Time of Startup: _____

E. Reason for Shutdown?

_____

_____

_____

_____

F. Were the Startup/Shutdown Procedures Followed? *(see below)*

_____ Yes

_____ No *(If no, then notify management immediately and document the procedures that were used to either startup or shutdown the kiln.)*

Startup and Shutdown Procedures

Startup: Before starting a kiln, ensure that the respective fabric filter dust collector and continuous opacity monitoring system (COMS) is operating properly. This is accomplished by the fabric filter dust collector being control interlocked with the lime kiln. COMS operation will be verified visually through the kiln control program by the Kiln Control Operator. If the dust collector and COMS were operating properly prior to shutdown, it is satisfactorily assumed that this equipment will operate properly prior to startup. For purposes of startup, proper operation is defined as no 6-minute block average of 15% or greater for the previous 24-hour period of operation, unless the kiln system was shutdown to correct opacity compliance issues.

Shutdown: Before intentionally taking the fabric filter dust collector and COMS out of operation, ensure that the kiln is out of operation which is defined as no longer firing on coal.

Rotary Lime Kiln Malfunction Report - Lime MACT

Greer Lime Company – Riverton, West Virginia

Note: This report is to be completed only for those malfunctions which resulted in excess particulate (dust) emissions from either rotary lime kiln system or involving the failure of the opacity monitoring system.

A. Person Completing Report: _____
B. Which Kiln? _____
C. Date: _____

D. Starting and Ending Times of the Malfunction and Corrective Actions:
Malfunction Starting Time/Date: _____
Corrective Action Starting Time/Date: _____
Corrective Action Ending Time/Date: _____
Malfunction Ending Time/Date: _____

E. Description of Malfunction and Corrective Actions:

_____
_____
_____
_____

F. Is this Specific Malfunction Listed in the Malfunction Plan? *(see below)*
_____ Yes _____ No *(If no, then notify management immediately.)*

G. Were the Corrective Actions Listed in the Malfunction Plan Followed?
_____ Yes _____ No *(If no, then notify management immediately.)*

Malfunction Events

Fabric filter dust collector malfunction: If a fabric filter dust collector system is malfunctioning in a manner that consistently causes the opacity limit (>15% in a 6-minute block average) to be exceeded, then the dust collector will be inspected by Greer's maintenance crew and repaired as soon as safely practicable. If a shutdown is necessary to implement repairs, then the kiln will not restart until those repairs are complete. The cause of the malfunction, malfunction start and end times, and corrective action taken will be recorded.

COMS malfunction: If the continuous opacity monitoring system (COMS) is malfunctioning, repairs will be made as soon as practicable. COMS malfunctions are identified by a fault alarm. Fault alarms are recorded by the data acquisition system. Fault alarms will be investigated in a timely manner to determine if the underlying fault condition is harming the validity of COMS data. Most faults can be cleared in-house by performing the manufacturer's prescribed routine maintenance followed by an on-stack calibration. If this does not correct the fault condition, then the COMS manufacturer will be contacted to secure their technical services. There are some fault alarms that do not negatively impact the validity of the COMS data, but instead are used to notify the operator of an undesirable condition that needs addressed. If the fault alarm is not related to a condition causing invalid data, then those fault times will not be counted as a malfunction. A COMS malfunction is a condition causing invalid data. During a COMS outage caused by a malfunction lasting longer than 24-hours, visible emissions observations by a Method 9 certified observer will be conducted at least once per day during daylight hours. The results will be maintained in a written log and made available for review upon request.

"Immediate" SSMP Reporting Requirements

In accordance with the requirements of 40 CFR §63.10(d)(5)(ii), if actions taken by Greer during a startup, shutdown, or malfunction event are not consistent with this plan and an applicable emission limit (15% opacity for lime kilns and 10% for) has been exceeded, then immediate notification must be made to the regulatory authority. This notification consists of:

1. Communication by phone or fax within two working days; and
2. Confirmation in writing within seven working days.

Fax number:
(304) 926-0479

Mailing address:
WV Division of Air Quality
601 57th Street
Charleston, WV 25304

The written notification must contain the following elements:

1. Name, title, and certifying signature of the responsible official;
2. Explanation of the circumstances of the event;
3. Reasons the SSMP was not followed;
4. Describe all excess emissions and/or parameter monitoring exceedances that occurred during the event; and
5. Describe all actions taken to minimize emissions during the event.

"Periodic" SSMP Reporting Requirements

In accordance with the requirements of 40 CFR §63.10(d)(5)(i), if actions taken by Greer during a startup or shutdown cause an exceedance to any applicable emission limitation; or if a malfunction occurred during the reporting period and the actions were consistent with this plan then a report will be made. The startup, shutdown, and malfunction report must consist of a letter containing the following:

1. Name, title, and certifying signature of the responsible official;
2. Number of events;
3. Duration of each event; and
4. Brief description for each type of malfunction which occurred during the reporting period and which caused of may have caused any applicable emission limitation to be exceeded.

The report must be submitted to the regulatory authority on a semi-annual basis. The report must be postmarked by the 30th day following the end of each calendar half and may be submitted concurrently with other semiannual reports (i.e. opacity monitoring system performance report and the Title V monitoring report).