

**TITLE V
RENEWAL APPLICATION
PERMIT NUMBER
R30-07100001-2004(SM01)**

*Greer Lime Company, Riverton Facility
Pendleton County, West Virginia*

Prepared for:

Greer Industries, Inc.
8477 Veteran's Memorial Highway
Masontown, West Virginia 26505

Prepared by:

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Project No. 0101-09-0093

April 2009

 **POTESTA**

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TITLE V PERMIT APPLICATION GENERAL FORMS
SECTION I-VI



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF AIR QUALITY

601 57th Street SE
Charleston, WV 25304
Phone: (304) 926-0475

www.wvdep.org/daq

TITLE V PERMIT APPLICATION - GENERAL FORMS

Section 1: General Information

Form with 10 numbered sections: 1. Name of Applicant, 2. Facility Name or Location, 3. DAQ Plant ID No., 4. Federal Employer ID No. (FEIN), 5. Permit Application Type, 6. Type of Business Entity, 7. Is the Applicant the..., 8. Number of onsite employees, 9. Governmental Code, 10. Business Confidentiality Claims.

11. Mailing Address		
Street or P.O. Box: PO Box 302		
City: Riverton	State: WV	Zip: 26811
Telephone Number: (304) 567-2141	Fax Number: (304) 567-2374	

12. Facility Location		
Street: Germany Valley Limestone Road	City: Riverton	County: Pendleton
UTM Easting: 640.00 km	UTM Northing: 4,293 km	Zone: <input checked="" type="checkbox"/> 17 or <input type="checkbox"/> 18
Directions: Approximately four miles south of Seneca Rock (Junction US 33 and WV Route 55) on US Route 33, turn left onto Germany Valley Limestone Road.		
Portable Source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Is facility located within a nonattainment area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, for what air pollutants?	
Is facility located within 50 miles of another state? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, name the affected state(s). Virginia	
Is facility located within 100 km of a Class I Area¹? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, do emissions impact a Class I Area¹? <input type="checkbox"/> Yes <input type="checkbox"/> No	If yes, name the area(s). Dolly Sods and Otter Creek, WV	
¹ Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.		

13. Contact Information		
Responsible Official: Joseph B. Dean		Title: Vice President-Environmental/Land
Street or P.O. Box: 8477 Veteran's Memorial Highway		
City: Masontown	State: WV	Zip: 26542
Telephone Number: (304) 864-5411	Fax Number: (304) 864-5458	
E-mail address: jdean@greerindustries.com		
Environmental Contact: Scott R. Kisner		Title: Quality Coordinator
Street or P.O. Box: PO Box 302		
City: Riverton	State: WV	Zip: 26811
Telephone Number: (304) 567-2141	Fax Number: (304) 567-3007	
E-mail address: skisner@greerlime.com		
Application Preparer: Christopher Schultz		Title: Scientist
Company: Potesta & Associates, Inc.		
Street or P.O. Box: 7012 MacCorkle Avenue, SE		
City: Charleston	State: WV	Zip: 25304
Telephone Number: (304) 342-1400	Fax Number: (304) 343-9031	
E-mail address: ccschultz@potesta.com		

14. Facility Description

List all processes, products, NAICS and SIC codes for normal operation, in order of priority. Also list any process, products, NAICS and SIC codes associated with any alternative operating scenarios if different from those listed for normal operation.

Process	Products	NAICS	SIC
Lime Manufacturing	Lime	32741	3274
Crushed and Broken Limestone Mining and Quarrying	Crushed and Broken Limestone	212312	1422

Provide a general description of operations.

Greer Lime Company’s Riverton facility operates a limestone quarry, crushing and sizing operations, a limestone grinding system, storage and loadout systems for various limestone products, a hydrate lime plant, a rotary lime kiln system with two (2) rotary kilns, a lime handling system, and a portable limestone crushing and sizing unit.

15. Provide an **Area Map** showing plant location as **ATTACHMENT A**.

16. Provide a **Plot Plan(s)**, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is located as **ATTACHMENT B**. For instructions, refer to “Plot Plan - Guidelines.”

17. Provide a detailed **Process Flow Diagram(s)** showing each process or emissions unit as **ATTACHMENT C**. Process Flow Diagrams should show all emission units, control equipment, emission points, and their relationships.

Section 2: Applicable Requirements

18. Applicable Requirements Summary	
Instructions: Mark all applicable requirements.	
<input type="checkbox"/> SIP	<input type="checkbox"/> FIP
<input checked="" type="checkbox"/> Minor source NSR (45CSR13)	<input type="checkbox"/> PSD (45CSR14)
<input type="checkbox"/> NESHAP (45CSR15)	<input type="checkbox"/> Nonattainment NSR (45CSR19)
<input checked="" type="checkbox"/> Section 111 NSPS Subparts Y, OOO, HH	<input checked="" type="checkbox"/> Section 112(d) MACT standards Subpart AAAAA
<input type="checkbox"/> Section 112(g) Case-by-case MACT	<input type="checkbox"/> 112(r) RMP
<input type="checkbox"/> Section 112(i) Early reduction of HAP	<input type="checkbox"/> Consumer/commercial prod. reqts., section 183(e)
<input type="checkbox"/> Section 129 Standards/Reqts.	<input type="checkbox"/> Stratospheric ozone (Title VI)
<input type="checkbox"/> Tank vessel reqt., section 183(f)	<input type="checkbox"/> Emissions cap 45CSR§30-2.6.1
<input type="checkbox"/> NAAQS, increments or visibility (temp. sources)	<input type="checkbox"/> 45CSR27 State enforceable only rule
<input type="checkbox"/> 45CSR4 State enforceable only rule	<input type="checkbox"/> Acid Rain (Title IV, 45CSR33)
<input type="checkbox"/> Emissions Trading and Banking (45CSR28)	<input type="checkbox"/> Compliance Assurance Monitoring (40CFR64)
<input type="checkbox"/> NO _x Budget Trading Program Non-EGUs (45CSR1)	<input type="checkbox"/> NO _x Budget Trading Program EGUs (45CSR26)

19. Non Applicability Determinations	
List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.	
40CFR64 Compliance Assurance Monitoring (CAM)	The two rotary kilns have uncontrolled potential to be Title V major for PM; however, they are subject to 40CFR63 Subpart AAAAA standards, which were proposed after 11/15/1990, and therefore exempts the pollutant specific emissions units (PSEU) from CAM. The coal handling system does not employ any add on control equipment that would require CAM monitoring The fine grinding lines do not encompass any individual PSEU having pre-controlled emissions exceeding TV thresholds.
40 C.F.R. §§ 60.380 - 60.386 NSPS Subpart LL (August 24, 1982)	Standards of Performance for Metallic Mineral Processing does not apply because lime or limestone is not metallic mineral.
40C.F.R. §§60.672(h), 60.675(h) NSPS Subpart OOO (August 1, 1985)	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 wet screening operations.
<input checked="" type="checkbox"/> Permit Shield	

19. Non Applicability Determinations *continued*

List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.

60 C.F.R. 60.676(c), (d), and (e) NSPS Subpart OOO (August 1, 1985)	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 manufacturing process.
60 C.F.R. §§ 60.730 - 60.737 NSPS Subpart UUU (April 23, 1986)	Standards of Performance for Calciners and Dryers in Mineral Industries does not apply because lime is not listed as a mineral processed or produced in a mineral processing plant.
45CSR§10-5.1 (SIP approved version)	This process is not defined as a refinery process gas stream or any other process gas stream that contains hydrogen sulfides to be combusted.
45CSR17 (August 31, 2000)	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.

Permit Shield

20. Facility-Wide Applicable Requirements

List all facility-wide applicable requirements. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements).

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement
1	45CSR§6-3.1.	3.1.1.	Open Burning	Open burning of refuse prohibited.
2	45CSR§6-3.2.	3.1.2.	Open Burning Exemptions	Stipulation to open burning exemptions of 45CSR§6-3.1.
3	40CFR61	3.1.3.	Asbestos	Asbestos inspection prior to demolition or renovation.
4	45CSR§4-3.1 State Enforceable only.	3.1.4.	Odor	Prohibits discharges of pollutants which cause or contribute to objectionable odors.
5	45CSR§13-10.5 State Enforceable only.	3.1.5.	Permanent Shutdown	Conditions under which a source may be considered permanently shutdown.
6	45CSR§11-5.2.	3.1.6.	Standby Plan for Reducing Emissions	When requested by the Secretary, standby plans for emissions reduction will be prepared.
7	WV Code §22-5-4(a)(14)	3.1.7.	Emission Inventory	Annual submission of an emission inventory.
8	40CFR82 Subpart F	3.1.8.	Ozone-depleting Substances	Requirement to follow: a. 40CFR §§ 82.154 & 82.156; b. 40CFR § 82.158; c. 40CFR § 82.161.
9	40CFR68	3.1.9.	Risk Management Plan	Submission of a risk management plan if required.
10	45CSR§7-3.1.	3.1.10.	Prevent & Control Particulate Matter	No smoke or particulate matter emission may exhibit greater than 20% opacity, except as noted in listed subsections.
11	45CSR§7-3.2.	3.1.11.	Prevent & Control Particulate Matter	Opacity provisions do not apply to smoke or particulate matter emissions which are less than 40% opacity for periods aggregating no more than 5 minutes in a 60 minute period.
12	45CSR§7-3.7.	3.1.12.	Prevent & Control Particulate Matter	No visible emissions from any storage structure required to have a full enclosure and control device pursuant to 45CSR§7 Subsection 5.1.
13	45CSR§7-4.1.	3.1.13.	Prevent & Control Particulate Matter	No particulate matter to open air from any source in excess of Table 45-7A.
14	45CSR§7-4.12.	3.1.14.	Prevent & Control Particulate Matter	Stacks shall have flow straightening devices or sufficient vertical length for acceptable stack sampling procedures.

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20. Facility-Wide Applicable Requirements, *continued*

List all facility-wide applicable requirements. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*).

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement
15	45CSR§7-5.1.	3.1.15.	Prevent & Control Particulate Matter	Lowest fugitive particulate emissions reasonably achievable.
16	45CSR§7-5.2.	3.1.16.	Prevent & Control Particulate Matter	Dust control of plant premises, roads, stockpiles, and general materials handling.
17	45CSR§7-9.1.	3.1.17.	Prevent & Control Particulate Matter	Due to unavoidable equipment malfunction the Director may permit excess emissions upon specific application to the Director.
18	45CSR16, 40CFR§60.672(a)	3.1.18.	Subpart OOO Standard for Particulate Matter	Standard for belt conveyor transfer points and stack emissions not to exceed 7% opacity.
19	45CSR16, 40CFR§60.672(b)	3.1.19.	Subpart OOO Standard for Particulate Matter	Standard for belt conveyor transfer points or affected facility not to exceed 10% opacity.
20	45CSR16, 40CFR§60.672(c)	3.1.20.	Subpart OOO Standard for Particulate Matter	Standard for crushers not to exceed 15% opacity.
21	45CSR16, 40CFR§60.672(d)	3.1.21.	Subpart OOO Standard for Particulate Matter	Truck dumping to screens, feed hoppers, or crushers is exempt from requirements.
22	45CSR16, 40CFR§60.672(e)	3.1.22.	Subpart OOO Standard for Particulate Matter	Standard for transfer points enclosed within a building.
23	45CSR16, 40CFR§60.672(f)	3.1.23.	Subpart OOO Standard for Particulate Matter	Standard for baghouse controlling individual storage bins not to exceed 7% opacity.
24	45CSR16, 40CFR§60.672(g)	3.1.24.	Subpart OOO Standard for Particulate Matter	Multiple storage bins with combined stack emissions shall comply with 3.1.18.
25	45CSR§7-10.3.	3.1.25.	Prevent & Control Particulate Matter	Exemption for maintenance operations.
26	45CSR§7-10.4.	3.1.26.	Prevent & Control Particulate Matter	Ability to apply for alternative visible emission standards for start up and shutdown.

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20. Facility-Wide Applicable Requirements, *continued*

List all facility-wide applicable requirements. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements).

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement
27	45CSR§30-5.1.c Emission Groups (002, 003, 004, 005, 006, 007, 008, 011)	3.2.1.	Compliance with Opacity Requirements	Requirement to conduct Method 9/22 opacity observations to comply with requirements of 45CSR7, 40CFR60 Subpart OOO, and 40CFR60 Subpart HH.
28	45CSR§30-5.1.c., Section 1.0	3.2.2.	Dust Collectors	Provisions for baghouse observations and monitoring
29	WV Code § 22-5-4(a)(15) and 45CSR13	3.3.1.	Stack Testing	Stack testing to determine compliance with emissions limitations.
30	45CSR§7-8.1.	3.3.2.	Prevent & Control Particulate Matter	Stack testing to determine particulate matter loading from exhaust gases.
31	45CSR§7-8.2.	3.3.3.	Prevent & Control Particulate Matter	Director or authorized representative may order other testing.
32	45CSR16, 40 C.F.R. § 60.675 (a), 45CSR13, R13-1685, (B)(5) and (6) Group (002, 003, 004, 005, 008, 011)	3.3.4.	Performance Tests	Reference methods and procedures shall be the test methods from 40CFR60.8. Alternative methods and procedures are in 40CFR60.672.
33	45CSR16, 40 C.F.R. § 60.675 (b), 45CSR13, R13-1685, (B) (5) and (6), R13-2113C, B.6.a., Group (002, 003, 004, 005, 008, 011)	3.3.5.	Compliance with Particulate Matter Standards	Shall determine compliance with PM standards in 40CFR60.672 by using Method 5 or 17 to determine PM concentration and Method 9 to determine opacity.
34	45CSR16, 40 C.F.R. § 60.675 (c), 45CSR13, R13-1685, (B) (5) and (6), Group (002, 003, 004, 005, 008, 011)	3.3.6.	Compliance with Particulate Matter Standards	Imposes additional requirements to the procedures of Method 9 (40CFR60 Appendix A) and 40 CFR60.11.
35	45CSR16, 40 C.F.R. § 60.675 (d), 45CSR13, R13-1685, (B) (5) and (6) Group (002, 003, 004, 005, 008, 011)	3.3.7.	Compliance with Particulate Matter Standards	Method 22 shall be used to determine compliance with 40CFR60.672(e) to determine fugitive emissions.
36	45CSR16, 40 C.F.R. § 60.675 (e), 45CSR13, R13-1685, (B) (5) and (6), Group (002, 003, 004, 005, 008, 011)	3.3.8.	Compliance with Particulate Matter Standards	Alternatives to reference methods and procedures of Section 3.3.6. (3).

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20. Facility-Wide Applicable Requirements, *continued*

List all facility-wide applicable requirements. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements).

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement
37	45CSR16, 40 C.F.R. § 60.675 (g), 45CSR13, R13-1685, (B) (5) and (6), Group (002, 003, 004, 005, 008, 011)	3.3.9.	Performance Testing	If after the 30 day notice of any required performance test there is a delay, a 7 day notice of rescheduling must be submitted to the Director.
38	45CSR§30-5.1.c.2.A., 45CSR13, R13-2670, 4.4.1.	3.4.1.	Monitoring Information	Permittee shall keep records of monitoring information.
39	45CSR§30-5.1.c.2.B.	3.4.2.	Record Retention	Permittee shall keep records of all monitoring information required by this permit for a period of five (5) years following the date of each occurrence. A minimum of two (2) years must be retained on site.
40	45CSR§30-5.1.c. State-Enforceable only.	3.4.3.	Odors	Permittee shall maintain a record of all odor complaints received.
41	45CSR§30-5.1.c.	3.4.4.	Dust Control	Permittee shall maintain a daily record of dust suppressants or other dust control measures applied at the facility.
42	45CSR§30-5.1.c.	3.4.5	Dust Control	Permittee shall inspect fugitive dust control systems daily May 1 through September 30 and monthly October 1 through April 30.
43	45CSR16, 40 C.F.R. §§ 60.676 (a) and (a)(2), 45CSR13, R13-2113C, B.6.c., Group (002, 003, 004,005, 008, 011)	3.4.6.	Subpart OOO Standard for Particulate Matter	To seek compliance with 40CFR60.670(d) information concerning the existing facility being replaced and the replacement equipment shall be submitted to the Director.
44	45CSR16, 40 C.F.R. § 60.676 (f). Group (002, 003, 004, 005, 008,011)	3.4.7.	Subpart OOO Standard for Particulate Matter	Shall submit written reports of results of performance testing to demonstrate compliance with standards of 40CFR60.672.

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20. Facility-Wide Applicable Requirements, *continued*

List all facility-wide applicable requirements. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*).

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement
45	45CSR16, 40 C.F.R. § 60.676 (g), Group (002, 003, 004, 005, 008,011)	3.4.8.	Subpart OOO Standard for Particulate Matter	Any screen, bucket elevator, or belt conveyor that processes saturated material and subsequently processes unsaturated material is subject to opacity and test requirements.
46	45CSR16, 40 C.F.R. § 60.676 (h), Group (002, 003, 004, 005, 008, 011)	3.4.9.	Notification Provisions	40CFR60.7(a)(2) notification requirements are waived for facilities regulated under Subpart OOO.
47	45CSR16, 40 C.F.R. § 60.676 (i), Group (002, 003, 004, 005, 008, 011)	3.4.10.	Notification Provisions	Notification of the actual start up date of each affected facility shall be submitted to the Director.
48	45CSR§30-4.4. and 5.1.c.3D.	3.5.1.	Responsible Official	Certification of required documents by a responsible official.
49	45CSR§30-5.1.c.3.E.	3.5.2.	Confidential Treatment	Confidential submission of reporting under 45CSR§30-5.1.c.3.
50	NA	3.5.3.	NA	Procedure and addresses for submissions.
51	45CSR§30-8.	3.5.4.	Certified Emissions Statement	Submission of a certified emission statement and pay fees on an annual basis.
52	45CSR§30-5.3.e.	3.5.5.	Compliance Certification	Certification of compliance with the conditions of the permit.
53	45CSR§30-5.1.c.3.A.	3.5.6.	Semi-Annual Monitoring Reports	Requirement to submit semi-annual reports of required monitoring.
54	NA	3.5.7.	Emergencies	For emergency situations refer to Permit Section 2.17.

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20. Facility-Wide Applicable Requirements, *continued*

List all facility-wide applicable requirements. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*).

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement
55	45CSR§30-5.1.c.3.C. 45CSR§30-5.1.c.3.B. 45CSR§30-5.1.c.3.D.	3.5.8.	Deviations	<ul style="list-style-type: none"> a. Requirement to submit supplemental reports of deviations of: <ol style="list-style-type: none"> 1. emergency or upset conditions; 2. imminent and substantial danger to public health, safety, or environment; 3. more frequent reporting required by permit; 4. identify cause of deviation. b. Deviation of conditions defined in permit, probable cause and corrective actions. c. Certified by responsible official.
56	45CSR§30-4.3.h.1.B.	3.5.9.	New Applicable Requirements	New applicable requirements promulgated during term of permit must be met on a timely basis.

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For all facility-wide applicable requirements listed above, provide monitoring/testing / recordkeeping / reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Method of Compliance
1	45CSR§6-3.1.	3.1.1.	Open Burning	NA. Facility does not conduct open burning.
2	45CSR§6-3.2.	3.1.2.	Open Burning Exemptions	NA
3	40CFR61	3.1.3.	Asbestos	Inspection will occur as required.
4	45CSR§4-3.1 State Enforceable only.	3.1.4.	Odor	Recordkeeping of complaints.
5	45CSR§13-10.5 State Enforceable only.	3.1.5.	Permanent Shutdown	NA
6	45CSR§11-5.2.	3.1.6.	Standby Plan for Reducing Emissions	When requested.
7	WV Code §22-5-4(a)(14)	3.1.7.	Emission Inventory	Reporting.
8	40CFR82 Subpart F	3.1.8.	Ozone-depleting Substances	Requirement to follow: a. 40CFR §§ 82.154 & 82.156; b. 40CFR § 82.158; c. 40CFR § 82.161.
9	40CFR68	3.1.9.	Risk Management Plan	Submission if required.
10	45CSR§7-3.1.	3.1.10.	Prevent & Control Particulate Matter	Monitoring; Recordkeeping.
11	45CSR§7-3.2.	3.1.11.	Prevent & Control Particulate Matter	Monitoring; Recordkeeping.
12	45CSR§7-3.7.	3.1.12.	Prevent & Control Particulate Matter	Monitoring; Recordkeeping.
13	45CSR§7-4.1.	3.1.13.	Prevent & Control Particulate Matter	Monitoring; Recordkeeping.
14	45CSR§7-4.12.	3.1.14.	Prevent & Control Particulate Matter	Stacks shall be so equipped.
15	45CSR§7-5.1.	3.1.15.	Prevent & Control Particulate Matter	Monitoring; Recordkeeping.
16	45CSR§7-5.2.	3.1.16.	Prevent & Control Particulate Matter	Monitoring; Recordkeeping.

For all facility-wide applicable requirements listed above, provide monitoring/testing / recordkeeping / reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.) *continued*

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Method of Compliance
17	45CSR§7-9.1.	3.1.17.	Prevent & Control Particulate Matter	Will make application as necessary.
18	45CSR16, 40CFR§60.672(a)	3.1.18.	Subpart OOO Standard for Particulate Matter	Monitoring; Recordkeeping.
19	45CSR16, 40CFR§60.672(b)	3.1.19.	Subpart OOO Standard for Particulate Matter	Testing; Monitoring; Recordkeeping; Reporting.
20	45CSR16, 40CFR§60.672(c)	3.1.20.	Subpart OOO Standard for Particulate Matter	Testing; Monitoring; Recordkeeping; Reporting.
21	45CSR16, 40CFR§60.672(d)	3.1.21.	Subpart OOO Standard for Particulate Matter	Monitoring; Recordkeeping.
22	45CSR16, 40CFR§60.672(e)	3.1.22.	Subpart OOO Standard for Particulate Matter	Testing; Monitoring; Recordkeeping; Reporting.
23	45CSR16, 40CFR§60.672(f)	3.1.23.	Subpart OOO Standard for Particulate Matter	Testing; Monitoring; Recordkeeping; Reporting.
24	45CSR16, 40CFR§60.672(g)	3.1.24.	Subpart OOO Standard for Particulate Matter	Testing; Monitoring; Recordkeeping.
25	45CSR§7-10.3.	3.1.25.	Prevent & Control Particulate Matter	Recordkeeping.
26	45CSR§7-10.4.	3.1.26.	Prevent & Control Particulate Matter	Will apply as necessary for alternative standards for start up and shutdown.
27	45CSR§30-5.1.c Emission Groups (002, 003, 004, 005, 006, 007, 008, 011)	3.2.1.	Compliance with Opacity Requirements	Testing; Monitoring; Recordkeeping; Reporting.
28	45CSR§30-5.1.c., Section 1.0	3.2.2.	Dust Collectors	Monitoring; Recordkeeping.
29	WV Code § 22-5-4(a)(15) and 45CSR13	3.3.1.	Stack Testing	Testing; Monitoring; Recordkeeping; Reporting.
30	45CSR§7-8.1.	3.3.2.	Prevent & Control Particulate Matter	Testing; Monitoring; Recordkeeping; Reporting.
31	45CSR§7-8.2.	3.3.3.	Prevent & Control Particulate Matter	Testing; Monitoring; Recordkeeping; Reporting if so required.
32	45CSR16, 40 C.F.R. § 60.675 (a), 45CSR13, R13-1685, (B)(5) and (6) Group (002, 003, 004, 005, 008, 011)	3.3.4.	Performance Tests	Testing.

For all facility-wide applicable requirements listed above, provide monitoring/testing / recordkeeping / reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.) *continued*

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Method of Compliance
33	45CSR16, 40 C.F.R. § 60.675 (b), 45CSR13, R13-1685, (B) (5) and (6), R13-2113C, B.6.a., Group (002, 003, 004, 005, 008, 011)	3.3.5.	Compliance with Particulate Matter Standards	Testing; Monitoring; Recordkeeping; Reporting.
34	45CSR16, 40 C.F.R. § 60.675 (c), 45CSR13, R13-1685, (B) (5) and (6), Group (002, 003, 004, 005, 008, 011)	3.3.6.	Compliance with Particulate Matter Standards	Testing.
35	45CSR16, 40 C.F.R. § 60.675 (d), 45CSR13, R13-1685, (B) (5) and (6) Group (002, 003, 004, 005, 008, 011)	3.3.7.	Compliance with Particulate Matter Standards	Testing; Monitoring; Recordkeeping; Reporting.
36	45CSR16, 40 C.F.R. § 60.675 (e), 45CSR13, R13-1685, (B) (5) and (6), Group (002, 003, 004, 005, 008, 011)	3.3.8.	Compliance with Particulate Matter Standards	Testing.
37	45CSR16, 40 C.F.R. § 60.675 (g), 45CSR13, R13-1685, (B) (5) and (6), Group (002, 003, 004, 005, 008, 011)	3.3.9.	Performance Testing	Reporting.
38	45CSR§30-5.1.c.2.A., 45CSR13, R13-2670, 4.4.1.	3.4.1.	Monitoring Information	Recordkeeping.
39	45CSR§30-5.1.c.2.B.	3.4.2.	Record Retention	Recordkeeping.
40	45CSR§30-5.1.c. State-Enforceable only.	3.4.3.	Odors	Recordkeeping.
41	45CSR§30-5.1.c.	3.4.4.	Dust Control	Recordkeeping.
42	45CSR§30-5.1.c.	3.4.5	Dust Control	Monitoring; Recordkeeping.
43	45CSR16, 40 C.F.R. §§ 60.676 (a) and (a)(2), 45CSR13, R13-2113C, B.6.c., Group (002, 003, 004,005, 008, 011)	3.4.6.	Subpart OOO Standard for Particulate Matter	Reporting.
44	45CSR16, 40 C.F.R. § 60.676 (f). Group (002, 003, 004, 005, 008,011)	3.4.7.	Subpart OOO Standard for Particulate Matter	Reporting.
45	45CSR16, 40 C.F.R. § 60.676 (g), Group (002, 003, 004, 005, 008,011)	3.4.8.	Subpart OOO Standard for Particulate Matter	Testing; Monitoring; Recordkeeping; Reporting.
46	45CSR16, 40 C.F.R. § 60.676 (h), Group (002, 003, 004, 005, 008, 011)	3.4.9.	Notification Provisions	Recordkeeping.
47	45CSR16, 40 C.F.R. § 60.676 (i), Group (002, 003, 004, 005, 008, 011)	3.4.10.	Notification Provisions	Reporting.

For all facility-wide applicable requirements listed above, provide monitoring/testing / recordkeeping / reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.) *continued*

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Method of Compliance
48	45CSR§30-4.4. and 5.1.c.3D.	3.5.1.	Responsible Official	Certification of required documents by a responsible official.
49	45CSR§30-5.1.c.3.E.	3.5.2.	Confidential Treatment	Confidential submission of reporting under 45CSR§30-5.1.c.3.
50	NA	3.5.3.	NA	Procedure and addresses for submissions.
51	45CSR§30-8.	3.5.4.	Certified Emissions Statement	Reporting.
52	45CSR§30-5.3.e.	3.5.5.	Compliance Certification	Reporting.
53	45CSR§30-5.1.c.3.A.	3.5.6.	Semi-Annual Monitoring Reports	Reporting.
54	NA	3.5.7.	Emergencies	For emergency situations refer to Permit Section 2.17.
55	45CSR§30-5.1.c.3.C. 45CSR§30-5.1.c.3.B. 45CSR§30-5.1.c.3.D.	3.5.8.	Deviations	Reporting.
56	45CSR§30-4.3.h.1.B.	3.5.9.	New Applicable Requirements	New applicable requirements promulgated during term of permit must be met on a timely basis.

Are you in compliance with all facility-wide applicable requirements? Yes No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

21. Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance MM/DD/YYYY	List any Permit Determinations that Affect the Permit (<i>if any</i>)
R30-07100001-2004	10/25/2004	
R13-2670A	10/13/2006	
R13-2113G	11/25/2008	
R13-2222-P2	03/20/2002	
R13-1788	04/24/1995	
R13-1685	02/10/1994	
R13-1396B	02/03/2003	
R13-1381A	05/25/2004	
R13-2113H	Pending	Permit application for Class II Administrative Update submitted to DAQ 01/30/2009. The emissions for R13-2113H are accounted for in this application
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22. Inactive Permits/Obsolete Permit Conditions

Permit Number	Date of Issuance	Permit Condition Number
R13-2670	08/29/2006	Superceded and replaced by R13-2670A
R13-2113F	07/09/2007	Superceded and replaced by R13-2113G
R13-2113E	02/05/2007	Superceded and replaced by R13-2113F
R13-2113D	10/03/2006	Superceded and replaced by R13-2113E
R13-2113C	12/10/2002	Superceded and replaced by R13-2113D
R13-2113B	09/25/2000	Superceded and replaced by R13-2113C
R13-2113A	12/04/1997	Superceded and replaced by R13-2113B
R13-2113	07/28/1997	Superceded and replaced by R13-2113A
R13-2222-P1	11/05/2001	Superceded and replaced by R13-2222-P2
R13-2222	11/04/1998	Superceded and replaced by R13-2222-P1
R13-1396A	08/11/1999	Superceded and replaced by R13-1396B
R13-1396	10/7/1991	Superceded and replaced by R13-1396A
R13-727	12/12/1983	Superceded and replaced by R13-1396
R13-1381R	04/24/1995	Superceded and replaced by R13-1381A
R13-1381	06/27/1991	Superceded and replaced by R13-1381R
R13-1106	04/19/1989	Superceded and replaced by R13-1381
R13-725	12/12/1983	Effectively superceded and replaced by R13-2113G which repermited all Group 003 equipment to Group 011.
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Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year]	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	160.28
Nitrogen Oxides (NO _x)	300.55
Lead (Pb)	0.0113
Particulate Matter (PM _{2.5}) ¹	
Particulate Matter (PM ₁₀) ¹	1,369.54
Total Particulate Matter (TSP)	2,880.70
Sulfur Dioxide (SO ₂)	134.44
Volatile Organic Compounds (VOC)	37.74
Hazardous Air Pollutants ²	Potential Emissions
Total HAPs	53.86
HCl + Cl ₂	49.46
HF	4.05
Speciated HAPs See Attachment J	0.35
Regulated Pollutants other than Criteria and HAP	Potential Emissions
¹ PM _{2.5} and PM ₁₀ are components of TSP. ² For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.	

Section 4: Insignificant Activities

24. Insignificant Activities (Check all that apply)	
<input checked="" type="checkbox"/>	1. Air compressors and pneumatically operated equipment, including hand tools.
<input type="checkbox"/>	2. Air contaminant detectors or recorders, combustion controllers or shutoffs.
<input checked="" type="checkbox"/>	3. Any consumer product used in the same manner as in normal consumer use, provided the use results in a duration and frequency of exposure which are not greater than those experienced by consumer, and which may include, but not be limited to, personal use items; janitorial cleaning supplies, office supplies and supplies to maintain copying equipment.
<input checked="" type="checkbox"/>	4. Bathroom/toilet vent emissions.
<input checked="" type="checkbox"/>	5. Batteries and battery charging stations, except at battery manufacturing plants.
<input checked="" type="checkbox"/>	6. Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents. Many lab fume hoods or vents might qualify for treatment as insignificant (depending on the applicable SIP) or be grouped together for purposes of description.
<input type="checkbox"/>	7. Blacksmith forges.
<input type="checkbox"/>	8. Boiler water treatment operations, not including cooling towers.
<input checked="" type="checkbox"/>	9. Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
<input type="checkbox"/>	10. CO ₂ lasers, used only on metals and other materials which do not emit HAP in the process.
<input checked="" type="checkbox"/>	11. Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
<input checked="" type="checkbox"/>	12. Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
<input checked="" type="checkbox"/>	13. Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
<input type="checkbox"/>	14. Demineralized water tanks and demineralizer vents.
<input type="checkbox"/>	15. Drop hammers or hydraulic presses for forging or metalworking.
<input type="checkbox"/>	16. Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.
<input type="checkbox"/>	17. Emergency (backup) electrical generators at residential locations.
<input checked="" type="checkbox"/>	18. Emergency road flares.
<input type="checkbox"/>	19. Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO _x , SO ₂ , VOC and PM) into the atmosphere at a rate of less than 1 pound per hour and less than 10,000 pounds per year aggregate total for each criteria pollutant from all emission units. Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis: _____ _____ _____ _____ _____ _____ _____ _____

24. Insignificant Activities (Check all that apply)	
<input type="checkbox"/>	<p>20. Emission units which do not have any applicable requirements and which emit hazardous air pollutants into the atmosphere at a rate of less than 0.1 pounds per hour and less than 1,000 pounds per year aggregate total for all HAPs from all emission sources. This limitation cannot be used for any source which emits dioxin/furans nor for toxic air pollutants as per 45CSR27.</p> <p>Please specify all emission units for which this exemption applies along with the quantity of hazardous air pollutants emitted on an hourly and annual basis:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>
<input type="checkbox"/>	21. Environmental chambers not using hazardous air pollutant (HAP) gases.
<input checked="" type="checkbox"/>	22. Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.
<input type="checkbox"/>	23. Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.
<input checked="" type="checkbox"/>	24. Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
<input type="checkbox"/>	25. Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
<input checked="" type="checkbox"/>	26. Fire suppression systems.
<input checked="" type="checkbox"/>	27. Firefighting equipment and the equipment used to train firefighters.
<input checked="" type="checkbox"/>	28. Flares used solely to indicate danger to the public.
<input type="checkbox"/>	29. Fugitive emission related to movement of passenger vehicle provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.
<input type="checkbox"/>	30. Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.
<input checked="" type="checkbox"/>	31. Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.
<input type="checkbox"/>	32. Humidity chambers.
<input type="checkbox"/>	33. Hydraulic and hydrostatic testing equipment.
<input type="checkbox"/>	34. Indoor or outdoor kerosene heaters.
<input checked="" type="checkbox"/>	35. Internal combustion engines used for landscaping purposes.
<input type="checkbox"/>	36. Laser trimmers using dust collection to prevent fugitive emissions.
<input type="checkbox"/>	37. Laundry activities, except for dry-cleaning and steam boilers.
<input checked="" type="checkbox"/>	38. Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
<input type="checkbox"/>	39. Oxygen scavenging (de-aeration) of water.
<input type="checkbox"/>	40. Ozone generators.
<input checked="" type="checkbox"/>	41. Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification. (Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant

24. Insignificant Activities (Check all that apply)	
	owners/operators must still get a permit if otherwise requested.)
<input type="checkbox"/>	42. Portable electrical generators that can be moved by hand from one location to another. "Moved by Hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.
<input checked="" type="checkbox"/>	43. Process water filtration systems and demineralizers.
<input checked="" type="checkbox"/>	44. Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification.
<input checked="" type="checkbox"/>	45. Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
<input checked="" type="checkbox"/>	46. Routing calibration and maintenance of laboratory equipment or other analytical instruments.
<input type="checkbox"/>	47. Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.
<input type="checkbox"/>	48. Shock chambers.
<input type="checkbox"/>	49. Solar simulators.
<input type="checkbox"/>	50. Space heaters operating by direct heat transfer.
<input type="checkbox"/>	51. Steam cleaning operations.
<input type="checkbox"/>	52. Steam leaks.
<input type="checkbox"/>	53. Steam sterilizers.
<input type="checkbox"/>	54. Steam vents and safety relief valves.
<input type="checkbox"/>	55. Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.
<input type="checkbox"/>	56. Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP. Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.
<input type="checkbox"/>	57. Such other sources or activities as the Director may determine.
<input checked="" type="checkbox"/>	58. Tobacco smoking rooms and areas.
<input checked="" type="checkbox"/>	59. Vents from continuous emissions monitors and other analyzers.

Section 5: Emission Units, Control Devices, and Emission Points

25. Equipment Table
Fill out the Title V Equipment Table and provide it as ATTACHMENT D .
26. Emission Units
For each emission unit listed in the Title V Equipment Table , fill out and provide an Emission Unit Form as ATTACHMENT E .
For each emission unit not in compliance with an applicable requirement, fill out a Schedule of Compliance Form as ATTACHMENT F .
27. Control Devices
For each control device listed in the Title V Equipment Table , fill out and provide an Air Pollution Control Device Form as ATTACHMENT G .
For any control device that is required on an emission unit in order to meet a standard or limitation for which the potential pre-control device emissions of an applicable regulated air pollutant is greater than or equal to the Title V Major Source Threshold Level, refer to the Compliance Assurance Monitoring (CAM) Form(s) for CAM applicability. Fill out and provide these forms, if applicable, for each Pollutant Specific Emission Unit (PSEU) as ATTACHMENT H .

Section 6: Certification of Information

28. Certification of Truth, Accuracy and Completeness and Certification of Compliance

*Note: This Certification must be signed by a responsible official. The **original**, signed in **blue ink**, must be submitted with the application. Applications without an **original** signed certification will be considered as incomplete.*

a. Certification of Truth, Accuracy and Completeness

I certify that I am a responsible official (as defined at 45CSR§30-2.38) and am accordingly authorized to make this submission on behalf of the owners or operators of the source described in this document and its attachments. I certify under penalty of law that I have personally examined and am familiar with the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine and/or imprisonment.

b. Compliance Certification

Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.

Responsible official (type or print)

Name: Joseph B. Dean

Title: Vice President Environmental/Land

Responsible official's signature:

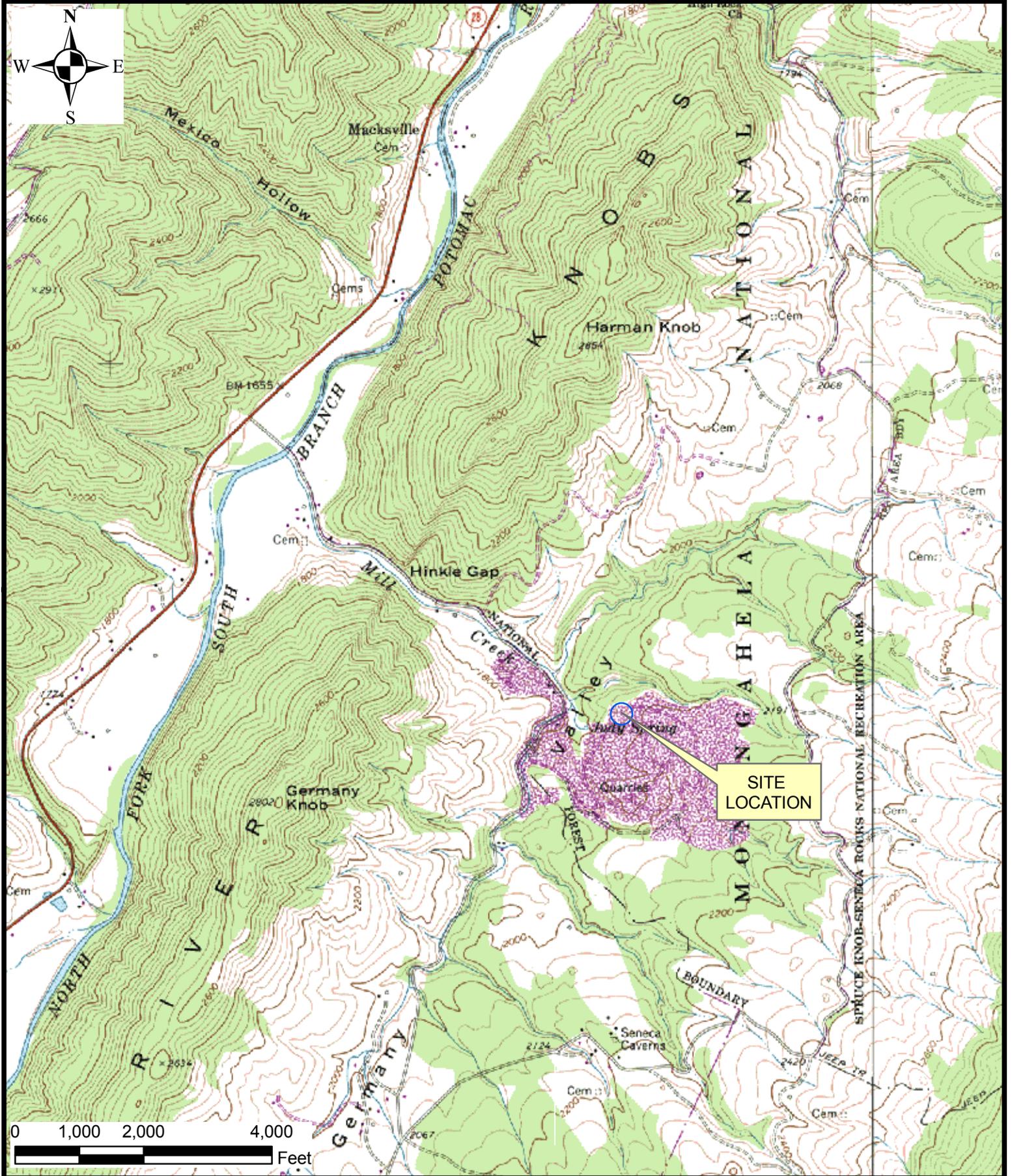
Signature: _____ Signature Date: _____
 (Must be signed and dated in blue ink)

Note: Please check all applicable attachments included with this permit application:

<input checked="" type="checkbox"/>	ATTACHMENT A: Area Map
<input checked="" type="checkbox"/>	ATTACHMENT B: Plot Plan(s)
<input checked="" type="checkbox"/>	ATTACHMENT C: Process Flow Diagram(s)
<input checked="" type="checkbox"/>	ATTACHMENT D: Equipment Table
<input checked="" type="checkbox"/>	ATTACHMENT E: Emission Unit Form(s)
<input type="checkbox"/>	ATTACHMENT F: Schedule of Compliance Form(s)
<input checked="" type="checkbox"/>	ATTACHMENT G: Air Pollution Control Device Form(s)
<input type="checkbox"/>	ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s)

All of the required forms and additional information can be found and downloaded from, the DEP website at www.wvdep.org/daq, requested by phone (304) 926-0475, and/or obtained through the mail.

ATTACHMENT A
AREA MAP

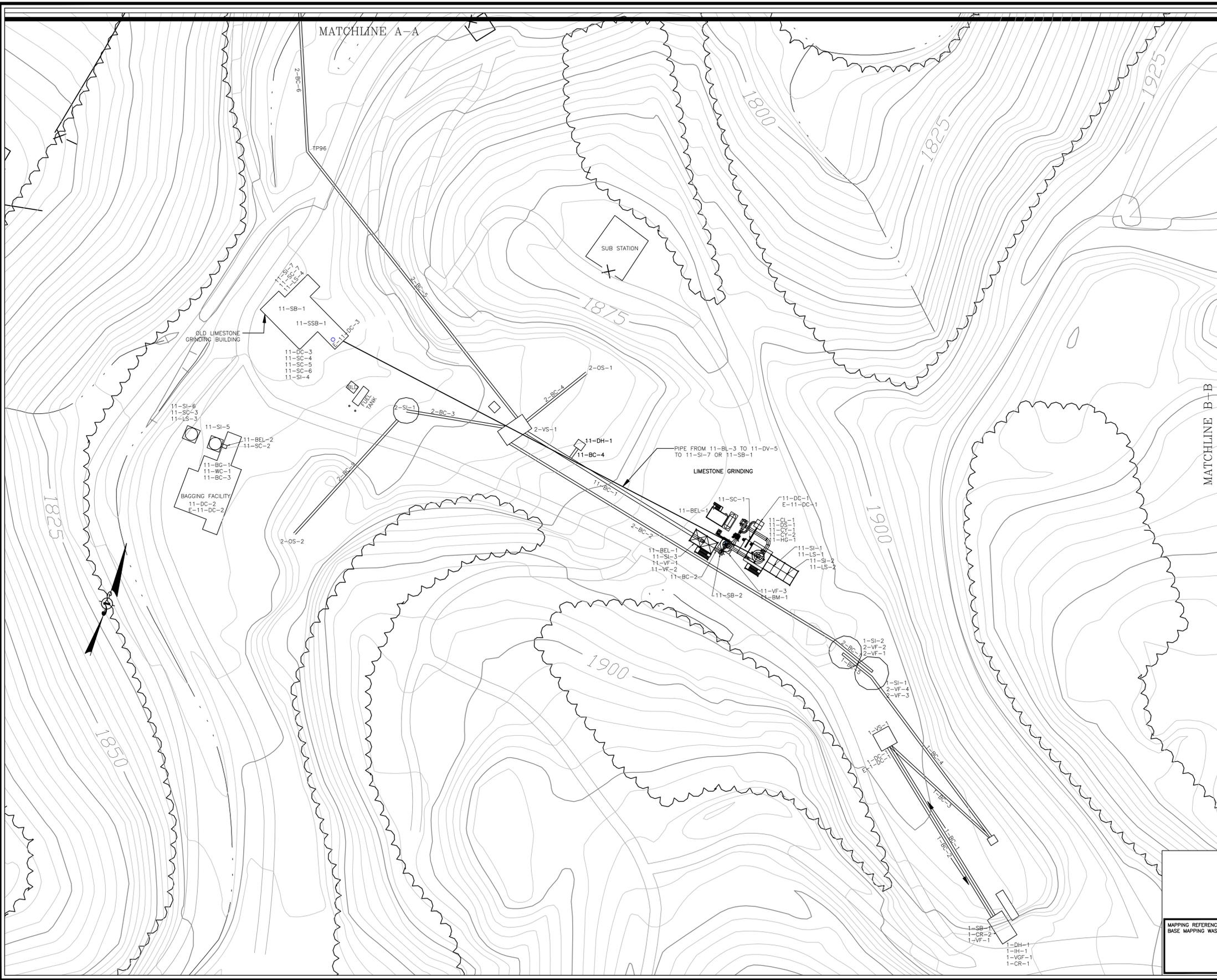


SCALE: AS NOTED
 DATE: MARCH 2009
 PROJECT NO.: 0101-09-0093
 DRAWN: RWR
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Title
**ATTACHMENT A - AREA MAP
 GREER LIME COMPANY
 RIVERTON, WEST VIRGINIA**

ATTACHMENT B
PLOT PLANS

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 PLOT DATE/TIME: Apr 16, 2009 - 10:07am
 PLOT BY: MROBERT



No.	Date	Revision

MATCHLINE B-B
 MATCHLINE B-B

GRAPHIC SCALE

MAPPING REFERENCE:
 BASE MAPPING WAS PROVIDED BY GREER LIME COMPANY.

PRELIMINARY

01
 CAD File No.
 BEL
 Drawn
 CCS
 Checked
 PEW
 Approved
 1" = 60'
 Scale:
 APRIL 2009
 Date:
 09-0093
 Project No.

Potesta & Associates, Inc.
 ENGINEERS AND ENVIRONMENTAL CONSULTANTS
 7012 MacCorkle Ave. SE, Charleston, WV 25304
 TEL: (304) 342-1400 FAX: (304) 342-9031
 E-Mail Address: potesta@potesta.com



Client
 GREER LIME COMPANY
 UNION DISTRICT
 PENDLETON COUNTY
 WEST VIRGINIA

Title
 PLAN VIEW
 RIVERTON FACILITY

1
 Drawing No.

No.	Date	Revision

-01
 CAD File No.
 BEL
 Drawn
 CCS
 Checked
 PEW
 Approved
 1" = 60'
 Scale:
 APRIL 2009
 Date:
 09-0093
 Project No.

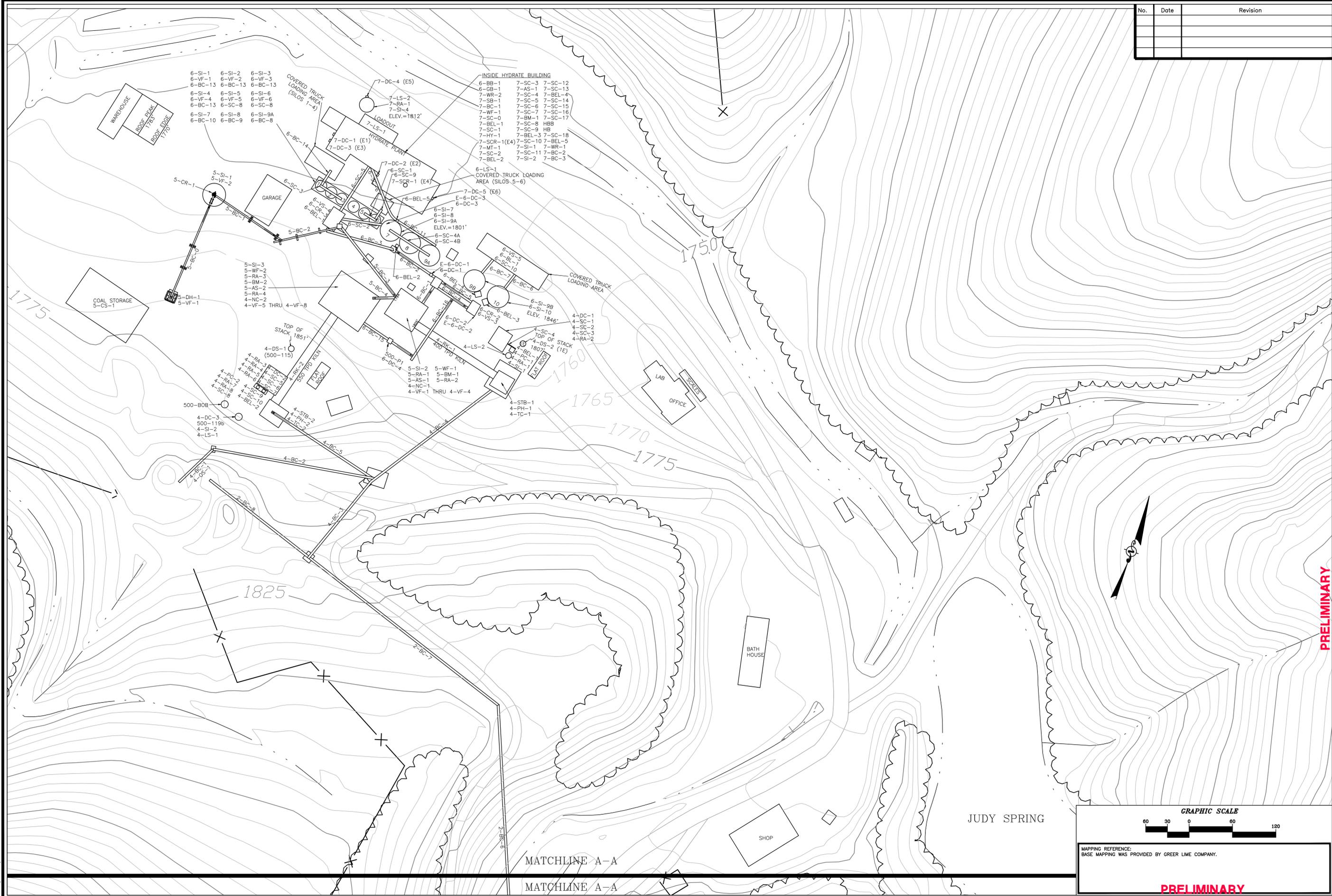
Potesta & Associates, Inc.
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 E-Mail Address: potesta@potesta.com



Client: GREER LIME COMPANY
 UNION DISTRICT
 PENDLETON COUNTY
 WEST VIRGINIA

Title: PLAN VIEW
 RIVERTON FACILITY

2
 Drawing No.



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No.	Date	Revision

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 CAD File No.
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 Drawn
 CCS
 Checked
 PEW
 Approved
 1" = 60'
 Scale:
 APRIL 2009
 Date:
 09-0093
 Project No.

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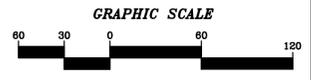


PRELIMINARY
 Client: GREER LIME COMPANY
 UNION DISTRICT
 PENDLETON COUNTY
 WEST VIRGINIA

Title
 PLAN VIEW
 RIVERTON FACILITY

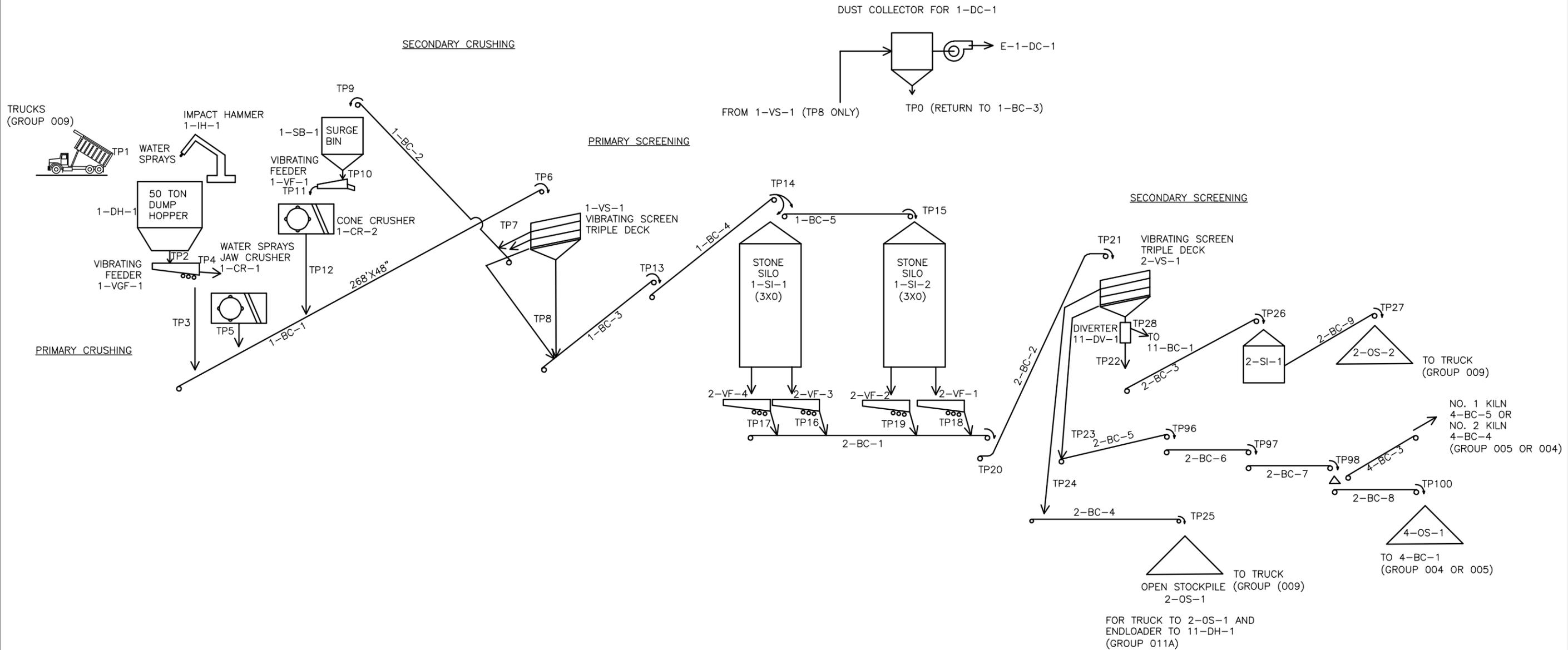
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MAPPING REFERENCE:
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PRELIMINARY

ATTACHMENT C
PROCESS FLOW DIAGRAMS



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 Plotted By: BEleedy

PROJECT #: 09-0093 FILENAME: B09-0093-01



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 E-Mail Address: potesta@potesta.com

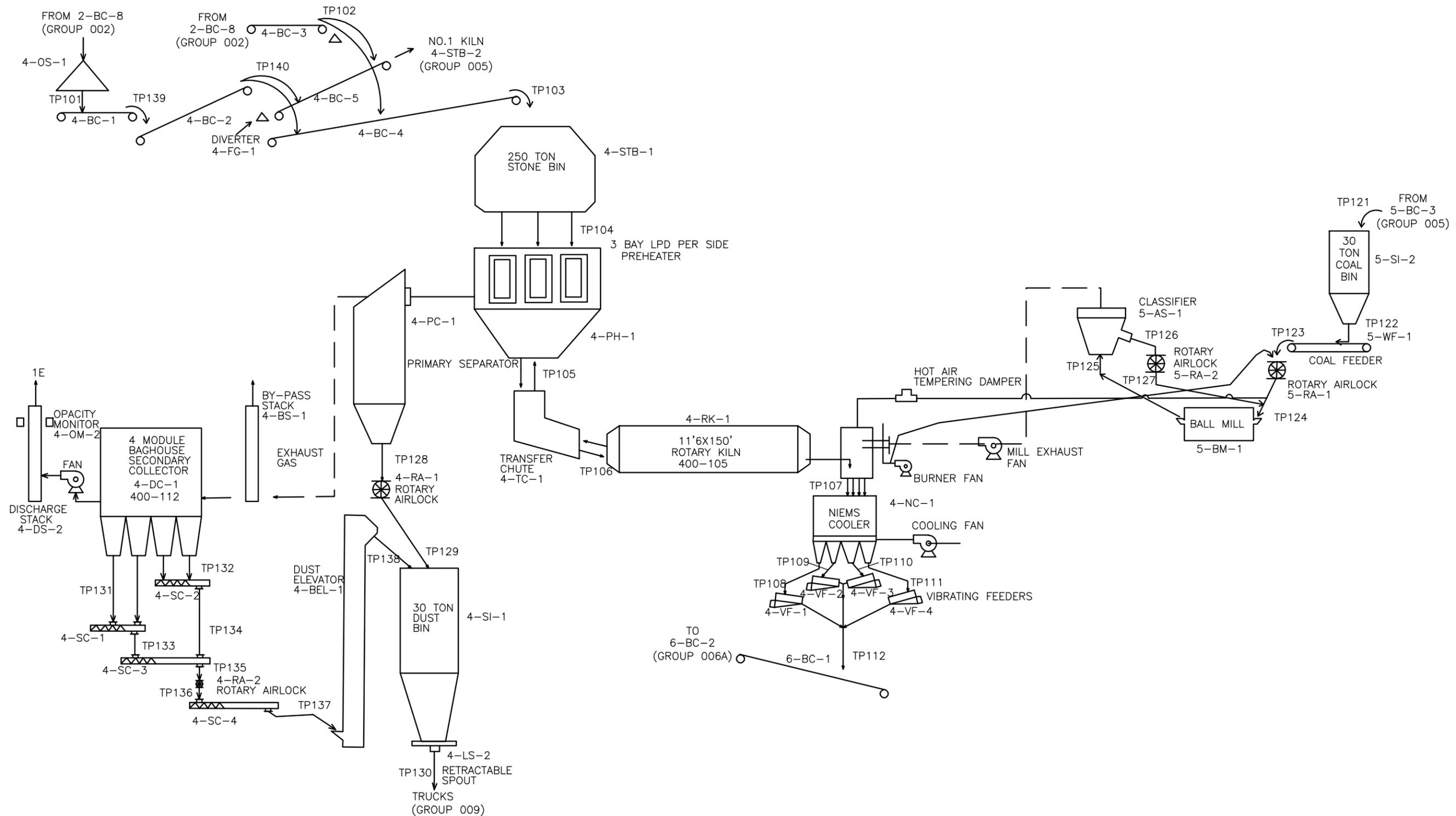
Project PROCESS FLOW DIAGRAM
 EMISSION GROUP 002
 PRIMARY AND SECONDARY CRUSHING
 SYSTEMS GREER LIME COMPANY
 RIVERTON, WEST VIRGINIA

Scale NOT TO SCALE

Date APRIL 2009

Dwg. No.

GROUP 002



XREF Files: IMAGE Files: S:\C3D-Projects\09-0093-GREER TITLE V\B09-0093-01.dwg
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PROJECT #: 09-0093 FILENAME: B09-0093-01



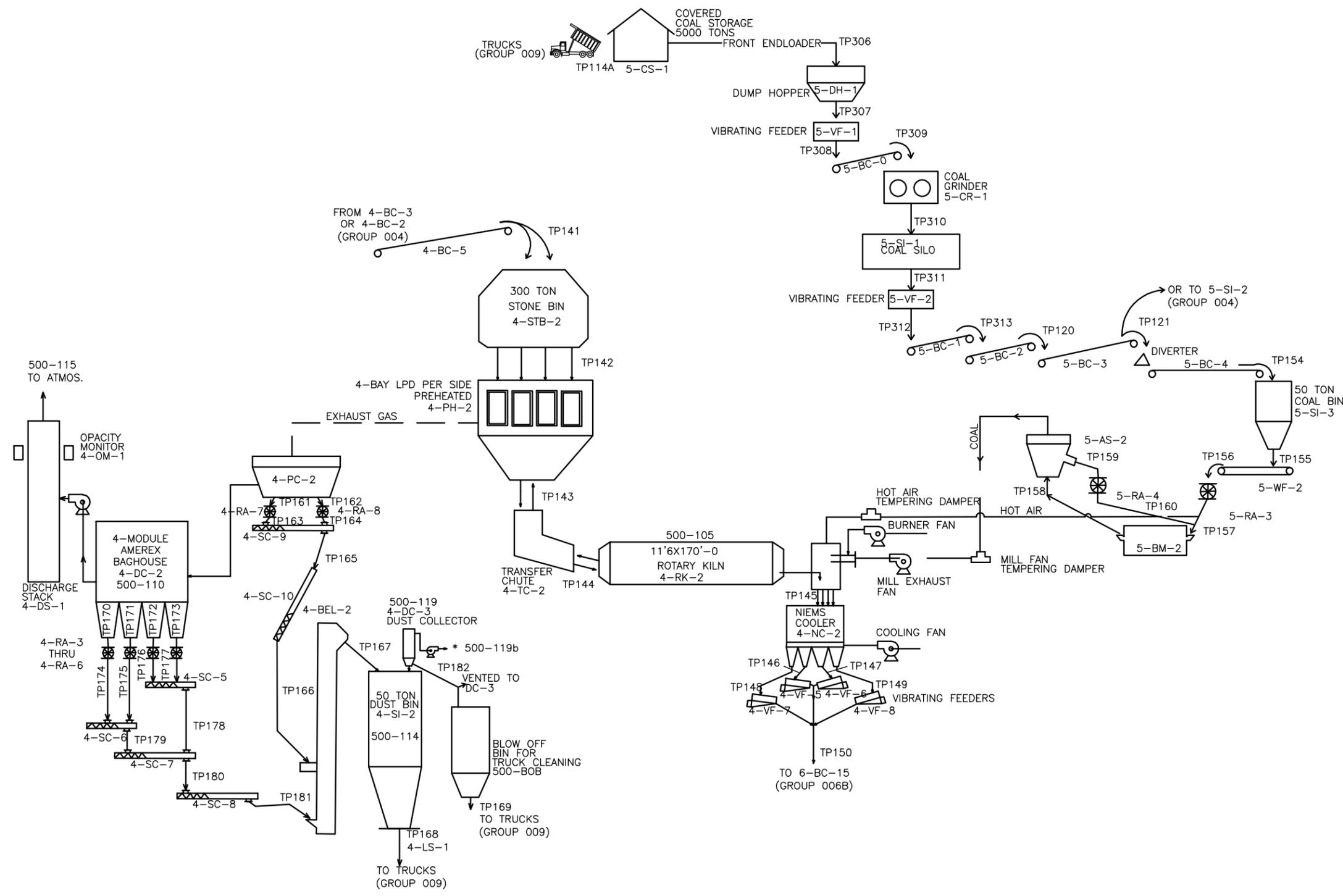
Potesta & Associates, Inc.
 ENGINEERS AND ENVIRONMENTAL CONSULTANTS

7012 MacCorkle Ave. SE, Charleston, WV 25304
 TEL: (304) 342-1400 FAX: (304) 343-9031
 E-Mail Address: potesta@potesta.com

Project PROCESS FLOW DIAGRAM
 EMISSION GROUP 004
 400TPD ROTARY KILN SYSTEM
 GREER LIME COMPANY
 RIVERTON, WEST VIRGINIA

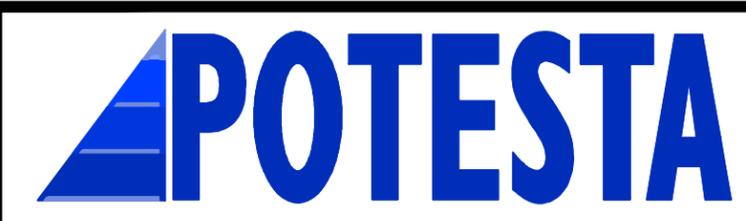
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Dwg. No. GROUP 004



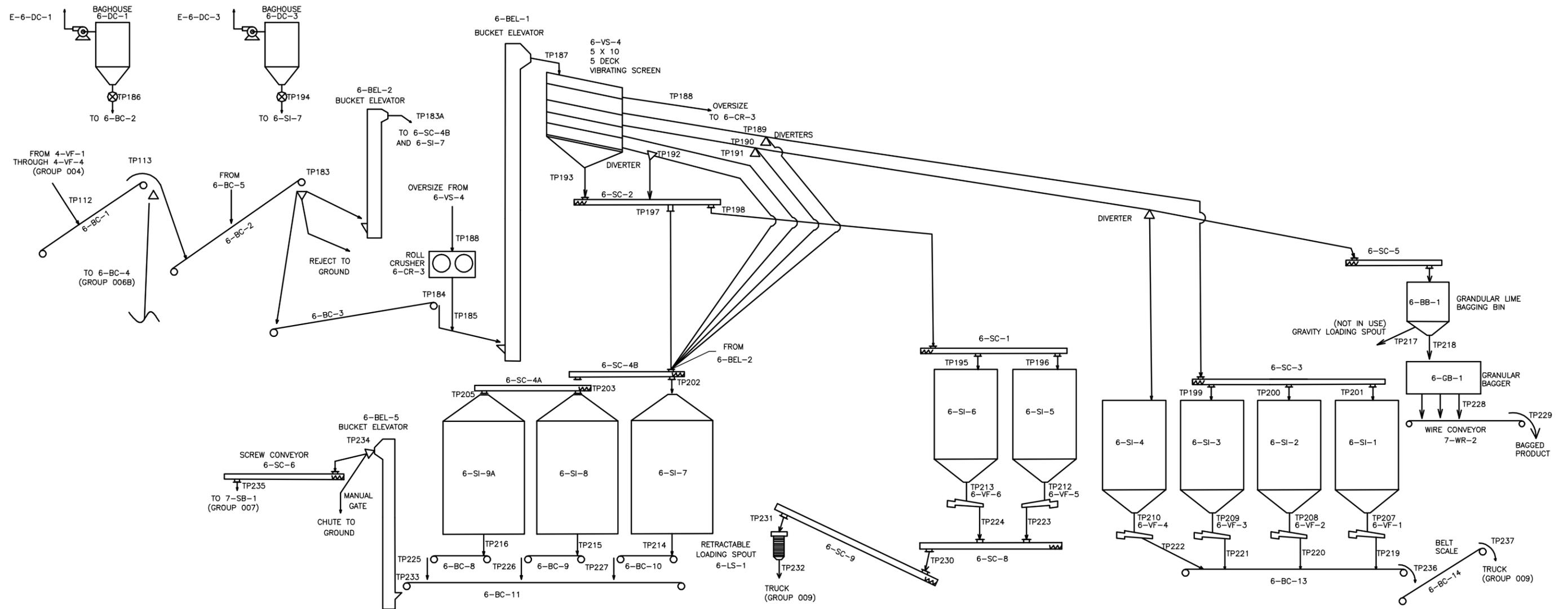
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 Plotted By: BELeedy

PROJECT #: 09-0093 FILENAME: B09-0093-01



Potesta & Associates, Inc.
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Project		PROCESS FLOW DIAGRAM EMISSION GROUP 005 500TPD ROTARY KILN SYSTEM GREER LIME COMPANY RIVERTON, WEST VIRGINIA
Scale	NOT TO SCALE	Dwg. No.
Date	APRIL 2009	GROUP 005



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 Plot Date/Time: Apr 09, 2009 - 4:22pm
 Plotted By: BELeedy

PROJECT #: 09-0093 FILENAME: B09-0093-01



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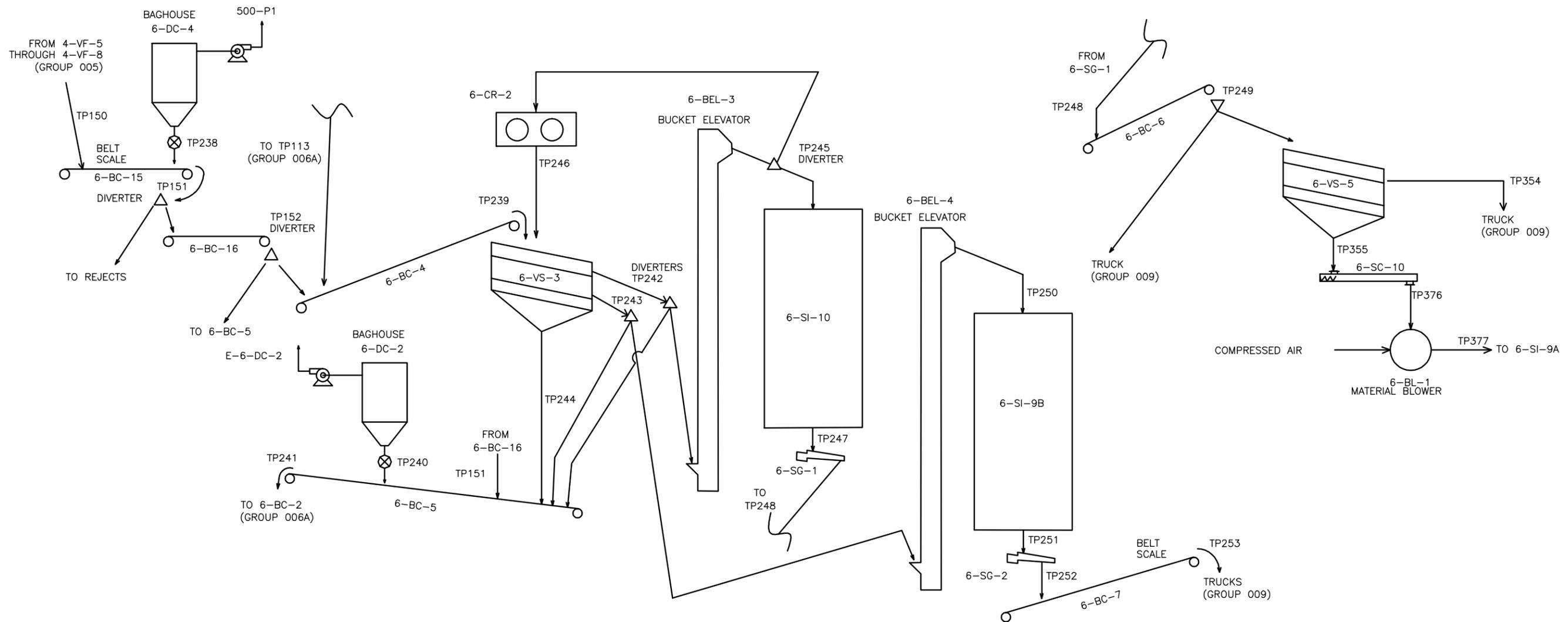
Project PROCESS FLOW DIAGRAM
 EMISSION GROUP 006
 LIME HANDLING SYSTEM
 GREER LIME COMPANY
 RIVERTON, WEST VIRGINIA

Scale NOT TO SCALE
 Date APRIL 2009

Dwg. No. GROUP 006A

XREF Files: IMAGE Files:
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 Plotted By: BEleedy

PROJECT #: 09-0093 FILENAME: B09-0093-01

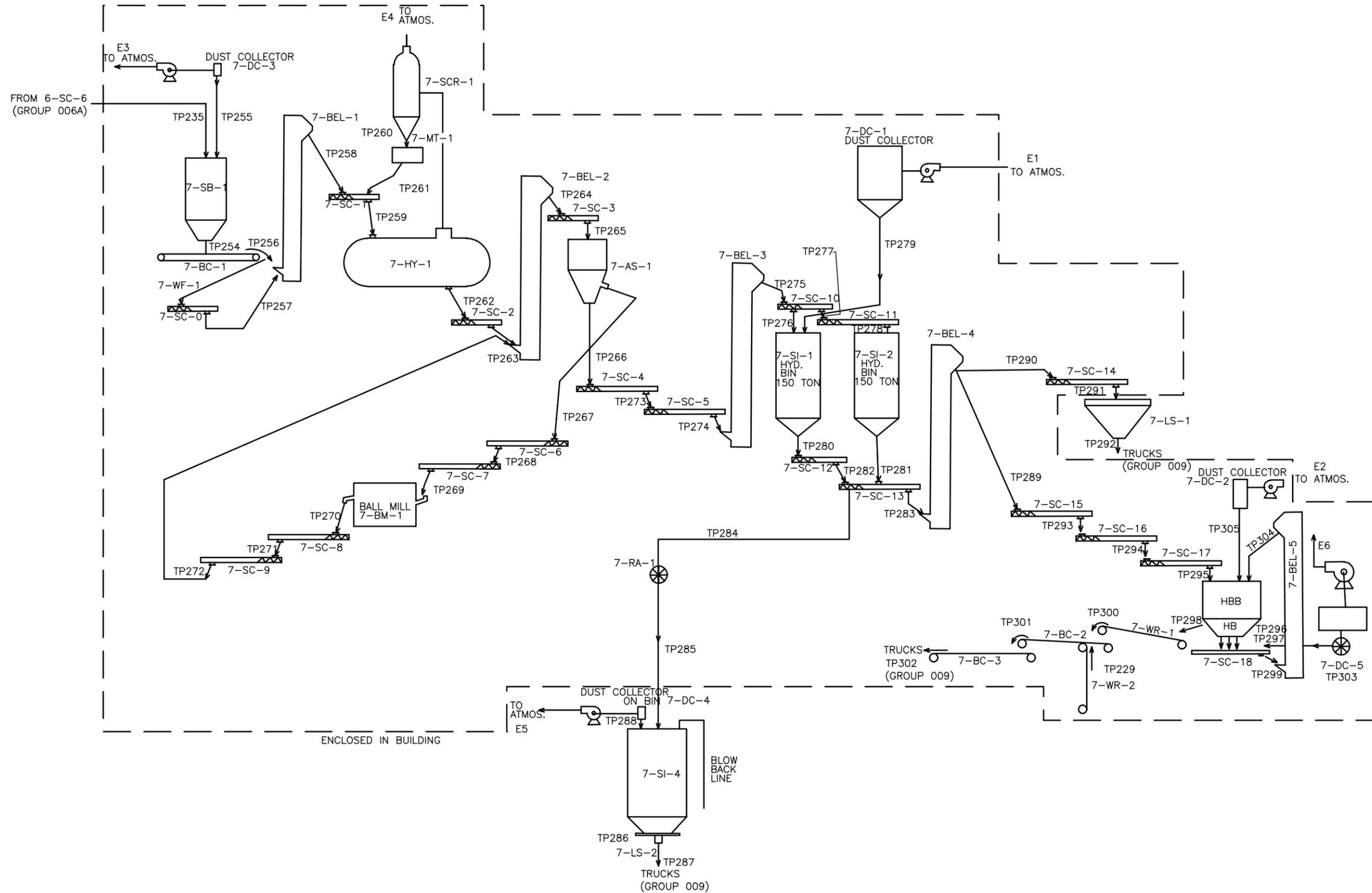


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Project	PROCESS FLOW DIAGRAM EMISSION GROUP 006 LIME HANDLING SYSTEM GREER LIME COMPANY RIVERTON, WEST VIRGINIA	
Scale	NOT TO SCALE	Dwg. No.
Date	APRIL 2009	GROUP 006B

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 Plotted By: BELeedy



PROJECT #: 09-0093 FILENAME: B09-0093-01



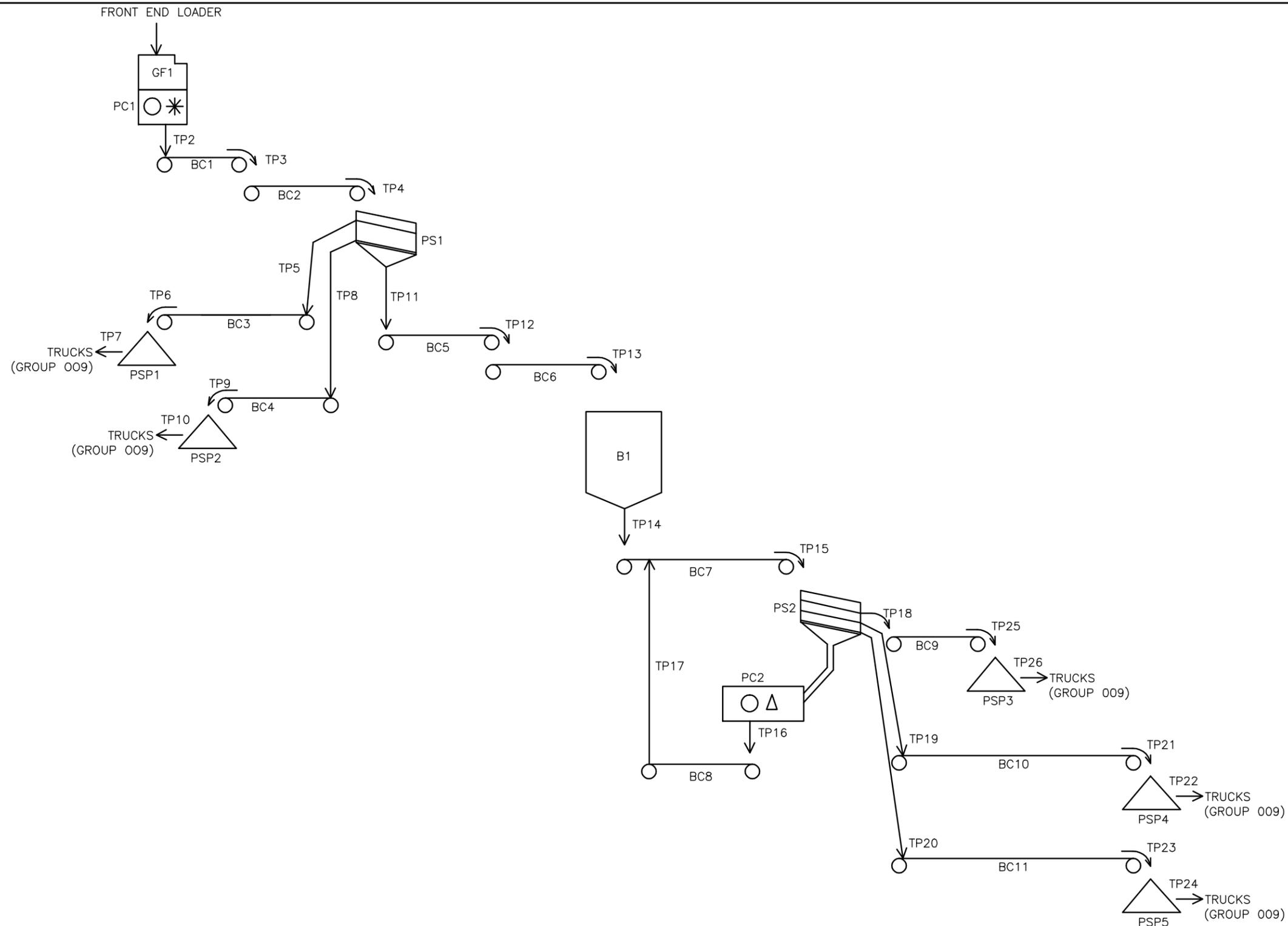
Potesta & Associates, Inc.
ENGINEERS AND ENVIRONMENTAL CONSULTANTS

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Project PROCESS FLOW DIAGRAM
 EMISSION GROUP 07
 HYDRATE PLANT
 GREER LIME COMPANY
 RIVERTON, WEST VIRGINIA

Scale NOT TO SCALE
 Date APRIL 2009

Dwg. No. GROUP 007



XREF Files: IMAGE Files:
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PROJECT #: 09-0093 FILENAME: B09-0093-01

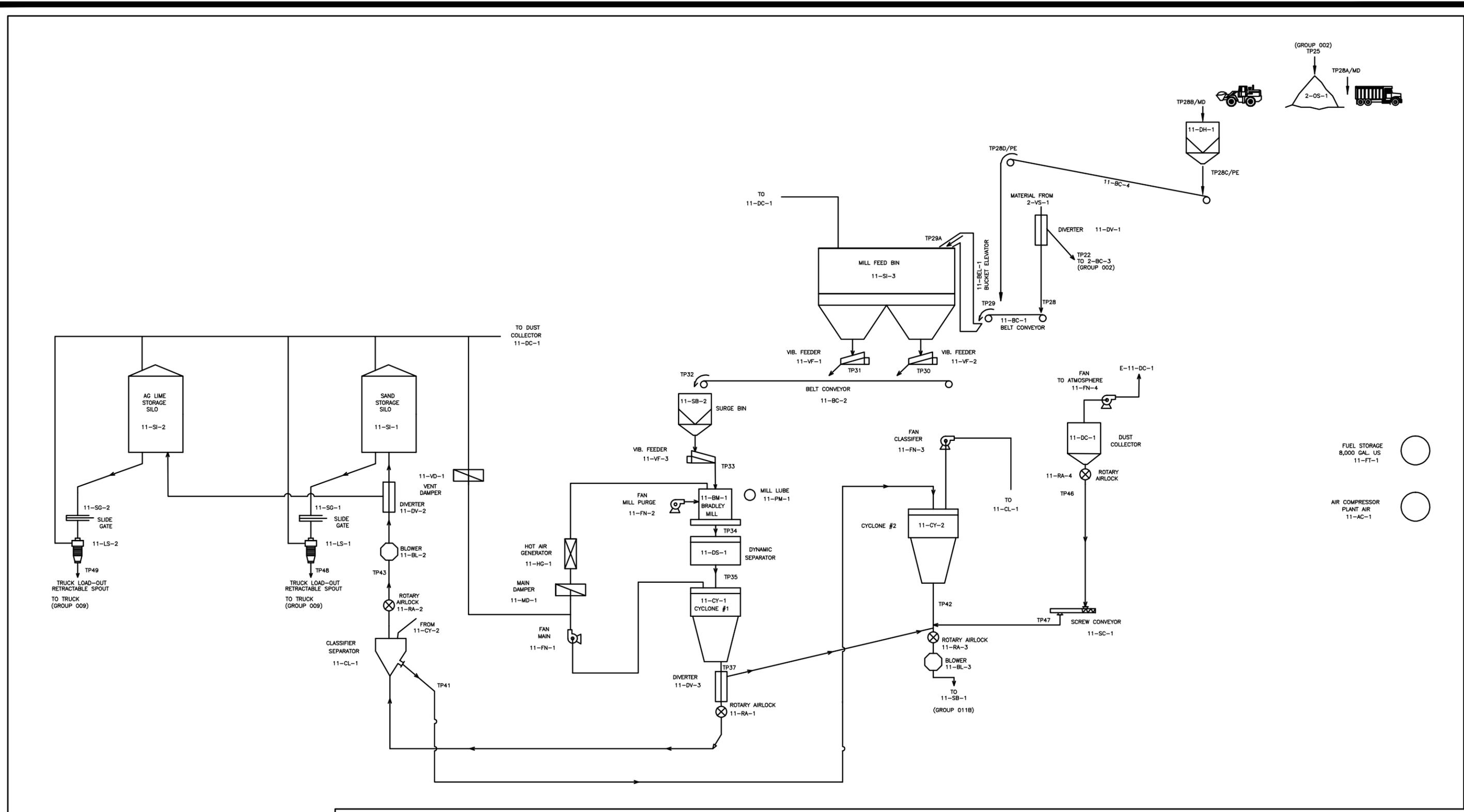


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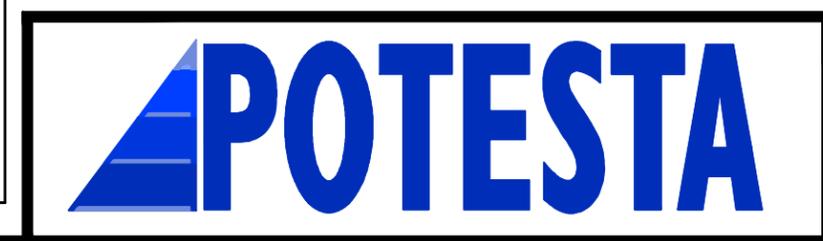
7012 MacCorkle Ave. SE, Charleston, WV 25304
 TEL: (304) 342-1400 FAX: (304) 343-9031
 E-Mail Address: potesta@potesta.com

Project		PROCESS FLOW DIAGRAM EMISSION GROUP 008 PORTABLE LIMESTONE PLANT GREER LIME COMPANY RIVERTON, WEST VIRGINIA
Scale	NOT TO SCALE	Dwg. No.
Date	APRIL 2009	GROUP 008

XREF Files: IMAGE Files:
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 Plotted By: BELeedy



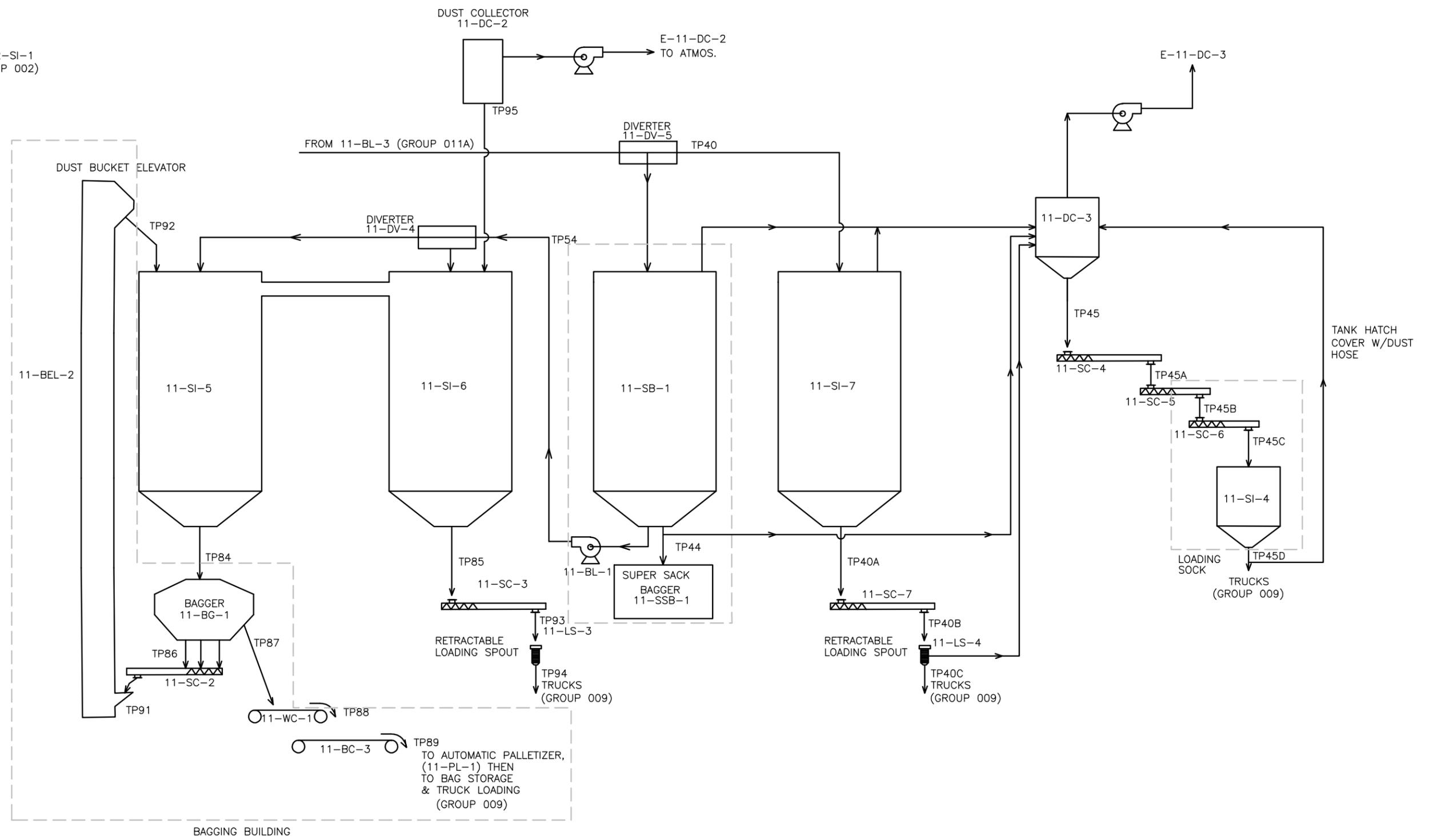
PROJECT #: 09-0093 FILENAME: B09-0093-01



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 7012 MacCorkle Ave. SE, Charleston, WV 25304
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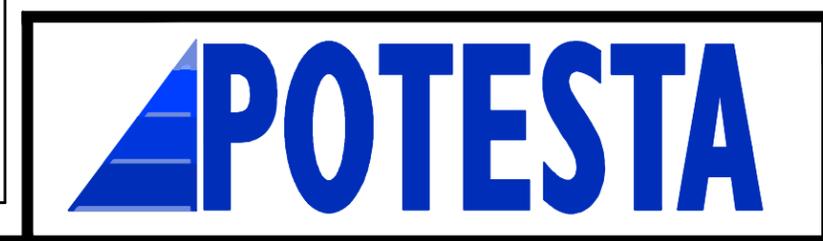
Project	PROCESS FLOW DIAGRAM EMISSION GROUP 011 LIMESTONE GRINDING GREER LIME COMPANY RIVERTON, WEST VIRGINIA	
Scale	NOT TO SCALE	Dwg. No.
Date	APRIL 2009	GROUP 011A

FOR 2-SI-1
(GROUP 002)



XREF Files: IMAGE Files: S:\CSD-Projects\09-0093-GREER TITLE \B09-0093-01.dwg
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 Plot Date/Time: Apr 09, 2009 - 4:17pm
 Plotted By: BELeedy

PROJECT #: 09-0093 FILENAME: B09-0093-01



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 E-Mail Address: potesta@potesta.com

Project	PROCESS FLOW DIAGRAM EMISSION GROUP 011 LIMESTONE GRINDING GREER LIME COMPANY RIVERTON, WEST VIRGINIA	
Scale	NOT TO SCALE	Dwg. No.
Date	APRIL 2009	GROUP 011B

ATTACHMENT D
EMISSION UNITS TABLE

ATTACHMENT D - Emission Units Table
(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Emission Unit ID ¹	Emission Point ID ¹	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device ¹
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" x 24'-0") Manufacture: Deister Model: VFG-5424	1994	800 TPH/1.5 MMTPY	WS,PE
1-CR-1	1-CR-1	Primary Jaw Crusher Manufacture: Nordberg Model No.: C-140B Size: (41" X 55") Type: 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 (8X 20) Manufacture: Deister Model No.: XHM-200T	1994	800 TPH/1.5 MMTPY	FE,WS,BH(TP8)
1-DC-1	E-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 Manufacture: Syntron Model: MF400-D	1994	500 TPH/1.04 MMTPY	PE
1-CR-2	1-CR-2	Secondary Cone Crusher (5 1/2 ')Manufacture: 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	1994	800 TPH/1.5 MMTPY	FE
1-SI-1	1-SI-1	Stone Silo 1	Pre 1976	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	Pre 1976	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
2-VS-1	2-VS-1	Vibrating Screen Triple Deck (8' x 24')	1994	800 TPH/1.5 MMTPY	FE,WS
2-BC-3	2-BC-3	Stone Belt	1996	400 TPH/0.6 MMTPY	FE

¹For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

ATTACHMENT D - Emission Units Table
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Emission Unit ID ¹	Emission Point ID ¹	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device ¹
400 TPD LIME KILN (GROUP 004)					
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 Tons/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" X 150') Manufacture: KVSHeat 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
5-RA-1	1E	Rotary Airlock	Pre-1990	3 TPH/0.0263 MMTPY	4-DC-1
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
5-RA-2	1E	Rotary Airlock	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-RA-1	1E	Rotary Airlock	Pre-1990	3 TPH/0.015 MMTPY	4-DC-1
4-SI-1	4-SI-1	Dust Bin	Pre-1990	30 Tons/0.015 MMTPY	FE
4-LS-2	4-LS-2	Loading Spout	Pre-1990	30 TPH/0.015 MMTPY	FE

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ATTACHMENT D - Emission Units Table
(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Emission Unit ID ¹	Emission Point ID ¹	Emission Unit Description	Year Installed/Modified	Design Capacity	Control Device ¹
400 TPD LIME KILN (GROUP 004) CONTINUED					
4-DC-1	1E	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-RA-2	4-RA-2	Rotary Airlock	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-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

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ATTACHMENT D - Emission Units Table
(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Emission Unit ID ¹	Emission Point ID ¹	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device ¹
500 TPD LIME KILN (GROUP 005)					
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
4-RK-2	500-115	500 Ton per Day KVS Rotary Lime Kiln – Lime Calcining System Manufacture: Kennedy Van Saun (KVS), Allis Mineral Systems Burner: 89 MMBtu/hr Fuel: Coal	1995	38.62 TPH/0.165 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-RA-3	500-115	Rotary Airlock	1995	3.5 TPH/0.028 MMTPY	4-DC-2
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
5-RA-4	500-115	Rotary Airlock	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-RA-7	500-115	Rotary Airlock	1995	3 TPH/0.015 MMTPY	4-DC-2
4-RA-8	500-115	Rotary Airlock	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

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ATTACHMENT D - Emission Units Table
(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Emission Unit ID ¹	Emission Point ID ¹	Emission Unit Description	Year Installed/Modified	Design Capacity	Control Device ¹
500 TPD LIME KILN (GROUP 005) CONTINUED					
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	30 Tons/0.003 MMTPY	4-DC-3
4-DC-2	500-115	Dust Collector	1995	NA	NA
4-RA-3	500-115	Rotary Airlock	1995	3 TPH/0.015 MMTPY	4-DC-2
4-RA-4	500-115	Rotary Airlock	1995	3 TPH/0.015 MMTPY	4-DC-2
4-RA-5	500-115	Rotary Airlock	1995	3 TPH/0.015 MMTPY	4-DC-2
4-RA-6	500-115	Rotary Airlock	1995	3 TPH/0.015 MMTPY	4-DC-2
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

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Emission Unit ID ¹	Emission Point ID ¹	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device ¹
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
6-CR-3	E-6-DC-1	Roll Crusher Manufacture: 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

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ATTACHMENT D - Emission Units Table
(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Emission Unit ID ¹	Emission Point ID ¹	Emission Unit Description	Year Installed/Modified	Design Capacity	Control Device ¹
LIME HANDLING SYSTEM (GROUP 006) CONTINUED					
6-BB-1	6-BB-1	Granular Lime Bagging Bin	Pre 1990	25 TPH/0.0311 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/0.0311 MMTPY	FE+FE
7-WR-2	7-WR-2	Wire Conveyor	1998	25 TPH/0.0311 MMTPY	FE+FE
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-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	6-SC-6	Screw Conveyor	1984	150 TPH/0.1 MMTPY	FE
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

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ATTACHMENT D - Emission Units Table
(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Emission Unit ID ¹	Emission Point ID ¹	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device ¹
LIME HANDLING SYSTEM (GROUP 006) CONTINUED					
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' x 8')	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-SG-1	6-SG-1	Slide Gate	1991	150 TPH/0.311 MMTPY	FE
6-BC-6	6-BC-6	Conveyer Belt	1991	150 TPH/0.311 MMTPY	FE (Dust Sock)
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-SG-2	6-SG-2	Slide Gate	1991	150 TPH/0.311 MMTPY	FE
6-BC-7	6-BC-7	Conveyer Belt	1991	150 TPH/0.311 MMTPY	FE (Dust Sock)
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

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ATTACHMENT D - Emission Units Table
(includes all emission units at the facility except those designated as
insignificant activities in Section 4, Item 24 of the General Forms)

Emission Unit ID ¹	Emission Point ID ¹	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device ¹
HYDRATE PLANT (GROUP 007)					
7-SB-1	E3	Hydrate Feed Bin	1984	15 TPH/0.1 MMTPY	7-DC-3
7-DC-3	E3	Dust Collector	1984	NA	NA
7-BC-1	7-BC-1	Belt Conveyor	1984	15 TPH/0.1 MMTPY	FE+FE
7-SC-0	7-SC-0	Screw Conveyor	1984	15 TPH/0.1 MMTPY	FE+FE
7-BEL-1	7-BEL-1	Bucket Elevator	1984	15 TPH/0.1 MMTPY	FE+FE
7-SC-1	7-SC-1	Screw Conveyor	1984	15 TPH/0.1 MMTPY	FE+FE
7-SCR-1	E4	Wet Scrubber	1999	NA	NA
7-MT-1	7-MT-1	Mixing Tub	1999	15 TPH/0.1 MMTPY	FE+FE
7-HY-1	E4	Atmospheric Hydrator	1999	15 TPH/0.1 MMTPY	7-SCR-1
7-SC-2	7-SC-2	Screw Conveyor	1984	15 TPH/0.1 MMTPY	FE+FE
7-BEL-2	E1	Bucket Elevator	1984	15 TPH/0.1 MMTPY	7-DC-1
7-SC-3	E1	Screw Conveyor	1984	15 TPH/0.1 MMTPY	7-DC-1
7-AS-1	E1	Air Separator	1984	15 TPH/0.1 MMTPY	7-DC-1
7-SC-6	7-SC-6	Screw Conveyor	1984	15 TPH/0.1 MMTPY	FE+FE
7-SC-7	7-SC-7	Screw Conveyor	1984	15 TPH/0.1 MMTPY	FE+FE
7-BM-1	7-BM-1	Ball Mill	1984	15 TPH/0.1 MMTPY	FE+FE
7-SC-8	7-SC-8	Screw Conveyor	1984	15 TPH/0.1 MMTPY	FE+FE
7-SC-9	7-SC-9	Screw Conveyor	1984	15 TPH/0.1 MMTPY	FE+FE
7-SC-4	E1	Screw Conveyor	1984	15 TPH/0.1 MMTPY	7-DC-1
7-SC-5	E1	Screw Conveyor	1984	15 TPH/0.1 MMTPY	7-DC-1
7-BEL-3	E1	Bucket Elevator	1984	15 TPH/0.1 MMTPY	7-DC-1
7-SC-10	E1	Screw Conveyor	1984	15 TPH/0.1 MMTPY	7-DC-1
7-SC-11	E1	Screw Conveyor	1984	15 TPH/0.1 MMTPY	7-DC-1
7-DC-1	E1	Dust Collector	1984	NA	NA

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ATTACHMENT D - Emission Units Table
(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Emission Unit ID ¹	Emission Point ID ¹	Emission Unit Description	Year Installed/Modified	Design Capacity	Control Device ¹
HYDRATE PLANT (GROUP 007) CONTINUED					
7-SI-1	E1	Hydrate Bin	1984	150 Tons/0.1 MMTPY	7-DC-1
7-SI-2	E1	Hydrate Bin	1984	150 Tons/0.1 MMTPY	7-DC-1
7-SC-12	E1	Screw Conveyor	1984	15 TPH/0.1 MMTPY	7-DC-1
7-SC-13	E1	Screw Conveyor	1984	15 TPH/0.1 MMTPY	7-DC-1
7-RA-1	E1	Rotary Airlock and Blower	1991	15 TPH/0.1 MMTPY	7-DC-1
7-SI-4	E5	Hydrate Silo	1997	200 Tons/0.1 MMTPY	7-DC-4
7-LS-2	7-LS-2	Truck Loading Spout	1997	45 TPH/0.1 MMTPY	PE
7-DC-4	E5	Dust Collector	1997	NA	NA
7-BEL-4	E1	Bucket Elevator	1984	15 TPH/0.1 MMTPY	7-DC-1
7-SC-14	E1	Screw Conveyor	1984	15 TPH/0.1 MMTPY	7-DC-1
7-LS-1	E1	Truck Loading Spout	1991	15 TPH/0.1 MMTPY	7-DC-1
7-SC-15	E2	Screw Conveyor	1991	15 TPH/0.1 MMTPY	7-DC-2
7-SC-16	E2	Screw Conveyor	1991	15 TPH/0.1 MMTPY	7-DC-2
7-SC-17	E2	Screw Conveyor	1991	15 TPH/0.1 MMTPY	7-DC-2
HBB	E2	Hydrate Bagging Bin	1991	15 TPH/0.1 MMTPY	7-DC-2
HB	E2	Hydrate Bagger	1991	15 TPH/0.1 MMTPY	7-DC-2
7-SC-18	E6	Clean Up Screw Conveyor	1991	15 TPH/0.1 MMTPY	7-DC-5
7-WR-1	E6	Wire Conveyor Bagger Conveyor	1991	15 TPH/0.1 MMTPY	NE Bagged Product
7-BC-2	7-BC-2	Belt Conveyor	1991	15 TPH/0.1 MMTPY	NE Bagged Product
7-BC-3	7-BC-3	Belt Conveyor	1991	15 TPH/0.1 MMTPY	NE Bagged Product
7-WR-2	E2	Wire Conveyor	1991	15 TPH/0.1 MMTPY	FE
7-DC-2	E2	Dust Collector	1991	NA	NA
7-DC-5	E6	Dust Collector	1991	NA	NA
7-BEL-5	E2	Bucket Elevator	1991	15 TPH/0.1 MMTPY	7-DC-2

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ATTACHMENT D - Emission Units Table
(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Emission Unit ID ¹	Emission Point ID ¹	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device ¹
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	PS1	Triple Deck Scalping Screen	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 ft ² 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 ft ² Height: 32 Feet	2002	8,000 Tons/0.05 MMTPY	COM
BC5	BC5	Under Screen Belt Conveyor	2002	300 TPH/0.6 MMTPY	WS
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
PS2	PS2	Triple Deck Screen	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 TPH/0.6 MMTPY	COM
PSP3	PSP3	Limestone Open Stockpile Area: 8,460 ft ² 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 ft ² 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 ft ² Height: 32 Feet	2002	8,000 Tons/0.6 MMTPY	COM

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ATTACHMENT D - Emission Units Table
(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Emission Unit ID ¹	Emission Point ID ¹	Emission Unit Description	Year Installed/Modified	Design Capacity	Control Device ¹
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-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	250 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
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-BEL-2	E-11-DC-2	Bucket Elevator	2007	25 TPH/0.219 MMTPY	11-DC-2
11-SI-5	E-11-DC-2	Rock Dust Silo	2007	400 Tons/0.5694 MMTPY	11-DC-2
11-BG-1	E-11-DC-2	Bagger	2008	25 TPH/0.219 MMTPY	11-DC-2
11-SC-2	E-11-DC-2	Screw Conveyor	2007	25 TPH/0.219 MMTPY	11-DC-2
11-WC-1	NA	Belt Conveyor (For Bagged Material)	2008	NA	No Emissions

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ATTACHMENT D - Emission Units Table
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Emission Unit ID ¹	Emission Point ID ¹	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device ¹
LIMESTONE GRINDING SYSTEM (GROUP 011) CONTINUED					
11-BC-3	NA	Belt Conveyor (For Bagged Material)	2008	NA	No Emissions
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	NA	NA
11-DV-5	E-11-DC-3	Diverter	2008	NA	11-DC-3
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	NA	NA
11-SC-4	E-11-DC-3	Screw Conveyor	2008	2 TPH/0.002934	11-DC-3
11-SC-5	E-11-DC-3	Screw Conveyor	2008	2 TPH/0.002934	11-DC-3
11-SC-6	E-11-DC-3	Screw Conveyor	2008	2 TPH/0.002934	11-DC-3
11-SI-4	E-11-DC-3	Baghouse Dust Bin	2008	50 Tons/0.002934	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

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ATTACHMENT D - Emission Units Table
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Emission Unit ID ¹	Emission Point ID ¹	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device ¹
TK-C1	TK-C1	Contractor Tank for Off-Road Diesel a Horizontal Tank	1999	12,000 gallons	N
TK-C2	TK-C2	Contractor Tank for Gasoline a Horizontal Tank	1999	500 Gallons	N
TK-C3	TK-C3	Contractor Tank for 30W Oil a Horizontal Tank	1999	250 Gallons	N
TK-C4	TK-C4	Contractor Tank for Kerosene a Horizontal Tank	1999	250 Gallons	N
TK-C5	TK-C5	Contractor Tank for 15W Oil a Horizontal Tank	1999	250 Gallons	N
TK-C6	TK-C6	Contractor Tank for Hydraulic Oil a Horizontal Tank	1999	500 Gallons	N
TK-1	TK-1	Lime Kilns for No. 2 Fuel Oil a Horizontal Tank	1993	1,000 Gallons	N
TK-2	TK-2	Lime Kilns for No. 2 Fuel Oil a Horizontal Tank	1990	500 Gallons	N
TK-3	TK-3	Shop for Gasoline a Horizontal Tank	1995	1,000 Gallons	N
TK-4	TK-4	Fine Grinding for Waste Oil a Horizontal Tank	1997	1,000 Gallons	N
TK-5	TK-5	Fine Grinding for Propane a Horizontal Tank	1990	500 Gallons	N
TK-6	TK-6	Fine Grinding for No. 2 Fuel Oil a Horizontal Tank	Unknown	7,000 Gallons	N
TK-7	TK-7	Fine Grinding for 30W Oil a Vertical Tank	2001	500 Gallons	N
TK-8	TK-8	Shop for 15W Oil a Vertical Tank	2001	500 Gallons	N
TK-9	TK-9	Shop for 30W Oil a Vertical Tank	2001	500 Gallons	N
TK-10	TK-10	Shop for Hydraulic Oil a Vertical Tank	2001	500 Gallons	N
TK-11	TK-11	Shop for Off-Road Diesel a Horizontal Tank	1979	5,000 Gallons	N
TK-12	TK-12	Shop for Off-Road Diesel a Horizontal Tank	1979	5,000 Gallons	N
11-FT-1	11-FT-1	Fuel Tank for Hot Air Generator (Group 011)	2007	8,000 Gallons	N

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ATTACHMENT E
EMISSION UNIT FORMS

ATTACHMENT E - Emission Unit Form

Emission Unit Description Group 002

Emission unit ID number: 1-VGF-1, 1-BC-1, 1-BC-2, 1-VF-1, 1-BC-3, 1-BC-4, 1-BC-5, 2-BC-5, 2-VF-3, 2-VF-4, 2-VF-1, 2-VF-2, 2-BC-1, 2-BC-2, 2-BC-3, 2-BC-9, 2-BC-4, 2-BC-6, 2-BC-7, 2-BC-8	Emission unit name: Group 002 Conveying	List any control devices associated with this emission unit. See Attachment D for Individual Source Control Devices.
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Various conveying of limestone in primary crushing and screening operations on a vibrating grizzly feeder (VGF), belt conveyors (BC), and vibrating feeders (VF).

Manufacturer: See Attachment D	Model number: See Attachment D	Serial number: See Attachment D
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Construction date: See Attachment D	Installation date: See Attachment D	Modification date(s): See Attachment D
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: See Attachment D
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Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE

Does this emission unit combust fuel? ___Yes X No	If yes, is it? ___ Indirect Fired ___ Direct Fired
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Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
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List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)	50.0	219.0
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Emissions shown above are totals for Group 002.

Emissions are based on 45CSR§7-4.1 Table 45-7A for a process rate of 1,600,000 lbs/hr.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E13 – E20.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E13 – E20.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Group 002

Emission unit ID number: 1-IH-1, 1-CR-1, 1-CR-2,	Emission unit name: Group 002 Crushing	List any control devices associated with this emission unit. See Attachment D for Individual Source Control Devices.
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Various crushing of limestone in primary crushing and screening operations by an impact hammer (IH), a primary jaw crusher (1-CR-1) and a cone crusher (1-CR2).

Manufacturer: See Attachment D	Model number: See Attachment D	Serial number: See Attachment D
Construction date: See Attachment D	Installation date: See Attachment D	Modification date(s): See Attachment D

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: See Attachment D
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Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE

Does this emission unit combust fuel? ___Yes X No	If yes, is it? ___ Indirect Fired ___ Direct Fired
--	--

Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
--	---

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)	50.0	219.0
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Emissions shown above are totals for Group 002.
Emissions are based on 45CSR§7-4.1 Table 45-7A for a process rate of 1,600,000 lbs/hr.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E13 – E20.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E13 – E20.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Group 002

Emission unit ID number: 1-VS-1, 2-VS-1	Emission unit name: Group 002 Screening	List any control devices associated with this emission unit. See Attachment D for Individual Source Control Devices.
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Various screening of limestone in primary crushing and screening operations on triple deck vibrating screens (VS).

Manufacturer: See Attachment D	Model number: See Attachment D	Serial number: See Attachment D
Construction date: See Attachment D	Installation date: See Attachment D	Modification date(s): See Attachment D

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: See Attachment D
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Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE

Does this emission unit combust fuel? ___Yes X No	If yes, is it? ___ Indirect Fired ___ Direct Fired
--	--

Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
--	---

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)	50.0	219.0
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Emissions shown above are totals for Group 002.
Emissions are based on 45CSR§7-4.1 Table 45-7A for a process rate of 1,600,000 lbs/hr.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E13 – E20.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E13 – E20.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Group 002

Emission unit ID number: 1-DH-1, 1-SB-1, 1-SI-1, 1-SI-2, 2-SI-1, 2-OS-1, 2-OS-2	Emission unit name: Group 002 Storage	List any control devices associated with this emission unit. See Attachment D for Individual Source Control Devices.
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Various storage of limestone in primary crushing and screening operations in dump hoppers (DH), a surge bin (SB), silos (SI), and an open stockpile (OS).

Manufacturer: See Attachment D	Model number: See Attachment D	Serial number: See Attachment D
Construction date: See Attachment D	Installation date: See Attachment D	Modification date(s): See Attachment D

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: See Attachment D
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Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE

Does this emission unit combust fuel? ___Yes X No	If yes, is it? ___ Indirect Fired ___ Direct Fired
--	--

Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
--	---

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)	50.0	219.0
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Emissions shown above are totals for Group 002.
Emissions are based on 45CSR§7-4.1 Table 45-7A for a process rate of 1,600,000 lbs/hr.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E13 – E20.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E13 – E20.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

Attachment E Group 002

Applicable Requirements

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
1	45CSR13, R13-1685, (A)(1), (1-CR-1)	4.1.1.	Input of stone to the primary crusher shall not exceed 800 tons per hour or 1,500,000 tons per year.
2	45CSR13, R13-1685, (A)(2), (1-CR-1, 1-CR-2, 1-VS-1, 2-VS-1, 2-BC-4, 1-DH-1, and 1VGF-1), (2-OS-1 and 2-OS-2)	4.1.2.	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.
3	45CSR13, R13-1685, (A)(3)	4.1.3.	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.
4	45CSR16, 40CFR60, Subpart OOO. 3.1.18. 45CSR16, 40 C.F.R. § 60.672 (a), Group (002, 004, 005, 008, 011)	4.1.4.	See Section 3.1.18. through 3.1.24. for all affected facilities. The stone silos (1-SI-1 and 1-SI-2) and vibrating feeders (2-VF-3 and 2-VF-4) are not subject to NSPS, Subpart OOO, since construction of these facility commenced prior to 1983. The open stockpile (2-OS-1) is not subject to the NSPS, Subpart OOO. 3.1.18. On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any stack emissions which: (1) Contain particulate matter in excess of 0.05 g/dscm (0.022 gr/dscf); and (2) Exhibit greater than 7 percent opacity, unless the stack emissions are discharged from an affected facility using a wet scrubbing control device. Facilities using a wet scrubber must comply with the reporting provisions of 40 C.F.R. §60.676 (c), (d), and (e).

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
	<p>3.1.19. 45CSR16, 40 C.F.R. § 60.672 (b), Group (002, 004, 005, 008,011)</p> <p>3.1.20. 45CSR16, 40 C.F.R. § 60.672 (c), Group (002, 003, 004, 005, 008, 011)</p> <p>3.1.21. 45CSR16, 40 C.F.R. § 60.672 (d), Group (002 and 008)</p> <p>3.1.22. 45CSR16, 40 C.F.R. § 60.672 (e), Group (002, 004, 005, 008, 011)</p>		<p>3.1.19. On and after the sixtieth day 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 of this part, no owner or operator subject to the provisions of 40 C.F.R. Part 60 Subpart OOO shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any fugitive emissions which exhibit greater than 10 percent opacity, except as provided in 40C.F.R. § 60.672 (c), (d), and (e) of 40 C.F.R. § 60.672.</p> <p>3.1.20. On and after the sixtieth day 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 of this part, no owner or operator shall cause to be discharged into the atmosphere from any crusher, at which a capture system is not used, fugitive emissions which exhibit greater than 15 percent opacity.</p> <p>3.1.21. Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this section.</p> <p>3.1.22. 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), (b), and (c), or the building enclosing the affected facility or facilities must comply with the following emission limits: (1) No owner or operator shall cause to be discharged into the atmosphere from any building enclosing any transfer point on a conveyor belt or any other affected facility any visible fugitive emissions except emissions from a vent as defined in 40 C.F.R. § 60.671. (2) No owner or operator shall cause to be discharged into the atmosphere from any vent of any building enclosing any transfer point on a conveyor belt or any other affected facility emissions which exceed the stack emissions limits in 40 C.F.R. § 60.672 paragraph (a).</p>

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
	3.1.23. 45CSR16, 40 C.F.R. § 60.672 (f), Group (002,003,004,005, 008, 011)		3.1.23. On and after the sixtieth day 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 of 40 C.F.R. § 60.672 (f), no owner or operator shall cause to be discharged into the atmosphere from any baghouse that controls emissions from only an individual, enclosed storage bin, stack emissions which exhibit greater than 7 percent opacity.
	3.1.24. 45CSR16, 40 C.F.R. § 60.672 (g), Group (002, 004, 005, 008, 011)		3.1.24. Owners or operators of multiple storage bins with combined stack emissions shall comply with the emission limits in Section 3.1.18.
5	45CSR13, R13-1685, General Requirements (3)	4.1.5.	The permitted facility must be constructed and operated in accordance with information filed in WVAPCC Permit Application No. 1685. The Director may cancel or suspend a permit if the plans and specifications upon which the approval was based are not adhered to.

Monitoring/Testing/Recordkeeping/Reporting

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
1	3.2.1. 45CSR§30-5.1.c., Emission Groups (002, 004, 005, 006, 007, 008, 011)	4.2.1.	See Section 3.2. for opacity and dust collector 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, 40CFR60, Subpart OOO, and 40CFR60, Subpart HH Notwithstanding the following exceptions. [Not required for open stockpiles (2-OS-1, 2-OS-2, and 4-OS-1) Coal and Limestone Feed Stockpile Common to 400TPD&500TPD Lime Kilns, PSP1, PSP2, PSP3, PSP4, PSP5, and haulroads] Visible emission observations shall be conducted at least annually weekly by a certified Method 9 observer for all transfer points and fugitive dust sources during periods of normal operation for a sufficient time interval to determine if any of the emission units listed above or emission 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 of the emission units or transfer point listed above or emission points 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. 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 NSPS subparts OOO or HH. The inspections shall utilize a certified

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
	<p>3.2.2 45CSR§30-5.1.c., Section 1.0 (Dust Collectors)</p>		<p>Method 9 observer to evaluate each source of emissions using Method 22. If during the inspection or anytime the permittee recognizes visual emissions approaching 20% opacity, 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.</p> <p>b. A record of each visible emissions observation shall be maintained, including any data required by 40 C.F.R. 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 for a period of no less than five (5) years 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.</p> <p>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 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, and corrective action taken, if any. Records shall be maintained on site for five (5) years from its origination</p>
2	<p>3.3.4. 45CSR16, 40 C.F.R. § 60.675 (a), 45CSR13, R13-1685, (B)(5) and (6), Group (002, 004, 005, 008, 011)</p> <p>3.3.5. 45CSR16, 40 C.F.R. § 60.675 (b), 45CSR13, R13-1685, (B) (5) and (6), Group (002, 004, 005, 008, 011)</p>	4.3.1	<p>See Section 3.3.4. through 3.3.9. for NSPS, Subpart OOO, opacity and PM testing requirements.</p> <p>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 appendix A of this part 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. § 60.672 paragraph (e) of 40 C.F.R. § 60.672.</p> <p>3.3.5. The owner or operator shall determine compliance with the particulate matter standards in 40 C.F.R § 60.672(a) [Section 3.1.18.] as follows: (1) Method 5 or Method 17 shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter.</p>

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
	<p>3.3.6. 45CSR16, 40 C.F.R. § 60.675 (c), 45CSR13, R13-1685, (B) (5) and (6), Group (002, 004, 005, 008, 011)</p>		<p>(2) Method 9 and the procedures in 40 C.F.R § 60.11 shall be used to determine opacity.</p> <p>3.3.6. (1) In determining compliance with the particulate matter standards in 40 C.F.R. § 60.672 (b) and (c) [Section 3.1.19. and 3.1.20.], the owner or operator shall use Method 9 (40 C.F.R. Part60, Appendix A) and the procedures in 40 C.F.R § 60.11, with the following additions: (i) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet). (ii) 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, Section 2.1) must be followed. (iii) 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.</p> <p>(2) 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) [Section 3.1.23.] of 40 C.F.R. Part 60, Subpart OOO, using Method 9 (40 C.F.R. Part60, Appendix A), the duration of the Method 9 observations shall be 1 hour (ten 6-minute averages).</p> <p>(3) When determining compliance with the fugitive emissions standard for any affected facility described under 40 C.F.R. § 60.672(b) [Section 3.1.19.] of 40 C.F.R. Part 60, Subpart OOO, the duration of the Method 9 (40 C.F.R. Part60, Appendix A) observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply: (i) There are no individual readings greater than 10 percent opacity; and (ii) There are no more than 3 readings of 10 percent for the 1-hour period.</p> <p>(4) When determining compliance with the fugitive emissions standard for any crusher at which a capture system is not used as described under 40 C.F.R.§60.672(c) [Section 3.1.20.] of 40C.F.R. Part 60, Subpart OOO, the duration of the Method 9 (40 C.F.R. Part60, Appendix A) observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply: (i) There are no individual readings greater than 15 percent opacity; and (ii) There are no more than 3 readings of 15 percent for the 1-hour period.</p>

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
	<p>3.3.7. 45CSR16, 40 C.F.R. § 60.675 (d), 45CSR13, R13-1685, (B) (5) and (6), Group (002, 004, 005, 008, 011)</p> <p>3.3.8. 45CSR16, 40 C.F.R. § 60.675 (e), 45CSR13, R13-1685, (B) (5) and (6), Group (002, 004, 005, 008, 011)</p> <p>3.3.9. 45CSR16, 40 C.F.R. § 60.675 (g), 45CSR13, R13-1685, (B) (5) and (6), Group (002, 003, 004, 005, 008, 011)</p>		<p>3.3.7. In determining compliance with 40 C.F.R § 60.672(e) [Section 3.1.22.], the owner or operator shall use Method 22 (40 C.F.R. Part60, Appendix A) to determine fugitive emissions. The performance test shall be conducted while all affected facilities inside the building are operating. The performance test for each building shall be at least 75 minutes in duration, with each side of the building and the roof being observed for at least 15 minutes.</p> <p>3.3.8. The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section: (1) For the method and procedure of Section 3.3.6. (3), 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: (i) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream. (ii) Separate the emissions so that the opacity of emissions from each affected facility can be read.</p> <p>3.3.9. If, after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting any rescheduled performance test required in this section, the owner or operator of an affected facility shall submit a notice to the Administrator at least 7 days prior to any rescheduled performance test.</p>
3	45CSR13, R13-1685, (B) (8), 45CSR§30-.1.c.2.B.	4.4.1.	<p>For the purpose of determining compliance: (a) The applicant shall maintain certified daily records of the limestone charged through the primary and secondary crushing and screening circuit in tons per day. (b) The applicant shall maintain certified daily records of water used for particulate control in gallons per day. Such records shall be retained by the permittee for at least (5) years. Certified records shall be made available to the Director or the duly authorized representative upon request.</p>
4	3.4.6. [45CSR16, 40 C.F.R. §§ 60.676 (a) and (a)(2), Group (002, 004, 005, 008, 011)	4.4.2	<p>See Section 3.4.6. through 3.4.10. for NSPS, Subpart OOO, opacity and PM recordkeeping and reporting requirements.</p> <p>3.4.6. 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. (1) For a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station: (i) The rated capacity in megagrams or tons per hour of the existing facility being replaced and (ii) The rated capacity in tons per hour of the replacement equipment. (2) For a screening operation: (i) The total surface area of the top screen of the existing</p>

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
	<p>3.4.7. 45CSR16, 40 C.F.R. § 60.676 (f).Group (002, 004, 005, 008, 011)</p> <p>3.4.8 45CSR16, 40 C.F.R. § 60.676 (g), Group (002, 004, 005, 008, 011)</p> <p>3.4.9 45CSR16, 40 C.F.R. § 60.676 (h), Group (002, 004, 005, 008, 011)</p>		<p>screening operation being replaced and (ii) The total surface area of the top screen of the replacement screening operation.</p> <p>(3) For a conveyor belt: (i) The width of the existing belt being replaced and (ii) The width of the replacement conveyor belt.</p> <p>(4) For a storage bin: (i) The rated capacity in megagrams or tons of the existing storage bin being replaced and (ii) The rated capacity in megagrams or tons of replacement storage bins.</p> <p>3.4.7. 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 of 40 C.F.R. Part 60, Subpart OOO, including reports of opacity bservations made using Method 9 (40 C.F.R. Part60, Appendix A) to demonstrate compliance with 40 C.F.R § 60.672(b), (c), and (f) [Section 3.1.19., 3.1.20., and 3.1.23.], and reports of observations using Method 22 (40 C.F.R.Part60, Appendix A) to demonstrate compliance with § 60.672(e) [Section 3.1.22.].</p> <p>3.4.8. The owner or operator of any screening operation, bucket elevator, or belt conveyor that processes saturated material and is subject to 40 C.F.R § 60.672(h) and subsequently processes unsaturated materials, shall submit a report of this change within 30 days following such change. This screening operation, bucket elevator, or belt conveyor is then subject to the 10 percent opacity limit in 40 C.F.R §60.672(b) [section 3.1.19.] and the emission test requirements of 40 C.F.R. § 60.11 and 40 C.F.R. Part 60,Subpart OOO. Likewise a screening operation, bucket elevator, or belt conveyor that processes unsaturated material but subsequently processes saturated material shall submit a report of this change within 30 days following such change. This screening operation, bucket elevator, or belt conveyor is then subject to the no visible emission limit in 40 C.F.R § 60.672(h).</p> <p>3.4.9. The subpart A requirement under 40 C.F.R § 60.7(a)(2) for notification of the anticipated date of initial startup of an affected facility shall be waived for owners or operators of affected facilities regulated under 40 C.F.R. Part 60,Subpart OOO.</p>

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
	3.4.10. 45CSR16, 40 C.F.R. § 60.676 (i), Group (002, 004, 005, 008, 011)		3.4.10. A notification of the actual date of initial startup of each affected facility shall be submitted to the Administrator. (1) 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. (2) 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.
5		4.5.1.	See Section 3.5. (See Facility Wide Applicable Requirements and Method of Compliance Nos. 48-56 in the TV General Form Box 20.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 4-BC-1, 4-BC-2, 4-FG-1, 4-BC-3, 4-BC-4, 4-TC-1, 4-VF-1, 4-VF-2, 4-VF-3, 4-VF-4, 5-WF-1, 5-RA-1, 5-RA-2, 4-RA-1, 4-SC-1, 4-SC-2, 4-SC-3, 4-RA-2, 4-SC-4, 4-BEL-1, 4-LS-2	Emission unit name: Group 004 Conveying and Transfer	List any control devices associated with this emission unit. See Attachment D for Individual Source Control Devices.
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Various conveying and transfer of limestone, lime, coal and dust in 400 TPD Lime Kiln operations on belt conveyors (BC), transfer chute (TC), vibrating feeders (VF), weigh feeder (WF), radial airlocks (RA), screw conveyors (SC), and a bucket elevator (BEL).

Manufacturer: See Attachment D	Model number: See Attachment D	Serial number: See Attachment D
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Construction date: See Attachment D	Installation date: See Attachment D	Modification date(s): See Attachment D
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: See Attachment D
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Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE

Does this emission unit combust fuel? ___Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___Direct Fired
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Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
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List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)	31.52	138.09
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Emissions shown above are totals for Group 004.

Emissions are based on 45CSR§7-4.1 Table 45-7A for a process rate of 63,000 lbs/hr , AP-42 Section 13.2.4, and the Air Pollution Engineering Manual and References.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E39 – E57.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E39 – E57.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the *Schedule of Compliance Form* as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 5-BM-1	Emission unit name: Group 004 Crushing	List any control devices associated with this emission unit. 4-DC-1
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Crushing in 400 TPD kiln operations using a ball mill crusher (BM).

Manufacturer: See Attachment D	Model number: See Attachment D	Serial number: See Attachment D
Construction date: See Attachment D	Installation date: See Attachment D	Modification date(s): See Attachment D

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: See Attachment D
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Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE

Does this emission unit combust fuel? ___Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___Direct Fired
---	--

Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
--	---

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)	31.52	138.09
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Emissions shown above are totals for Group 004.

Emissions are based on 45CSR§7-4.1 Table 45-7A for a process rate of 63,000 lbs/hr , AP-42 Section 13.2.4, and the Air Pollution Engineering Manual and References.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E39 – E57.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E39 – E57.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 5-AS-1	Emission unit name: Group 004 Air Separation	List any control devices associated with this emission unit. 4-DC-1
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Air separation (AS) associated with 400 TPD lime kiln operations.

Manufacturer: See Attachment D	Model number: See Attachment D	Serial number: See Attachment D
Construction date: See Attachment D	Installation date: See Attachment D	Modification date(s): See Attachment D

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: See Attachment D
---	---	--

Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE

Does this emission unit combust fuel? ___Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)	31.52	138.09
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Emissions shown above are totals for Group 004.

Emissions are based on 45CSR§7-4.1 Table 45-7A for a process rate of 63,000 lbs/hr , AP-42 Section 13.2.4, and the Air Pollution Engineering Manual and References.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E39 – E57.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E39 – E57.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 4-OS-1, 4-STB-1, 5-SI-2, 4-SI-1	Emission unit name: Group 004 Storage	List any control devices associated with this emission unit. See Attachment D for Individual Source Control Devices.
---	---	--

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Various storage associated with 400 TPD lime kiln operations in an open stockpile (OS), a stone bin (STB), 3-sided covered coal storage pile (CS), silos (SI) and a primary collector (PC).

Manufacturer: See Attachment D	Model number: See Attachment D	Serial number: See Attachment D
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Construction date: See Attachment D	Installation date: See Attachment D	Modification date(s): See Attachment D
---	---	--

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: See Attachment D
---	---	--

Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE

Does this emission unit combust fuel? ___Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___Direct Fired
---	--

Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
--	---

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)	31.52	138.09
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Emissions shown above are totals for Group 004.

Emissions are based on 45CSR§7-4.1 Table 45-7A for a process rate of 63,000 lbs/hr , AP-42 Section 13.2.4, and the Air Pollution Engineering Manual and References.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E39 – E57.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E39 – E57.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 4-PH-1, 4-RK-1, 4-NC-1	Emission unit name: Group 004 Pre-Heater, 400 TPD Lime Kiln, and Lime Cooler	List any control devices associated with this emission unit. 4-DC-1, 6-DC-1, 4-PC-1
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Pre-heater (PH), 400 TPD Rotary Lime Kiln (RK) and NIEMS Lime Cooler (NC).

Manufacturer: See Attachment D	Model number: See Attachment D	Serial number: See Attachment D
--	--	---

Construction date: See Attachment D	Installation date: See Attachment D	Modification date(s): See Attachment D
---	---	--

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: See Attachment D
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
--	---

Maximum design heat input and/or maximum horsepower rating: 75 MMBtu/hour	Type and Btu/hr rating of burners: NA – coal is combusted in kiln
---	---

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
 Coal, 3.0 tph, 26,280 tpy

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Coal	1.1%	10 %	12,500 – 14,500

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	17.0	74.5
Nitrogen Oxides (NO _x)	30.0	131.4
Lead (Pb)		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)	0.5	2.19
Sulfur Dioxide (SO ₂)	16.0	70.0
Volatile Organic Compounds (VOC)	4.0	17.5
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total HAPs*	5.85	25.60
* For speciated list see Attachment J.		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>PM and NO_x emission factors were calculated from February 25, 1991 stack test.</p> <p>SO₂ emission factor is the manufacturer's guarantee of performance.</p> <p>CO emission factor calculated from a December 16, 1994 stack test.</p> <p>VOC emission factor is the manufacturer's guarantee of performance.</p> <p>HAP emission factors from AP-42, Section 1.1 (09/98), with the exception of HCl. HCl emission factor was taken from a stack test.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E39 – E57.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E39 – E57.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 5-CS-1, 5-DH-1, 5-VF-1, 5-BC-0, 5-CR-1, 5-SI-1, 5-VF-2, 5-BC-1, 5-BC-2, 5-BC-3	Emission unit name: Group 004 Coal Circuit	List any control devices associated with this emission unit. See Attachment D for Individual Source Control Devices.
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Modified coal circuit associated with kiln operations includes a coal silo (CS) dump hopper (DH), vibrating feeders (VF), belt conveyors (BC), a crusher (CR), a silo (SI), weigh feeder (WF), radial airlocks (RA), a bradley mill (BM), and air separator (AS). This is a modified system and was permitted under R13-2670.

Manufacturer: N/A	Model number: N/A	Serial number: N/A
Construction date: Various - see Attachment D	Installation date: Various - See Attachment D	Modification date(s): Various - see Attachment D

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 N/A

Maximum Hourly Throughput: See Attachment D.	Maximum Annual Throughput: See Attachment D.	Maximum Operating Schedule: See Attachment D.
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Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE

Does this emission unit combust fuel? ___Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___Direct Fired
---	--

Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
--	---

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)	0.02	0.01
Total Particulate Matter (TSP)	0.05	0.03
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP 42, Section 13.2.4 (01/95), Air Pollution Engineering Manual and References per General Permit G10-C Emission Calculation Spreadsheet, and the assumption that TSP/2.1 = PM10.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E39 – E57.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E39 – E57.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

Attachment E Group 004

Applicable Requirements

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement																		
1	45CSR16, 40 C.F.R. § 60.342 (a), 45CSR13, R13-1381A, A.1., Dust Collectors (4-DC-1 (400-112), with 1E (4-DS-2) Compliance with 6.1.1(1) is streamlined by demonstrating compliance with 40 C.F.R. 63, Subpart AAAAA (0.12 lb/ tsf) incorporated within section 12.0 of this permit.	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 after baghouse 112) 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. 60 of 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: (1) Contain particulate matter in excess of 0.30 kilogram per megagram (0.60 lb/ton) of stone feed. (2) Exhibit greater than 15 percent opacity when exiting from a dry emission control device.																		
2	45CSR13, R13-1381A, A.2., Dust Collector (4-DC-1 (400-112) with 1E)	6.1.2.	Emissions to the atmosphere from emission point 1E that is controlled by the 4 module baghouse (4-DC-1) shall not exceed the following maximum rates: <table border="1"> <thead> <tr> <th>Pollutant</th> <th>lb/hr</th> <th>TPY</th> </tr> </thead> <tbody> <tr> <td>Particulate Matter</td> <td>0.5</td> <td>2.19</td> </tr> <tr> <td>Sulfur Dioxide</td> <td>16.0</td> <td>70.0</td> </tr> <tr> <td>Nitrogen Oxides</td> <td>30.0</td> <td>131.4</td> </tr> <tr> <td>Carbon Monoxide</td> <td>17.0</td> <td>74.5</td> </tr> <tr> <td>Non-Methane Hydrocarbons</td> <td>4.0</td> <td>17.5</td> </tr> </tbody> </table>	Pollutant	lb/hr	TPY	Particulate Matter	0.5	2.19	Sulfur Dioxide	16.0	70.0	Nitrogen Oxides	30.0	131.4	Carbon Monoxide	17.0	74.5	Non-Methane Hydrocarbons	4.0	17.5
Pollutant	lb/hr	TPY																			
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Nitrogen Oxides	30.0	131.4																			
Carbon Monoxide	17.0	74.5																			
Non-Methane Hydrocarbons	4.0	17.5																			
3	45CSR13, R13-1381A, A.3, 400 TPD Rotary Lime Kiln (4-RK-1 (400-105))	6.1.3.	The maximum throughputs associated with the 400 TPD lime kiln (4-RK-1) shall not exceed: <table border="1"> <thead> <tr> <th>Substance</th> <th>TPH</th> <th>TPD</th> <th>TPY</th> </tr> </thead> <tbody> <tr> <td>Limestone Feed</td> <td>31.5</td> <td>756.16</td> <td>275,997</td> </tr> <tr> <td>Bituminous Coal Burned</td> <td>3.0</td> <td>72</td> <td>26,280</td> </tr> <tr> <td>Lime Product</td> <td>16.7</td> <td>400</td> <td>146,000</td> </tr> </tbody> </table>	Substance	TPH	TPD	TPY	Limestone Feed	31.5	756.16	275,997	Bituminous Coal Burned	3.0	72	26,280	Lime Product	16.7	400	146,000		
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4	45CSR13, R13-1381A, A.4., and R13-1788, (A) 6., 400 TPD Rotary Lime Kiln (4-RK-1 (400-105))	6.1.4.	Bituminous coal as fired in the rotary lime kilns 4-RK-1 and 4-RK-2 shall not exceed 1.1% sulfur by weight and 10% by weight in ash content.																		
5	45CSR§10-4.1., 45CSR13, R13-1381A, B.3., and R13-1788, (B)3., 400 TPD Rotary Lime Kiln: (4-RK-1400-105)	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 ppm by volume from existing source operations, except as provided in subdivisions of 45CSR§10-4.1.																		
6	45CSR§10-4.2., 45CSR13, R13-1381A, B.3.	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.																		
7	45CSR16, 40 C.F.R. § 60.672 (a) and (b), (Limestone transfer operations into kiln)	6.1.7.	See Sections 3.1.18. and 3.1.19. for belt conveyor, transfer points and affected facilities (2-BC-5, 2-BC-6, 2-BC-7, 2-BC-8, 4-BC-3, and 4-BC-4). NOTE: See Attachment E pp 13 & 14 for the above referenced requirements.																		

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
8	45CSR§7-5.1., 45CSR13, R13-1381A, B.4.	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.
9	45CSR13, R13-1381 A, C.3.	6.1.9.	The permitted facility must be constructed and operated in accordance with information filed in Permit Application No. 1106, 1381, 1381R, and 1381A. The Director may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to.
10	45CSR§10-8.2.c 400 and 500 TPD Rotary Lime Kilns (4-RK-1 and 4-RK-2)	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, 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.
11	45CSR§10-8.3.a 400 and 500 TPD Rotary Lime Kilns (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.c. 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.

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
12	45CSR§10-8.3.b, 400 and 500 TPD Rotary Lime Kilns (4-RK-1 and 4-RK-2)	6.1.12.	The owner or operator shall submit a periodic exception report to the Director, in a manner specified by the Director. 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.
13	45CSR§10-8.3.c., 400 and 500 TPD Rotary Lime Kilns (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 Director. Such records are to be maintained on-site and made available to the Director 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.
14	45CSR§10-9.1., 400 and 500 TPD Rotary Lime Kilns (4-RK-1 and 4-RK-2)	6.1.14.	Due to unavoidable malfunction of equipment or inadvertent fuel shortages, emissions exceeding those provided for in this rule may be permitted by the Director for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the equipment malfunction or fuel shortage. In cases of major equipment failure or extended shortages of conforming fuels, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director.

Monitoring/Testing/Recordkeeping/Reporting

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
1	45CSR16, 40 C.F.R. § 60.343 (a), 45CSR13, R13-1381A, B.2., Bag House (4-DC-1 (400-112))	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 percent opacity
2	45CSR16, 40 C.F.R. § 60.343(d), 45CSR13, R13-1381A, B.2., 400 TPD Rotary Lime Kiln (4-RK-1) and R13-1788 (B) 2., 500 TPD Rotary Lime Kiln (4-RK-2)	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.

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
3	45CSR§10-8.2.a., 45CSR13, R13-1381A, (B)3 and R13-1788, (B)3. for 400 and 500 TPD Rotary Lime Kilns: (4-RK-1 and 4-RK-2)	6.2.3.	At the request of the Director the owner and/or operator of a source shall install such stack gas monitoring devices as the Director deems necessary to determine compliance with the provisions of 45CSR§10-8.2.a. The data from such devices shall be readily available at the source location or such other reasonable location that the Director may specify. At the request of the Director, or his or her duly authorized representative, such data shall be made available for inspection or copying. Failure to promptly provide such data shall constitute a violation of 45CSR10.
4		6.3.1.	See Section 3.3.4. through 3.3.9 for NSPS testing requirements. NOTE: See Attachment E pp 17-19 for the above referenced sections.
5	45CSR§10-8.2.b. 45CSR13, R13-1381A, B.3. and R13-1788, (B)3. for 400 and 500 TPD Rotary Lime Kilns: (4-RK-1 and 4-RK-2) 45CSR10-8.1.a., 45CSR13, R13-1381A, B.3. and R13-1788, (B)3. for 400 and 500 TPD Rotary Lime Kilns: (4-RK-1 and 4-RK-2) 45CSR§10-8.1.b., 45CSR13, R13-1381A, B. 3. and R13-1788, (B) 3. For 400 and 500 TPD Rotary Lime Kilns (4-RK-1 and 4-RK-2)	6.3.2.	a) Prior to the installation of calibrated stack gas monitoring devices, sulfur dioxide emission rates shall be calculated on an equivalent fuel sulfur content basis. b) At such reasonable times as the Director 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 or other equivalent EPA testing method approved by the Director. The Director, or his or her duly authorized representative, may at his or her option witness or conduct such tests. Should the Director 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 Director 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. c) The Director, or his duly authorized representative, 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.
6	45CSR16, 40 C.F.R. § 60.344 (a), 45CSR13, R13-1381A, B. 2. and R13-1788, (B) 2.	6.3.3.	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).
7	40CFR16, 40 C.F.R. § 60.344 (b), 45CSR13, R13-1381A, B.2. and R13-1788, (B) 2.	6.3.4.	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: (1) The emission rate (E) of particulate matter shall be computed for each run using the following equation: $E = (cs Qsd) / PK$

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
			<p>where: E = emission rate of particulate matter, kg/Mg (1b/ton) of stone feed. cs = concentration of particulate matter, g/dscm (gr/dscf). Qsd = 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).</p> <p>(2) 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).</p> <p>(3) 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.</p> <p>(4) 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.</p>

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting																																				
8	45CSR§30-5.1.c., 400 TPD Rotary Lime Kiln (4-RK-1)	6.3.5.	<p>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.</p> <table border="0"> <tr> <td><u>Pollutant</u></td> <td><u>Method</u></td> </tr> <tr> <td>Carbon Monoxide</td> <td>10</td> </tr> <tr> <td>Nitrogen Oxides</td> <td>7</td> </tr> </table> <p>Subsequent 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:</p> <table border="1"> <thead> <tr> <th data-bbox="751 751 899 806">Test</th> <th data-bbox="899 751 1292 806">Test Results</th> <th data-bbox="1292 751 1430 806">Testing Frequency</th> </tr> </thead> <tbody> <tr> <td data-bbox="751 806 899 854">Initial</td> <td data-bbox="899 806 1292 854">#50% of nitrogen oxides (NO_x) or carbon monoxide (CO) limit</td> <td data-bbox="1292 806 1430 854">Once/5 years</td> </tr> <tr> <td data-bbox="751 854 899 905">Initial</td> <td data-bbox="899 854 1292 905">between 50% and 90 % of nitrogen oxides (NO_x) or carbon monoxide (CO) limit</td> <td data-bbox="1292 854 1430 905">Once/3 years</td> </tr> <tr> <td data-bbox="751 905 899 955">Initial</td> <td data-bbox="899 905 1292 955">\$90% of nitrogen oxides (NO_x) or carbon monoxide (CO) limit</td> <td data-bbox="1292 905 1430 955">Annual</td> </tr> <tr> <td data-bbox="751 955 899 1079">Annual</td> <td data-bbox="899 955 1292 1079">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</td> <td data-bbox="1292 955 1430 1079">Once/3 years</td> </tr> <tr> <td data-bbox="751 1079 899 1203">Annual</td> <td data-bbox="899 1079 1292 1203">If annual testing is required, after three successive tests indicate mass emission rates #50% of nitrogen oxides (NO_x) or carbon monoxide (CO) limit</td> <td data-bbox="1292 1079 1430 1203">Once/5 years</td> </tr> <tr> <td data-bbox="751 1203 899 1327">Once/3 years</td> <td data-bbox="899 1203 1292 1327">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</td> <td data-bbox="1292 1203 1430 1327">Once/5 years</td> </tr> <tr> <td data-bbox="751 1327 899 1451">Once/3 years</td> <td data-bbox="899 1327 1292 1451">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</td> <td data-bbox="1292 1327 1430 1451">Annual</td> </tr> <tr> <td data-bbox="751 1451 899 1575">Once/5 years</td> <td data-bbox="899 1451 1292 1575">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</td> <td data-bbox="1292 1451 1430 1575">Once/3 years</td> </tr> <tr> <td data-bbox="751 1575 899 1696">Once/5 years</td> <td data-bbox="899 1575 1292 1696">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</td> <td data-bbox="1292 1575 1430 1696">Annual</td> </tr> </tbody> </table>	<u>Pollutant</u>	<u>Method</u>	Carbon Monoxide	10	Nitrogen Oxides	7	Test	Test Results	Testing Frequency	Initial	#50% of nitrogen oxides (NO _x) or carbon monoxide (CO) limit	Once/5 years	Initial	between 50% and 90 % of nitrogen oxides (NO _x) or carbon monoxide (CO) limit	Once/3 years	Initial	\$90% of nitrogen oxides (NO _x) or carbon monoxide (CO) limit	Annual	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	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
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9	45CSR13, R13-1381A, B.5., 4-DC-1 with 1E	6.3.6.	<p>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</p>																																				

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting												
			<p>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.</p> <table> <thead> <tr> <th><u>Pollutant</u></th> <th><u>Method</u></th> </tr> </thead> <tbody> <tr> <td>Particulate Matter</td> <td>5D</td> </tr> <tr> <td>Sulfur Dioxide</td> <td>6B</td> </tr> <tr> <td>Nitrogen Oxides</td> <td>7</td> </tr> <tr> <td>Carbon Monoxide</td> <td>10</td> </tr> <tr> <td>Total Non-methane Hydrocarbons</td> <td>25</td> </tr> </tbody> </table>	<u>Pollutant</u>	<u>Method</u>	Particulate Matter	5D	Sulfur Dioxide	6B	Nitrogen Oxides	7	Carbon Monoxide	10	Total Non-methane Hydrocarbons	25
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11	45CSR13, R13-1381A, B.1., 400 TPD Rotary Lime Kiln (4-RK-1) and R13-1788, (B) 1., 500TPD Rotary Lime Kiln (4-RK-2)	6.4.2.	Compliance with the emission limits set forth in Section 6.1.2. For VOC, SO2 and PM from bag houses (4-DC-1 and 4-DC-2) shall be demonstrated by complying with Section 6.1.4.												
12		6.4.3.	See Section 3.4.6. through 3.4.10 for 40CFR60, Subpart OOO recordkeeping and reporting requirements. NOTE: See Attachment E pp 19-21 for the above referenced sections.												
13	45CSR§10-8.3 45CSR13, R13-1381A, B.3. and R13-1788, (B)3. for 400 and 500 TPD Rotary Lime Kilns (4-RK-1 and 4-RK-2)	6.4.4.	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 Director 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) are attached in Appendix A.												
14	45CSR16, 40 C.F.R. § 60.343 (e)	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.												

Attachment E Group 004

Applicable Requirements (Coal Circuit)

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
1	45CSR13, R13-2670, 4.1.1.	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.
2	45CSR13, R13-2670, 4.1.2.	11.1.2.	<p>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 haulroads and other work areas where mobile equipment is used.</p> <p>The spraybar 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 haulroads and work areas where mobile equipment is used.</p> <p>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.</p>
3	45CSR13, R13-2670, 4.1.3., 45CSR§5-3.4	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.
4	45CSR13, R13-2670, 4.1.4., 45CSR16, 40CFR§60.252(c)	11.1.4.	Standards for Particulate Matter. On and after the date on which the performance test required to be conducted by §60.8 is completed, an owner or operator subject to the provisions of this subpart (40 CFR 60.250 Subpart Y) 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, gases which exhibit 20 percent opacity or greater.

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
5	45CSR13, R13-2670, 4.1.5, 45CSR§13-5.11, Equipment ID (5-DH-1 Partial Enclosure, 5-VF-1 Partial Enclosure, 5-BC-0 Full Enclosure, 5-CR-1 Full Enclosure, 5-SI-1 Full Enclosure, 5-VF-2 Full Enclosure, 5-BC-1 Full Enclosure)	11.1.5.	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 of R13-2670A 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.

Monitoring/Testing/Recordkeeping/Reporting

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
1	45CSR13, R13-2670, 4.2.1.	11.2.1.	For the purpose of determining compliance with the maximum throughput limit set forth in 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.
2	45CSR13, R13-2670, 4.2.3.	11.2.2.	For the purposes of determining compliance with water truck usage set forth in 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.
3	45CSR13, R13-2670, 4.2.4., 45CSR7	11.2.3.	<p>For the purpose of determining compliance with the opacity limits of 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.</p> <p>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 40CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40CFR Part 60, Appendix A, Method 9 certification course.</p> <p>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.</p>

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
			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.
4	45CSR13, R13-2670, 4.3.1., 45CSR§5-12.4.	11.3.1.	The permittee shall conduct tests to determine compliance with the visible emission limitation of 11.1.3, tests shall be conducted by certified visible emission observers in accordance with Method 9 of 40 CFR Part 60, Appendix A.
5	45CSR13, R13-2670, 4.4.2., Equipment ID (5-DH-1 Partial Enclosure, 5-VF-1 Partial Enclosure, 5-BC-0 Full Enclosure, 5-CR-1 Full Enclosure, 5-SI-1 Full Enclosure, 5-VF-2 Full Enclosure, 5-BC-1 Full Enclosure)	11.4.1.	Record of Maintenance of Air Pollution Control Equipment. For all pollution control equipment listed in Section 1.0 of R13-2670A, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
6	45CSR13, R13-2670, 4.4.3., Equipment ID (5-DH-1 Partial Enclosure, 5-VF-1 Partial Enclosure, 5-BC-0 Full Enclosure, 5-CR-1 Full Enclosure, 5-SI-1 Full Enclosure, 5-VF-2 Full Enclosure, 5-BC-1 Full Enclosure)	11.4.2.	Record of Malfunctions of Air Pollution Control Equipment. For all air pollution control equipment listed in Section 1.0 of R13-2670A, 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.
7	45CSR13, R13-2670, 4.4.4.	11.4.3.	The permittee shall maintain records of all monitoring data required by 11.2.4 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°F, 6 - 10 mph NE wind) during the visual emission check(s). An example form is supplied as Appendix A. 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.

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
8	45CSR13, R13-2670, 4.5.1.	11.5.1.	Any violation(s) of the allowable visible emission requirement for any emission source discovered during observations using 40CFR 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.

Attachment E Groups 004 and 005

Applicable Requirements (NESHAPS MACT AAAAA)

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
1	45CSR34, 40CFR§63.7090(a), Table 1-#1, Emission Point ID (1E and 500-115)	12.1.1.	Lime kilns 4-RK-1, 4-RK-2 and their associated lime coolers shall limit PM emissions not to exceed 0.12 pounds per ton of stone feed (lb/tsf).
2	45CSR34, 40CFR§63.7090(a), Table 1-#7, Equipment ID (4-BC1, 4-BC-2, 4-BC-4, 4-BC-5, 4-STB-1, 4-STB-2)	12.1.2.	Fugitive emissions from all process stone handling (PSH) operations must not exceed 10 percent opacity.
3	45CSR34, 40CFR§63.7090(b), Table 2-#1, Emission Point ID (1E and 500-115) 45CSR34, 40CFR§63.7090(b), Table 2-#5, 40CFR§63.7100(d) 45CSR34, 40CFR§63.7090(b), Table 2-#6, Equipment ID (4-DS-1, 4-DS-2)	12.1.3.	The permittee shall meet the following operating limits from Table 2 of 40CFR63, 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 40CFR§63.7113(f) and (g) and Table 5 of 40CFR63, subpart AAAAA. The referenced requirements are incorporated within this Title V permit as 12.2.1 and 12.2.2. 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 40CFR§63.7100(d). This plan has been approved and is provided for reference as Appendix C within this Title V permit. 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 40CFR§63.7100(d)(1) through (7). 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 FF; and operate each capture/collection system in accordance with the procedures and requirements defined in the OM&M plan required by 12.1.3.(b) above.
4	45CSR34, 40CFR§63.7100(e)	12.1.4.	The permittee must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in §63.6(e)(3). This SSM plan is provided for reference as Appendix D of this Title V permit.

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
5	45CSR34, 40CFR§63.7121(d)	12.1.5.	Consistent with §§63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with §63.6(e)(1). The Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in §63.6(e).
6	45CSR34, 40CFR§63.7121(b)	12.1.6.	You must report each instance in which you did not meet each operating limit, opacity limit, and VE limit in Tables 2 and 6 to this subpart that applies to you. This includes periods of startup, shutdown, and malfunction. These instances are deviations from the emission limitations in this subpart. These deviations must be reported according to the requirements in §63.7131 incorporated herein as 12.5.2.
7	45CSR34, 40CFR§63.6(e)(1)(i)	12.1.7.	At all times, including periods of startup, shutdown, and malfunction, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires that the owner or operator reduce emissions from the affected source to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the owner or operator to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in paragraph (e)(3) of 40CFR63, subpart A, review of operation and maintenance records, and inspection of the source.
8	45CSR34, 40CFR§63.6(e)(3)(viii)	12.1.8.	The owner or operator may periodically revise the startup, shutdown, and malfunction plan for the affected source as necessary to satisfy the requirements of this part, 40CFR63, or to reflect changes in equipment or procedures at the affected source. Unless the permitting authority provides otherwise, the owner or operator may make such revisions to the startup, shutdown, and malfunction plan without prior approval by the Administrator or the permitting authority. However, each such revision

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
			to a startup, shutdown, and malfunction plan must be reported in the semiannual report required by §63.10(d)(5). If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the owner or operator developed the plan, the owner or operator must revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control and monitoring equipment. In the event that the owner or operator makes any revision to the startup, shutdown, and malfunction plan which alters the scope of the activities at the source which are deemed to be a startup, shutdown, or malfunction, or otherwise modifies the applicability of any emission limit, work practice requirement, or other requirement in a standard established under this part, the revised plan shall not take effect until after the owner or operator has provided a written notice describing the revision to the permitting authority.
9	45CSR34, 40CFR§63.7140	12.1.9.	The permittee shall comply with the General Provisions of 40CFR§63.1 through §63.15 that apply in accordance with Table 8 of 40CFR63, subpart AAAAA. When there is overlap between subpart A and subpart AAAAA, as indicated in the Explanations” column in Table 8, subpart AAAAA takes precedence.

Monitoring/Testing/Recordkeeping/Reporting

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
1	45CSR34, 40CFR§63.7113(a) and (g), 40CFR§63.7121(a), Table 5, Item 4, Emission Point ID (E1, 500-115)	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 40CFR63, subpart A, General Provisions and according to Performance Specifications (PS)-1 of appendix B to 40CFR60. 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.

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
2	45CSR34, 40CFR§63.7113(f), Equipment Point ID (4-RK-1 and 4-RK-2)	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 40CFR63, subpart AAAAA, Table 2 Item 6, incorporated herein as 12.1.3(c)., and record the results of each inspection.
3	45CSR34, 40CFR§63.7120(b)	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.
4	45CSR34, 40CFR§63.7120(c)	12.2.4.	Data recorded during the conditions described in paragraphs (1) through (3) of this section 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. (1) Monitoring system breakdowns, repairs, preventive maintenance, calibration checks, and zero (lowlevel) and high-level adjustments; (2) Periods of non-operation of the process unit (or portion thereof), resulting in cessation of the emissions to which the monitoring applies; and (3) Start-ups, shutdowns, and malfunctions.
5	40CFR§63.7121(a) and Table 6 of 45CSR63, subpart AAAAA, Emission Unit ID (4-BC-1, 4-BC-2, 4-BC-4, 4-BC-5, 4-STB-1, 4-STB-2)	12.2.5.	Ongoing compliance with the fugitive opacity requirements referenced in 12.1.2 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 40CFR§63.7121(e), which is stated as follows: (e) For each PSH operation subject to an opacity limit as specified in Table 1 to this subpart, and any vents from buildings subject to an opacity limit, you must conduct a VE check according to item 1 in Table 6 to this subpart, 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 EPA Method 9 in appendix A to part 60 of this chapter, but must meet the training requirements as described in EPA Method 22 of appendix A to part 60 of this chapter. Additionally, Table 6, items 1(a)(ii), (iii), and (iv) allows a tiered monitoring frequency to be utilized in accordance with the following criteria: (ii) 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;

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
			<p>(iii) 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</p> <p>(iv) If VE are observed during any VE check, you must conduct a 6-minute test of opacity in accordance with Method 9 of appendix A to 40CFR60; 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.</p>
6	45CSR34, 40CFR§63.7111, Emission Points (E1, 500-115) and Fugitive Unit IDs (4-BC-1 tunnel belt, 4-BC-2 reclaim belt, 4-BC-4, 4-BC-5 stone bin feed belts, 4-STB-1, 4-STB-2 stone bins)	12.3.1.	The permittee shall conduct a subsequent performance test for sources defined in Table 4 of 40CFR63, subpart AAAAA, which is currently PM and fugitive opacity testing, within 5 years following the initial performance test, conducted October 25, 2006 and within 5 years following each subsequent performance test thereafter.
7	45CSR34, 40CFR§63.7132(a), (b), and (c)	12.4.1.	<p>(a) You must keep the records specified in paragraphs (a)(1) through (3) of this section.</p> <p>(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirements in §63.10(b)(2)(xiv).</p> <p>(2) The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.</p> <p>(3) Records of performance tests, performance evaluations, and opacity and VE observations as required in §63.10(b)(2)(viii).</p> <p>(b) You must keep the records in §63.6(h)(6) for VE observations. Compliance with this condition shall be satisfied by documenting the VE monitoring required by 12.2.5 of this Title V permit.</p> <p>(c) You must keep the records required by 40CFR63, subpart AAAAA, Tables 5 and 6 incorporated by this Title V permit as 12.2.1, 12.2.2, and 12.2.5, to show continuous compliance with each emission limitation that applies to you.</p>
8	45CSR34, 40CFR§63.7133(a), (b), and (c)	12.4.2.	<p>(a) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1).</p> <p>(b) As specified in §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.</p> <p>(c) 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 §63.10(b)(1). You may keep the records offsite for the remaining 3 years.</p>

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
9	45CSR34, 40CFR§63.7130(d)	12.5.1.	When conducting performance test, such as those incorporated by 12.3.1 of this permit, the permittee shall submit a notification of intent to conduct a such testing at least 60 calendar days before the performance test is scheduled to begin, as required in 40CFR§63.7(b)(1).
10	45CSR34, 40CFR§63.7131(b), (c), (d), and (e), 40CFR63, subpart AAAAA, Table 7	12.5.2.	<p>The permittee shall submit each report listed in 40CFR63, subpart AAAAA, Table 7 as applicable.</p> <p>Table 7 as referenced above as well as 40CFR§63.7131 defines the following reporting requirements:</p> <p>a) Semiannual compliance reports shall be submitted in accordance with the Title V schedule defined by 3.5.6 of this permit.</p> <p>Each semiannual compliance report must contain the information specified by 40CFR§63.7131(c), (d), and (e) as follows.</p> <p>40CFR§63.7131(c)</p> <p>(1) Company name and address.</p> <p>(2) 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.</p> <p>(3) Date of report and beginning and ending dates of the reporting period.</p> <p>(4) If you had a startup, shutdown or malfunction during the reporting period and you took actions consistent with your SSMP, the compliance report must include the information in 40CFR§63.10(d)(5)(i).</p> <p>(5) 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.</p> <p>(6) If there were no periods during which the continuous monitoring systems (CMS) were outof-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. The permittee shall also report any deviations as applicable according to the following criteria:</p> <p>40CFR§63.7131(d)</p> <p>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 paragraphs 40CFR§63.7131(c)(1) through (4) and 40CFR§63.7131(d)(1) and (2) of this section. The deviations must be reported in accordance with the requirements in 40CFR§63.10(d).</p> <p>(1) The total operating time of each emission unit during the reporting period.</p> <p>(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.</p> <p>40CFR§63.7131(e)</p> <p>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 this subpart, you must include the information specified in paragraphs 40CFR§63.7131 (c)(1)</p>

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
			<p>through (4) and 40CFR§63.7131(e)(1) through (11) of this section. This includes periods of startup, shutdown, and malfunction.</p> <p>(1) The date and time that each malfunction started and stopped.</p> <p>(2) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.</p> <p>(3) The date, time and duration that each CMS was out-of-control, including the information in 40CFR§63.8(c)(8).</p> <p>(4) 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.</p> <p>(5) 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.</p> <p>(6) 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.</p> <p>(7) 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.</p> <p>(8) A brief description of the process units.</p> <p>(9) A brief description of the CMS.</p> <p>(10) The date of the latest CMS certification or audit.</p> <p>(11) A description of any changes in CMS, processes, or controls since the last reporting period.</p> <p>b) The permittee must also submit an immediate startup, shutdown, and malfunction (SSM) report if the affected source has a SSM event during the reporting period that results in actions that deviate from those prescribed within the applicable SSM plan. This report shall be submitted by fax or telephone within 2 working days after starting actions inconsistent with the SSM plan. Within 7 working days after the end of the event, unless alternative arrangements have been made with the permitting authority, the permittee shall submit the information required by 40CFR§63.10(d)(5)(ii). The information required by the 40CFR§63.10(d)(5)(ii) is provided here for reference as follows:</p> <p>... contains the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, describing all excess emissions and/or parameter monitoring exceedances which are believed to have occurred (or could have occurred in the case of malfunctions), and actions taken to minimize emissions in conformance with §63.6(e)(1)(i).</p>
11	45CSR34, 40CFR§63.7131(f)	12.5.3.	<p>Each facility that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report 40CFR§§70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A). If you submit a compliance report specified in Table 7 to this subpart along with, or as part of, the semiannual monitoring report required by 40CFR§§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</p>

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
			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.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 4-BC-5, 4-TC-2, 4-VF-5, 4-VF-6, 4-VF-7, 4-VF-8, 4-RA-7, 4-RA-8 4-SC-9, 4-SC-10, 4-BEL-2, 4-RA-3, 4-RA-4, 4-RA-5, 4-RA-6, 4-SC-5, 4-SC-6, 4-SC-7, 4-SC-8, 4-LS-1	Emission unit name: Group 005 Conveying and Transfer	List any control devices associated with this emission unit. See Attachment D for Individual Source Control Devices.
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Various conveying and transfer associated with 500 TPD kiln operations using belt conveyors (BC), flop gate (FG), transfer chute (TC), vibrating feeders (VF), wire rope feeders (WF), radial airlocks (RA), screw conveyors (SC), a bucket elevator (BEL), and a retractable loading churte.

Manufacturer: See Attachment D	Model number: See Attachment D	Serial number: See Attachment D
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Construction date: See Attachment D	Installation date: See Attachment D	Modification date(s): See Attachment D
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: See Attachment D
---	---	--

Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE

Does this emission unit combust fuel? ___ Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___ Direct Fired
--	---

Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
--	---

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)	2.35	9.29
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Emissions shown above are totals for Group 005.

Emissions factor are from AP42.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E70 – E81.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E70 – E81.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the *Schedule of Compliance Form* as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 4-STB-2, 4-SI-2, 500-BOB	Emission unit name: Group 005 Storage	List any control devices associated with this emission unit. See Attachment D for Individual Source Control Devices.
---	---	--

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Various storage associated with 500 TPD kiln operations in a stone bin (STB), a silo (SI) and a blow-off bin (BOB).

Manufacturer: See Attachment D	Model number: See Attachment D	Serial number: See Attachment D
Construction date: See Attachment D	Installation date: See Attachment D	Modification date(s): See Attachment D

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: See Attachment D
---	---	--

Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE

Does this emission unit combust fuel? ___Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)	2.35	9.29
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Emissions shown above are totals for Group 005.
Emissions factor are from AP42.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E70 – E81.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E70 – E81.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 4-PH-2, 4-RK-2, 4-NC-2	Emission unit name: Group 005 Pre-Heater, 500 TPD Lime Kiln and Lime Cooler	List any control devices associated with this emission unit. 4-DC-2, 6-DC-4, 4-PC-2
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Pre-heater (PH), 500 TPD Rotary Lime Kiln (RK) and NIEMS Lime Cooler (NC) associated with 500 TPD kiln operations.

Manufacturer: See Attachment D	Model number: See Attachment D	Serial number: See Attachment D
--	--	---

Construction date: See Attachment D	Installation date: See Attachment D	Modification date(s): See Attachment D
---	---	--

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: See Attachment D
---	---	--

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
--	---

Maximum design heat input and/or maximum horsepower rating: 89 MMBtu/hour	Type and Btu/hr rating of burners: NA – coal is combusted in kiln
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List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
 Coal, 3.5 tph, and 27,720 tpy

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Coal	1.1 %	10%	12,500 – 14,500

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	21.0	83.2
Nitrogen Oxides (NO _x)	42.0	166.0
Lead (Pb)		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)	4.1	16.2
Sulfur Dioxide (SO ₂)	12.08	47.8
Volatile Organic Compounds (VOC)	5.0	19.8
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total HAPs*	7.14	28.25
* For speciated HAPs see Attachment J.		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Emission factors are from AP-42, with the exception of HCl. HCl emission factor was taken from Greer Stack test.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E70 – E81.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E70 – E81.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 5-BC-4, F-SI-3, 5-WF-2, 5-RA-3, 5-BM-2, 5-AS-2, 5-RA-4	Emission unit name: Group 005 Coal Circuit	List any control devices associated with this emission unit. See Attachment D for Individual Source Control Devices.
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Modified coal circuit associated with kiln operations includes a coal silo (CS) dump hopper (DH), vibrating feeders (VF), belt conveyors (BC), a crusher (CR), a silo (SI), weigh feeder (WF), radial airlocks (RA), a bradley mill (BM), and air separator (AS). This is a modified system and was permitted under R13-2670.

Manufacturer: N/A	Model number: N/A	Serial number: N/A
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Construction date: Various - see Attachment D	Installation date: Various - See Attachment D	Modification date(s): Various - see Attachment D
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 N/A

Maximum Hourly Throughput: See Attachment D.	Maximum Annual Throughput: See Attachment D.	Maximum Operating Schedule: See Attachment D.
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Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE

Does this emission unit combust fuel? ___Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___Direct Fired
---	--

Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
--	---

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)	0.02	0.01
Total Particulate Matter (TSP)	0.05	0.03
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP 42, Section 13.2.4 (01/95), Air Pollution Engineering Manual and References per General Permit G10-C Emission Calculation Spreadsheet, and the assumption that TSP/2.1 = PM10.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E70 – E81.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E70 – E81.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

Attachment E Group 005

Applicable Requirements

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement																		
1	45CSR16, 40 C.F.R. § 60.342 (a) (1), 45CSR13, R13-1788, (A)(1), 40 C.F.R. § 60.342 (a) (2), 45CSR13, R13-1788, (A)(7)., Equipment ID(4-RK-2) Compliance with 7.1.1(1) is streamlined by demonstrating compliance with 40 C.F.R. 63, Subpart AAAAA (0.12 lb/ tsf) incorporated within section 12.0 of this permit.	7.1.1.	Total particulate emissions to the atmosphere from emission point 500-105, the 500 TPD lime kiln (500-105) baghouse exhaust stack (4-DS-1), shall not exceed the more stringent of limitation of either 0.6 pounds 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 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: (1) Contain particulate matter in excess of 0.30 kilogram per megagram (0.60 lb/ton) of stone feed. (2) Exhibit greater than 15 percent opacity when exiting from a dry emission control device																		
2	45CSR13, R13-1381A, A.4., and R13-1788, (A) 6 500 TPD Rotary Lime Kiln 4-RK-2 (500-105)	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.																		
3	45CSR13, R13-1788, (A)7., Bag House (4-DC-2 emission point 500-110)	7.1.3.	Emissions to the atmosphere from emission point 500-115, the 500 TPD lime kiln (500-105) baghouse 500-110 vent stack (4-DS-1), shall not exceed the following maximum rates. <table border="1"> <thead> <tr> <th>Pollutant</th> <th>lb/hr</th> <th>TPY</th> </tr> </thead> <tbody> <tr> <td>Particulate Matter</td> <td>4.1</td> <td>16.2</td> </tr> <tr> <td>Sulfur Dioxide</td> <td>12.08</td> <td>47.8</td> </tr> <tr> <td>Nitrogen Oxides</td> <td>42.0</td> <td>166.0</td> </tr> <tr> <td>Carbon Monoxide</td> <td>21.0</td> <td>83.2</td> </tr> <tr> <td>Non-Methane Hydrocarbons</td> <td>5.0</td> <td>19.8</td> </tr> </tbody> </table>	Pollutant	lb/hr	TPY	Particulate Matter	4.1	16.2	Sulfur Dioxide	12.08	47.8	Nitrogen Oxides	42.0	166.0	Carbon Monoxide	21.0	83.2	Non-Methane Hydrocarbons	5.0	19.8
Pollutant	lb/hr	TPY																			
Particulate Matter	4.1	16.2																			
Sulfur Dioxide	12.08	47.8																			
Nitrogen Oxides	42.0	166.0																			
Carbon Monoxide	21.0	83.2																			
Non-Methane Hydrocarbons	5.0	19.8																			
4	45CSR13, R13-1788, (A) 3., 500 TPD Rotary Lime Kiln: (4-RK-2 emission point 500-105)	7.1.4.	The maximum throughputs associated with lime kiln 500-105 shall not exceed. <table border="1"> <thead> <tr> <th>Substance</th> <th>TPH</th> <th>TPD</th> <th>TPY</th> </tr> </thead> <tbody> <tr> <td>Limestone Feed</td> <td>38.62</td> <td>926.88</td> <td>305,870</td> </tr> <tr> <td>Bituminous Coal Burned</td> <td>3.5</td> <td>84</td> <td>27,720</td> </tr> <tr> <td>Lime Product</td> <td>20.8</td> <td>500</td> <td>165,000</td> </tr> </tbody> </table>	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		
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																		
5	45CSR13, R13-1788, (A)4., 400 TPD and 500 TPD Rotary Lime Kilns: (400-105 and 500-105)	7.1.5.	The bituminous coal fuel stockpile, common to both lime kilns 400-105 (R13-1381A) and 500-105, shall not exceed 2,500 5,000 tons at any given time.																		
6	45CSR13, R13-1788, (A) 5., Limestone Stockpile common to the 400 TPD and 500 TPD Rotary Lime Kilns (KSS1)	7.1.6.	The limestone feed stockpile(4-OS-1)common to both lime kilns 500-105 and 400-105 (R13-1381A), shall not exceed 6000 tons at any given time.																		
7	45CSR13, R13-1788, A) 8., Baghouse (4-DC-2 (500-110))	7.1.7.	Baghouse 500-110 controls shall include equipment to monitor and maintain a negative pressure drop of 16 inches of water across the baghouse.																		

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement														
8	45CSR13, R13-1788, (A) 9., Baghouse (4-DC-3 (500-119))	7.1.8.	The following equipment shall vent to baghouse 500-119. <table border="1"> <thead> <tr> <th>Identification Number</th> <th>Equipment Description</th> </tr> </thead> <tbody> <tr> <td>4-SI-2 (500-114)</td> <td>Baghouse Dust Bin</td> </tr> <tr> <td>4-SC-7 (500-112a)</td> <td>Dust Screw Conveyor #1</td> </tr> <tr> <td>4-SC-8 (500-112b)</td> <td>Dust Screw Conveyor #2</td> </tr> <tr> <td>4-BEL-2 (500-113)</td> <td>Dust Bucket Elevator</td> </tr> <tr> <td>4-LS-1 (500-118)</td> <td>Dust Truck Loading Spout</td> </tr> </tbody> </table>	Identification Number	Equipment Description	4-SI-2 (500-114)	Baghouse Dust Bin	4-SC-7 (500-112a)	Dust Screw Conveyor #1	4-SC-8 (500-112b)	Dust Screw Conveyor #2	4-BEL-2 (500-113)	Dust Bucket Elevator	4-LS-1 (500-118)	Dust Truck Loading Spout		
Identification Number	Equipment Description																
4-SI-2 (500-114)	Baghouse Dust Bin																
4-SC-7 (500-112a)	Dust Screw Conveyor #1																
4-SC-8 (500-112b)	Dust Screw Conveyor #2																
4-BEL-2 (500-113)	Dust Bucket Elevator																
4-LS-1 (500-118)	Dust Truck Loading Spout																
9	45CSR13, R13-1788, (A) 10., Baghouse (4-DC-3 (500-119))	7.1.9.	Maximum particulate emissions from the truck cleaning blow off bin and 50 ton dust bin baghouse 500-119 emission point 500-119b shall not exceed 0.273 lb/hr.														
10	45CSR13, R13-1788, (A) 11., Baghouse (4-DC-3 (500-119))	7.1.10.	Side of baghouse 500-119 emission point 500-119b shall be equipped in such a manner as to discharge emissions vertically into the atmosphere.														
11	45CSR13, R13-1788, (A) 12., (6-DC-4, 6-BC-15, 6-BC-16, 6-BC-4)	7.1.11.	The following equipment shall vent to baghouse 500-P1. <table border="1"> <thead> <tr> <th>Identification Number</th> <th>Equipment Description</th> </tr> </thead> <tbody> <tr> <td>6-BC-15 (500-P1a)</td> <td>Product Conveyor #1</td> </tr> <tr> <td>6-BC-16 (500-P1b)</td> <td>Product Conveyor #2</td> </tr> <tr> <td>6-BC-4 (500-P1c)</td> <td>Product Conveyor #3</td> </tr> </tbody> </table>	Identification Number	Equipment Description	6-BC-15 (500-P1a)	Product Conveyor #1	6-BC-16 (500-P1b)	Product Conveyor #2	6-BC-4 (500-P1c)	Product Conveyor #3						
Identification Number	Equipment Description																
6-BC-15 (500-P1a)	Product Conveyor #1																
6-BC-16 (500-P1b)	Product Conveyor #2																
6-BC-4 (500-P1c)	Product Conveyor #3																
12	45CSR13, R13-1788, (A) 13., Baghouse (6-DC-4 (500-P1))	7.1.12.	Maximum particulate emissions from baghouse 500-P1 emission point 500-P1 shall not exceed 1.885 lb/hr.														
13	45CSR13, R13-1788, (A) 14., Baghouse (6-DC-4 (500-P1))	7.1.13	Side of baghouse 500-P1 emission point 500-P1 shall be equipped in such a manner as to discharge emissions vertically into the atmosphere.														
14	45CSR13, R13-2113C, 4.1.4., Blow Off Bin (500-BOB)	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.														
15	45CSR13, R13-2113C1.0	7.1.15.	In accordance with the information filed in amended Permit Application R13-2113, 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 PM emissions. See the following table for the Blow-Off Bin, Group 005. <table border="1"> <thead> <tr> <th rowspan="2">Equipment Capacity ID Number</th> <th rowspan="2">Year Constructed</th> <th rowspan="2">Description</th> <th colspan="2">Maximum</th> <th rowspan="2">Control Equipment</th> </tr> <tr> <th>TPH</th> <th>TPY</th> </tr> </thead> <tbody> <tr> <td>500-BOB</td> <td>1997</td> <td>One 30 ton bin (500-BOB). Material to be blown out of trucks into bin. Material in bin to be dumped to truck.</td> <td>20</td> <td>0.003</td> <td>Vented through the existing dust collector 500-119 (4-DC-3) that services the 500 TPD Kiln (see Permit R13-1788). Emissions during load out are to be controlled by minimizing drop height.</td> </tr> </tbody> </table>	Equipment Capacity ID Number	Year Constructed	Description	Maximum		Control Equipment	TPH	TPY	500-BOB	1997	One 30 ton bin (500-BOB). Material to be blown out of trucks into bin. Material in bin to be dumped to truck.	20	0.003	Vented through the existing dust collector 500-119 (4-DC-3) that services the 500 TPD Kiln (see Permit R13-1788). Emissions during load out are to be controlled by minimizing drop height.
Equipment Capacity ID Number	Year Constructed	Description	Maximum				Control Equipment										
			TPH	TPY													
500-BOB	1997	One 30 ton bin (500-BOB). Material to be blown out of trucks into bin. Material in bin to be dumped to truck.	20	0.003	Vented through the existing dust collector 500-119 (4-DC-3) that services the 500 TPD Kiln (see Permit R13-1788). Emissions during load out are to be controlled by minimizing drop height.												

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
16	45CSR§10-4.1., 45CSR13, R13-1381A, B.3., and R13-1788, (B) 3., 500 TPD Rotary Lime: (4-4-RK-2 (500-105)	7.1.16.	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.
17		7.1.17.	See Sections 3.1.18. and 3.1.19. for belt conveyor (4-BC-4), an affected facility for transporting limestone. NOTE: See Attachment E pp 13-14 for the above referenced sections.
18	45CSR§7-3.7., 45CSR13, R13-1788, (B)4.a., Bins (4-SI-2 and 30 Ton Blow-Off Tank)	7.1.18.	No person shall cause, suffer, allow or permit visible emissions from any storage structure(s) associated with any manufacturing process(es) that pursuant to 45CSR7 subsection 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.
19	45CSR13, R13-1788, General Requirements 3.	7.1.19.	The permitted facility must be constructed and operated in accordance with information filed in Permit Application No. 1788. The Director may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to.
20		7.1.20.	Refer to 6.1.10 – 6.1.14 for 45CSR10 sulfur dioxide monitoring requirements, which also pertain to the 500 TPD kiln.

Monitoring/Testing/Recordkeeping/Reporting

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
1	45CSR16, 40 C.F.R. § 60.343(a), R13-1788, (B) 2.a.	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.
2		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.
3		7.2.3.	See Section 6.2.3. for the 500 TPD Rotary Lime Kiln, (4-RK-2), 45CSR10 stack monitoring provisions.
4		7.3.1.	See Section 3.3.4 through 3.3.9 for NSPS subpart OOO testing requirements. NOTE: See Attachment E pp 17-19 for the above referenced sections.
5		7.3.2.	See Sections 6.3.3 and 6.3.4 for NSPS, subpart HH testing requirements.
6		7.3.3.	See Sections 6.3.2. for 45CSR10 SO2 testing requirements.
7	45CSR§30-5.1.c., 500 TPD Rotary Lime Kilns (4-RK-2)	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 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.

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting																														
			<p>Requirements shall be met with respect to submission of a test protocol and notification of testing.</p> <p><u>Pollutant</u> <u>Method</u> Carbon Monoxide 10 Nitrogen Oxides 7</p> <p>Subsequent testing to determine compliance with the nitrogen oxides (NO_x) and carbon monoxide (CO) limitations of Section 7.1.3. shall be conducted in accordance with the schedule set forth in the following table:</p> <table border="1" data-bbox="748 537 1377 1409"> <thead> <tr> <th data-bbox="748 537 849 590">Test</th> <th data-bbox="849 537 1239 590">Test Results</th> <th data-bbox="1239 537 1377 590">Testing Frequency</th> </tr> </thead> <tbody> <tr> <td data-bbox="748 590 849 642">Initial</td> <td data-bbox="849 590 1239 642">#50% of nitrogen oxides (NO_x) or carbon monoxide (CO) limit</td> <td data-bbox="1239 590 1377 642">Once/5 years</td> </tr> <tr> <td data-bbox="748 642 849 716">Initial</td> <td data-bbox="849 642 1239 716">between 50% and 90 % of nitrogen oxides (NO_x) or carbonmonoxide (CO) limit</td> <td data-bbox="1239 642 1377 716">Once/3 years</td> </tr> <tr> <td data-bbox="748 716 849 768">Initial</td> <td data-bbox="849 716 1239 768">\$90% of nitrogen oxides (NO_x) or carbon monoxide (CO) limit</td> <td data-bbox="1239 716 1377 768">Annual</td> </tr> <tr> <td data-bbox="748 768 849 894">Annual</td> <td data-bbox="849 768 1239 894">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</td> <td data-bbox="1239 768 1377 894">Once/3 years</td> </tr> <tr> <td data-bbox="748 894 849 989">Annual</td> <td data-bbox="849 894 1239 989">If annual testing is required, after three successive tests indicate mass emission rates #50% of nitrogen oxides (NO_x) or carbon monoxide (CO) limit</td> <td data-bbox="1239 894 1377 989">Once/5 years</td> </tr> <tr> <td data-bbox="748 989 849 1083">Once/3 years</td> <td data-bbox="849 989 1239 1083">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</td> <td data-bbox="1239 989 1377 1083">Once/5 years</td> </tr> <tr> <td data-bbox="748 1083 849 1178">Once/3 years</td> <td data-bbox="849 1083 1239 1178">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</td> <td data-bbox="1239 1083 1377 1178">Annual</td> </tr> <tr> <td data-bbox="748 1178 849 1304">Once/5 years</td> <td data-bbox="849 1178 1239 1304">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</td> <td data-bbox="1239 1178 1377 1304">Once/3 years</td> </tr> <tr> <td data-bbox="748 1304 849 1409">Once/5 years</td> <td data-bbox="849 1304 1239 1409">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</td> <td data-bbox="1239 1304 1377 1409">Annual</td> </tr> </tbody> </table>	Test	Test Results	Testing Frequency	Initial	#50% of nitrogen oxides (NO _x) or carbon monoxide (CO) limit	Once/5 years	Initial	between 50% and 90 % of nitrogen oxides (NO _x) or carbonmonoxide (CO) limit	Once/3 years	Initial	\$90% of nitrogen oxides (NO _x) or carbon monoxide (CO) limit	Annual	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	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
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8		7.4.1.	See Section 6.4.1. and 6.4.2. for recordkeeping required by NSR permit R13-1381.																														
9	45CSR§30-5.1.c., 45CSR13, R13-2113C, 4.4.4., Blow Off Bin (500-BOB)	7.4.2.	For the purpose of determining compliance with the maximum processing limits set forth in 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 E of this permit. Such records shall be maintained in accordance with condition 3.4.2.																														
10		7.4.3.	See Section 3.4.6. through 3.4.10. for 40CFR60, subpart OOO record keeping and reporting requirements. NOTE: See Attachment E pp 19-21 for above referenced sections.																														
11		7.4.4.	See Section 6.4.4. for recordkeeping requirements pertaining to Greer's 45CSR10 Monitoring Plan.																														
12	45CSR16, 40 C.F.R. § 60.343 (e)	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 Section 7.1.1. [40 C.F.R. § 60.342 (a)] is greater than 15 percent.																														

Attachment E Groups 004 and 005

Applicable Requirements (NESHAPS MACT AAAAA)

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
1	45CSR34, 40CFR§63.7090(a), Table 1-#1, Emission Point ID (1E and 500-115)	12.1.1.	Lime kilns 4-RK-1, 4-RK-2 and their associated lime coolers shall limit PM emissions not to exceed 0.12 pounds per ton of stone feed (lb/tsf).
2	45CSR34, 40CFR§63.7090(a), Table 1-#7, Equipment ID (4-BC1, 4-BC-2, 4-BC-4, 4-BC-5, 4-STB-1, 4-STB-2)	12.1.2.	Fugitive emissions from all process stone handling (PSH) operations must not exceed 10 percent opacity.
3	45CSR34, 40CFR§63.7090(b), Table 2-#1, Emission Point ID (1E and 500-115) 45CSR34, 40CFR§63.7090(b), Table 2-#5, 40CFR§63.7100(d) 45CSR34, 40CFR§63.7090(b), Table 2-#6, Equipment ID (4-DS-1, 4-DS-2)	12.1.3.	The permittee shall meet the following operating limits from Table 2 of 40CFR63, 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 40CFR§63.7113(f) and (g) and Table 5 of 40CFR63, subpart AAAAA. The referenced requirements are incorporated within this Title V permit as 12.2.1 and 12.2.2. 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 40CFR§63.7100(d). This plan has been approved and is provided for reference as Appendix C within this Title V permit. 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 40CFR§63.7100(d)(1) through (7). 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 FF; and operate each capture/collection system in accordance with the procedures and requirements defined in the OM&M plan required by 12.1.3.(b) above.
4	45CSR34, 40CFR§63.7100(e)	12.1.4.	The permittee must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in §63.6(e)(3). This SSM plan is provided for reference as Appendix D of this Title V permit.

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
5	45CSR34, 40CFR§63.7121(d)	12.1.5.	Consistent with §§63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with §63.6(e)(1). The Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in §63.6(e).
6	45CSR34, 40CFR§63.7121(b)	12.1.6.	You must report each instance in which you did not meet each operating limit, opacity limit, and VE limit in Tables 2 and 6 to this subpart that applies to you. This includes periods of startup, shutdown, and malfunction. These instances are deviations from the emission limitations in this subpart. These deviations must be reported according to the requirements in §63.7131 incorporated herein as 12.5.2.
7	45CSR34, 40CFR§63.6(e)(1)(i)	12.1.7.	At all times, including periods of startup, shutdown, and malfunction, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires that the owner or operator reduce emissions from the affected source to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the owner or operator to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in paragraph (e)(3) of 40CFR63, subpart A, review of operation and maintenance records, and inspection of the source.
8	45CSR34, 40CFR§63.6(e)(3)(viii)	12.1.8.	The owner or operator may periodically revise the startup, shutdown, and malfunction plan for the affected source as necessary to satisfy the requirements of this part, 40CFR63, or to reflect changes in equipment or procedures at the affected source. Unless the permitting authority provides otherwise, the owner or operator may make such revisions to the startup, shutdown, and malfunction plan without prior approval by the Administrator or the permitting authority. However, each such revision

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
			to a startup, shutdown, and malfunction plan must be reported in the semiannual report required by §63.10(d)(5). If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the owner or operator developed the plan, the owner or operator must revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control and monitoring equipment. In the event that the owner or operator makes any revision to the startup, shutdown, and malfunction plan which alters the scope of the activities at the source which are deemed to be a startup, shutdown, or malfunction, or otherwise modifies the applicability of any emission limit, work practice requirement, or other requirement in a standard established under this part, the revised plan shall not take effect until after the owner or operator has provided a written notice describing the revision to the permitting authority.
9	45CSR34, 40CFR§63.7140	12.1.9.	The permittee shall comply with the General Provisions of 40CFR§63.1 through §63.15 that apply in accordance with Table 8 of 40CFR63, subpart AAAAA. When there is overlap between subpart A and subpart AAAAA, as indicated in the Explanations” column in Table 8, subpart AAAAA takes precedence.

Monitoring/Testing/Recordkeeping/Reporting

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
1	45CSR34, 40CFR§63.7113(a) and (g), 40CFR§63.7121(a), Table 5, Item 4, Emission Point ID (E1, 500-115)	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 40CFR63, subpart A, General Provisions and according to Performance Specifications (PS)-1 of appendix B to 40CFR60. 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.

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
2	45CSR34, 40CFR§63.7113(f), Equipment Point ID (4-RK-1 and 4-RK-2)	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 40CFR63, subpart AAAAA, Table 2 Item 6, incorporated herein as 12.1.3(c)., and record the results of each inspection.
3	45CSR34, 40CFR§63.7120(b)	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.
4	45CSR34, 40CFR§63.7120(c)	12.2.4.	Data recorded during the conditions described in paragraphs (1) through (3) of this section 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. (1) Monitoring system breakdowns, repairs, preventive maintenance, calibration checks, and zero (lowlevel) and high-level adjustments; (2) Periods of non-operation of the process unit (or portion thereof), resulting in cessation of the emissions to which the monitoring applies; and (3) Start-ups, shutdowns, and malfunctions.
5	40CFR§63.7121(a) and Table 6 of 45CSR63, subpart AAAAA, Emission Unit ID (4-BC-1, 4-BC-2, 4-BC-4, 4-BC-5, 4-STB-1, 4-STB-2)	12.2.5.	Ongoing compliance with the fugitive opacity requirements referenced in 12.1.2 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 40CFR§63.7121(e), which is stated as follows: (e) For each PSH operation subject to an opacity limit as specified in Table 1 to this subpart, and any vents from buildings subject to an opacity limit, you must conduct a VE check according to item 1 in Table 6 to this subpart, 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 EPA Method 9 in appendix A to part 60 of this chapter, but must meet the training requirements as described in EPA Method 22 of appendix A to part 60 of this chapter. Additionally, Table 6, items 1(a)(ii), (iii), and (iv) allows a tiered monitoring frequency to be utilized in accordance with the following criteria: (ii) 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;

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
			<p>(iii) 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</p> <p>(iv) If VE are observed during any VE check, you must conduct a 6-minute test of opacity in accordance with Method 9 of appendix A to 40CFR60; 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.</p>
6	45CSR34, 40CFR§63.7111, Emission Points (E1, 500-115) and Fugitive Unit IDs (4-BC-1 tunnel belt, 4-BC-2 reclaim belt, 4-BC-4, 4-BC-5 stone bin feed belts, 4-STB-1, 4-STB-2 stone bins)	12.3.1.	The permittee shall conduct a subsequent performance test for sources defined in Table 4 of 40CFR63, subpart AAAAA, which is currently PM and fugitive opacity testing, within 5 years following the initial performance test, conducted October 25, 2006 and within 5 years following each subsequent performance test thereafter.
7	45CSR34, 40CFR§63.7132(a), (b), and (c)	12.4.1.	<p>(a) You must keep the records specified in paragraphs (a)(1) through (3) of this section.</p> <p>(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirements in §63.10(b)(2)(xiv).</p> <p>(2) The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.</p> <p>(3) Records of performance tests, performance evaluations, and opacity and VE observations as required in §63.10(b)(2)(viii).</p> <p>(b) You must keep the records in §63.6(h)(6) for VE observations. Compliance with this condition shall be satisfied by documenting the VE monitoring required by 12.2.5 of this Title V permit.</p> <p>(c) You must keep the records required by 40CFR63, subpart AAAAA, Tables 5 and 6 incorporated by this Title V permit as 12.2.1, 12.2.2, and 12.2.5, to show continuous compliance with each emission limitation that applies to you.</p>
8	45CSR34, 40CFR§63.7133(a), (b), and (c)	12.4.2.	<p>(a) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1).</p> <p>(b) As specified in §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.</p> <p>(c) 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 §63.10(b)(1). You may keep the records offsite for the remaining 3 years.</p>

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
9	45CSR34, 40CFR§63.7130(d)	12.5.1.	When conducting performance test, such as those incorporated by 12.3.1 of this permit, the permittee shall submit a notification of intent to conduct a such testing at least 60 calendar days before the performance test is scheduled to begin, as required in 40CFR§63.7(b)(1).
10	45CSR34, 40CFR§63.7131(b), (c), (d), and (e), 40CFR63, subpart AAAAA, Table 7	12.5.2.	<p>The permittee shall submit each report listed in 40CFR63, subpart AAAAA, Table 7 as applicable.</p> <p>Table 7 as referenced above as well as 40CFR§63.7131 defines the following reporting requirements:</p> <p>a) Semiannual compliance reports shall be submitted in accordance with the Title V schedule defined by 3.5.6 of this permit.</p> <p>Each semiannual compliance report must contain the information specified by 40CFR§63.7131(c), (d), and (e) as follows.</p> <p>40CFR§63.7131(c)</p> <p>(1) Company name and address.</p> <p>(2) 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.</p> <p>(3) Date of report and beginning and ending dates of the reporting period.</p> <p>(4) If you had a startup, shutdown or malfunction during the reporting period and you took actions consistent with your SSMP, the compliance report must include the information in 40CFR§63.10(d)(5)(i).</p> <p>(5) 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.</p> <p>(6) If there were no periods during which the continuous monitoring systems (CMS) were outof-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. The permittee shall also report any deviations as applicable according to the following criteria:</p> <p>40CFR§63.7131(d)</p> <p>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 paragraphs 40CFR§63.7131(c)(1) through (4) and 40CFR§63.7131(d)(1) and (2) of this section. The deviations must be reported in accordance with the requirements in 40CFR§63.10(d).</p> <p>(1) The total operating time of each emission unit during the reporting period.</p> <p>(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.</p> <p>40CFR§63.7131(e)</p> <p>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 this subpart, you must include the information specified in paragraphs 40CFR§63.7131 (c)(1)</p>

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
			<p>through (4) and 40CFR§63.7131(e)(1) through (11) of this section. This includes periods of startup, shutdown, and malfunction.</p> <p>(1) The date and time that each malfunction started and stopped.</p> <p>(2) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.</p> <p>(3) The date, time and duration that each CMS was out-of-control, including the information in 40CFR§63.8(c)(8).</p> <p>(4) 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.</p> <p>(5) 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.</p> <p>(6) 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.</p> <p>(7) 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.</p> <p>(8) A brief description of the process units.</p> <p>(9) A brief description of the CMS.</p> <p>(10) The date of the latest CMS certification or audit.</p> <p>(11) A description of any changes in CMS, processes, or controls since the last reporting period.</p> <p>b) The permittee must also submit an immediate startup, shutdown, and malfunction (SSM) report if the affected source has a SSM event during the reporting period that results in actions that deviate from those prescribed within the applicable SSM plan. This report shall be submitted by fax or telephone within 2 working days after starting actions inconsistent with the SSM plan. Within 7 working days after the end of the event, unless alternative arrangements have been made with the permitting authority, the permittee shall submit the information required by 40CFR§63.10(d)(5)(ii). The information required by the 40CFR§63.10(d)(5)(ii) is provided here for reference as follows:</p> <p>... contains the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, describing all excess emissions and/or parameter monitoring exceedances which are believed to have occurred (or could have occurred in the case of malfunctions), and actions taken to minimize emissions in conformance with §63.6(e)(1)(i).</p>

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
11	45CSR34, 40CFR§63.7131(f)	12.5.3.	Each facility that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report 40CFR§§70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A). If you submit a compliance report specified in Table 7 to this subpart along with, or as part of, the semiannual monitoring report required by 40CFR§§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.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 6-BC-1, 6-BC-2, 6-BEL-1, 6-BC-3, 6-SC-1, 6-SC-2, 6-SC-3, 6-SC-4B, 6-SC-4A, 6-SC-5, 6-VF-1, 6-VF-2, 6-VF-3, 6-VF-4, 6-VF-5, 6-VF-6, 6-BC-8, 6-BC-9, 6-BC-10, 7-WR-2, 6-SC-8, 6-SC-9, 6-LS-1, 6-BC-11, 6-BEL-5, 6-SC-6, 6-BC-13, 6-BC-14, 6-BC-15, 6-BC-16, 6-BC-4, 6-BC-5, 6-BEL-3, 6-SG-1, 6-BC-6, 6-BEL-4, 6-SG-2, 6-BC-7	Emission unit name: Group 006 Conveying and Transfer	List any control devices associated with this emission unit. See Attachment D for Individual Source Control Devices.
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Various conveying and transfer associated with lime handling system using belt conveyors (BC), bucket elevators (BEL), screw conveyors (SC), vibrating feeders (VF), a wire conveyor (WR), loading spout (LS), and slide gates (SG).

Manufacturer: See Attachment D	Model number: See Attachment D	Serial number: See Attachment D
Construction date: See Attachment D	Installation date: See Attachment D	Modification date(s): See Attachment D

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: See Attachment D
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Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE

Does this emission unit combust fuel? ___Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___Direct Fired
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Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
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List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)	33	144.6
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Emissions shown above are totals for Group 006.

Emissions are based on 45CSR§7-4.1 Table 45-7A for a process rate of 100,000 lbs/hr.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E100 – E101.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E100 – E101.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 6-CR-3, 6-CR-2	Emission unit name: Group 006 Crushing	List any control devices associated with this emission unit. 6-DC-1, 6-DC-2
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Various crushing associated with lime handling operation using roll crushers (CR).

Manufacturer: See Attachment D	Model number: See Attachment D	Serial number: See Attachment D
--	--	---

Construction date: See Attachment D	Installation date: See Attachment D	Modification date(s): See Attachment D
---	---	--

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: See Attachment D
---	---	--

Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE

Does this emission unit combust fuel? ___Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___Direct Fired
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Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
--	---

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)	33	144.6
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Emissions shown above are totals for Group 006.

Emissions are based on 45CSR§7-4.1 Table 45-7A for a process rate of 100,000 lbs/hr.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E100 – E101.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E100 – E101.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 6-VS-4, 6-VS-3,	Emission unit name: Group 006 Screening	List any control devices associated with this emission unit. 6-DC-3, 6-DC-2
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Various screening associated with lime handling operations using a 5-deck vibrating screen (6-VS-4), and double-deck vibrating screen (6-VS-3).

Manufacturer: See Attachment D	Model number: See Attachment D	Serial number: See Attachment D
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Construction date: See Attachment D	Installation date: See Attachment D	Modification date(s): See Attachment D
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: See Attachment D
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Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE

Does this emission unit combust fuel? ___Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___Direct Fired
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Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
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List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)	33	144.6
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Emissions shown above are totals for Group 006.

Emissions are based on 45CSR§7-4.1 Table 45-7A for a process rate of 100,000 lbs/hr.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E100 – E101.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E100 – E101.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 6-SI-1, 6-SI-2, S-SI-3, 6-SI-4, 6-SI-5, 6-SI-6, 6-SI-7, 6-SI-8, 6-SI-9A, 6-BB-1, 6-SI-10, 6-SI-9B	Emission unit name: Group 006 Storage	List any control devices associated with this emission unit. See Attachment D for Individual Source Control Devices.
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Various storage associated with lime handling operations in silos (SI), a granulated lime bagging bin (6-BB-1).

Manufacturer: See Attachment D	Model number: See Attachment D	Serial number: See Attachment D
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Construction date: See Attachment D	Installation date: See Attachment D	Modification date(s): See Attachment D
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: See Attachment D
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Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE

Does this emission unit combust fuel? ___Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___Direct Fired
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Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
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List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)	33	144.6
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Emissions shown above are totals for Group 006.

Emissions are based on 45CSR§7-4.1 Table 45-7A for a process rate of 100,000 lbs/hr.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E100 – E101.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E100 – E101.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 6-GB-1	Emission unit name: Group 006 Granular Bagger	List any control devices associated with this emission unit. FE + FE
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Granular bagger (GB) associated with lime handling operations.

Manufacturer: See Attachment D	Model number: See Attachment D	Serial number: See Attachment D
Construction date: See Attachment D	Installation date: See Attachment D	Modification date(s): See Attachment D

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: See Attachment D
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Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE

Does this emission unit combust fuel? ___Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)	33	144.6
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Emissions shown above are totals for Group 006.

Emissions are based on 45CSR§7-4.1 Table 45-7A for a process rate of 100,000 lbs/hr.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E100 – E101.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E100 – E101.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 6-VS-5, 6-SC-10, 6-BL-1	Emission unit name: Group 006 Screen and Conveyors	List any control devices associated with this emission unit. See Attachment D for Individual Source Control Devices.
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Single Deck Vibrating Screen (6-VS-5), screw conveyor (SC) and DensPhase pump system blower (BL) for pebble lime.

Manufacturer: 6-BL-1 - DensPhase™	Model number: NA	Serial number: NA
Construction date: 2006	Installation date: 2006	Modification date(s): NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 NA

Maximum Hourly Throughput: 50 tph	Maximum Annual Throughput: 60,000 tpy	Maximum Operating Schedule: 8,760 hours per year
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ___Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)	14.22	4.17
Total Particulate Matter (TSP)	29.86	8.76
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP-42, Section 11.17 (02-98) and Section 13.2.4 (01-95) and the assumption that TSP/2.1 = PM10.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E100 – E101.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E100 – E101.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

Attachment E Group 006

Applicable Requirements

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
1	45CSR13, R13-2113C, 1.0	8.1.1.	In accordance with the information filed in amended Permit Application R13-2113, 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 PM emissions. See the following table for the Lime Handling Area Group 006:

Equipment Capacity ID Number	Year Constructed	Description	Maximum Capacity		Control Equipment
			TPH	TPY x 10 ⁶	
6-BC-3	Existing	Existing 24" Belt Conveyor (6-BC-3) transfers lime from existing 24" Belt Conveyor (6-BC-2) to new 50 TPH Roll Crusher (6-CR-3).	50	0.311	None
6-CR-3	1998	New 50 TPH Roll Crusher (6-CR-3) takes lime from the existing Belt Conveyor (6-BC-3) and also, oversized lime from the top (1st) screen of new 5 deck Vibrating Screen (6-VS-4), and processes/crushes it, and sends it to the new bucket elevator (6-BEL-1). The new 50 TPH Roll Crusher (6-CR-3) is vented to Dust Collector (6-DC-1).	50	0.311	Fully enclosed. Vented to existing Dust Collector (6-DC-1).
6-BEL-1	1998	New Bucket Elevator (6-BEL-1) takes lime from the new 50 TPH Roll Crusher (6-CR-3) and transfers it to the new 5 deck Vibrating Screen (6-VS-4).	50	0.311	Fully enclosed.
6-VS-4	1998	New 5 Deck Vibrating Screen (6-VS-4) receives lime from the new Bucket Elevator (6-BEL-1) and processes/ screens it into 6 different fractions/ streams. The new 5 Deck Vibrating Screen (6-VS-4) is vented to Dust Collector (6-DC-3).	50	0.311	Fully enclosed. Vented to Dust Collector (6-DC-3).
6-SC-2	Extended 1998	Extended Screw Conveyor (6-SC-2) receives screened lime passing through and too big to pass through the bottom (5th) screen of the new 5 Deck Vibrating Screen (6-VS-4) and transfers it to the newly extended Screw Conveyor (6-SC-4) and/or to two of the six existing 125 ton storage silos (6-SI-6 and 6-SI-5).	50	0.311	Fully enclosed.
6-SC-4A 6-SC-4B	Extended 1998	Newly extended Screw Conveyor (6-SC-4) receives lime passing through the top (1st), 2nd, 3rd, and 4th screens of the new 5 Deck Vibrating Screen (6-VS-4) and from new Screw Conveyor and feeds it to the 3 existing 500 ton hydrate feed storage tanks (6-SI-7, 6-SI-8, and 6-SI-9).	50	0.311	Fully enclosed.
6-SC-3	Extended 1998	Newly Extended Screw Conveyor (6-SC-3) receives lime passing through the top (1st) screen of the new 5 Deck Vibrating Screen (6-VS-4) and transfers it to three of the six 125 ton lime storage silos (6-SI-3, 6-SI-2, 6-SI-1).	50	0.311	Fully enclosed.
6-SC-5	Existing	Existing Screw Conveyor (6-SC-5) receives lime passing through the 2nd screen of the new 5 Deck Vibrating Screen (6-VS-4) and transfers it to the existing Granular Lime Bagging Bin (6-BB-1).	50	0.311	Fully enclosed.
6-VF-6	1998	New Vibrating Feeder (6-VF-6) receives lime from one of the six 125 ton Lime Storage Silos (6-SI-6) and transfers it to the new Screw Conveyor (6-SC-8).	150	0.311	Fully enclosed.
6-VF-5	1998	New Vibrating Feeder (6-VF-5) receives lime from one of the six 125 ton Lime Storage Silos (6-SI-5) and transfers it to the new Screw Conveyor (6-SC-8).	150	0.311	Fully enclosed.
6-VF-4	1998	New Vibrating Feeder (6-VF-4) receives lime from one of the six 125 ton Lime Storage Silos (6-SI-4) and transfers it to the new Screw Conveyor (6-SC-8) or the existing 24" Belt Conveyor (6-BC-13).	150	0.311	Fully enclosed.
6-SC-8	1998	New Screw Conveyor (6-SC-8) receives lime from three of the six 125 ton Lime Storage Silos (6-SI-6, 6-SI-5, and 6-SI-4) and transfers it to new Screw Conveyor (6-SC-9).	150	0.311	Fully enclosed.
6-SC-9	1998	New Screw Conveyor (6-SC-9) receives lime from new Screw Conveyor (6-SC-8) and transfers it through the Retractable Loading Spout (6-LS-1) to trucks.	150	0.311	Fully enclosed.
Equipment Capacity ID Number	Year Constructed	Description	Maximum Capacity		Control Equipment
			TPH	TPY x 10 ⁶	
6-LS-1	1998	New Retractable Loading Spout (6-LS-1) receives lime from new Screw Conveyor (6-SC-9) and transfers it to trucks. Emissions from the Loading Spout are routed to the Dust Collector (6-DC-3).	150	0.311	Vented to Dust Collector (6-DC-3).
6-VF-3	1998	New Vibrating Feeder (6-VF-3) receives lime from one of the six 125 ton Lime Storage Silos (6-SI-3) and transfers it to the existing 24" Belt Conveyor (6-BC-13).	150	0.311	Fully enclosed.

Rule/ Regulation/ R13 Permit		Existing R30 Permit Condition	Requirement		
6-VF-2	1998	New Vibrating Feeder (6-VF-2) receives lime from one of the six 125 ton Lime Storage Tanks (6-SI-2) and transfers it to the existing 24" Belt Conveyor (6-BC-13).	150	0.311	Fully enclosed.
6-VF-1	1998	New Vibrating Feeder (6-VF-1) receives lime from one of the six 125 ton Lime Storage Silos (6-SI-1) and transfers it to the existing 24" Belt Conveyor (6-BC-13).	150	0.311	Fully enclosed.
6-BC-13	Existing	Existing 24" Belt Conveyor (6-BC-13) receives lime from four of the six 125 tons Lime Storage Silos (6-SI-4, 6-SI-3, 6-SI-2, 6-SI-1) and transfers it to existing Belt Conveyor (6-BC-14).	150	0.311	Partially enclosed.
6-BC-14	Existing	Existing Belt Conveyor (6-BC-14) receives lime from existing 24" Belt Conveyor (6-BC-13) and transfers it through a dust sock to trucks.	150	0.311	Partially enclosed.
6-FG-6	1998	New Flop Gate (6-FG-6) diverts lime leaving the existing Bucket Elevator (6-BEL-3) to the new 50 TPH Roll Crusher (6-CR-2).	50	0.311	Fully enclosed.
6-CR-2	1998	New 50TPH Roll Crusher (6-CR-2) receives lime from the 1200 ton Lime Storage Silo (6-SI-10)	50	0.311	
2	45CSR13, R13-2113C, 4.1.2., Roll Crushers (6-CR-2 and 6-CR-3)	8.1.2.	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.		
3	45CSR13, R13-2113, 4.1.3., 45CSR§7-3.1. and 45CSR§7-3.2., Equipment ID (6-CR-3, 6-CR-2, 6-VS-4, 6-VS-5)	8.1.3.	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.		

Monitoring/Testing/Recordkeeping/Reporting

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
1		8.2.1.	See Sections 3.2.1. and 3.2.2. for 45CSR7 opacity monitoring requirements and dust collector monitoring.
2		8.3.1.	See Sections 3.3.1. and 3.3.2
3	45CSR§30-5.1.c., 45CSR13, R13-2113C, 4.4.4	8.4.1.	For the purpose of determining compliance with the limestone processing rates for the Lime Handling Area, Lime Storage and Truck Loading Systems in Sections 8.1.1 and 8.1.2, the company shall maintain certified monthly and annual records. The monthly amounts of limestone processed shall be maintained on a monthly basis. A twelve- (12) month rolling average shall be maintained; so that, there maximum tons per year of limestone and lime processing are not exceeded.
4		8.4.2.	See Section 3.4.1. through 3.4.5., for general record keeping requirements.
5		8.5.1.	See Section 3.5., for general reporting requirements.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 7-BC-1, 7-SC-0, 7-BEL-1, 7-SC-1, 7-SC-2, 7-BEL-2, 7-SC-3, 7-SC-6, 7-SC-7, 7-SC-8, 7-SC-9, 7-SC-4, 7-SC-5, 7-BEL-3, 7-SC-10, 7-SC-11, 7-SC-12, 7-SC-13, 7-RA-1, 7-LS-2, 7-BEL-4, 7-SC-14, 7-LS-1, 7-SC-15, 7-SC-16, 7-SC-17, 7-SC-18, 7-WR-1, 7-BC-2, 7-BC-3, 7-WR-2, 7-BEL-5	Emission unit name: Group 007 Conveying and Transfer	List any control devices associated with this emission unit. See Attachment D for Individual Source Control Devices.
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Various conveying and Transfer associated with hydrate plant operations using belt conveyors (BC), screw conveyors (SC), bucket elevators (BEL), radial airlocks (RA), a loading spout (LS), and wire conveyor (WR).

Manufacturer: See Attachment D	Model number: See Attachment D	Serial number: See Attachment D
Construction date: See Attachment D	Installation date: See Attachment D	Modification date(s): See Attachment D

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: See Attachment D
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Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE

Does this emission unit combust fuel? ___ Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___ Direct Fired
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Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
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List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)	22	96.4
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Emissions shown above are totals for Group 007.

Emissions are based on 45CSR§7-4.1 Table 45-7A for a process rate of 30,000 lbs/hr.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E120 – E121.

X Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E120 – E121.

Are you in compliance with all applicable requirements for this emission unit? X Yes ___No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 7-BM-1	Emission unit name: Group 007 Crushing	List any control devices associated with this emission unit. FE + FE
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Ball mill (BM) associated with hydrate plant operations.

Manufacturer: See Attachment D	Model number: See Attachment D	Serial number: See Attachment D
Construction date: See Attachment D	Installation date: See Attachment D	Modification date(s): See Attachment D

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: See Attachment D
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Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE

Does this emission unit combust fuel? ___Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___Direct Fired
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Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
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List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)	22	96.4
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Emissions shown above are totals for Group 007.

Emissions are based on 45CSR§7-4.1 Table 45-7A for a process rate of 30,000 lbs/hr.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E120 – E121.

X Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E120 – E121.

Are you in compliance with all applicable requirements for this emission unit? X Yes ___No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 7-AS-1	Emission unit name: Group 007 Air Separation	List any control devices associated with this emission unit. 7-DC-1
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Air separator (AS) associated with hydrate plant operations.

Manufacturer: See Attachment D	Model number: See Attachment D	Serial number: See Attachment D
Construction date: See Attachment D	Installation date: See Attachment D	Modification date(s): See Attachment D

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: See Attachment D
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Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE

Does this emission unit combust fuel? ___Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)	22	96.4
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Emissions shown above are totals for Group 007.

Emissions are based on 45CSR§7-4.1 Table 45-7A for a process rate of 30,000 lbs/hr.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E120 – E121.

X Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E120 – E121.

Are you in compliance with all applicable requirements for this emission unit? X Yes ___ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 7-SB-1, 7-SI-1, 7-SI-2, 7-SI-4, HBB,	Emission unit name: Group 007 Storage	List any control devices associated with this emission unit. See Attachment D for Individual Source Control Devices.
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Various storage associated with hydrate plant operations using silos (SI) and a hydrate bagging bin (HBB).

Manufacturer: See Attachment D	Model number: See Attachment D	Serial number: See Attachment D
Construction date: See Attachment D	Installation date: See Attachment D	Modification date(s): See Attachment D

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: See Attachment D
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Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE

Does this emission unit combust fuel? ___Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)	22	96.4
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Emissions shown above are totals for Group 007.

Emissions are based on 45CSR§7-4.1 Table 45-7A for a process rate of 30,000 lbs/hr.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E120 – E121.

X Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E120 – E121.

Are you in compliance with all applicable requirements for this emission unit? X Yes ___No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 7-MT-1, 7-HY-1	Emission unit name: Group 007 Mixing Tub and Atmospheric Hydrator	List any control devices associated with this emission unit. See Attachment D for Individual Source Control Devices.
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Mixing tub (MT) and atmospheric hydrator (HY) associated with hydrate plant operation.

Manufacturer: See Attachment D	Model number: See Attachment D	Serial number: See Attachment D
Construction date: See Attachment D	Installation date: See Attachment D	Modification date(s): See Attachment D

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: See Attachment D
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Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE

Does this emission unit combust fuel? ___Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___Direct Fired
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Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
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List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)	22	96.4
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Emissions shown above are totals for Group 007.

Emissions are based on 45CSR§7-4.1 Table 45-7A for a process rate of 30,000 lbs/hr.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E120 – E121.

X Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E120 – E121.

Are you in compliance with all applicable requirements for this emission unit? X Yes ___No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: HB	Emission unit name: Group 007 Hydrate Bagger	List any control devices associated with this emission unit. 7-DC-2
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Hydrate bagger (HB) associated with hydrate plant operations.

Manufacturer: See Attachment D	Model number: See Attachment D	Serial number: See Attachment D
Construction date: See Attachment D	Installation date: See Attachment D	Modification date(s): See Attachment D

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: See Attachment D
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Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE

Does this emission unit combust fuel? ___Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___Direct Fired
---	---

Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
--	---

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)	22	96.4
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Emissions shown above are totals for Group 007.

Emissions are based on 45CSR§7-4.1 Table 45-7A for a process rate of 30,000 lbs/hr.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E120 – E121.

X Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E120 – E121.

Are you in compliance with all applicable requirements for this emission unit? X Yes ___No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

Attachment E Group 007

Applicable Requirements

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
1	45CSR13, R13-1396B, A. 1.	9.1.1.	Hydrated Lime production shall not exceed 15 tons per hour or 100,000 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 hydrated lime production at any given time for the previous twelve (12) consecutive calendar months.
2	45CSR13, R13-1396B, A.2., Hydrate Plant Scrubber (SCR-1)	9.1.2.	Emissions of particulate matter from the stack exhausting the hydrate plant scrubber (Emission Point ID E-4) shall not exceed 2.25 lb/hr nor 7.5 tons per year.
3	45CSR13, R13-1396B, A.3., Hydrate Plant Scrubber (SCR-1)	9.1.3.	At such reasonable time(s) as the Director may designate, the permittee shall conduct or have conducted test(s) to determine compliance with the emission limitations as set forth in Section 9.1.2. Test(s) shall be conducted in accordance with the testing methods specified in 45CSR7A, "Compliance Test Procedures for Regulation 7 - 'To Prevent and Control Particulate Air Pollution From Manufacturing Source Operations.'"
4	45CSR§7-3.7., Bins (7-SB-1, 7-SI-1, 7-SI-2, 7-SI-4, and Hydrate Bagging Bin)	9.1.4.	No person shall cause, suffer, allow or permit visible emissions from any storage structure(s) associated with any manufacturing process(es) that pursuant to subsection 5.1 is required to have a full enclosure and be equipped with a particulate matter control device.
5	45CSR13, R13-1396B, C.3.	9.1.5.	The permitted facility shall be constructed and operated in accordance with information filed in Permit Application R13-1396, R13-1396A, R13-1396B 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.

Monitoring/Testing/Recordkeeping/Reporting

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
1	45CSR§30-5.1.c., Scrubber (7-SCR-1)	9.2.1.	The owner or operator of a wet scrubber to control emissions shall install, calibrate, maintain and operate the following monitoring devices, (a) A device for the continuous measurement of the pressure loss of the gas stream through the scrubber. The monitoring device must be certified by the manufacturer to be accurate within ± 250 pascals ± 1 inch water gauge pressure and must be calibrated on an annual basis in accordance with manufacturer's instructions. (b) A device for the continuous measurement of the scrubbing liquid flow rate to the wet scrubber. The monitoring device must be certified by the manufacturer to be accurate within ± 5 percent of design scrubbing liquid flow rate and must be calibrated on an annual basis in accordance with manufacturer's instructions.

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
2	45CSR§30-5.1.c., Scrubber (7-SCR-1)	9.3.1.	The owner or operator shall record the measurements as required for Scrubber (7-SCR-1) using monitoring devices as described Section 9.2.1 for each particulate matter run and shall determine the averages.
3	45CSR§30-5.1.c., 45CSR13, R13-1396B., B.3.	9.4.1.	For the purposes of determining compliance with maximum production limits set forth in Section 9.1.1 the applicant shall maintain certified monthly and annual records, utilizing the data collection of the hydrate lime production, hydrate plant operating hours, and a monthly rolling total average of hydrate lime production. Such records shall be retained 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.
4	45CSR§30-5.1.c., Hydrate System	9.5.1.	After the initial performance test of a wet scrubber, the owner or operator shall submit semiannual reports of occurrences when the measurements of the scrubber pressure loss (or gain) and liquid flow rate differ by more than ± 30 percent from the average determined during the most recent performance test.
5	45CSR§30-5.1.c., Hydrate System	9.5.2.	The reports required under Section 9.5.1. shall be postmarked within 30 days following the end of the second and fourth calendar quarters.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: GF1, BC1, BC2, BC3, BC4, BC5, BC6, BC7, BC8, BC9, BC10, BC11	Emission unit name: Group 008 Conveying	List any control devices associated with this emission unit. See Attachment D for Individual Source Control Devices.
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Various conveying associated with portable plant operations using a grizzly feeder (GF) and belt conveyors (BC).

Manufacturer: See Attachment D	Model number: See Attachment D	Serial number: See Attachment D
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Construction date: See Attachment D	Installation date: See Attachment D	Modification date(s): See Attachment D
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: See Attachment D
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Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE

Does this emission unit combust fuel? ___Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___Direct Fired
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Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
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List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)	4.80	7.82
Total Particulate Matter (TSP)	10.07	16.41
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP42 Section 13.2.4.1.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E134 – E136.

X Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E134 – E136.

Are you in compliance with all applicable requirements for this emission unit? X Yes ___ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: PC1, PC2	Emission unit name: Group 008 Crushing	List any control devices associated with this emission unit. WS
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Various crushing associated with portable plant operation using a 400-ton jaw crusher (PC1) and a cone crusher (PC2).

Manufacturer: See Attachment D	Model number: See Attachment D	Serial number: See Attachment D
Construction date: See Attachment D	Installation date: See Attachment D	Modification date(s): See Attachment D

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: See Attachment D
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Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE

Does this emission unit combust fuel? ___ Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___ Direct Fired
Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)	0.26	0.21
Total Particulate Matter (TSP)	0.55	0.44
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP42 Section 11.19.2.1.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E134 – E136.

X Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E134 – E136.

Are you in compliance with all applicable requirements for this emission unit? X Yes ___No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: PS1, PS2	Emission unit name: Group 008 Screening	List any control devices associated with this emission unit. See Attachment D for Individual Source Control Devices.
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Various screening associated with portable plant operations using triple deck screens (PS).

Manufacturer: See Attachment D	Model number: See Attachment D	Serial number: See Attachment D
Construction date: See Attachment D	Installation date: See Attachment D	Modification date(s): See Attachment D

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: See Attachment D
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Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE

Does this emission unit combust fuel? ___Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)	0.96	1.75
Total Particulate Matter (TSP)	2.02	1.58
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP42 11.19.2.1.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E134 – E136.

X Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E134 – E136.

Are you in compliance with all applicable requirements for this emission unit? X Yes ___ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: PSP1, PSP2, B1, PSP3, PSP4, PSP5	Emission unit name: Group 008 Storage	List any control devices associated with this emission unit. COM
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Various storage associated with portable plant operations in open stockpiles (PSP) and a surge bin (B).

Manufacturer: See Attachment D	Model number: See Attachment D	Serial number: See Attachment D
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Construction date: See Attachment D	Installation date: See Attachment D	Modification date(s): See Attachment D
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: See Attachment D
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Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE

Does this emission unit combust fuel? ___Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___Direct Fired
---	--

Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
--	---

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)	0.15	0.60
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP42 13.2.4.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E134 – E136.

X Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E134 – E136.

Are you in compliance with all applicable requirements for this emission unit? X Yes ___No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

Attachment E Group 008

Applicable Requirements

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
1	45CSR13, R13-2222-P2, A.1.	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:

Equipment Capacity ID Number	Description	Method of Control	Maximum Capacity		Associated Transfer Points or Equipment		
			TPH	TPY x 10⁶	Location B-Before A-After	ID No.	Method of Control
Grizzly Feeder	Grizzly Feeder - Receives limestone from front endloader. Transfers it to Jaw Crusher (PC1).	N	300	600,000	B A	TP1 ----	WS ----
PC1	450 TPH Jaw Crusher (PC1) - Receives limestone from the Grizzly Feeder. Transfers it to Under Crusher Belt Conveyor (BC1).	WS	300	600,000	B A	---- TP2	---- WS
BC1	Under Crusher Belt Conveyor (BC1) - Receives limestone from Jaw Crusher (PC1). Transfers it to Screen Feed Radial Stacker (RS2)	WS	300	600,000	B A	TP2 TP3	WS COM
RS2	Screen Feed Radial Stacker (RS2) - Receives limestone from Under Crusher Belt Conveyor (BC1) and transfers it to Double-deck Scalping Screen (PS1).	COM	300	600,000	B A	TP3 TP4	COM COM
PS1	550 TPH Double-deck Scalping Screen (PS1) - Receives limestone from Screen Feed Radial Stacker (RS2) and transfers it to three (3) different locations.	FE/WS	300	600,000	B A	TP4 TP5 TP8 TP11	COM WS WS WS
RS3	Radial Stacker (RS3) – Receives crusher run limestone from Scalping Screen (PS1) and transfers it to Stockpile (PSP1).	WS	110	600,000	B A	TP5 TP6	WS COM
PSP1	Stockpile (PSP1) - Receives crusher run limestone from Radial Stacker (RS3) and transfers it by front endloader into dump trucks.	COM	110	600,000	B A	TP6 TP7	TP6 TP7
RS4	Radial Stacker (RS4) – Receives gabion (limestone) from Scalping Screen (PS1) and transfers it to Stockpile (PSP2).	WS	190	600,000	B A	TP8 TP9	WS COM
PSP2	Stockpile (PSP2) - Receives gabion (limestone) from Radial Stacker (RS4) and transfers it by front endloader into dump trucks.	COM	190	50,000	B A	TP9 TP10	COM COM
BC5	Under Screen Belt Conveyor (BC5) - Receives limestone from Scalping Screen (PS1) and transfers it to Surge Bin Feed Radial Stacker (RS6).	WS	300	600,000	B A	TP11 TP12	WS COM
RS6	Surge Bin Feed Radial Stacker (RS6) - Receives limestone from Belt Conveyor (BC5) and transfers it to 50 Ton Bin.	COM	300	600,000	B A	TP12 TP13	COM COM
Equipment Capacity ID Number	Description	Method of Control	Maximum Capacity		Associated Transfer Points or Equipment		
			TPH	TPY x 10⁶	Location B-Before A-After	ID No	Method of Control
B1	50 Ton Bin (B1) – Receives limestone from Radial Stacker (RS6) and transfers it to Under-Bin Belt Conveyor (BC7).	COM	300	600,000	B A	TP13 TP14	
BC7	Under-Bin Main Feed Belt Conveyor (BC7) to screen - Receives limestone	COM	300	1.2 MM	B A	TP14 TP17 TP15	COM COM

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement					
		from 50 Ton Bin and Belt Conveyor (BC8), and transfers it to Three Deck (TD) Screen (PS2).						COM
	PS2	600 TPH Three Deck (TD) Screen (PS2) - Receives limestone from Belt Conveyors (BC7 and BC8) and transfers it to four (4) different locations.	FE/WS	300	1.2 MM	B A	TP15 TP16 TP18 TP19 TP20	COM WS WS WS WS
	PC2	350 TPH Cone Crusher (PC2) - Receives limestone from Chute exiting TD Screen (PS2) and transfers it to Belt Conveyor (BC8).	WS	300	600,000	B A	----- TP16	----- WS
	BC8	Belt Conveyor (BC8) - Receives limestone from Cone Crusher (PC2) and transfers it to back to Belt Conveyor (BC7) for reprocessing through TD Screen (PS2).	WS	300	600,000	B A	TP16 TP7	WS COM
	RS9	Radial Stacker (RS9) - Receives 57's (limestone) from TD Screen (PS2) and transfers it to Stockpile (PSP3).	WS	150	600,000	B A	TP18 TP25	WS COM
	PSP3	Stockpile (PSP3) - Receives 57's (limestone) from Radial Stacker (RS9) and transfers it with a front endloader into dump trucks.	COM	150	600,000	B A	TP25 TP26	COM MD
	RS10	Radial Stacker (RS10) - Receives crusher limestone from TD Screen (PS2) and transfers it to Stockpile (PSP4).	WS	190	600,000	B A	TP19 TP21	WS COM
	PSP4	Stockpile (PSP4) - Receives crusher run limestone from Radial Stacker (RS10) and transfers it with a front endloader into dump trucks.	COM	190	600,000	B A	TP21 TP22	COM MD
	RS11	Radial Stacker (RS11) - Receives 8's (limestone) from TD Screen (PS2) and transfers it to Stockpile (PSP5).	WS	75	600,000	B A	TP20 TP23	WS COM
	PSP5	Stockpile (PSP5) - Receives 8's (limestone) from Radial Stacker (RS11) and transfers it with a front endloader into dump trucks.	COM	75	600,000	B A	TP23 TP24	COM MD
2	45CSR13, R13-2222-P2, 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.					
3	45CSR13, R13-2222-P2, C.3.	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					
4		10.1.4.	See Section 3.1.18 through 3.1.24. for NSPS subpart OOO requirement NOTE: See Attachment E pp 13-15 for above referenced sections.					

Monitoring/Testing/Recordkeeping/Reporting

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
1	45CSR16, 40 C.F.R. § 60.672 (c), 45CSR13, R13-2222-P2, B.4.c., Crushing (PC1 and PC2)	10.2.1.	On and after the sixtieth day 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 of 40 C.F.R. Part § 60.672(c), no owner or operator shall cause to be discharged into the atmosphere from any crusher, at which a capture system is not used, fugitive emissions which exhibit greater than 15 percent opacity.

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
2		10.3.1.	See Section 3.3.4 through 3.3.9. NOTE: See Attachment E pp 17-19 for above referenced sections.
3	45CSR13, R13-2222-P2, B.3.	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.
4		10.4.2.	See Section 3.4.6 through 3.4.10. NOTE: See Attachment E pp 19-21 for above referenced sections.
5		10.5.1.	See Section 3.5. (See Facility Wide Applicable Requirements and Method of Compliance Nos. 48-56 in the TV General Form Box 20).

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: VT	Emission unit name: Group 009 Vehicular Traffic	List any control devices associated with this emission unit. WT
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Vehicular traffic (VT) associated with facility operations.

Manufacturer: See Attachment D	Model number: See Attachment D	Serial number: See Attachment D
Construction date: See Attachment D	Installation date: See Attachment D	Modification date(s): See Attachment D

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: See Attachment D
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Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE

Does this emission unit combust fuel? ___Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)	21.51	49.70
Total Particulate Matter (TSP)	45.34	105.35
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

AP42 Section 13.2.2.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E140 – E141.

X Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E140 – E141.

Are you in compliance with all applicable requirements for this emission unit? X Yes ___ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

Attachment E Group 009 Vehicular Traffic

Applicable Requirements

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
1	45CSR§7-5.2.	3.1.16.	The owner or operator of a plant shall maintain dust 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 dust suppressants shall be applied in relation to stockpiling and general material handling to prevent dust generation and atmospheric entrainment.
2	45CSR16, 40 C.F.R. § 60.672 (d), Group (002 and 008)	3.1.21.	Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this section.
3	45CSR13, R13-1685, (A)(2), (1-CR-1, 1-CR-2, 1-VS-1, 2-VS-1, 2-BC-4, 1-DH-1, and 1VGF-1), (2-OS-1 and 2-OS-2)	4.1.2.	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.
4	45CSR13, R13-1685, (A)(3)	4.1.3.	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.
5	45CSR13, R13-2670, 4.1.2.	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 haulroads and other work areas where mobile equipment is used. The spraybar 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

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
			haulroads 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.

Monitoring/Testing/Recordkeeping/Reporting

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
1	45CSR§30-5.1.c.	3.4.4.	The permittee shall maintain daily 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.
2	45CSR13, R13-1685, (B) (8), 45CSR§30-5.1.c.2.B.	4.4.1.	For the purpose of determining compliance: (a) The applicant shall maintain certified daily records of the limestone charged through the primary and secondary crushing and screening circuit in tons per day. (b) The applicant shall maintain certified daily records of water used for particulate control in gallons per day. 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.
3	45CSR13, R13-2670, 4.2.3.	11.2.2.	For the purposes of determining compliance with water truck usage set forth in 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.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: TK-C1, TK-C2, TK-C3, TK-C4, TK-C5, TK-C6, TK-1, TK-2, TK-3, TK-4, TK-5, TK-6, TK-7, TK-8, TK-9, TK-10, TK-11, TK-12, 11-FT-1	Emission unit name: Group 010 Tanks	List any control devices associated with this emission unit. See Attachment D for Individual Source Control Devices.
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Various tanks (TK) and contractor tanks (TK-C) associated with facility operations.

Manufacturer: See Attachment D	Model number: See Attachment D	Serial number: See Attachment D
Construction date: See Attachment D	Installation date: See Attachment D	Modification date(s): See Attachment D

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: See Attachment D
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Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE

Does this emission unit combust fuel? ___Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___Direct Fired
---	--

Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
--	---

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)	NA	0.3595
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

TANKS 4.0.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no source specific requirements for this emissions unit group.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

There are no source specific monitoring/testing/recordkeeping/reporting for this emissions unit group.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Emissions Units Controlled by Baghouse 11-DC-1

Emission unit ID number: 11-SI-3, 11-BM-1, 11-DS-1, 11-CY-1, 11-BL-3, 11-CL-1, 11-BL-2, 11-SI-1, 11-CY-2, 11-SI-2, 11-DV-2, 11-DV-3, 11-HG-1, 11-LS-1, 11-LS-2	Emission unit name: Group 011 Limestone Grinding	List any control devices associated with this emission unit. See Attachment D for Individual Source Control Devices.
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Silos (SI), ball mill (BM), dynamic separator (DS), cyclones (CY), blowers (BL) classifier (CL), hot air generator (HG), loading spouts (LS), and diverters (DV).

Manufacturer: NA	Model number: NA	Serial number: NA
Construction date: 2007, 2008	Installation date: 2007, 2008	Modification date(s): NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: See Attachment D
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Fuel Usage Data (fill out all applicable fields) Hot Air Generator 11-HG-1

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
--	---

Maximum design heat input and/or maximum horsepower rating: 7.5MM Btu/hr	Type and Btu/hr rating of burners:
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List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

No. 2 Fuel Oil - 54 gal/hr and 7-473,040 gal/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
No. 2 Fuel Oil	0.5%	Negligible	

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.59	2.58
Nitrogen Oxides (NO _x)	0.72	3.15
Lead (Pb)		
Particulate Matter (PM ₁₀)	0.83	3.64
Total Particulate Matter (TSP)	1.75	7.64
Sulfur Dioxide (SO ₂)	3.80	16.64
Volatile Organic Compounds (VOC)	0.02	0.09
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Benzene	0.001	0.001
Ethylbenzene	0.001	0.001
Formaldehyde	0.002	0.008
Naphthalene	0.001	0.001
1,1,1-Trichloroethane	0.001	0.001
Toluene	0.001	0.001
Xylene	0.001	0.001
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

For particulate matter an engineering estimate based on the baghouse manufacturer's stated emissions of 0.01 grains PM/ actual cubic foot of flow.

CO and NO_x emission factors provided by manufacturer. Other emission factors referenced from AP-42, Section 1.3, Fuel Oil Combustion (9/98).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E157 – E163.

X Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E157 – E163.

Are you in compliance with all applicable requirements for this emission unit? X Yes ___No

If no, complete the *Schedule of Compliance Form* as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Emissions Units Controlled by Baghouse 11-DC-2

Emission unit ID number: 11-BEL-2, 11-SI-5, 11-BG-1, 11-SC-2, 11-SI-6, 11-SC-3, 11-DV-4, 11-LS-3	Emission unit name: Group 011 Limestone Grinding	List any control devices associated with this emission unit. 11-DC-2 Emission Point E-11-DC-2
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Bucket elevator (BEL), silos (SI), bagger (BG), screw conveyors (SC), diverter (DV), and loading spout (LS).

Manufacturer: Bradley Pulverizing Company	Model number: NA	Serial number: NA
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Construction date: 2008	Installation date: 2008	Modification date(s): NA
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: See Attachment D
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Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE

Does this emission unit combust fuel? ___Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___ Direct Fired
---	--

Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
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List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)	0.36	1.57
Total Particulate Matter (TSP)	0.75	3.30
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Engineering estimate based on the emission limit of 0.022 g/dscf from 40CFR60 Subpart OOO.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E157 – E163.

X Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E157 – E163.

Are you in compliance with all applicable requirements for this emission unit? X Yes ___No

If no, complete the *Schedule of Compliance Form* as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Emissions Units Controlled by Baghouse 11-DC-3

Emission unit ID number: 11-DV-5, 11-SB-1, 11-SSB-1, 11-SI-7, 11-SC-7, 11-LS-4, 11-SC-4, 11-SC-5, 11-SC-6, 11-SI-4	Emission unit name: Group 011	List any control devices associated with this emission unit. 11-DC-3 Emission point E11-DC-3
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Diverter (DV), bins (SB),super sack bagger (SSB), silos (SI), screw conveyors (SC), , and loading spout (LS).

Manufacturer: NA	Model number: NA	Serial number: NA
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Construction date: Fall 2007	Installation date: Fall 2007	Modification date(s): NA
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: See Attachment D
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Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE

Does this emission unit combust fuel? ___Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___Direct Fired
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Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
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List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)	1.60	6.99
Total Particulate Matter (TSP)	3.35	14.67
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Engineering estimate based on the hourly rated observed during the June 24-28, 2008 stack test.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E157 – E163.

X Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E157 – E163.

Are you in compliance with all applicable requirements for this emission unit? X Yes ___ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Emission Units and Transfers Without Baghouse Controls

Emission unit ID number: 11-DH-1, 11-BC-4, 11-BC-1, 11-BEL-1, 11-BC-2, 11-SB-2, 11-SC-1, 11-WC-1, 11-BC-3, 11-DV-1	Emission unit name: Group 011 Limestone Grinding	List any control devices associated with this emission unit. See Attachment D for Individual Source Control Devices.
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Dump hopper (DH), belt conveyors (BC), bucket elevator (BEL), bin (SB), screw conveyor (SC), wire conveyor (WC), and diverter (DV).

Manufacturer: NA	Model number: NA	Serial number: NA
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Construction date: 2007, 2008, 2009	Installation date: 2007, 2008, 2009	Modification date(s): NA
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: See Attachment D
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Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE

Does this emission unit combust fuel? ___Yes <u>X</u> No	If yes, is it? ___ Indirect Fired ___Direct Fired
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Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
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List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)	5.84	6.29
Total Particulate Matter (TSP)	12.27	13.21
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Emissions factors:
AP-42, Section 11.19.2 Crushed Stone Processing (08/04)
AP-42, Section 13.2.4 Aggregate Handling and Storage Piles (01/95)
TSP/2.1 = PM10.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the rule citation and/or permit with the condition number. If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See pages E157 – E163.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See pages E157 – E163.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

Attachment E Group 011

Applicable Requirements

Source-Specific Requirements for Limestone Grinding, ~~Alternative Operating Scenario “B”~~ [Emission Groups (003 & 011) and Emission Point ID(s): Conveyor Belts (~~2-BC-9, 3-BC-9~~ **11-BC-3, 3-BC-10, 11-BC-1, 11-BC-2, 11-BC-4**); Screw Conveyor (~~3-SC-9, 3-SC-17~~ **11-SC-2, 3-SC-23 11-SC-3, 11-SC-1, 11-SC-4, 11-SC-5, 11-SC-6, 11-SC-7**); Wire Rope Conveyor (~~3-WC-1~~ **11-WC-1**); Bucket Elevator (~~3-BEL-7~~ **11-BEL-2, 11-BEL-1**); Storage Silo (~~3-SI-1, 3-SI-5~~ **11-SI-5, 3-SI-6 11-SI-6, 11-SI-7, 11-SI-1, 11-SI-2, 11-SI-3, and 11-SI-4**); Surge Bin (~~3-SB-2~~ **11-SB-1, 11-SB-2**); ~~Vibrating Feeder (3-VF-1, 3-VF-2)~~; Dynamic Separator (11-DS-1); Classifier Separator (11-CL-1); Hot Air Generator (11-HG-1); Bradley Mill (11-BM-1); Cyclone (11-CY-1, 11-CY-2); Dust Collectors (~~3-DC-3, 3-DC-4~~ **11-DC-2, 11-DC-3, and 11-DC-1**); Retractable Loading Spout (~~3-LS-1~~ **11-LS-3, 11-LS-1, 11-LS-2, and 11-LS-4**); Rock Dust Bagger (~~3-BG-1~~ **11-BG-1**); Super Sack Bagger (~~3-SSB-1~~ **11-SSB-1**); Blowers (11-BL-2, 11-BL-3); Open Stone Stockpile (2-OS-2); Fuel Oil Storage Tank (11-FT-1); **Diverter (11-DV-1, 11-DV-2, 11-DV-3, 11-DV-4, 11-DV-5; Dump Hopper (11-DH-1)**]

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
1	45CSR13, R13-2113, 4.1.1., Equipment ID (3-SI-4 and 2-OS-1) or (11-SI-3)	5.1.1.	The maximum processing rate of limestone into Area 1 of 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).
2	RESERVED	5.1.2.	
3	45CSR13, R13-2113, 4.1.5., 45CSR16, 40 CFR §60.672(a)(2), Equipment ID (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.	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, 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 in Table 4.1.5.a. (see below) 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 5.1.3.b. coincides with the SO2 limits in Table 4.1.5.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.

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
Table 4.1.5.a.			
	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
		PM10	0.83 3.64
		SO2	3.84 16.8
		NOx	0.72 3.2
		CO	0.59 2.6
[40 CFR §60.672(a)(1) for PM and 45CSR§10-4.1. for SO2]			
4	45CSR16, 40 CFR §60.672(a)(1) 45CSR13, R13-2113H, 4.1.6., 445CSR16, 0 CFR §60.672(a)(2), Emission Point ID (3EP3 E-11-DC-3 , 3EP4 E-11-DC-2)	5.1.4.	Emissions discharged to the atmosphere from emission points 3EP3 E-11-DC-3 and 3EP4 E-11-DC-2 shall be limited to the following maximum emission limitations: a. PM concentration in the exhaust stream from the emission points shall not exceed 0.022 gr/dscf; b. Annual PM10 and PM emissions from emission point 3EP3 E-11-DC-3 shall not exceed 3.6 6.99 TPY and 6.2 14.67 TPY respectively; c. Annual PM10 and PM emissions from emission point 3EP4 E-11-DC-2 shall not exceed 1.9 TPY and 3.3 TPY respectively; and d. Visible PM from the emission point shall not exceed greater than 7 percent opacity.
5	45CSR13, R13-2113H, 4.1.7., 45CSR16, 40 CFR §§60.672(a)(2) and 60.672(e)	5.1.5.	The equipment listed in Table 4.1.8. shall not exhibit visible PM emissions greater than 10 percent opacity, unless the transfer points of belt conveyors or the unit is located in a enclosed building. Then, the enclosed building shall not exhibit visible PM emissions greater than 7 percent opacity
Table 4.1.8.			
	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-SB-2	11-SB-2	Surge Bin
	3-SI-1	3-SI-1	Storage Silo
	3-SC-8	3-SC-8	Screw Conveyor
	3-SC-9	3-SC-9	Screw Conveyor
	11-DH-1	11-DH-1	Dump Hopper
	11-BC-4	11-BC-4	Belt Conveyor
	11-SC-1	11-SC-1	Screw Conveyor
	11-DV-1	11-DV-1	Diverter

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
6	45CSR13, R13-2113, 4.1.8., Equipment ID (See Appendix B of Title V) No Longer Applicable Equipment Removed	5.1.6.	The emission units listed in Appendix B of this permit shall be permanently shut down no later than 60 days after start up of the fine grinding circuit as proposed in Permit Application R13-2113E.
7	45CSR13, R13-2113H, 4.1.9	5.1.7.	Compliance with all annual limits stated in Section 5.1 of this permit shall be demonstrated using a 12 month rolling total.
8	45CSR13, R13-2113, 4.1.10, 45CSR§13-5.11, Equipment ID (3-DC-3 11-DC-3 , 3-DC-4 11-DC-2 , 11-DC-1)	5.1.8.	Operation and Maintenance of Air Pollution Control Equipment. The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment 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.

Monitoring/Testing/Recordkeeping/Reporting

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
1	45CSR13, R13-2113H, 4.2.1., (E-11-DC-1, 3EP3 E-11-DC-3 , 3EP4 E-11-DC-4 , and Table 4.1.8 Transfer Points)	5.2.1.	For the purpose of determining compliance with the opacity limits of 5.1.3.e., 5.1.4.d. and 5.1.5., 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 CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40 CFR 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.

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
			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.
2	45CSR16, 40CFR60, Subpart OOO, (Section 1.0, Emission Groups 003, 011)	5.3.1.	See Section 3.3.4. through 3.3.9. for NSPS, Subpart OOO, opacity and PM initial testing requirements. NOTE: See Attachment E pp 17-19 for above referenced sections.
3	45CSR13, R13-2113H, 4.3.1., 45CSR16., 40 CFR §60.672(a), Emission Point ID (E-11-DC-1, 3-EP-3 E-11-DC-3, 3-EP-4 E-11-DC-2)	5.3.2.	For the purposes of demonstrating initial compliance with operational and emission limitation in conditions 5.1.3., 5.1.4., and 40 CFR §60.672(a), the permittee shall conduct performance testing of emission points E-11-DC-1, 3-EP-3 E-11-DC-3, and 3-EP-4 E-11-DC-2 within 180 days after start-up of the fine grinding circuit. Such testing shall demonstrate compliance with applicable PM and visible emission limits. Such testing shall be conducted in accordance with the following: a. Each test run must be conducted with the fine grinding circuit operating within ten percent of the maximum permitted processing rate. Monitoring and recording the processing rate shall be conducted during each test run; b. Test shall not be conducted during periods of startup, shutdown, or malfunctions as specified in 40 CFR §60.8(c); c. U.S. EPA Methods 5 or 17 shall be used to determine PM concentration and mass rates; [40 CFR §60.675(b)(1)] d. U.S. EPA Method 9 and the procedures in 40 CFR §60.11 shall be used to determine opacity; and [40 CFR §60.675(b)(2)] e. Testing shall be conducted in accordance with condition 3.3.1. Records of such testing shall be maintained in accordance with condition 3.4.2. [40CFR §§60.8 and 60.676(f)]
4	45CSR13, R13-2113H, 4.3.2., 45CSR16., 40CFR §§60.8 and 60.676(f), Emission Point ID (See Table 4.1.8.)	5.3.3.	For the purposes of demonstrating initial compliance with opacity limitations in condition 5.1.5., 40 CFR §§60.672(b) and 60.672(e), the permittee shall conduct performance testing of emission points listed in Table 4.1.8. within 180 days after start-up of the fine grinding circuit. Such testing shall demonstrate compliance with applicable visible emission limits. Such testing shall be conducted in accordance with the following: a. U.S. EPA Method 9 and the procedures of 40 CFR §60.11 with the following additions shall be used to determine the opacity of the emission units not enclosed in a building:

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
			<p>i. The minimum distance between the observer and the emission source shall be 15 feet;</p> <p>ii. When possible, the observer shall select a position that minimizes interference from other fugitive emissions sources. The required observer position relative to the sun (Method 9, Section 2.1) must be followed.</p> <p>iii. The duration of the observations may be reduce from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions are met:</p> <p>A. There are no individual reading greater than 10 percent opacity; and</p> <p>B. There are no more than 3 readings of 10 percent for the 1-hour period.</p> <p>iv. If the emissions from two or more units continuously interfere so that the opacity of fugitive emissions from an individual unit cannot be read, either of the following procedures may be used:</p> <p>A. Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected unit(s) contributing to the emission stream; or</p> <p>B. Separate the emissions so that the opacity from each unit can be read.</p> <p>b. U.S. Method 22 with the following requirements shall be used to determine the opacity of fugitive emission from emission units located in an enclosed building:</p> <p>i. Such observation shall be made with all emission units located inside the building operating;</p> <p>ii. The duration of the test period shall be no less than 75 minutes, with each side of the building and roof being observed for at least 15 minutes.</p> <p>c. Testing shall be conducted in accordance with condition 3.3.1. Records of such testing shall be maintained in accordance with condition 3.4.2.</p>
5	45CSR§30-5.1.c.	5.4.1.	<p>For the purpose of determining compliance with the limestone processing rates in Limestone Grinding (Group 003 011), the applicant shall maintain certified monthly and annual records. The monthly amount of limestone feed to Stockpile (2-OS-2), and from the 400 and 500 TPD Lime Kilns to Lime Storage and Truck Loading shall be maintained on a monthly basis. A twelve- (12) month rolling average shall be maintained; so that, the maximum tons per year of limestone and lime processing are not exceeded. 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.</p>

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
6	45CSR13, R13-2113H, 4.4.4., Equipment ID (3-SI-1 , 2-OS-2, 11-BM-1)	5.4.2.	For the purpose of determining compliance with the maximum processing limits set forth in 5.1.1, and 5.1.3.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 E of the Title V Permit. Such records shall be maintained in accordance with condition 3.4.2 of this Title V permit.
7	45CSR13, R13-2113H, 4.4.5., Hot Air Generator (11-HG-1)	5.4.3.	For the purpose of determining compliance with the maximum fuel consumption limit set forth for in 5.1.3.b., the company shall maintain certified monthly and annual records of #2 fuel oil consumption. An example data form is given in Appendix F of the Title V Permit. Such records shall be maintained in accordance with condition 3.4.2 of this Title V permit.
8	45CSR§30-5.1.c., Equipment ID (11-HG-1)	5.4.4.	The permittee shall maintain records from fuel oil supplier certifying the fuel sulfur content in order to demonstrate compliance with 5.1.3.c.
9	45CSR13, R13-2113, 4.4.6., Emission Point ID (E-11-DC-1, 3EP3 E-11-DC-3 , 3EP4 E-11-DC-2 , and Table 4.1.8 Transfer Points)	5.4.5.	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°F, 6 - 10 mph NE wind) during the visual emission check(s). An example form is supplied as Appendix G. 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.
10	45CSR13, R13-2113H, 4.4.2.	5.4.6.	Record of Maintenance of Air Pollution Control Equipment. For all pollution control equipment listed within this Title V permit as Section 1.0, Emission Groups (003) and (011), the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
11	45CSR13, R13-2113H, 4.4.3.	5.4.7.	Record of Malfunctions of Air Pollution Control Equipment. For all air pollution control equipment listed within this Title V permit as Section 1.0, Emission Groups (003) and (011), 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.

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
			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.
12	45CSR13, R13-2113H, 4.5.1.	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.
13	45CSR13, R13-2113, 4.5.2. No Longer Applicable Equipment Removed	5.5.2.	The permittee shall notify the Director in writing within 30 days after the equipment listed in Appendix B of this Title V permit, is permanently shut down.
14	45CSR13, R13-2113H, 4.5.3., 45CSR16, 40 CFR §60.676(f)	5.5.3.	The permittee shall submit a written report of the results of testing required in conditions 5.3.2 and 5.3.3 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.

ATTACHMENT G
AIR POLLUTION CONTROL DEVICE FORMS

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 1-DC-1
Emission Point E-1-DC-1

List all emission units associated with this control device.
See Attachment D

Manufacturer:
Dalamatic

Model number:
30/15

Installation date:
1994

Type of Air Pollution Control Device:

- | | | |
|---|--|---|
| <input checked="" type="checkbox"/> Baghouse/Fabric Filter | <input type="checkbox"/> Venturi Scrubber | <input type="checkbox"/> Multiclone |
| <input type="checkbox"/> Carbon Bed Adsorber | <input type="checkbox"/> Packed Tower Scrubber | <input type="checkbox"/> Single Cyclone |
| <input type="checkbox"/> Carbon Drum(s) | <input type="checkbox"/> Other Wet Scrubber | <input type="checkbox"/> Cyclone Bank |
| <input type="checkbox"/> Catalytic Incinerator | <input type="checkbox"/> Condenser | <input type="checkbox"/> Settling Chamber |
| <input type="checkbox"/> Thermal Incinerator | <input type="checkbox"/> Flare | <input type="checkbox"/> Other (describe) _____ |
| <input type="checkbox"/> Wet Plate Electrostatic Precipitator | | <input type="checkbox"/> Dry Plate Electrostatic Precipitator |

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter		99.9

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Cloth Type: polyester	ΔP Compliant Range: 0.5 - 9 inches water*
Number of Bags: 20	Exhaust Temp (°F): ambient
Cloth Area (ft ²): 340	Air Flow (ft ³ /min): 1,900

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes No

If Yes, **Complete ATTACHMENT H**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Section 3.2.2. [45CSR§30-5.1.c., Section 1.0 (Dust Collectors)]

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 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, and corrective action taken, if any. Records shall be maintained on site for five (5) years from the record creation date.

* Based on weekly ΔP and concurrently-observed compliant opacity readings from November 2004 to April 2006.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 4-DC-1 Emission Point 1E	List all emission units associated with this control device. See Attachment D
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Manufacturer: MikroPul	Model number: 289S-12-20-TRH	Installation date: Pre 1990
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Type of Air Pollution Control Device:

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter		Collection Eff. - 99.9

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Cloth Type: Gore-Tex	ΔP Compliant Range: 2 - 15 inches water*
Number of Bags: 1,156	Exhaust Temp (°F): 400
Cloth Area (ft ²): 16,300	Air Flow (ft ³ /min): 61,500

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes No

If Yes, **Complete ATTACHMENT H**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Section 3.2.2. [45CSR§30-5.1.c., Section 1.0 (Dust Collectors)]

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 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, and corrective action taken, if any. Records shall be maintained on site for five (5) years from the record creation date.

See page G3.

* Based on weekly ΔP and concurrently-observed compliant opacity readings from November 2004 to April 2006.

Attachment G 4-DC-1 Continued

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Section 12.2.1. [45CSR34, 40CFR§63.7113(a) and (g), 40CFR§63.7121(a),Table 5, Item 4, Emission Point ID (E1,500-115)]

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 40CFR63, subpart A, General Provisions and according to Performance Specifications (PS)-1 of appendix B to 40CFR60. 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.

Section 12.2.2. [45CSR34, 40CFR§63.7113(f), Equipment Point ID (4-RK-1 and 4-RK-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 40CFR63, subpart AAAAA, Table 2 Item 6, incorporated herein as 12.1.3(c)., and record the results of each inspection.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 4-DC-2 Emission Point 500-115	List all emission units associated with this control device. See Attachment D
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Manufacturer: Amerex	Model number: RP-14-225 D6	Installation date: 1995
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Type of Air Pollution Control Device:

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter		Collection Eff. - 99.9

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Cloth Type: Gore-Tex	ΔP Compliant Range: 2 - 15 inches water*
Number of Bags: 900	Exhaust Temp (°F): 400
Cloth Area (ft ²): 20,800	Air Flow (ft ³ /min): 77,500

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes No

If Yes, **Complete ATTACHMENT H**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Section 3.2.2. [45CSR§30-5.1.c., Section 1.0 (Dust Collectors)]

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 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, and corrective action taken, if any. Records shall be maintained on site for five (5) years from the record creation date.

See page G5.

* Based on weekly ΔP and concurrently-observed compliant opacity readings from November 2004 to April 2006.

Attachment G 4-DC-2 Continued

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Section 7.1.7 [45CSR13, R13-1788, A) 8., Baghouse (4-DC-2 (500-110))]

Baghouse 500-110 (4-DC-2) controls shall include equipment to monitor and maintain a negative pressure drop of 16 inches of water across the baghouse.

Section 12.2.1. [45CSR34, 40CFR§63.7113(a) and (g), 40CFR§63.7121(a),Table 5, Item 4, Emission Point ID (E1,500-115)]

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 40CFR63, subpart A, General Provisions and according to Performance Specifications (PS)-1 of appendix B to 40CFR60. 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.

Section 12.2.2. [45CSR34, 40CFR§63.7113(f), Equipment Point ID (4-RK-1 and 4-RK-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 40CFR63, subpart AAAAA, Table 2 Item 6, incorporated herein as 12.1.3(c)., and record the results of each inspection.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 4-DC-3 Emission Point 500-119b	List all emission units associated with this control device. See Attachment D
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Manufacturer: Amerex	Model number: RP-10-36 D4	Installation date: 1995
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Type of Air Pollution Control Device:

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter	93.33 %	99.9 %

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Cloth Type: polyester	ΔP Compliant Range: 0.5 - 6 inches water
Number of Bags: 36	Exhaust Temp (°F): ambient
Cloth Area (ft ²): 440	Air Flow (ft ³ /min): 2,500

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes No

If Yes, **Complete ATTACHMENT H**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Section 3.2.2. [45CSR§30-5.1.c., Section 1.0 (Dust Collectors)]

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 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, and corrective action taken, if any. Records shall be maintained on site for five (5) years from the record creation date.

* Based on weekly ΔP and concurrently-observed compliant opacity readings from November 2004 to April 2006.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 6-DC-1
Emission Point E-6-DC-1

List all emission units associated with this control device.
See Attachment D

Manufacturer:
Flex-Kleen

Model number:
100 WRVBS-48IIIIG

Installation date:
1991

Type of Air Pollution Control Device:

- | | | |
|---|--|---|
| <input checked="" type="checkbox"/> Baghouse/Fabric Filter | <input type="checkbox"/> Venturi Scrubber | <input type="checkbox"/> Multiclone |
| <input type="checkbox"/> Carbon Bed Adsorber | <input type="checkbox"/> Packed Tower Scrubber | <input type="checkbox"/> Single Cyclone |
| <input type="checkbox"/> Carbon Drum(s) | <input type="checkbox"/> Other Wet Scrubber | <input type="checkbox"/> Cyclone Bank |
| <input type="checkbox"/> Catalytic Incinerator | <input type="checkbox"/> Condenser | <input type="checkbox"/> Settling Chamber |
| <input type="checkbox"/> Thermal Incinerator | <input type="checkbox"/> Flare | <input type="checkbox"/> Other (describe) _____ |
| <input type="checkbox"/> Wet Plate Electrostatic Precipitator | | <input type="checkbox"/> Dry Plate Electrostatic Precipitator |

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter		Collection Eff. - 99+

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Cloth Type: polyester	ΔP Compliant Range: 0.5 - 8 inches water*
Number of Bags: 48 pleated cartridges	Exhaust Temp (°F): ambient
Cloth Area (ft ²): 1,100	Air Flow (ft ³ /min): 4,000

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes No

If Yes, **Complete ATTACHMENT H**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Section 3.2.2. [45CSR§30-5.1.c., Section 1.0 (Dust Collectors)]

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 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, and corrective action taken, if any. Records shall be maintained on site for five (5) years from the record creation date.

* Based on weekly ΔP and concurrently-observed compliant opacity readings from November 2004 to April 2006.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 6-DC-2 Emission Point E-6-DC-2	List all emission units associated with this control device. See Attachment D	
Manufacturer: Pneumafil	Model number: PCFH-12	Installation date: 1998

Type of Air Pollution Control Device:

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter		Collection Eff. - 99+ %

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Cloth Type: polyester	ΔP Compliant Range: 0.5 - 8 inches water*
Number of Bags: 12 pleated cartridges	Exhaust Temp (°F): ambient
Cloth Area (ft ²): 540	Air Flow (ft ³ /min): 2,500

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes No

If Yes, **Complete ATTACHMENT H**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Section 3.2.2. [45CSR§30-5.1.c., Section 1.0 (Dust Collectors)]
 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 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, and corrective action taken, if any. Records shall be maintained on site for five (5) years from the record creation date.

* Based on weekly ΔP and concurrently-observed compliant opacity readings from November 2004 to April 2006.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 6-DC-3
Emission Point E-6-DC-3

List all emission units associated with this control device.
See Attachment D

Manufacturer:
Pneumafil

Model number:
PCFH-12

Installation date:
1991

Type of Air Pollution Control Device:

- | | | |
|---|--|---|
| <input checked="" type="checkbox"/> Baghouse/Fabric Filter | <input type="checkbox"/> Venturi Scrubber | <input type="checkbox"/> Multiclone |
| <input type="checkbox"/> Carbon Bed Adsorber | <input type="checkbox"/> Packed Tower Scrubber | <input type="checkbox"/> Single Cyclone |
| <input type="checkbox"/> Carbon Drum(s) | <input type="checkbox"/> Other Wet Scrubber | <input type="checkbox"/> Cyclone Bank |
| <input type="checkbox"/> Catalytic Incinerator | <input type="checkbox"/> Condenser | <input type="checkbox"/> Settling Chamber |
| <input type="checkbox"/> Thermal Incinerator | <input type="checkbox"/> Flare | <input type="checkbox"/> Other (describe) _____ |
| <input type="checkbox"/> Wet Plate Electrostatic Precipitator | | <input type="checkbox"/> Dry Plate Electrostatic Precipitator |

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter		Collection Eff. - 99+

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Cloth Type: polyester	ΔP Compliant Range: 0.5 - 8 inches water*
Number of Bags: 12 pleated cartridges	Exhaust Temp (°F): ambient
Cloth Area (ft ²): 540	Air Flow (ft ³ /min): 2,500

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes No

If Yes, **Complete ATTACHMENT H**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Section 3.2.2. [45CSR§30-5.1.c., Section 1.0 (Dust Collectors)]

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 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, and corrective action taken, if any. Records shall be maintained on site for five (5) years from the record creation date.

* Based on weekly ΔP and concurrently-observed compliant opacity readings from November 2004 to April 2006.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 6-DC-4
Emission Point 500-P1

List all emission units associated with this control device.
See Attachment D

Manufacturer:
Pneumafil

Model number:
PCFH-24

Installation date:
1995

Type of Air Pollution Control Device:

- | | | |
|---|--|---|
| <input checked="" type="checkbox"/> Baghouse/Fabric Filter | <input type="checkbox"/> Venturi Scrubber | <input type="checkbox"/> Multiclone |
| <input type="checkbox"/> Carbon Bed Adsorber | <input type="checkbox"/> Packed Tower Scrubber | <input type="checkbox"/> Single Cyclone |
| <input type="checkbox"/> Carbon Drum(s) | <input type="checkbox"/> Other Wet Scrubber | <input type="checkbox"/> Cyclone Bank |
| <input type="checkbox"/> Catalytic Incinerator | <input type="checkbox"/> Condenser | <input type="checkbox"/> Settling Chamber |
| <input type="checkbox"/> Thermal Incinerator | <input type="checkbox"/> Flare | <input type="checkbox"/> Other (describe) _____ |
| <input type="checkbox"/> Wet Plate Electrostatic Precipitator | | <input type="checkbox"/> Dry Plate Electrostatic Precipitator |

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter	93.33%	99.9%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Cloth Type: polyester	ΔP Compliant Range: 0.5 - 8 inches water
Number of Bags: 24 pleated cartridges	Exhaust Temp (°F): ambient
Cloth Area (ft ²): 1,080	Air Flow (ft ³ /min): 5,000

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes No

If Yes, **Complete ATTACHMENT H**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Section 3.2.2. [45CSR§30-5.1.c., Section 1.0 (Dust Collectors)]

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 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, and corrective action taken, if any. Records shall be maintained on site for five (5) years from the record creation date.

* Based on weekly ΔP and concurrently-observed compliant opacity readings from November 2004 to April 2006.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 7-DC-1
Emission Point E1

List all emission units associated with this control device.
See Attachment D

Manufacturer:
Pneumafil

Model number:
PCFH-16

Installation date:
1984

Type of Air Pollution Control Device:

- | | | |
|---|--|---|
| <input checked="" type="checkbox"/> Baghouse/Fabric Filter | <input type="checkbox"/> Venturi Scrubber | <input type="checkbox"/> Multiclone |
| <input type="checkbox"/> Carbon Bed Adsorber | <input type="checkbox"/> Packed Tower Scrubber | <input type="checkbox"/> Single Cyclone |
| <input type="checkbox"/> Carbon Drum(s) | <input type="checkbox"/> Other Wet Scrubber | <input type="checkbox"/> Cyclone Bank |
| <input type="checkbox"/> Catalytic Incinerator | <input type="checkbox"/> Condenser | <input type="checkbox"/> Settling Chamber |
| <input type="checkbox"/> Thermal Incinerator | <input type="checkbox"/> Flare | <input type="checkbox"/> Other (describe) _____ |
| <input type="checkbox"/> Wet Plate Electrostatic Precipitator | | <input type="checkbox"/> Dry Plate Electrostatic Precipitator |

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter		99.9%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Cloth Type: polyester	ΔP Compliant Range: 0.5 - 8 inches water
Number of Bags: 16 pleated cartridges	Exhaust Temp (°F): ambient
Cloth Area (ft ²): 720	Air Flow (ft ³ /min): 3,300

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes No

If Yes, **Complete ATTACHMENT H**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Section 3.2.2. [45CSR§30-5.1.c., Section 1.0 (Dust Collectors)]

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 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, and corrective action taken, if any. Records shall be maintained on site for five (5) years from the record creation date.

* Based on weekly ΔP and concurrently-observed compliant opacity readings from November 2004 to April 2006.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 7-DC-2 Emission Point E2	List all emission units associated with this control device. See Attachment D	
Manufacturer: Flex Kleen	Model number: 84-BVS-25IIG	Installation date: 1991

Type of Air Pollution Control Device:

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter		

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Cloth Type: polyester	ΔP Compliant Range: 0.5 - 10 inches water
Number of Bags: 25 pleated cartridges	Exhaust Temp (°F): ambient
Cloth Area (ft ²): 575	Air Flow (ft ³ /min): 2,500

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes No

If Yes, **Complete ATTACHMENT H**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Section 3.2.2. [45CSR§30-5.1.c., Section 1.0 (Dust Collectors)]
 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 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, and corrective action taken, if any. Records shall be maintained on site for five (5) years from the record creation date.

* Based on weekly ΔP and concurrently-observed compliant opacity readings from November 2004 to April 2006.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 7-DC-3
Emission Point E3

List all emission units associated with this control device.
See Attachment D

Manufacturer:
Wheelabrator

Model number:
22WSC BV

Installation date:
1984

Type of Air Pollution Control Device:

- | | | |
|---|--|---|
| <input checked="" type="checkbox"/> Baghouse/Fabric Filter | <input type="checkbox"/> Venturi Scrubber | <input type="checkbox"/> Multiclone |
| <input type="checkbox"/> Carbon Bed Adsorber | <input type="checkbox"/> Packed Tower Scrubber | <input type="checkbox"/> Single Cyclone |
| <input type="checkbox"/> Carbon Drum(s) | <input type="checkbox"/> Other Wet Scrubber | <input type="checkbox"/> Cyclone Bank |
| <input type="checkbox"/> Catalytic Incinerator | <input type="checkbox"/> Condenser | <input type="checkbox"/> Settling Chamber |
| <input type="checkbox"/> Thermal Incinerator | <input type="checkbox"/> Flare | <input type="checkbox"/> Other (describe) _____ |
| <input type="checkbox"/> Wet Plate Electrostatic Precipitator | | <input type="checkbox"/> Dry Plate Electrostatic Precipitator |

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter		

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Cloth Type: polyester	ΔP Compliant Range: 0.5 - 10 inches water
Number of Bags: 4 pleated cartridges	Exhaust Temp (°F): ambient
Cloth Area (ft ²): 200	Air Flow (ft ³ /min): 1,500

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes No

If Yes, **Complete ATTACHMENT H**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Section 3.2.2. [45CSR§30-5.1.c., Section 1.0 (Dust Collectors)]
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 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, and corrective action taken, if any. Records shall be maintained on site for five (5) years from the record creation date.

* Based on weekly ΔP and concurrently-observed compliant opacity readings from November 2004 to April 2006.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 7-DC-4
Emission Point E5

List all emission units associated with this control device.
See Attachment D

Manufacturer:
Wheelabrator

Model number:
22WSC MOD36 P

Installation date:
1997

Type of Air Pollution Control Device:

- | | | |
|---|--|---|
| <input checked="" type="checkbox"/> Baghouse/Fabric Filter | <input type="checkbox"/> Venturi Scrubber | <input type="checkbox"/> Multiclone |
| <input type="checkbox"/> Carbon Bed Adsorber | <input type="checkbox"/> Packed Tower Scrubber | <input type="checkbox"/> Single Cyclone |
| <input type="checkbox"/> Carbon Drum(s) | <input type="checkbox"/> Other Wet Scrubber | <input type="checkbox"/> Cyclone Bank |
| <input type="checkbox"/> Catalytic Incinerator | <input type="checkbox"/> Condenser | <input type="checkbox"/> Settling Chamber |
| <input type="checkbox"/> Thermal Incinerator | <input type="checkbox"/> Flare | <input type="checkbox"/> Other (describe) _____ |
| <input type="checkbox"/> Wet Plate Electrostatic Precipitator | | <input type="checkbox"/> Dry Plate Electrostatic Precipitator |

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter		

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Cloth Type: polyester	ΔP Compliant Range: 0.5 - 8 inches water
Number of Bags: 4 pleated cartridges	Exhaust Temp (°F): ambient
Cloth Area (ft ²): 200	Air Flow (ft ³ /min): 1,500

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes No

If Yes, **Complete ATTACHMENT H**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Section 3.2.2. [45CSR§30-5.1.c., Section 1.0 (Dust Collectors)]

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 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, and corrective action taken, if any. Records shall be maintained on site for five (5) years from the record creation date.

* Based on weekly ΔP and concurrently-observed compliant opacity readings from November 2004 to April 2006.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 7-DC-5
Emission Point E6

List all emission units associated with this control device.
See Attachment D

Manufacturer:
Wheelabrator

Model number:
32WCC MOD36 P

Installation date:
1991

Type of Air Pollution Control Device:

- | | | |
|---|--|---|
| <input checked="" type="checkbox"/> Baghouse/Fabric Filter | <input type="checkbox"/> Venturi Scrubber | <input type="checkbox"/> Multiclone |
| <input type="checkbox"/> Carbon Bed Adsorber | <input type="checkbox"/> Packed Tower Scrubber | <input type="checkbox"/> Single Cyclone |
| <input type="checkbox"/> Carbon Drum(s) | <input type="checkbox"/> Other Wet Scrubber | <input type="checkbox"/> Cyclone Bank |
| <input type="checkbox"/> Catalytic Incinerator | <input type="checkbox"/> Condenser | <input type="checkbox"/> Settling Chamber |
| <input type="checkbox"/> Thermal Incinerator | <input type="checkbox"/> Flare | <input type="checkbox"/> Other (describe) _____ |
| <input type="checkbox"/> Wet Plate Electrostatic Precipitator | | <input type="checkbox"/> Dry Plate Electrostatic Precipitator |

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter		

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Cloth Type: polyester	ΔP Compliant Range: 0.5 - 12 inches water
Number of Bags: 6 pleated cartridges	Exhaust Temp (°F): ambient
Cloth Area (ft ²): 300	Air Flow (ft ³ /min): 1,600

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes No

If Yes, **Complete ATTACHMENT H**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Section 3.2.2. [45CSR§30-5.1.c., Section 1.0 (Dust Collectors)]

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 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, and corrective action taken, if any. Records shall be maintained on site for five (5) years from the record creation date.

* Based on weekly ΔP and concurrently-observed compliant opacity readings from November 2004 to April 2006.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 7-SCR-1	List all emission units associated with this control device. See Attachment D	
Manufacturer: Glean Gas System	Model number: Wet dynamic scrubber with wet fan using re-circulated water	Installation date: 1999

Type of Air Pollution Control Device:

<input type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input checked="" type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter		96.4 %

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).
 Gas flow rate into collector: 7,500 ACFM @ 200° F and 13.65 PSIA. Scrubber liquor is re-circulated water. Scrubbing liquor losses: 0.7 gpm @ 200° F. Liquor flow rates: 21 gpm to fan, 49 gpm to scrubber body. Liquor pressure to scrubber: 12-18 psig. 25 hp fan. Stainless steel paddle wheel fan with 5 blades.

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes No

If Yes, **Complete ATTACHMENT H**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Section 3.2.2. [45CSR§30-5.1.c., Scrubber (7-SCR-1)]

The owner or operator of a wet scrubber to control emissions shall install, calibrate, maintain and operate the following monitoring devices,

(a) A device for the continuous measurement of the pressure loss of the gas stream through the scrubber. The monitoring device must be certified by the manufacturer to be accurate within ± 250 pascals ± 1 inch water gauge pressure and must be calibrated on an annual basis in accordance with manufacturer's instructions.

(b) A device for the continuous measurement of the scrubbing liquid flow rate to the wet scrubber. The monitoring device must be certified by the manufacturer to be accurate within ± 5 percent of design scrubbing liquid flow rate and must be calibrated on an annual basis in accordance with manufacturer's instructions.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 11-DC-1 Emission Point E-11-DC-1	List all emission units associated with this control device. See Attachment D	
Manufacturer: Pinnacle APC, Inc.	Model number: 6P-204-11-TA	Installation date: Fall 2007

Type of Air Pollution Control Device:

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter	90% on truck load-outs, 100% for all others	99.9%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Cloth Type: polyester	ΔP Range: 0.5 - 8 inches water*
Number of Bags: 204	Exhaust Temp (°F): ambient
Cloth Area (ft ²): 3,378	Air Flow (ft ³ /min): 15,360

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes No

If Yes, **Complete ATTACHMENT H**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Section 3.2.2. [45CSR§30-5.1.c., Section 1.0 (Dust Collectors)]

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 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, and corrective action taken, if any. Records shall be maintained on site for five (5) years from the record creation date.

See page G18.

* Requested range, based on combination of manufacturer's guarantee and facility's experience.

Attachment G 11-DC-1 Continued

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Section 5.2.1. [45CSR13, R13-2113, 4.2.1., (E-11-DC-1, ~~3EP3 E-11-DC-3~~, ~~3EP4 E-11-DC-2~~, and Table 4.1.8 Transfer Points)]

For the purpose of determining compliance with the opacity limits of 5.1.3.e., 5.1.4.d. and 5.1.5., 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 CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40 CFR 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.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 11-DC-2
Emission Point E-11-DC-2

List all emission units associated with this control device.
See Attachment D

Manufacturer:
Pulverizing Machine Company

Model number:
N/A

Installation date:
1983

Type of Air Pollution Control Device:

- | | | |
|---|--|---|
| <input checked="" type="checkbox"/> Baghouse/Fabric Filter | <input type="checkbox"/> Venturi Scrubber | <input type="checkbox"/> Multiclone |
| <input type="checkbox"/> Carbon Bed Adsorber | <input type="checkbox"/> Packed Tower Scrubber | <input type="checkbox"/> Single Cyclone |
| <input type="checkbox"/> Carbon Drum(s) | <input type="checkbox"/> Other Wet Scrubber | <input type="checkbox"/> Cyclone Bank |
| <input type="checkbox"/> Catalytic Incinerator | <input type="checkbox"/> Condenser | <input type="checkbox"/> Settling Chamber |
| <input type="checkbox"/> Thermal Incinerator | <input type="checkbox"/> Flare | <input type="checkbox"/> Other (describe) _____ |
| <input type="checkbox"/> Wet Plate Electrostatic Precipitator | | <input type="checkbox"/> Dry Plate Electrostatic Precipitator |

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter		Collection Eff. - 99.9

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Cloth Type: polyester	ΔP Compliant Range: 0.5 - 6 inches water*
Number of Bags: 100	Exhaust Temp (°F): ambient
Cloth Area (ft ²): 1,000	Air Flow (ft ³ /min): 4,000

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes No

If Yes, **Complete ATTACHMENT H**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Section 3.2.2. [45CSR§30-5.1.c., Section 1.0 (Dust Collectors)]

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 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, and corrective action taken, if any. Records shall be maintained on site for five (5) years from the record creation date.

See page G20.

* Based on weekly ΔP and concurrently-observed compliant opacity readings from November 2004 to April 2006.

Attachment G 11-DC-2 Continued

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Section 5.2.1. [45CSR13, R13-2113, 4.2.1., (E-11-DC-1, ~~3EP3 E-11-DC-3~~, ~~3EP4 E-11-DC-2~~, and Table 4.1.8 Transfer Points)]

For the purpose of determining compliance with the opacity limits of 5.1.3.e., 5.1.4.d. and 5.1.5., 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 CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40 CFR 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.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 11-DC-3 Emission Point E-11-DC-3	List all emission units associated with this control device. See Attachment D
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Manufacturer: Aeropulse	Model number: 432-10	Installation date: 2008
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Type of Air Pollution Control Device:

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter		

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Cloth Type: Gore-Tex	ΔP Compliant Range: 0.5 - 10 inches water*
Number of Bags: 432	Exhaust Temp (°F): 300
Cloth Area (ft ²): 5,100	Air Flow (ft ³ /min): 32,000

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes No

If Yes, **Complete ATTACHMENT H**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Section 3.2.2. [45CSR§30-5.1.c., Section 1.0 (Dust Collectors)]
 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 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, and corrective action taken, if any. Records shall be maintained on site for five (5) years from the record creation date.

See page G22.

* Based on weekly ΔP and concurrently-observed compliant opacity readings from November 2004 to April 2006.

Attachment G 11-DC-3 Continued

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Section 5.2.1. [45CSR13, R13-2113, 4.2.1., (E-11-DC-1, ~~3EP3~~ E-11-DC-3, ~~3EP4~~ E-11-DC-2, and Table 4.1.8 Transfer Points)]

For the purpose of determining compliance with the opacity limits of 5.1.3.e., 5.1.4.d. and 5.1.5., 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 CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40 CFR 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.

ATTACHMENT J
SUPPORTING EMISSIONS CALCULATIONS

Greer Industries, Inc. dba Greer Lime Company
Potential to Emit Regulated Air Pollutants on an Annual Basis
Potesta & Associates, Inc., Project No.: 02-0002-001
October 25, 2002

Criteria Pollutants	Potential Emissions (tons/year)
Carbon Monoxide ⁽¹⁾	158.76
Nitrogen Oxides ⁽²⁾	301.64
Particulate Matter (TSP) ⁽³⁾	2,923.39
Particulate Matter (PM ₁₀) ⁽⁴⁾	1,392.09
Sulfur Dioxide ⁽⁵⁾	132.85
Volatile Organic Compounds ⁽⁶⁾	37.71
Lead ⁽⁷⁾	0.0003

Hazardous Air Pollutants⁽⁸⁾	Potential Emissions (tons/year)	Hazardous Air Pollutants⁽⁸⁾	Potential Emissions (tons/year)
Acetaldehyde	0	Antimony	0.001
Acetophenone	0	Arsenic	0.0003
Acrolein	0	Beryllium	0.00001
Benzene	0.00005	Cadmium	0.0001
Ethyl Benzene	0.00001	Chromium	0.0002
Formaldehyde	0.007	Cobalt	0.001
Naphthalene	0.0002	Manganese	0.0006
Toluene	0.001	Nickel	0.02
Xylene	0.00002		

Notes:

- (1) Carbon monoxide emissions originate from the rotary dryer (3-DR-1A), the 400 TPD lime kiln (4-RK-1), and the 500 TPD lime kiln (4-RK-2). CO total is 1.06 tpy + 74.5 tpy + 83.2 tpy = 158.76 tpy.
- (2) Nitrogen oxides emissions originate from the rotary dryer (3-DR-1A), the 400 TPD lime kiln (4-RK-1), and the 500 TPD lime kiln (4-RK-2). NOx total is 4.24 tpy + 131.4 tpy + 166.0 tpy = 301.64 tpy.
- (3) Total suspended particulate matter emissions were calculated during the original PTE estimate provided to DAQ during 1994. This number represents point sources as well as fugitive generation of particulate matter from haulroads, open stockpiles, and blasting.
- (4) AP-42 indicates that the relationship between TSP and PM₁₀ can be defined as 1 lb PM₁₀ = 2.1 lb TSP.
- (5) Sulfur dioxide emissions originate from the rotary dryer (3-DR-1A), the 400 TPD lime kiln (4-RK-1), and the 500 TPD lime kiln (4-RK-2). SO₂ total is 15.05 tpy + 70.0 tpy + 47.8 tpy = 132.85 tpy.
- (6) VOC emissions originate from the rotary dryer (3-DR-1A), the 400 TPD lime kiln (4-RK-1), the 500 TPD lime kiln (4-RK-2), and fuel storage tanks. VOC total is 0.06 tpy + 17.5 tpy + 19.8 tpy + 0.35 tpy = 37.71 tpy.
- (7) Lead emissions are estimated from the rotary dryer (3-DR-1A) only using the AP-42 emission factor for lead from fuel oil combustion. Lead emissions cannot be estimated from the rotary kilns since neither test data nor emission factors exist at this time for lime manufacturing. Therefore, the PTE of lead in the above table is an incomplete estimate.
- (8) HAP emissions are estimated from the rotary dryer (3-DR-1A) only using the AP-42 emission factors for HAPs from fuel oil combustion. HAP emissions cannot be estimated from the rotary kilns since neither test data nor emission factors exist at this time for lime manufacturing. Therefore, the PTE of HAPs in the above table is an incomplete estimate.

Revised Potential to Emit for Significant Modification

Plantwide Emissions Summary (Tons per Year)	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	160.28
Nitrogen Oxides (NO _x)	300.55
Particulate Matter (PM ₁₀)	1,366.53
Particulate Matter (TSP)	2,872.90
Sulfur Dioxide	134.44
Volatile Organic Compounds (VOC)	37.74
<i>PM₁₀ is a component of TSP.</i>	
Hazardous Air Pollutants	Potential Emissions
Acetaldehyde	0.0154
Acetophenone	0.0004
Acrolein	0.0078
Benzene	0.0352
Benzyl chloride	0.0189
Bis (2-ethylhexyl)phthalate (DEHP)	0.0020
Bromoform	0.0010
Carbon disulfide	0.0035
2-Chloroacetophenone	0.0002
Chlorobenzene	0.0006
Chloroform	0.0016
Cumene	0.0002
Cyanide	0.0676
2,4-Dinitrotoluene	0.0002
Dimethyl sulfate	0.0013
Ethyl benzene	0.0026
Ethyl chloride	0.0012
Ethylene dichloride	0.0011
Ethylene dibromide	0.0002
Formaldehyde	0.0173
Hexane	0.0018
Isophorone	0.0156
Methyl bromide	0.0043
Methyl chloride	0.0143
Methyl hydrazine	0.0046
Methyl methacrylate	0.0006
Methyl tert butyl ether	0.0010
Methylene chloride	0.0078
Phenol	0.0004
Propionaldehyde	0.0103
Tetrachloroethylene	0.0012
Toluene	0.0083
1,1,1-Trichloroethane	0.0007
Styrene	0.0006
Xylene	0.0011
Vinyl acetate	0.0002
Hazardous Air Pollutants (cont.)	Potential Emissions
Biphenyl	0.0002
Naphthalene	0.0007
Hydrogen Chloride (HCl)	49.46
Hydrogen Fluoride (HF)	4.05
Antimony	0.0004
Arsenic	0.0111
Beryllium	0.0006
Cadmium	0.0014
Chromium	0.0070
Chromium (VI)	0.0021
Cobalt	0.0027
Lead	0.0113
Manganese	0.0132
Mercury	0.0023
Nickel	0.0076
Selenium	0.0351
Total HAPs	53.86
Fine Mineral Fibers	151 ⁽¹⁾

(1) The original Certified Emission Statement (CES) submitted by Greer for the 1993 operating year reported emissions of Fine Mineral Fibers (FMF) at an annual rate of 151 tons. For the following operating years, FMF were not reported in the CES. It is suspected that the initial CES was in error, however, fine mineral fibers aren't defined well enough by the US EPA to specifically quantify, therefore Greer has neither proven nor disproven the original emission estimate.

Revised PTE for Hazardous Air Pollutants (Rotary Dryer, 400 TPD Kiln, 500 TPD Kiln)

Emission Group 003 - Limestone Grinding

Rotary Dryer 3-DR-1A

Burning Rate	9.5	MMBtu/hr
Hours of Operation	8,760	hours
Heating Value for No.2 Fuel Oil	140	MMBtu/1000 gal

Hazardous Air Pollutant	Emission Factor ⁽¹⁾	Emission Factor Unit	Hourly Emissions ⁽²⁾ (lb/hr)	Annual Emissions ⁽²⁾ (tpy)
Benzene	2.14E-04	lb/1000gal	0.0001	0.0001
Ethylbenzene	6.36E-05	lb/1000gal	0.0001	0.0001
Formaldehyde	3.30E-02	lb/1000gal	0.0022	0.0098
Naphthalene	1.13E-03	lb/1000gal	0.0001	0.0003
1,1,1-Trichloroethane	2.36E-04	lb/1000gal	0.0001	0.0001
Toluene	6.20E-03	lb/1000gal	0.0004	0.0018
Xylene	1.09E-04	lb/1000gal	0.0001	0.0001
Total			0.0031	0.0123

(1) HAP emission factors referenced from AP-42, Section 1.3, Fuel Oil Combustion (9/98) Tables 1.3-9.

(2) If emissions < 0.0001, then 0.0001 is estimated.

(Propane may be used for startup. No.2 Fuel Oil used to calculate emissions for 8,760 hours of operation for worst case scenario.)

Emission Group 004 - 400 TPD Lime Kiln

400 TPD Rotary Kiln (4-RK-1)

Coal Consumption	3.0	tons per hour
	26,280	tons per year
Stone Throughput	31.5	tons per hour
	275,997	tons per year

Hazardous Air Pollutant	Emission Factor Reference	Emission Factor (lb/ton of coal)	Hourly Emissions ^(a) (lb/hr)	Annual Emissions ^(a) (TPY)
Acetaldehyde	1	5.70E-04	0.0017	0.0075
Acetophenone	1	1.50E-05	0.0001	0.0002
Acrolein	1	2.90E-04	0.0009	0.0038
Benzene	1	1.30E-03	0.0039	0.0171
Benzyl chloride	1	7.00E-04	0.0021	0.0092
Bis (2-ethylhexyl)phthalate (DEHP)	1	7.30E-05	0.0002	0.0010
Bromoform	1	3.90E-05	0.0001	0.0005
Carbon disulfide	1	1.30E-04	0.0004	0.0017
2-Chloroacetophenone	1	7.00E-06	0.0001	0.0001
Chlorobenzene	1	2.20E-05	0.0001	0.0003
Chloroform	1	5.90E-05	0.0002	0.0008
Cumene	1	5.30E-06	0.0001	0.0001
Cyanide	1	2.50E-03	0.0075	0.0329
2,4-Dinitrotoluene	1	2.80E-07	0.0001	0.0001
Dimethyl sulfate	1	4.80E-05	0.0001	0.0006
Ethyl benzene	1	9.40E-05	0.0003	0.0012
Ethyl chloride	1	4.20E-05	0.0001	0.0006
Ethylene dichloride	1	4.00E-05	0.0001	0.0005
Ethylene dibromide	1	1.20E-06	0.0001	0.0001
Formaldehyde	1	2.40E-04	0.0007	0.0032
Hexane	1	6.70E-05	0.0002	0.0009
Isophorone	1	5.80E-04	0.0017	0.0076
Methyl bromide	1	1.60E-04	0.0005	0.0021
Methyl chloride	1	5.30E-04	0.0016	0.0070
Methyl hydrazine	1	1.70E-04	0.0005	0.0022
Methyl methacrylate	1	2.00E-05	0.0001	0.0003
Hazardous Air Pollutant	Emission Factor Reference	Emission Factor (lb/ton of coal)	Hourly Emissions ^(a) (lb/hr)	Annual Emissions ^(a) (TPY)
Methyl tert butyl ether	1	3.50E-05	0.0001	0.0005
Methylene chloride	1	2.90E-04	0.0009	0.0038
Phenol	1	1.60E-05	0.0001	0.0002
Propionaldehyde	1	3.80E-04	0.0011	0.0050
Tetrachloroethylene	1	4.30E-05	0.0001	0.0006
Toluene	1	2.40E-04	0.0007	0.0032
1,1,1-Trichloroethane	1	2.00E-05	0.0001	0.0003
Styrene	1	2.50E-05	0.0001	0.0003
Xylene	1	3.70E-05	0.0001	0.0005
Vinyl acetate	1	7.60E-06	0.0001	0.0001
Biphenyl	2	1.70E-06	0.0001	0.0001
Naphthalene	2	1.30E-05	0.0001	0.0002
Hydrogen Chloride (HCl)	3	0.17	5.36	23.46
Hydrogen Fluoride (HF)	4	1.50E-01	0.45	1.97
Antimony	5	1.80E-05	0.0001	0.0002
Arsenic	5	4.10E-04	0.0012	0.0054
Beryllium	5	2.10E-05	0.0001	0.0003
Cadmium	5	5.10E-05	0.0002	0.0007
Chromium	5	2.60E-04	0.0008	0.0034
Chromium (VI)	5	7.90E-05	0.0002	0.0010
Cobalt	5	1.00E-04	0.0003	0.0013
Lead	5	4.20E-04	0.0013	0.0055
Manganese	5	4.90E-04	0.0015	0.0064
Mercury	5	8.30E-05	0.0002	0.0011
Nickel	5	2.80E-04	0.0008	0.0037
Selenium	5	1.30E-03	0.0039	0.0171
		Total	5.85	25.59

(a) If emissions < 0.0001, then 0.0001 is estimated.

Emission Factor References:

1. Emission factors from AP-42, Section 1.1, Table 1.1-14, dated September 1998.
2. Emission factors from AP-42, Section 1.1, Table 1.1-13, dated September 1998.
3. Emission factor for HCl from Greer Lime stack test data. Emission Factor units for HCl is lb/ton of Stone Input.
4. Emission Factor for HF from AP-42, Section 1.1, Table 1.1-15, dated 9/98.
5. Emission factors from AP-42, Section 1.1, Table 1.1-18, dated September 1998.

Emission Group 005 - 500TPD Kiln

500 TPD Rotary Kiln (4-RK-2)

Coal Consumption	3.5	tons per hour
	27,720	tons per year
Stone Throughput	38.6	tons per hour
	305,870	tons per year

Hazardous Air Pollutant	Emission Factor Reference	Emission Factor (lb/ton of coal)	Hourly Emissions ^(a) (lb/hr)	Annual Emissions ^(a) (TPY)
Acetaldehyde	1	5.70E-04	0.0020	0.0079
Acetophenone	1	1.50E-05	0.0001	0.0002
Acrolein	1	2.90E-04	0.0010	0.0040
Benzene	1	1.30E-03	0.0046	0.0180
Benzyl chloride	1	7.00E-04	0.0025	0.0097
Bis (2-ethylhexyl)phthalate (DEHP)	1	7.30E-05	0.0003	0.0010
Bromoform	1	3.90E-05	0.0001	0.0005
Carbon disulfide	1	1.30E-04	0.0005	0.0018
2-Chloroacetophenone	1	7.00E-06	0.0001	0.0001
Chlorobenzene	1	2.20E-05	0.0001	0.0003
Chloroform	1	5.90E-05	0.0002	0.0008
Cumene	1	5.30E-06	0.0001	0.0001
Cyanide	1	2.50E-03	0.0088	0.0347
2,4-Dinitrotoluene	1	2.80E-07	0.0001	0.0001
Dimethyl sulfate	1	4.80E-05	0.0002	0.0007
Ethyl benzene	1	9.40E-05	0.0003	0.0013
Ethyl chloride	1	4.20E-05	0.0001	0.0006
Ethylene dichloride	1	4.00E-05	0.0001	0.0006
Ethylene dibromide	1	1.20E-06	0.0001	0.0001
Formaldehyde	1	2.40E-04	0.0008	0.0033
Hexane	1	6.70E-05	0.0002	0.0009
Isophorone	1	5.80E-04	0.0020	0.0080
Methyl bromide	1	1.60E-04	0.0006	0.0022
Methyl chloride	1	5.30E-04	0.0019	0.0073
Methyl hydrazine	1	1.70E-04	0.0006	0.0024
Methyl methacrylate	1	2.00E-05	0.0001	0.0003
Hazardous Air Pollutant	Emission Factor Reference	Emission Factor (lb/ton of coal)	Hourly Emissions ^(a) (lb/hr)	Annual Emissions ^(a) (TPY)
Methyl tert butyl ether	1	3.50E-05	0.0001	0.0005
Methylene chloride	1	2.90E-04	0.0010	0.0040
Phenol	1	1.60E-05	0.0001	0.0002
Propionaldehyde	1	3.80E-04	0.0013	0.0053
Tetrachloroethylene	1	4.30E-05	0.0002	0.0006
Toluene	1	2.40E-04	0.0008	0.0033
1,1,1-Trichloroethane	1	2.00E-05	0.0001	0.0003
Styrene	1	2.50E-05	0.0001	0.0003
Xylene	1	3.70E-05	0.0001	0.0005
Vinyl acetate	1	7.60E-06	0.0001	0.0001
Biphenyl	2	1.70E-06	0.0001	0.0001
Naphthalene	2	1.30E-05	0.0001	0.0002
Hydrogen Chloride (HCl)	3	0.17	6.57	26.00
Hydrogen Fluoride (HF)	4	1.50E-01	0.5250	2.0790
Antimony	5	1.80E-05	0.0001	0.0002
Arsenic	5	4.10E-04	0.0014	0.0057
Beryllium	5	2.10E-05	0.0001	0.0003
Cadmium	5	5.10E-05	0.0002	0.0007
Chromium	5	2.60E-04	0.0009	0.0036
Chromium (VI)	5	7.90E-05	0.0003	0.0011
Cobalt	5	1.00E-04	0.0004	0.0014
Lead	5	4.20E-04	0.0015	0.0058
Manganese	5	4.90E-04	0.0017	0.0068
Mercury	5	8.30E-05	0.0003	0.0012
Nickel	5	2.80E-04	0.0010	0.0039
Selenium	5	1.30E-03	0.0046	0.0180
Total			7.14	28.25

(a) If emissions < 0.0001, then 0.0001 is estimated.

Emission Factor References:

1. Emission factors from AP-42, Section 1.1, Table 1.1-14, dated September 1998.
2. Emission factors from AP-42, Section 1.1, Table 1.1-13, dated September 1998.
3. Emission factor for HCl from Greer Lime stack test data. Emission Factor units for HCl is lb/ton of Stone Input.
4. Emission Factor for HF from AP-42, Section 1.1, Table 1.1-15, dated 9/98.
5. Emission factors from AP-42, Section 1.1, Table 1.1-18, dated September 1998.

Greer Lime Company
 Riverton

Potesta & Associates, Inc.
 Project No. 0101-09-0093

By: CCS
 Date: 03/11/09

Checked By:
 Date:

Particulate Matter Emissions 45CSR7-4.1.

Group	Max Process Rate (TPH)	lbs/ton	Max Process Rate (lb/hr)	45CSR7-4.1. Table 45-7A Emissions (lb/hr)	Hours per Year	PM Emissions (TPY)
002	800	2,000	1,600,000	50	8,760	219.0
004	31.5		63,000	31.52		138.1
005	38.62		77,240	32.09		140.6
006	50		100,000	33		144.5
007	15		30,000	22		96.4

By: CCS
Date: 03/11/09

Checked By:
Date:

Group 009 Vehicular Traffic

Group	Name	Uncontrolled				Controlled				Source
		PM		PM10		PM		PM10		
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	
002	Primary Crush/Screen									Original Air4 TV Application
004	400 TPD Kiln									
005	500 TPD Kiln	79.91	233.33	39.96	116.67	23.97	70	11.99	35	
006	Lime Handling									
007	Hydrate Plant									
008	Portable Plant	71.20	95.94	33.90	45.69	17.80	23.99	8.48	11.42	Permit application for R13-2222-P2 (02-0002-03)
010	Tanks									
011	Fine Grinding	11.91	37.85	3.44	10.91	3.57	11.36	1.04	3.28	Permit application for R13-2113H (08-0634)
Total for Group 009		163.02	367.12	77.30	173.27	45.34	105.35	21.51	49.70	

Calculated Calculated value for this table- not shown in source calcs.
 Calculated uncontrolled assumes 70% control efficiency from water trucks.
 Hourly emissions calculated for Groups 002-007 based on 5,840 hours of trucking operations.
 Assume PM10 = PM/2.1

Greer Lime Company
Riverton, West Virginia

Title V (45 CSR 30) Operating Permit Renewal Application
Project No.: 0101-09-0093

By: SRK
Date: April 2, 2002

Checked By: MJC
Date: April 3, 2002

Group 010 Facility Tank Emissions

Tank ID No.	Tank Description	Year Installed	Material Stored	Tank Orientation	Tank Length (feet)	Tank Height (feet)	Tank Diameter (feet)	Tank Capacity (gallons)	Est. Maximum Throughput (gallons)	Annual VOC Emissions (tons/year)
TK-C1	Contractor Tank	1999	Off-Road Diesel	Horizontal	18		11	12,000	75,000	0.0015
TK-C2	Contractor Tank	1999	Gasoline	Horizontal	5.5		4	500	25,000	0.1066
TK-C3	Contractor Tank	1999	30W Oil	Horizontal	5		3	250	1,500	0
TK-C4	Contractor Tank	1999	Kerosene	Horizontal	5		3	250	10,000	0.0001
TK-C5	Contractor Tank	1999	15W Oil	Horizontal	5		3	250	1,500	0
TK-C6	Contractor Tank	1999	Hydraulic Oil	Horizontal	6		4	500	1,500	0
TK-1	Lime Kilns	1993	No. 2 Fuel Oil	Horizontal	11		4	1,000	25,000	0.0003
TK-2	Lime Kilns	1990	No. 2 Fuel Oil	Horizontal	5.5		4	500	25,000	0.0002
TK-3	Shop	1995	Gasoline	Horizontal	11		4	1,000	100,000	0.2415
TK-4	Fine Grinding	1997	Waste Oil	Horizontal	11		4	1,000	1,500	0
TK-5	Fine Grinding	1990	Propane	Horizontal	10		3	500	Not Applicable	0
TK-6	Fine Grinding	Unknown	No. 2 Fuel Oil	Horizontal	21		8	7,000	200,000	0.0020
TK-7	Fine Grinding	2001	30W Oil	Vertical		5.5	4	500	1,500	0
TK-8	Shop	2001	15W Oil	Vertical		5.5	4	500	1,500	0
TK-9	Shop	2001	30W Oil	Vertical		5.5	4	500	1,500	0
TK-10	Shop	2001	Hydraulic Oil	Vertical		5.5	4	500	1,500	0
TK-11	Shop	1979	Off-Road Diesel	Horizontal	20		7	5,000	125,000	0.0013
TK-12	Shop	1979	Off-Road Diesel	Horizontal	20		7	5,000	125,000	0.0013
11-FT-1	Fuel tank for Hot Air Generator	2007	No. 2 Fuel Oil					8,000	473,040	0.0047
Total:										0.3595

- Notes:**
- (1) This list represents the number of tanks on-site during the first quarter of 2002 (11-FT-1 added 2007). This number is subject to change depending on a conditions such as production, contractors on site, etc.
 - (2) Tank dimensions and capacities are estimated.
 - (3) Maximum throughput of material in the tanks is estimated. This number is subject to change with varying conditions.
 - (4) Annual VOC emissions are calculated using EPA estimation software TANKS 4.0.

By: CCS
Date: 12/12/08

Checked By: PEW
Date: 12/18/08

Summary of Proposed Emissions

Equipment	Regulated Pollutant	Proposed PTE		Existing PTE		Increase/Decrease PTE	
		lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
Transfers Points	TSP	12.27	13.21	11.37	12.78	0.90	0.43
	PM10	5.84	6.29	5.41	6.09	0.43	0.20
E-11-DC-3 Stack	TSP	3.35	14.67	3.35	14.67	0	0
	PM10	1.60	6.99	1.60	6.99	0	0
E-11-DC-2 Stack	TSP	0.75	3.30	0.75	3.30	0	0
	PM10	0.36	1.57	0.36	1.57	0	0
E-11-DC-1 Stack	TSP	1.75	7.64	1.75	7.64	0	0
	PM10	0.83	3.64	0.83	3.64	0	0
	CO	0.59	2.58	0.59	2.58	0	0
	NOx	0.72	3.15	0.72	3.15	0	0
	SO ₂	3.80	16.64	3.80	16.64	0	0
	VOC	0.02	0.09	0.02	0.09	0	0
	Benzene	0	0	0.00	0.00	0	0
	Ethylbenzene	0	0	0.00	0.00	0	0
	Formaldehyde	0	0	0.00	0.01	0	0
	Naphthalene	0	0	0.00	0.00	0	0
	1,1,1-Trichloroethane	0	0	0.00	0.00	0	0
Vehicular Traffic	TSP	3.57	11.36	2.90	11.02	0.67	0.34
	PM10	1.04	3.28	0.84	3.18	0.20	0.10
Total	TSP	21.69	50.18	20.12	49.41	1.57	0.77
	PM10	9.67	21.77	9.04	21.47	0.63	0.30
	CO	0.59	2.58	0.59	2.58	0	0
	NOx	0.72	3.15	0.72	3.15	0	0
	SO ₂	3.8	16.64	3.8	16.64	0	0
	VOC	0.02	0.09	0.02	0.09	0	0
	Benzene	0.001	0.001	0.001	0.001	0	0
	Ethylbenzene	0.001	0.001	0.001	0.001	0	0
	Formaldehyde	0.002	0.008	0.002	0.008	0	0
	Naphthalene	0.001	0.001	0.001	0.001	0	0
	1,1,1-Trichloroethane	0.001	0.001	0.001	0.001	0	0
	Toluene	0.001	0.001	0.001	0.001	0	0
	Xylene	0.001	0.001	0.001	0.001	0	0
Total HAPs	0.008	0.014	0.008	0.014	0	0	

Greer Lime Company
Riverton facility

Potesta & Associates, Inc.
Project No. 06-0151-007

By: CCS

Checked By: PEW

Date: 08/12/08

Date: 08/22/08

Summary of Existing Emissions (R13-2113G)

Equipment	Regulated Pollutant	Existing PTE	
		lb/hr	tpy
Transfers Points	TSP	11.37	12.78
	PM10	5.41	6.09
E-11-DC-3 Stack	TSP	3.35	14.67
	PM10	1.6	6.99
3EP3 Stack	TSP	0	0
	PM10	0	0
E-11-DC-2 (3EP4) Stack	TSP	0.75	3.3
	PM10	0.36	1.57
E-11-DC-1 Stack	TSP	1.75	7.64
	PM10	0.83	3.64
	CO	0.59	2.58
	NOx	0.72	3.15
	SO ₂	3.8	16.64
	VOC	0.02	0.09
	Benzene	0.001	0.001
	Ethylbenzene	0.001	0.001
	Formaldehyde	0.002	0.008
	Naphthalene	0.001	0.001
	1,1,1-Trichloroethane	0.001	0.001
Vehicular Traffic	TSP	2.9	11.02
	PM10	0.84	3.18
Total	TSP	20.12	49.41
	PM10	9.04	21.47
	CO	0.59	2.58
	NOx	0.72	3.15
	SO ₂	3.8	16.64
	VOC	0.02	0.09
	Benzene	0.001	0.001
	Ethylbenzene	0.001	0.001
	Formaldehyde	0.002	0.008
	Naphthalene	0.001	0.001
	1,1,1-Trichloroethane	0.001	0.001
	Toluene	0.001	0.001
	Xylene	0.001	0.001
Total HAPs	0.008	0.014	

By: CCS
Date: 12/12/08

Checked By: PEW
Date: 12/18/08

Emissions from the transfer points affected by this application

Proposed Worst Case

Transfer Point ID Number	Transfer Point Description	Material Throughput (tph)	Material Throughput (tpy)	TSP Emission Factor (lb/ton)	Uncontrolled TSP (lb/hr)	Uncontrolled TSP (tpy)	Control Device	Control Efficiency (%)	Controlled TSP (lb/hr)	Controlled TSP (tpy)	
TP28	2-VS-1 to 11-BC-1	200	469,400	0.003	0.60	0.70	FE	80	0.12	0.14	
TP28A	Truck to 2-OS-1	100	100,000	0.003	0.30	0.15	MD	0	0.30	0.15	
TP28B	2-OS-1 to 11-DH-1	100	100,000	0.003	0.30	0.15	MD	0	0.30	0.15	
TP28C	11-DH-1 to 11-BC-4	100	100,000	0.003	0.30	0.15	PE	50	0.15	0.08	
TP28D	11-BC-4 to 11-BC-1	100	100,000	0.003	0.30	0.15	PE	50	0.15	0.08	
Total TSP					1.80	1.30			Total TSP	1.02	0.60
Total PM10					0.86	0.62			Total PM10	0.49	0.29

Existing*

Transfer Point ID Number	Transfer Point Description	Material Throughput (tph)	Material Throughput (tpy)	TSP Emission Factor (lb/ton)	Uncontrolled TSP (lb/hr)	Uncontrolled TSP (tpy)	Control Device	Control Efficiency (%)	Controlled TSP (lb/hr)	Controlled TSP (tpy)	
TP28	2-VS-1 to 11-BC-1	200	569,400	0.003	0.60	0.85	FE	80	0.12	0.17	
PM10					0.29	0.4			PM10	0.06	0.08

Change in worst case emissions for the affected transfer points

Uncontrolled TSP (lb/hr)	Uncontrolled TSP (tpy)	Controlled TSP (lb/hr)	Controlled TSP (tpy)	Uncontrolled PM10 (lb/hr)	Uncontrolled PM10 (tpy)	Controlled PM10 (lb/hr)	Controlled PM10 (tpy)
1.20	0.45	0.90	0.43	0.57	0.22	0.43	0.21

*The existing throughput (569,400 tpy) and emissions for TP28 do not change except in the worst case where tonnage is sent through TP28A-D. For every ton sent through TP28A, TP28 throughput is reduced by a like amount.

By: CCS
Date: 12/12/08

Checked By: PEW
Date: 12/18/08

Transfer Points

Proposed equipment transfers are Highlighted in Yellow.

New Mill System
Hourly Throughput (tph) 65
Hours of Operations 8760

Transfer Point ⁽¹⁾ ID Number	Transfer Point Description	Material Throughput (tph)	Material Throughput ⁽²⁾ (tpy)	TSP Emission Factor ⁽³⁾ (lb/ton)	Uncontrolled TSP (lb/hr)	Uncontrolled TSP (tpy)	Control Device	Control Efficiency (%)	Controlled TSP (lb/hr)	Controlled TSP (tpy)
TP28*	2-VS-1 to 11-BC-1	200	469,400	0.003	0.60	0.70	FE	80	0.12	0.14
TP28A	Truck to 2-OS-1	100	100,000	0.003	0.30	0.15	MD	0	0.30	0.15
TP28B	2-OS-1 to 11-DH-1	100	100,000	0.003	0.30	0.15	MD	0	0.30	0.15
TP28C	11-DH-1 to 11-BC-4	100	100,000	0.003	0.30	0.15	PE	50	0.15	0.08
TP28D	11-BC-4 to 11-BC-1	100	100,000	0.003	0.30	0.15	PE	50	0.15	0.08
TP29	11-BC-1 to 11-BEL-1	200	569,400	0.003	0.60	0.85	FE	80	0.12	0.17
TP29A	11-BEL-1 to 11-SI-3	200	569,400	0.003	0.60	0.85	FE	80	0.12	0.17
TP30	11-SI-3 to 11-BC-2	65	569,400	0.003	0.20	0.85	FE	80	0.04	0.17
TP31	11-SI-3 to 11-BC-2	65	0	0.003	0.20	0.00	FE	80	0.04	0
TP32	11-BC-2 to 11-SB-2	65	569,400	0.003	0.20	0.85	FE	80	0.04	0.17
TP33	11-SB-2 to 11-BM-1	65	569,400	0.003	0.20	0.85	FE	80	0.04	0.17
TP34-TP43	See Note 1									
TP40A	11-SI-7 to 11-SC-7	65	0	0	25	0	BH	Included with 11-DC-3 Emissions		
TP40B	11-SC-7 to 11-LS-4	65	0	0	25	0	BH	Included with 11-DC-3 Emissions		
TP40C	11-LS-4 to Truck	65	0	0	25	0	Spout w/ 11-DC-3 ⁽⁴⁾	90	2.52	0
TP44	11-SB-1 to 11-SSB-1	30	0	0	12	0	BH	Included with 11-DC-3 Emissions		
TP45	11-DC-3 to 11-SC-4 (Recycle Material)	2	2934	0	1	0.57	BH	Included with 11-DC-3 Emissions		
TP45A	11-SC-4 to 11-SC-5 (Recycle Material)	2	2934	0	1	0.57	FE	80	0.15	0.11
TP45B	11-SC-5 to 11-SC-6 (Recycle Material)	2	2934	0	1	0.57	FE	80	0.15	0.11
TP45C	11-SC-6 to 11-SI-4 (Recycle Material)	2	2,934	0.387	0.77	0.57	FE	80	0.15	0.11
TP45D	11-SI-4 to Trucks (Group 009)	2	2,934	0.387	0.77	0.57	Spout w/ 11-DC-3 ⁽⁴⁾	90	0.08	0.06
TP46 ⁽⁵⁾	11-DC-1 to 11-SC-1 (Recycle Material)	1	2,880	0.387	0.39	0.56	FE	80	0.08	0.11
TP47 ⁽⁵⁾	11-SC-1 to 11-BL-3 (Recycle Material)	1	2,880	0.387	0.39	0.56	FE	80	0.08	0.11
TP48	11-SI-1 to Truck	65	0	0.387	25.16	0	Spout w/ 11-DC-1 ⁽⁴⁾	90	2.52	0
TP49	11-SI-2 to Truck	65	0	0.387	25.16	0	Spout w/ 11-DC-1 ⁽⁴⁾	90	2.52	0
TP54	11-SB-1 to 11-SI-5 or 11-SI-6	65	569,400	0.387	25.16	110.18	BH	Included with 11-DC-2 Emissions		
TP84	11-SI-5 to 11-BG-1	25	0	0.387	9.68	0	BH	Included with 11-DC-2 Emissions		
TP85	11-SI-6 to 11-SC-23	65	569,400	0.387	25.16	110.18	BH	Included with 11-DC-2 Emissions		
TP86	11-BG-1 to 11-SC-2	25	0	0.387	9.68	0.00	BH	Included with 11-DC-2 Emissions		
TP87	11-BG-1 to 11-WC-1									
TP88	11-WC-1 to 11-BC-3									
TP89	11-BC-3 to 1-PL-1									
TP91	11-SC-2 to 11-BEL-2	25	0	0.387	9.68	0	BH	Included with 11-DC-2 Emissions		
TP92	11-BEL-2 to 11-SI-5	25	0	0.387	9.68	0	BH	Included with 11-DC-2 Emissions		
TP93	11-SC-23 to 11-LS-3	65	569,400	0.387	25.16	110.18	BH	Included with 11-DC-2 Emissions		
TP94	11-LS-3 to Truck	65	569,400	0.387	25.16	110.18	Spout w/ 11-DC-2 ⁽⁴⁾	90	2.52	11.02
TP95 ⁽⁶⁾	11-DC-2 to 11-SI-6	1	3,300	0.387	0.39	0.64	FE	80	0.08	0.13

(TP90 Reserved)

Uncontrolled Subtotal TSP = 285.59 450.88
Subtotal TSP = 12.27 13.21
Uncontrolled Subtotal PM10 = 136.00 214.70
Subtotal PM10 = 5.84 6.29

*The maximum throughput for this transfer point is 569,400 tpy. For every ton entering TP28A, TP28 is reduced by that amount to a minimum of 329,400 tpy.

NOTES:

- (1) TP34-TP43 are closed piping controlled by 11-DC-1. The system can not operate without 11-DC-1. See E-11-DC-1 for emissions.
- (2) Zero entered for annual throughput for transfer points not considered part of worst case emissions scenario to avoid double counting emissions.
- (3) Emission factors from the following AP-42 Sections:

Emission Point	Reference
TP28 - TP33	AP-42, Section 11.19.2 Crushed Stone Processing (8/04), Table 11.19.2-2
TP44-49, TP84-95	AP-42, Section 13.2.4 Aggregate Handling And Storage Piles (1/95), Equation 1
	$E = k(0.0032)(U/5)^{1.3}/(M/2)^{1.4}$ where k=0.74, U=10 and M=0.1
	k = 0.74
	U = 10
	M = 0.1 (Provided by Greer Lime)
	E = 0.387
TP40	AP-42, Section 11.19.2 Crushed Stone Processing (8/04), Table 11.19.2-2. Truck Unloading PM10 emission factor multiplied by 2.1 for TSP emission factor due to No Data (ND). [0.00010 * 2.1 = 0.00021]

- (4) Capture efficiency of the dust collector for the truck loadouts is estimated to be 90%. The fugitive emissions were calculated as 10% of the total included in the above calculations. The particulate captured by the dust collector is accounted for w
- (5) Per manufacturer data Dust Collector inlet loading is 5 grains/ACF, outlet loading is 0.005 grains/ACF, and air flow is 15,360 ACFM. Transfer point throughput calculated for 4.995 grains/ACF.
- (6) Material throughput estimated from R13-emission limit of 10.2 lb/hr from R13-1788 and a 99.9% control efficiency of dust collector.
- (7) Conversion: 2.1 lbs TSP = 1 lbs PM₁₀

By: CCS
Date: 12/12/08

Checked By: PEW
Date: 12/18/08

Dryer and Duct Collectors

Hot Air Generator 11-HG-1

Burning Rate	7.5	MMBtu/hr
Hours of Operation	8,760	hours
Heating Value for No.2 Fuel Oil	140	MMBtu/1000 gal
Hourly Fuel Usage	54	gal/hr
Annual Fuel Usage	473,040	gal/yr
Sulfur Content of Fuel	0.5	%

Emission Point ID Number	Equipment Description	Regulated Pollutant	Emission Factor ⁽¹⁾	Emission Factor Unit	Hourly Emissions ⁽²⁾ (lb/hr)	Annual Emissions ⁽²⁾ (tpy)
E-11-DC-1	11-HG-1 Hot Air Generator with No. 2 Fuel Oil (Propane may be used for startup. No.2 Fuel Oil used to calculate emissions for 8760 hours of operation for worst case scenario.)	CO	0.0783	lbs/MMBtu	0.59	2.58
		NOx	0.0963	lbs/MMBtu	0.72	3.15
		SO ₂	142S	lb/1000gal	3.80	16.64
		VOC	0.34	lb/1000gal	0.02	0.09
		Benzene	0	lb/1000gal	0	0.001
		Ethylbenzene	0	lb/1000gal	0	0.001
		Formaldehyde	0	lb/1000gal	0	0.008
		Naphthalene	0	lb/1000gal	0	0.001
		1,1,1-Trichloroethane	0	lb/1000gal	0	0.001
		Toluene	0	lb/1000gal	0	0.001
		Xylene	0	lb/1000gal	0	0.001
PM/PM10	Included with New Dust Collector Emissions Estimate					

Emission Point ID Number	Control Device ID Number	Equipment Description	Air Flow ⁽³⁾ (ACFM)	Regulated Pollutant	Uncontrolled		Control Efficiency (%)	Controlled	
					Hourly Rate (lbs/hr)	Annual Emissions (tpy)		Hourly ⁽⁶⁾ Rate (lbs/hr)	Annual Emissions (tpy)
E-11-DC-3	11-DC-3 (3-DC-1A)	11-SB-1,11-SI-7,11-SI-4	32,000	TSP	670	2,934	99.5	3.35	14.67
				PM10	320	1,398		1.6	6.99

Emission Point ID Number	Control Device ID Number	Equipment Controlled	Air Flow ⁽⁵⁾ (ACFM)	Regulated Pollutant	Uncontrolled		Annual Emissions (tpy)	Controlled	
					Emission Limit ⁽⁵⁾ (grains/ACF)	Hourly Rate (lbs/hr)		Emission Limit ⁽⁵⁾ (grains/ACF)	Hourly Rate (lbs/hr)
E-11-DC-1	11-DC-1	11-BL-1, 11-SI-3, 11-BM-1, 11-DS-1, 11-CY-1, 11-BL-3, 11-CL-1, 11-BL-2, 11-SI-1, 11-SI-2, 11-CY-2, 11-HG-1	20,360	TSP	5	872.57	3,821.86	0.01	1.75
				PM10		415.51		1,819.93	0.83

Rock Dust System

Emission Point ID Number	Control Device ID Number	Equipment Description	Air Flow ⁽³⁾ (ACFM)	Regulated Pollutant	Uncontrolled		Control Efficiency (%)	Controlled	
					Hourly Rate (lbs/hr)	Annual Emissions (tpy)		Emission Limit ⁽⁴⁾ (grains/ACF)	Hourly Rate (lbs/hr)
E-11-DC-2 (3EP4)	11-DC-2	3-SI-5, 3-SI-6, 3-BG-1, 3-SC-23, 3-SC-17, and 3-BEL-7	4,000	TSP	750	3,300	99.9	0.022	0.75
				PM10	360	1,570		0.36	1.57

NOTES:

- (1) CO and NOx emission factors provided by manufacturer. Other emission factors referenced from AP-42, Section 1.3, Fuel Oil Combustion (9/98).
- (2) If calculated emissions value is <0.001 then 0.001 was entered for emission value.
- (3) Provided by Greer Lime Company.
- (4) Based on NSPS Subpart OOO emission limit (0.022 grains/ACF).
- (5) Provided by manufacturer.
- (6) Stack test of June 24-28, 2008 showed the highest mass rate of 0.67 lbs/hour. The value has been increased 5X to calculate emissions to account for variability of baghouse conditions.

By: CCS
Date: 12/12/08

Checked By: PEW
Date: 12/18/08

Vehicular Traffic (VT)

Unpaved Haulroads

Source	Vehicle Trips per Hour	Vehicle Trips per Year	Miles per Trip	Emission Factor ⁽¹⁾ (lb/VMT)	Uncontrolled TSP (lb/hr)	Uncontrolled TSP (tpy)	Control Device	Control Efficiency (%)	Controlled TSP (lb/hr)	Controlled TSP (tpy)
AG Lime/Sand Trucks	3	22,776	0.5	6.45	9.68	36.73	Water Truck	70	2.90	11.02
Endloaders	10	10,000	0.02	11.17	2.23	1.12	Water Truck	70	0.67	0.34
Total					11.91	37.85		Total	3.57	11.36

Source	Vehicle Trips per Hour	Vehicle Trips per Year	Miles per Trip	Emission Factor ⁽¹⁾ (lb/VMT)	Uncontrolled PM ₁₀ (lb/hr)	Uncontrolled PM ₁₀ (tpy)	Control Device	Control Efficiency (%)	Controlled PM ₁₀ (lb/hr)	Controlled PM ₁₀ (tpy)
AG Lime/Sand Trucks	3	22,776	0.5	1.86	2.79	10.59	Water Truck	70	0.84	3.18
Endloaders	10	10,000	0.02	3.23	0.65	0.32	Water Truck	70	0.20	0.10
Total					3.44	10.91		Total	1.04	3.28

Emission Factors ⁽¹⁾			
	TSP	PM ₁₀	
k =	4.9	1.5	dimensionless, particle size multiplier
s =	9	9	%, surface material silt content
W _{truck} =	28	28	tons, mean vehicle weight
W _{endloader} =	95	95	
a =	0.7	0.9	constants
b =	0.45	0.45	constants
p =	150	150	no. days/year with 0.1 in of rain
e =	6.45	1.86	lb/VMT Trucks
e =	11.17	3.23	lb/VMT Endloaders
		Trucking	Endloaders
Total Hauled (tpy) =		569,400	100,000
Load Weight (tons) =		25	10
Vehicles Per Year =		22,776	10,000
Total Hauled (tph) =		65	100
Load Weight (tons) =		25	10
Vehicles Per Hour =		3	10
Empty Vehicle Weight (tons) =		15	90
Loaded Vehicle Weight (tons) =		40	100
Average Vehicle Weight (tons) =		28	95

(1) Emission Equation AP-42 Section 13.2.2, Unpaved Roads (12/03), where:

$$e = k [(s/12)^a (W/3)^b] [(365-p)/365]$$

e = Emission factor, pounds per vehicle-mile-traveled, (lb/VMT)

k, a & b = Constants for equation given in AP-42 Table 13.2.2-2 (dimensionless)

s = Silt content of road surface material (%)

W = Mean vehicle weight, ton

p = Number of days with at least 0.01 in. of precipitation per year