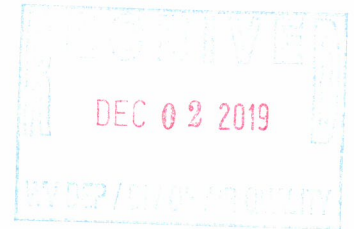


**Title V Renewal Application**  
**Permit No. R30-07100001-2015**



**West Virginia Department of Environmental Protection**  
**Division of Air Quality**



**Greer Industries, Inc. dba Greer Lime Company**

**Riverton Facility**

**Riverton, Pendleton County, West Virginia**

**Plant ID No. 071-00001**

**November 2019**

**GREER ENGINEERING**

8477 Veterans Memorial Highway

Masontown, West Virginia 26542

(304) 864-5411

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ATTACHMENTS F AND H ARE NOT APPLICABLE TO THIS APPLICATION.

**UPDATES TO EXISTING FACILITY INFORMATION  
SUMMARY**

## **Summary**

### **Updates to Existing Facility Information**

The following updates have been included in this Title V renewal application:

- a. 45CSR13, R13-2113K was issued on April 21, 2016. This permit allowed the installation of a new screw conveyor in the lime handling circuit. The result of this installation increased the PTE as follows: 12.13 TPY TSP and 5.6 TPY PM10. The Title V permit was revised via a minor modification and approved by permit action number MM01 on November 15, 2016.
- b. 45CSR13, R13-1396D was issued on October 18, 2018. This permit allowed the following substantive changes to the hydrate plant: the (1) removal and replacement of the existing hydrate bagging operations, the (2) installation of a new 50 lb hydrate bagger unit, the (3) upgrade of hydrate plant dust collectors, the (4) replacement of the existing ball mill with a pin mill, the (5) consolidation of two screw conveyers into one unit, and the (6) increase of annual production from 100,000 to 125,000 TPY. The result of these changes increased the PTE as follows: 8.15 TPY TSP, 6.89 TPY PM10 and 4.14 TPY PM2.5. The Title V permit was revised via a minor modification and approved by permit action number MM02 on April 23, 2019.
- c. There is one current revision to the Title V permit which was permitted under 45CSR13, R13-1396E on September 10, 2019 with Attachment S for Title V Revisions. A revised Title V permit has not been issued for this action. The 45CSR13 permit allows for the installation of an alternative hydrated lime grinding scenario that includes a new ball mill and four new screw conveyors. The alternative grinding scenario does not result in an increase in emissions.
- d. Permit determination PD17-013 was approved on February 28, 2017 for the addition of an SNCR control system to reduce NO<sub>x</sub> levels in both rotary coal-fired kilns. The SNCR system installation does not result in an increase in emissions.
- e. The Potential to Emit PM<sub>2.5</sub> has been corrected in this renewal application. This figure was incorrectly calculated using the wrong ratio of TSP to PM<sub>2.5</sub> which resulted in a very high PTE of 172.4 TPY PM<sub>2.5</sub>. The correct PTE PM<sub>2.5</sub> is 84.54 TPY.

**TITLE V PERMIT APPLICATION GENERAL FORMS**  
**SECTIONS I-VI**



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF AIR QUALITY

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

www.dep.wv.gov/daq

INITIAL/RENEWAL 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.

<b>11. Mailing Address</b>		
<b>Street or P.O. Box:</b> 1088 Germany Valley Limestone Rd.		
<b>City:</b> Riverton	<b>State:</b> WV	<b>Zip:</b> 26814
<b>Telephone Number:</b> (304) 567-2141	<b>Fax Number:</b> N/A (use email contacts)	

<b>12. Facility Location</b>		
<b>Street:</b> Germany Valley Limestone Rd.	<b>City:</b> Riverton	<b>County:</b> Pendleton
<b>UTM Easting:</b> 640.00 km	<b>UTM Northing:</b> 4,293.00 km	<b>Zone:</b> <input checked="" type="checkbox"/> 17 or <input type="checkbox"/> 18
<b>Directions:</b> Approximately four miles south of Seneca Rocks (junction of US Route 33 and WV Route 55) on US Route 33, turn left onto Germany Valley Limestone Road. Plant is one mile from the turn on the right side.		
<b>Portable Source?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
<b>Is facility located within a nonattainment area?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>If yes, for what air pollutants?</b> N/A	
<b>Is facility located within 50 miles of another state?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>If yes, name the affected state(s).</b> Virginia	
<b>Is facility located within 100 km of a Class I Area<sup>1</sup>?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>If yes, name the area(s).</b> Dolly Sods, WV Otter Creek Wilderness, WV	
<b>If no, do emissions impact a Class I Area<sup>1</sup>?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		
<sup>1</sup> 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.		

<b>13. Contact Information</b>		
<b>Responsible Official:</b> J. Robert Gwynne		<b>Title:</b> Executive Vice President
<b>Street or P.O. Box:</b> 8477 Veterans Memorial Highway		
<b>City:</b> Masontown	<b>State:</b> WV	<b>Zip:</b> 26542
<b>Telephone Number:</b> (304) 296-1751	<b>Fax Number:</b> N/A (use email contacts)	
<b>E-mail address:</b> gwynne@greerindustries.com		
<b>Environmental Contact:</b> Scott Kisner		<b>Title:</b> Environmental Compliance Manager
<b>Street or P.O. Box:</b> 8477 Veterans Memorial Highway		
<b>City:</b> Masontown	<b>State:</b> WV	<b>Zip:</b> 26542
<b>Telephone Number:</b> (304) 276-5263	<b>Fax Number:</b> N/A (use email contacts)	
<b>E-mail address:</b> skisner@greerindustries.com		
<b>Application Preparer:</b> Same as Environmental Contact		<b>Title:</b>
<b>Company:</b>		
<b>Street or P.O. Box:</b>		
<b>City:</b>	<b>State:</b>	<b>Zip:</b>
<b>Telephone Number:</b> ( )-	<b>Fax Number:</b> ( )-	
<b>E-mail address:</b>		



**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 and Hydrated 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 lime hydration 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**

<b>18. Applicable Requirements Summary</b>	
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 (45CSR34)	<input type="checkbox"/> Nonattainment NSR (45CSR19)
<input checked="" type="checkbox"/> Section 111 NSPS	<input checked="" type="checkbox"/> Section 112(d) MACT standards
<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 checked="" 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"/> CAIR NO <sub>x</sub> Annual Trading Program (45CSR39)	<input type="checkbox"/> CAIR NO <sub>x</sub> Ozone Season Trading Program (45CSR40)
<input type="checkbox"/> CAIR SO <sub>2</sub> Trading Program (45CSR41)	

<b>19. Non Applicability Determinations</b>
<p><b>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.</b></p> <p>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.</p> <p>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.</p> <p>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.</p>
<input checked="" type="checkbox"/> Permit Shield

**19. Non Applicability Determinations (Continued)** - Attach additional pages as necessary.

**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).

Ref #	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	40CFR§61.145(b) 45CSR34	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§11-5.2.	3.1.5.	Standby Plan for Reducing Emissions	When requested by the Secretary, standby plans for emissions reduction will be prepared.
6	WV Code §22-5-4(a)(14)	3.1.6.	Emission Inventory	Annual submission of an emission inventory.
7	40CFR82 Subpart F	3.1.7.	Ozone-depleting Substances	Requirement to follow: a. 40CFR §§ 82.154 & 82.156; b. 40CFR § 82.158; c. 40CFR § 82.161.
8	40CFR68	3.1.8.	Risk Management Plan	Submission of a risk management plan if required.
9	45CSR§7-3.1. 45CSR13, R13-1396E, 4.1.10.	3.1.9.	Prevent & Control Particulate Matter	No smoke or particulate matter emission may exhibit greater than 20% opacity, except as noted in listed subsections.
10	45CSR§7-3.2. 45CSR13, R13-1396E, 4.1.10.	3.1.10.	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.
11	45CSR§7-3.7.	3.1.11.	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.
12	45CSR§7-4.1. 45CSR13, R13-1396E, 4.1.10.	3.1.12.	Prevent & Control Particulate Matter	No particulate matter to open air from any source in excess of Table 45-7A.
13	45CSR§7-4.12.	3.1.13.	Prevent & Control Particulate Matter	Stacks shall have flow straightening devices or sufficient vertical length for acceptable stack sampling procedures.
14	45CSR§7-5.1.	3.1.14.	Prevent & Control Particulate Matter	Lowest fugitive particulate emissions reasonably achievable.

**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).

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement
15	45CSR§7-5.2.	3.1.15.	Prevent & Control Particulate Matter	Dust control of plant premises, roads, stockpiles, and general materials handling.
16	45CSR§7-9.1.	3.1.16.	Prevent & Control Particulate Matter	Due to unavoidable equipment malfunction the Director may permit excess emissions upon specific application to the Director.
17	45CSR§7-10.3.	3.1.17.	Prevent & Control Particulate Matter	Exemption for maintenance operations.
18	45CSR§7-10.4.	3.1.18.	Prevent & Control Particulate Matter	Ability to apply for alternative visible emission standards for startup and shutdown.
19	45CSR16, 40CFR§60.672(a) and Table 2, Group (002, 004, 005, 008, 011)	3.1.19.	Subpart OOO Standard for Particulate Matter	Standard for belt conveyor transfer points and stack emissions not to exceed opacity limits.
20	45CSR16, 40CFR§60.672(b) and Table 3, Group (002, 004, 005, 008, 011)	3.1.20.	Subpart OOO Standard for Particulate Matter	Standard for belt conveyor transfer points or affected facility not to exceed 10% opacity.
21	45CSR16, 40CFR§60.672(d), Group (002 and 008)	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), Group (002, 004, 005, 008, 011)	3.1.22.	Subpart OOO Standard for Particulate Matter	Standard for transfer points enclosed within a building.
23	45CSR13, R13-2113K, 2.5.1.	3.1.23.	Construction	Construction facility in accordance with permit application.
24	45CSR§30-5.1.c Emission Groups (002, 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.

**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).

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement
25	45CSR§30-5.1.c., Section 1.0	3.2.2.	Dust Collectors	Provisions for baghouse observations and monitoring
26	45CSR16, 40 CFR §60.674(c)	3.2.3	Method 22 VE	Baghouse VE for affected facilities built after April 22, 2008
27	45CSR16, 40 CFR §60.674(e)	3.2.4	Alternative to Method 22 VE	Alternative to follow continuous compliance requirements
28	WV Code § 22-5-4(a)(14-15) and 45CSR13	3.3.1.	Stack Testing	Stack testing to determine compliance with emissions limitations.
29	45CSR§7-8.1.	3.3.2.	Prevent & Control Particulate Matter	Stack testing to determine particulate matter loading from exhaust gases.
30	45CSR§7-8.2.	3.3.3.	Prevent & Control Particulate Matter	Director or authorized representative may order other testing.
31	45CSR16, 40 C.F.R. § 60.675 (a), 45CSR13, R13-1685, (B)(5) and (6) Group (002, 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 40CFR60.675(e).
32	45CSR16, 40 C.F.R. § 60.675 (b), 45CSR13, R13-1685, (B) (5) and (6), Group (002, 004, 005, 008, 011)	3.3.5.	Compliance with Particulate Matter Standards	Shall determine compliance with PM standards in 40CFR60.672(a) by using Method 5 or 17 to determine PM concentration and Method 9 to determine opacity.
33	45CSR16, 40 C.F.R. § 60.675 (c), and Table 3, 45CSR13, R13-1685, (B) (5) and (6), Group (002, 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.
34	45CSR16, 40 C.F.R. § 60.675 (d), 45CSR13, R13-1685, (B) (5) and (6) Group (002, 004, 005, 008, 011)	3.3.7.	Compliance with Particulate Matter Standards	Method 9/Method 22 shall be used to determine compliance with 40CFR60.672(e) to determine fugitive emissions.
35	45CSR16, 40 C.F.R. § 60.675 (e), 45CSR13, R13-1685, (B) (5) and (6), Group (002, 004, 005, 008, 011)	3.3.8.	Compliance with Particulate Matter Standards	Alternatives to reference methods and procedures of 40CFR§ 60.675.

**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).

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement
36	45CSR16, 40 C.F.R. § 60.675 (g), 45CSR13, R13-1685, (B) (5) and (6), Group (002, 004, 005, 008, 011)	3.3.9.	Performance Testing	Method 9 testing notification may be reduced from 30 days to 7 days.
37	45CSR§30-5.1.c.2.A., 45CSR13, R13-1396E, 4.4.1. and R13-2670B, 4.4.1.	3.4.1.	Monitoring Information	Permittee shall keep records of monitoring information.
38	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.
39	45CSR§30-5.1.c. State-Enforceable only.	3.4.3.	Odors	Permittee shall maintain a record of all odor complaints received.
40	45CSR§30-5.1.c.	3.4.4.	Dust Control	Permittee shall maintain records of dust suppressants or other dust control measures applied at the facility. Permittee shall inspect fugitive dust control systems daily May 1 through September 30 and monthly October 1 through April 30.
41	45CSR16, 40 C.F.R. §§ 60.676 (a), Group (002, 004,005, 008, 011)	3.4.5.	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.
42	45CSR16, 40 C.F.R. § 60.676 (f). Group (002, 004, 005, 008,011)	3.4.6.	Subpart OOO Standard for Particulate Matter	Shall submit written reports of results of performance testing to demonstrate compliance with standards of 40CFR60.672.
43	45CSR16, 40 C.F.R. § 60.676 (g), Group (002, 004, 005, 008, 011)	3.4.7.	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.

**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).

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement
44	45CSR16, 40 C.F.R. § 60.676 (h), Group (002, 004, 005, 008, 011)	3.4.8.	Notification Provisions	40CFR60.7(a)(1) notification requirements are waived for facilities regulated under Subpart OOO.
45	45CSR16, 40 C.F.R. § 60.676 (i), Group (002, 004, 005, 008, 011)	3.4.9.	Notification Provisions	Notification of the actual startup date of each affected facility shall be submitted to the Director.
46	45CSR§30-4.4. and 5.1.c.3D.	3.5.1.	Responsible Official	Certification of required documents by a responsible official.
47	45CSR§30-5.1.c.3.E.	3.5.2.	Confidential Treatment	Confidential submission of reporting under 45CSR§30-5.1.c.3.
48	NA	3.5.3.	NA	Procedure and addresses for submissions.
49	45CSR§30-8.	3.5.4.	Certified Emissions Statement	Submission of a certified emission statement and pay fees on an annual basis.
50	45CSR§30-5.3.e.	3.5.5.	Compliance Certification	Certification of compliance with the conditions of the permit.
51	45CSR§30-5.1.c.3.A.	3.5.6.	Semi-Annual Monitoring Reports	Requirement to submit semi-annual reports of required monitoring.
52	NA	3.5.7.	Emergencies	For emergency situations refer to Permit Section 2.17.
53	45CSR§30-5.1.c.3.C. 45CSR§30-5.1.c.3.B.	3.5.8.	Deviations	<ul style="list-style-type: none"> <li>a. Requirement to submit supplemental reports of deviations of: 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.</li> <li>b. Deviation of conditions defined in permit, probable cause and corrective actions.</li> </ul>



**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).

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement
54	45CSR§30-4.3.h.1.B.	3.5.9	New Applicable Requirements	If any applicable requirement is promulgated during the term of this permit, the permittee will meet such requirements on a timely basis, or in accordance with a more detailed schedule if required by the applicable requirement.
55	None	3.6.1	Compliance Plan	None
56	45CSR§ 10-5.1 45CSR17 40CFR§§60.380-60.386, Subpart LL 40CFR §§ 60.674(a) and 60.676 (c), (d), and (e), Subpart OOO 40CFR§§60.730-60.737, Subpart UUU 40CFR64 Compliance Assurance Monitoring (CAM)	3.7.1 and 3.7.2	Permit Shield	Granting of Permit Shield for identified requirements.

Permit Shield

**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.)**

<b>Ref #</b>	<b>Rule/ Regulation/ R13 Permit</b>	<b>Existing R30 Permit Condition</b>	<b>Name</b>	<b>Method of Compliance</b>
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	40CFR§61.145(b) 45CSR34	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§11-5.2.	3.1.5.	Standby Plan for Reducing Emissions	When requested.
6	WV Code §22-5-4(a)(14)	3.1.6.	Emission Inventory	Reporting.
7	40CFR82 Subpart F	3.1.7.	Ozone-depleting Substances	Requirement to follow: a. 40CFR §§ 82.154 & 82.156; b. 40CFR § 82.158; c. 40CFR § 82.161.
8	40CFR68	3.1.8.	Risk Management Plan	Submission if required.
9	45CSR§7-3.1., 45CSR13, R13-1396E, 4.1.10.	3.1.9.	Prevent & Control Particulate Matter	Monitoring; Recordkeeping.
10	45CSR§7-3.2. , 45CSR13, R13-1396E, 4.1.10.	3.1.10.	Prevent & Control Particulate Matter	Monitoring; Recordkeeping.
11	45CSR§7-3.7.	3.1.11.	Prevent & Control Particulate Matter	Monitoring; Recordkeeping.
12	45CSR§7-4.1. , 45CSR13, R13-1396E, 4.1.10.	3.1.12.	Prevent & Control Particulate Matter	Monitoring; Recordkeeping.
13	45CSR§7-4.12.	3.1.13.	Prevent & Control Particulate Matter	Stacks shall be so equipped.
14	45CSR§7-5.1.	3.1.14.	Prevent & Control Particulate Matter	Monitoring; Recordkeeping.
15	45CSR§7-5.2.	3.1.15.	Prevent & Control Particulate Matter	Monitoring; Recordkeeping.
16	45CSR§7-9.1.	3.1.16.	Prevent & Control Particulate Matter	Will make application as necessary.
17	45CSR§7-10.3.	3.1.17.	Prevent & Control Particulate Matter	Recordkeeping.
18	45CSR§7-10.4.	3.1.18.	Prevent & Control Particulate Matter	Will apply as necessary for alternative standards for startup and shutdown.

**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.)**

<b>Ref #</b>	<b>Rule/ Regulation/ R13 Permit</b>	<b>Existing R30 Permit Condition</b>	<b>Name</b>	<b>Method of Compliance</b>
19	45CSR16, 40CFR§60.672(a) and Table 2, Group (002, 004, 005, 008, 011)	3.1.19.	Subpart OOO Standard for Particulate Matter	Monitoring; Recordkeeping.
20	45CSR16, 40CFR§60.672(b) and Table 3, Group (002, 004, 005, 008, 011)	3.1.20.	Subpart OOO Standard for Particulate Matter	Testing; Monitoring; Recordkeeping; Reporting.
21	45CSR16, 40CFR§60.672(d), Group (002 and 008)	3.1.21.	Subpart OOO Standard for Particulate Matter	Monitoring; Recordkeeping.
22	45CSR16, 40CFR§60.672(e), Group (002, 004, 005, 008, 011)	3.1.22.	Subpart OOO Construction for Particulate Matter	Testing; Monitoring; Recordkeeping; Reporting.
23	45CSR13, R13-2113K, 2.5.1	3.1.23.	Construction	Build as Permitted
24	45CSR§30-5.1.c Emission Groups (002, 004, 005, 006, 007, 008, 011)	3.2.1.	Compliance with Opacity Requirements	Testing; Monitoring; Recordkeeping; Reporting.
25	45CSR§30-5.1.c., Section 1.0	3.2.2.	Dust Collectors	Monitoring; Recordkeeping.
26	45CSR16, 40CFR§60.674(c)	3.2.3	Method 22 VE	Testing; Recordkeeping
27	45CSR16, 40CFR§600674(e)	3.2.4	Alternative to Method 22 VE	Follow Continuous Compliance Requirements (if selected)
28	WV Code § 22-5-4(a)(14-15) and 45CSR13	3.3.1.	Stack Testing	Testing; Monitoring; Recordkeeping; Reporting.
29	45CSR§7-8.1.	3.3.2.	Prevent & Control Particulate Matter	Testing; Monitoring; Recordkeeping; Reporting.
30	45CSR§7-8.2.	3.3.3.	Prevent & Control Particulate Matter	Testing; Monitoring; Recordkeeping; Reporting if so required.
31	45CSR16, 40 C.F.R. § 60.675 (a), 45CSR13, R13-1685, (B)(5) and (6) Group (002, 004, 005, 008, 011)	3.3.4.	Performance Tests	Testing.
32	45CSR16, 40 C.F.R. § 60.675 (b), 45CSR13, R13-1685, (B) (5) and (6), Group (002, 004, 005, 008, 011)	3.3.5.	Compliance with Particulate Matter Standards	Testing; Monitoring; Recordkeeping; Reporting.
33	45CSR16, 40 C.F.R. § 60.675 (c), and Table 3, 45CSR13, R13-1685, (B) (5) and (6), Group (002, 004, 005, 008, 011)	3.3.6.	Compliance with Particulate Matter Standards	Testing.
34	45CSR16, 40 C.F.R. § 60.675 (d), 45CSR13, R13-1685, (B) (5) and (6) Group (002, 004, 005, 008, 011)	3.3.7.	Compliance with Particulate Matter Standards	Testing; Monitoring; Recordkeeping; 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.)**

<b>Ref #</b>	<b>Rule/ Regulation/ R13 Permit</b>	<b>Existing R30 Permit Condition</b>	<b>Name</b>	<b>Method of Compliance</b>
35	45CSR16, 40 C.F.R. § 60.675 (e), 45CSR13, R13-1685, (B) (5) and (6), Group (002, 004, 005, 008, 011)	3.3.8.	Compliance with Particulate Matter Standards	Testing.
36	45CSR16, 40 C.F.R. § 60.675 (g), 45CSR13, R13-1685, (B) (5) and (6), Group (002, 004, 005, 008, 011)	3.3.9.	Performance Testing	Reporting.
37	45CSR§30-5.1.c.2.A., 45CSR13, R13-1396E, 4.4.1. and R13-2670B, 4.4.1.	3.4.1.	Monitoring Information	Recordkeeping.
38	45CSR§30-5.1.c.2.B.	3.4.2.	Record Retention	Recordkeeping.
39	45CSR§30-5.1.c. State-Enforceable only.	3.4.3.	Odors	Recordkeeping.
40	45CSR§30-5.1.c.	3.4.4.	Dust Control	Recordkeeping; Monitoring.
41	45CSR16, 40 C.F.R. §§ 60.676 (a) Group (002, 004,005, 008, 011)	3.4.5.	Subpart OOO Standard for Particulate Matter	Reporting;
42	45CSR16, 40 C.F.R. § 60.676 (f). Group (002, 004, 005, 008, 011)	3.4.6.	Subpart OOO Standard for Particulate Matter	Reporting.
43	45CSR16, 40 C.F.R. § 60.676 (g), Group (002, 004, 005, 008, 011)	3.4.7.	Subpart OOO Standard for Particulate Matter	Testing; Monitoring; Recordkeeping; Reporting.
44	45CSR16, 40 C.F.R. § 60.676 (h), Group (002, 004, 005, 008, 011)	3.4.8.	Notification Provisions	Recordkeeping.
45	45CSR16, 40 C.F.R. § 60.676 (i), Group (002, 004, 005, 008, 011)	3.4.9.	Notification Provisions	Reporting.
46	45CSR§30-4.4. and 5.1.c.3D.	3.5.1.	Responsible Official	Certification of required documents by a responsible official.
47	45CSR§30-5.1.c.3.E.	3.5.2.	Confidential Treatment	Confidential submission of reporting under 45CSR§30-5.1.c.3.
48	NA	3.5.3.	NA	Procedure and addresses for submissions.
49	45CSR§30-8.	3.5.4.	Certified Emissions Statement	Reporting.
50	45CSR§30-5.3.e.	3.5.5.	Compliance Certification	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.)**

<b>Ref #</b>	<b>Rule/ Regulation/ R13 Permit</b>	<b>Existing R30 Permit Condition</b>	<b>Name</b>	<b>Method of Compliance</b>
51	45CSR§30-5.1.c.3.A.	3.5.6.	Semi-Annual Monitoring Reports	Reporting.
52	NA	3.5.7.	Emergencies	For emergency situations refer to Permit Section 2.17.
53	45CSR§30-5.1.c.3.C. 45CSR§30-5.1.c.3.B.	3.5.8.	Deviations	Reporting.
54	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.
55	None	3.6.1	Compliance Plan	None
56	45CSR§ 10-5.1 45CSR17 40CFR§§60.380-60.386, Subpart LL 40CFR §§ 60.674(a) and 60.676 (c), (d), and (e), Subpart OOO 40CFR§§60.730-60.737, Subpart UUU 40CFR64 Compliance Assurance Monitoring (CAM)	3.7.1 and 3.7.2	Permit Shield	Identify Regulation in Application.

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

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

<b>21. Active Permits/Consent Orders</b>		
Permit or Consent Order Number	Date of Issuance MM/DD/YYYY	List any Permit Determinations that Affect the Permit <i>(if any)</i>
R30-07100001-2015	05/26/2015	PD17-013
R13-1685	02/10/1994	None
R13-1788	04/24/1995	PD17-013
R13-2222-P2	03/20/2002	None
R13-1381A	05/25/2004	PD17-013
R13-2670B	5/1/2014	None
R13-2113K	04/21/2016	PD11-01, PD13-095 and PD12-061
R13-1396E	09/10/2019	None

<b>22. Inactive Permits/Obsolete Permit Conditions</b>		
Permit Number	Date of Issuance	Permit Condition Number
R13-2670A	10/13/2006	Superseded and replaced by R13-2670B
R13-2670	08/29/2006	Superseded and replaced by R13-2670A
R13-2113J	06/22/11	Superseded and replaced by R13-2113K
R13-2113I	11/12/2009	Superseded and replaced by R13-2113J
R13-2113H	03/26/2009	Superseded and replaced by R13-2113I
R13-2113G	11/25/2008	Superseded and replaced by R13-2113H
R13-2113F	07/09/2007	Superseded and replaced by R13-2113G
R13-2113E	02/05/2007	Superseded and replaced by R13-2113F
R13-2113D	10/03/2006	Superseded and replaced by R13-2113E
R13-2113C	12/10/2002	Superseded and replaced by R13-2113D
R13-2113B	09/25/2000	Superseded and replaced by R13-2113C
R13-2113A	12/04/1997	Superseded and replaced by R13-2113B

R13-2113	07/28/1997	Superseded and replaced by R13-2113A
R13-2222-P1	11/05/2001	Superseded and replaced by R13-2222-P2
R13-2222	11/04/1998	Superseded and replaced by R13-2222-P1
R13-1396D	10/10/2018	Superseded and replaced by R13-1396E
R13-1396C	08/29/2013	Superseded and replaced by R13-1396D
R13-1396B	02/03/2003	Superseded and replaced by R13-1396C
R13-1396A	08/11/1999	Superseded and replaced by R13-1396B
R13-1396	10/07/1991	Superseded and replaced by R13-1396A
R13-727	12/12/1983	Superseded and replaced by R13-1396
R13-1381R	04/24/1995	Superseded and replaced by R13-1381A
R13-1381	06/27/1991	Superseded and replaced by R13-1381R
R13-1106	04/19/1989	Superseded and replaced by R13-1381
R13-725	12/12/1983	Effectively superseded and replaced by R13-2113G which re-permitted all Group 003 equipment to Group 011.
R30-07100001-2009	11/19/2009	Superseded by R30-07100001-2015
R30-07100001-2004	10/25/2004	Superseded by R30-07100001-2009

**Section 3: Facility-Wide Emissions**

<b>23. Facility-Wide Emissions Summary [Tons per Year]</b>	
<b>Criteria Pollutants</b>	<b>Potential Emissions</b>
Carbon Monoxide (CO)	160.4
Nitrogen Oxides (NO <sub>x</sub> )	301.39
Lead (Pb)	0.0002
Particulate Matter (PM <sub>2.5</sub> ) <sup>1</sup>	84.54
Particulate Matter (PM <sub>10</sub> ) <sup>1</sup>	188.37
Total Particulate Matter (TSP)	407.13
Sulfur Dioxide (SO <sub>2</sub> )	134.6
Volatile Organic Compounds (VOC)	37.72
<b>Hazardous Air Pollutants<sup>2</sup></b>	<b>Potential Emissions</b>
Total HAPs	41.60
HCl + Cl <sub>2</sub>	37.22
HF	4.05
Speciated HAPs	See Appendix 1
<b>Regulated Pollutants other than Criteria and HAP</b>	<b>Potential Emissions</b>
Carbon Dioxide (CO <sub>2</sub> )	400,022
Nitrous Oxide (N <sub>2</sub> O)	2.63
Methane (CH <sub>4</sub> )	18,000
Hydrofluorocarbons (HFCs)	N/A
Perfluorocarbons (PFCs)	N/A
Sulfur Hexafluoride (SF <sub>6</sub> )	N/A
CO <sub>2</sub> Equivalent (CO <sub>2</sub> e)	401,254
<sup>1</sup> PM <sub>2.5</sub> and PM <sub>10</sub> are components of TSP.	
<sup>2</sup> 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**

<b>24. Insignificant Activities (Check all that apply)</b>	
<input checked="" type="checkbox"/>	1. Air compressors and pneumatically operated equipment, including hand tools.
<input checked="" 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 <sub>2</sub> 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 <sub>x</sub> , SO <sub>2</sub> , 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:

<b>24. Insignificant Activities (Check all that apply)</b>	
<input type="checkbox"/>	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.  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:
<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 checked="" type="checkbox"/>	37. Laundry activities, except for dry-cleaning and steam boilers.
<input 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 checked="" 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 owners/operators must still get a permit if otherwise requested.)

<b>24. Insignificant Activities (Check all that apply)</b>	
<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 checked="" 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 checked="" 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 checked="" 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*

<b>25. Equipment Table</b>
Fill out the <b>Title V Equipment Table</b> and provide it as <b>ATTACHMENT D</b> .
<b>26. Emission Units</b>
For each emission unit listed in the <b>Title V Equipment Table</b> , fill out and provide an <b>Emission Unit Form</b> as <b>ATTACHMENT E</b> .
For each emission unit not in compliance with an applicable requirement, fill out a <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .
<b>27. Control Devices</b>
For each control device listed in the <b>Title V Equipment Table</b> , fill out and provide an <b>Air Pollution Control Device Form</b> as <b>ATTACHMENT G</b> .
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 <b>Compliance Assurance Monitoring (CAM) Form(s)</b> for CAM applicability. Fill out and provide these forms, if applicable, for each Pollutant Specific Emission Unit (PSEU) as <b>ATTACHMENT H</b> .

**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: J. Robert Gwynne

Title: Executive Vice President

**Responsible official's signature:**

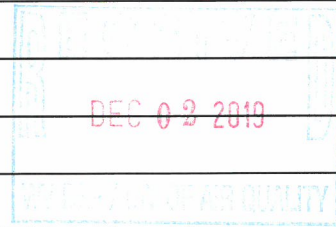
Signature: J Robert Gwynne

Signature Date: 11/13/2019

(Must be signed and dated in blue ink)

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

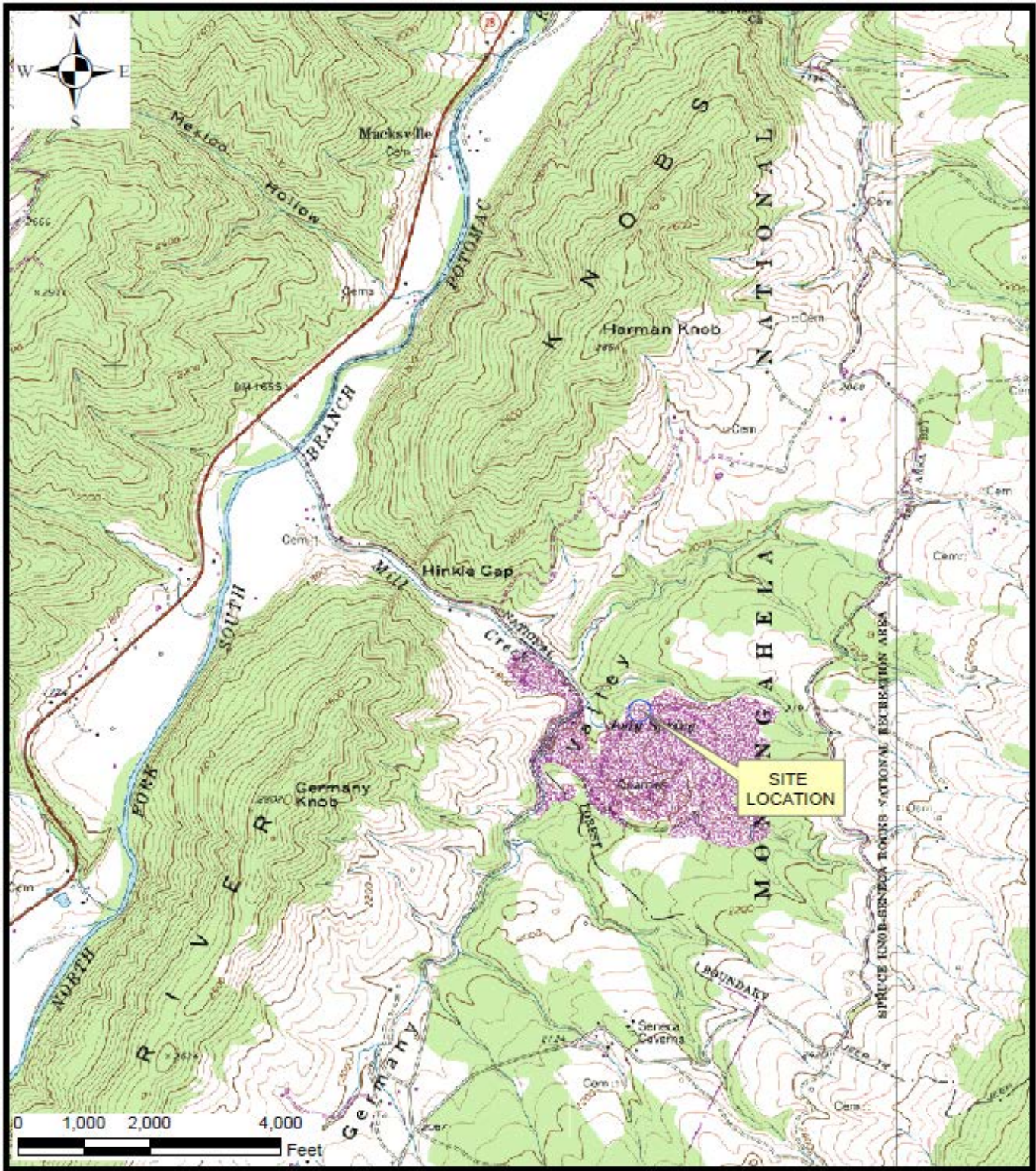
- ATTACHMENT A: Area Map
- ATTACHMENT B: Plot Plan(s)
- ATTACHMENT C: Process Flow Diagram(s)
- ATTACHMENT D: Equipment Table
- ATTACHMENT E: Emission Unit Form(s)
- ATTACHMENT F: Schedule of Compliance Form(s)
- ATTACHMENT G: Air Pollution Control Device Form(s)
- ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s)



*All of the required forms and additional information can be found and downloaded from, the DEP website at [www.dep.wv.gov/dag](http://www.dep.wv.gov/dag), requested by phone (304) 926-0475, and/or obtained through the mail.*

**ATTACHMENT A**  
**AREA MAP**

ATTACHMENT A – AREA MAP



**Riverton Facility**

Greer Industries, Inc. dba Greer Lime Company

Riverton, Pendleton County, West Virginia

**ATTACHMENT B**  
**PLOT PLANS**



No.	Date	Revision

01-2  
CAD File No.  
BEL  
Drawn  
CSS  
Checked  
PEW  
Approved  
1" = 60'  
Scale:  
MAY 2014  
Date:  
13-0394  
Project No.

Potesta & Associates, Inc.  
ENGINEERS AND ENVIRONMENTAL CONSULTANTS  
7012 Woodlands Ave., St. Charles, NY 13604  
TEL: (909) 542-1400 FAX: (909) 542-9001  
E-Mail: Address: potestainc.com

**POTESTA**

GREER LIME COMPANY  
UNION DISTRICT  
PENDELTON COUNTY  
WEST VIRGINIA

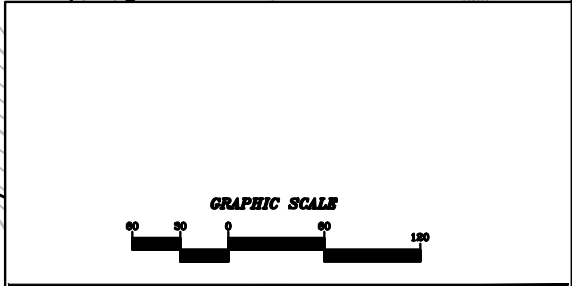
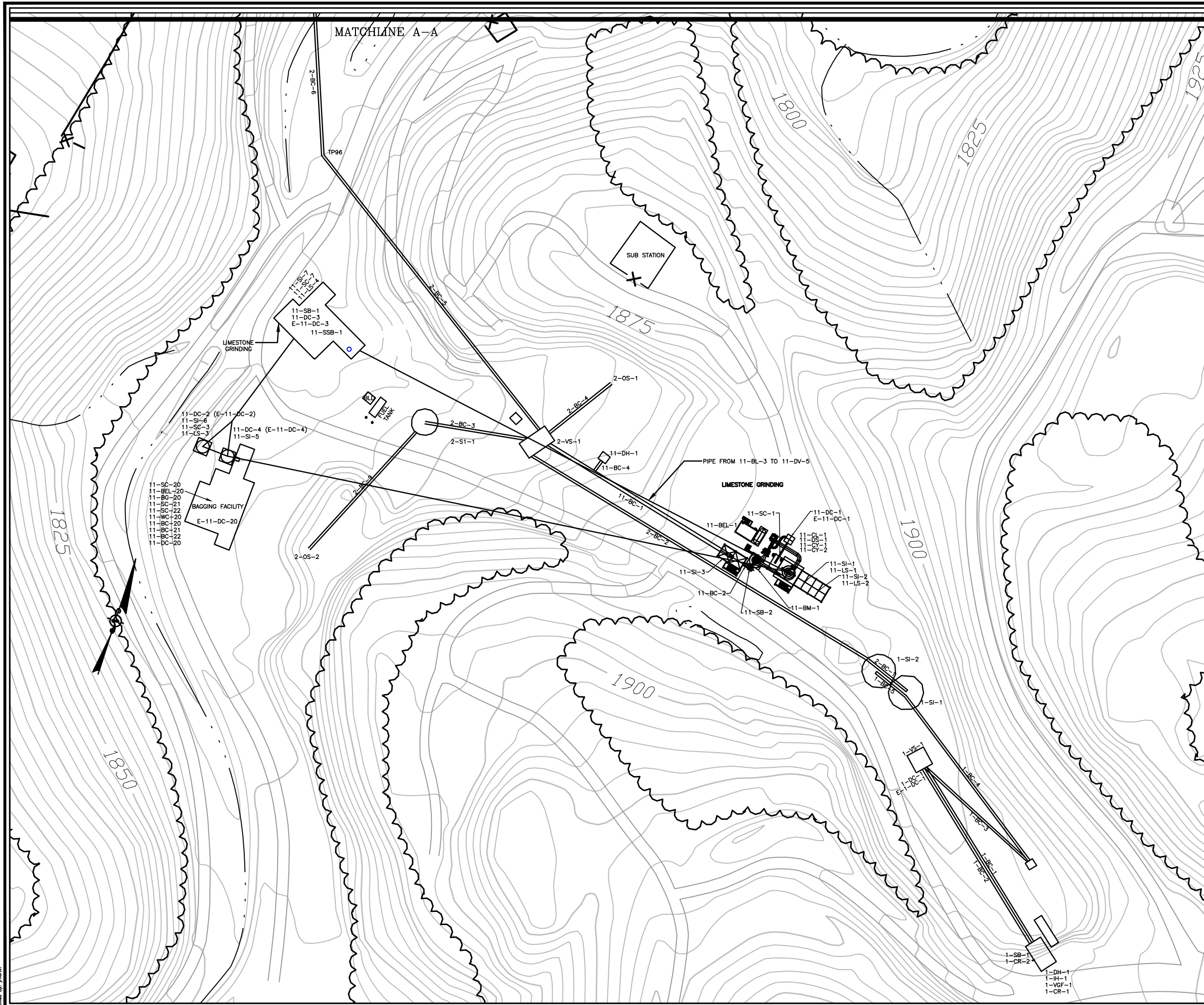
PRELIMINARY

Client

PLAN VIEW  
RIVERTON FACILITY

Title

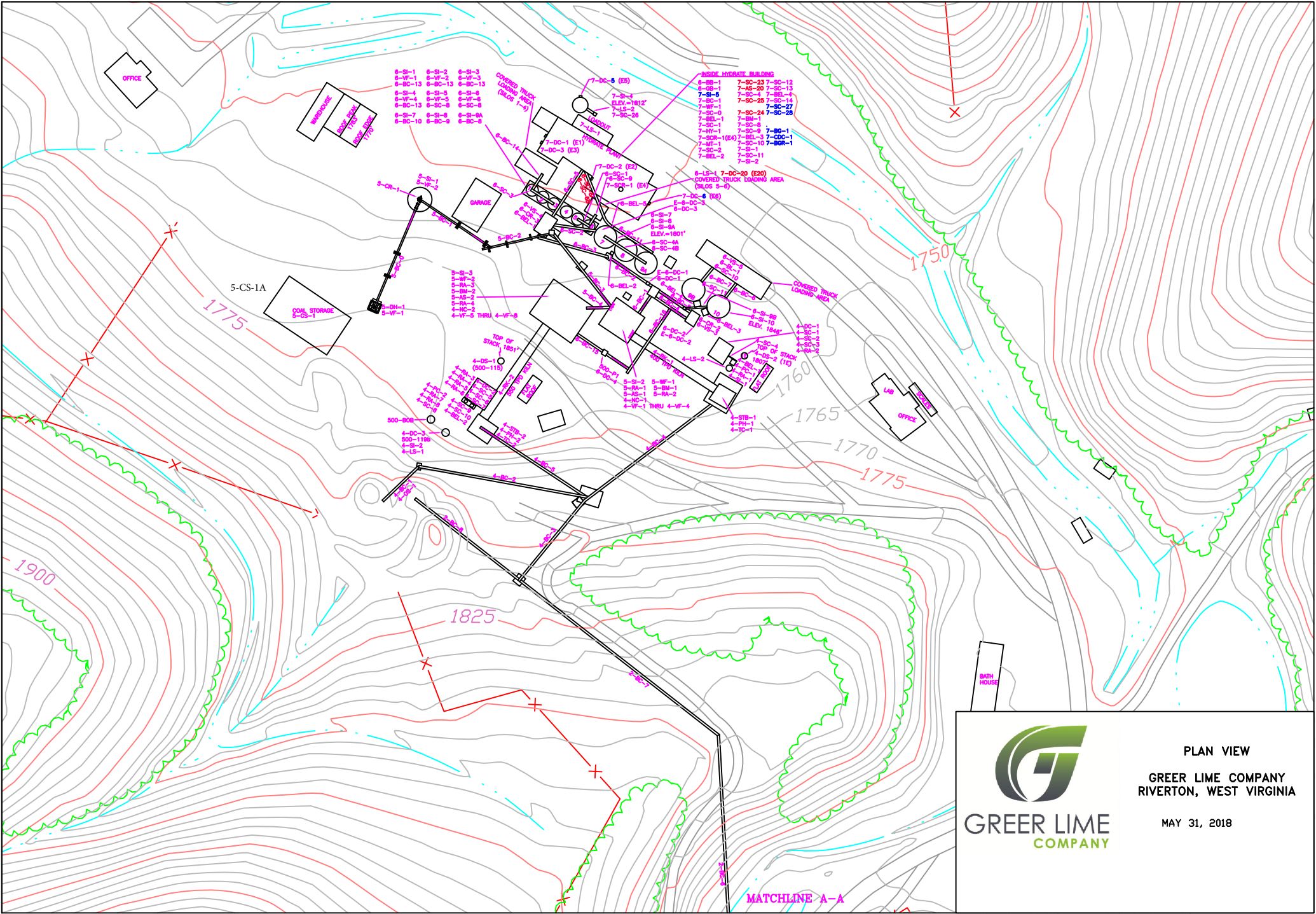
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BASE MAPPING WAS PROVIDED BY GREER LIME COMPANY.

PRELIMINARY

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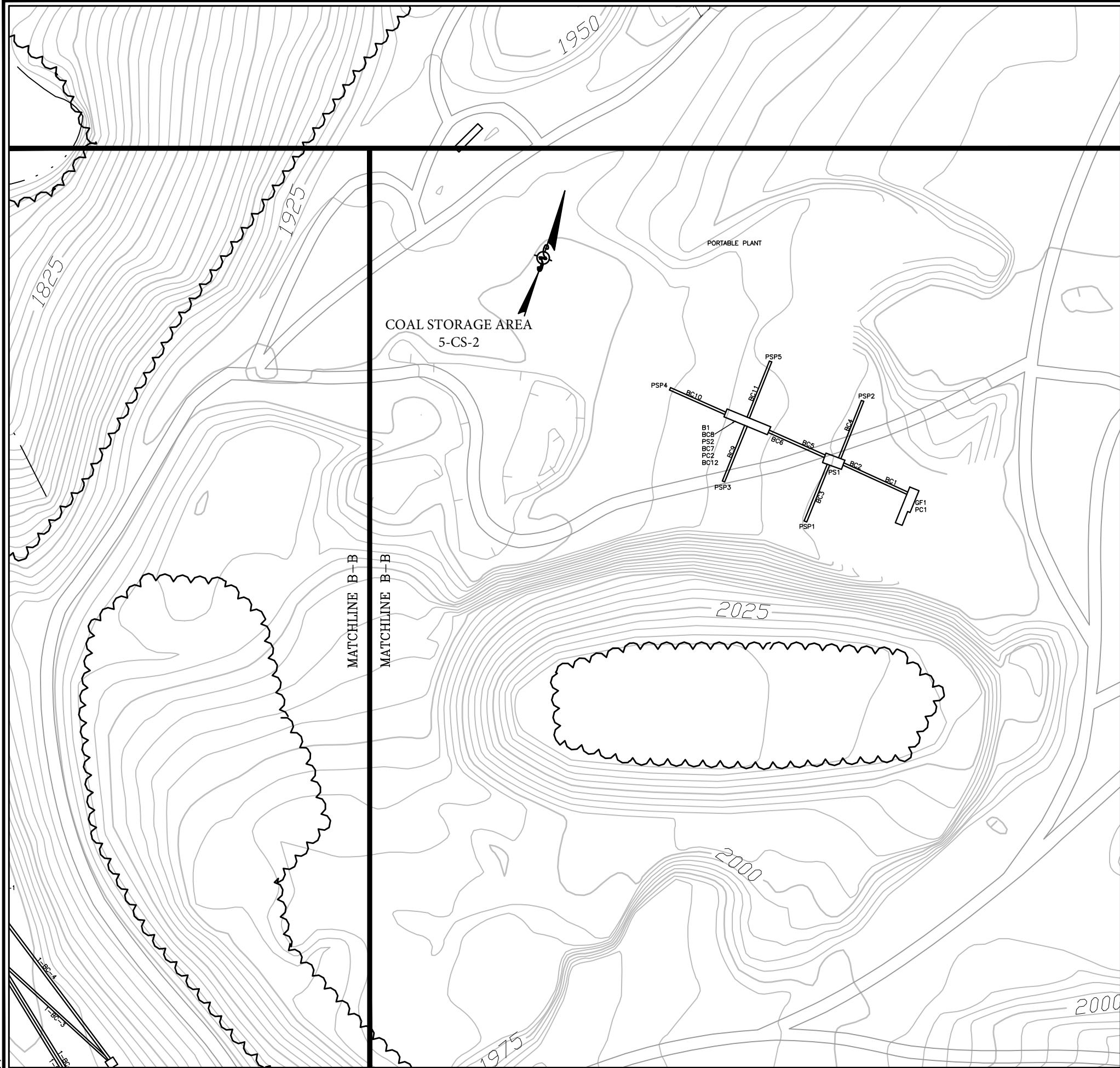

PLAN VIEW  
 GREER LIME COMPANY  
 RIVERTON, WEST VIRGINIA

MAY 31, 2018

**GREER LIME**  
 COMPANY

MATCHLINE A-A

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No.	Date	Revision
1	06/22/07	INCORPORATE PERMIT R13-2113E CHANGES, OTHER CORRECTIONS

01-2  
 CAD File No.  
 BEL  
 Drawn  
 CSS  
 Checked  
 PEW  
 Approved  
 1" = 60'  
 Scale:  
 MAY 2014  
 Date:  
 13-0394  
 Project No.

Potesta & Associates, Inc.  
 ENGINEERS AND ENVIRONMENTAL CONSULTANTS  
 7012 Woodlands Ave. SE, Charleston, WV 25304  
 TEL: (800) 848-1400 FAX: (800) 848-9051  
 E-Mail: Address: potestainc.com



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

PLAN VIEW  
 RIVERTON FACILITY

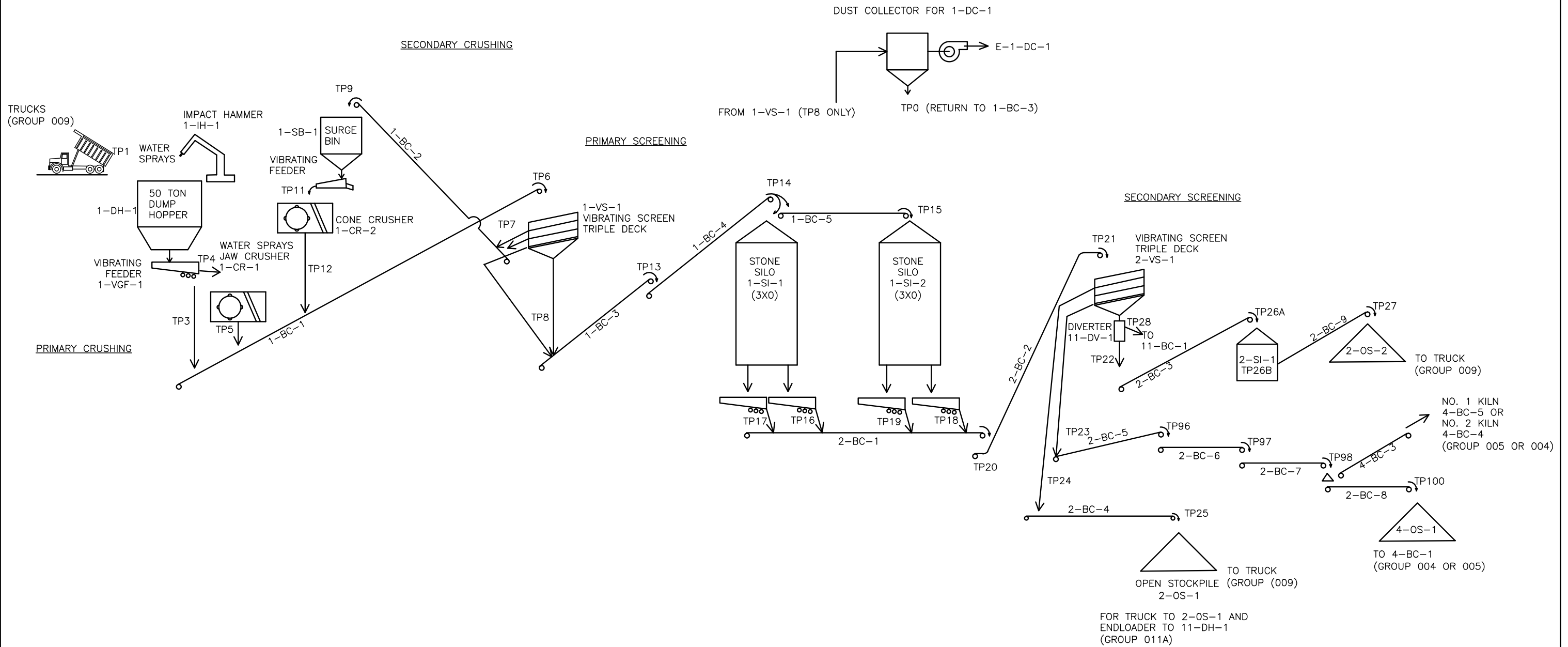
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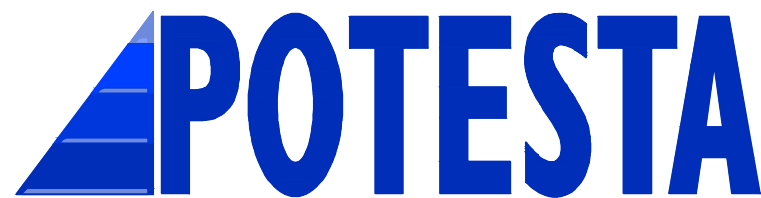
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**ATTACHMENT C**  
**PROCESS FLOW DIAGRAMS**



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PROJECT #: 13-0394 FILENAME: B13-0394-01-2



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 E-Mail Address: potesta@potesta.com

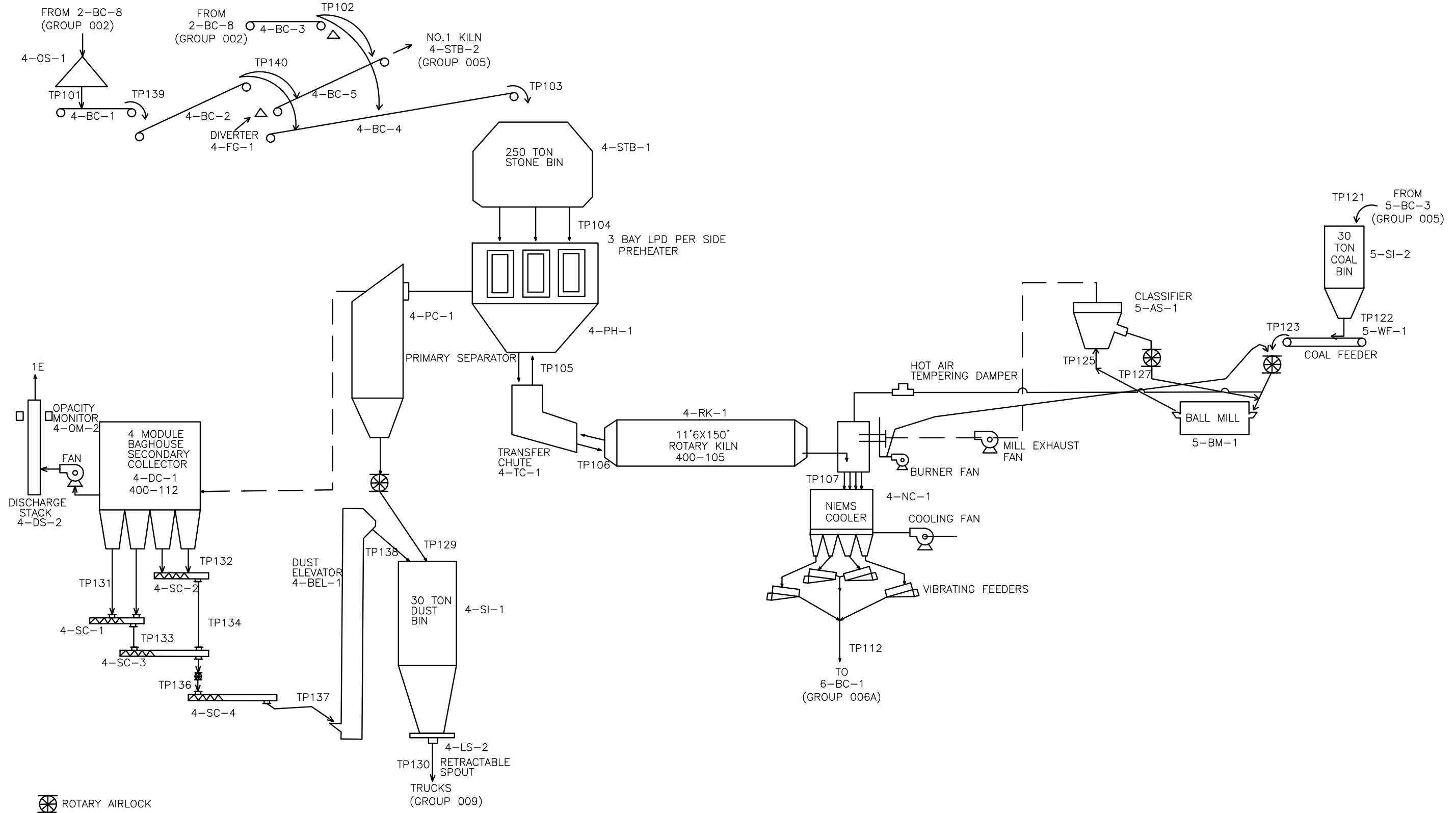
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 EMISSION GROUP 002  
 PRIMARY AND SECONDARY CRUSHING  
 SYSTEMS GREER LIME COMPANY  
 RIVERTON, WEST VIRGINIA**

Scale **NOT TO SCALE**

Date **MAY 2014**

Dwg. No.

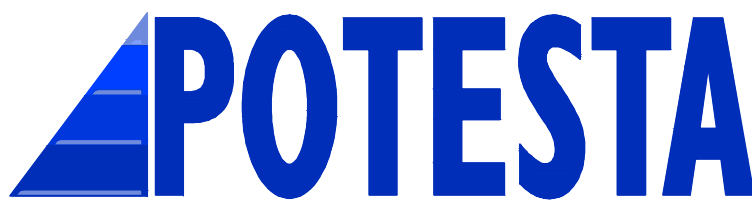
**GROUP 002**



⊗ ROTARY AIRLOCK

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PROJECT #: 13-0394      FILENAME: B13-0394-01-2



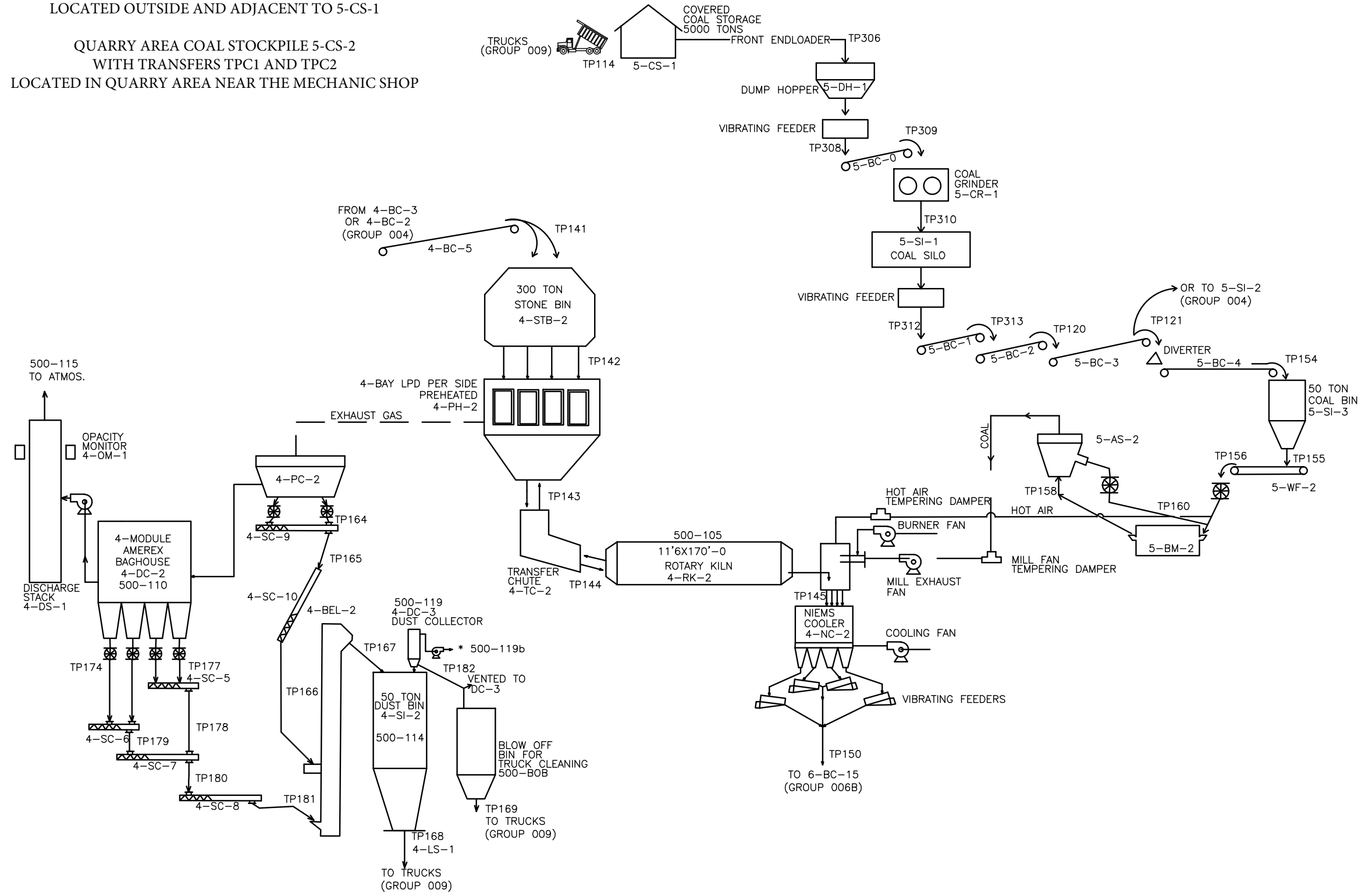
**Potesta & Associates, Inc.**  
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 TEL: (304) 342-1400 FAX: (304) 343-9031  
 E-Mail Address: potesta@potesta.com

Project		PROCESS FLOW DIAGRAM EMISSION GROUP 004 400TPD ROTARY KILN SYSTEM GREER LIME COMPANY RIVERTON, WEST VIRGINIA	
Scale	NOT TO SCALE	Dwg. No.	GROUP 004
Date	MAY 2014		

COAL STOCKPILE 5-CS-1A  
 LOCATED OUTSIDE AND ADJACENT TO 5-CS-1

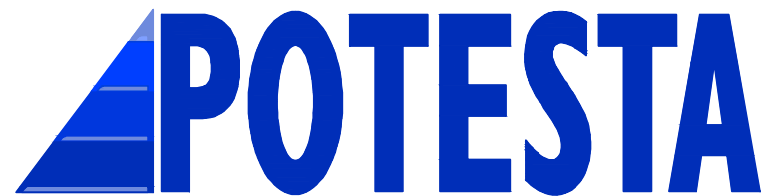
QUARRY AREA COAL STOCKPILE 5-CS-2  
 WITH TRANSFERS TPC1 AND TPC2  
 LOCATED IN QUARRY AREA NEAR THE MECHANIC SHOP



⊗ ROTARY AIRLOCK

XREF Files: IMAGE Files:  
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PROJECT #: 13-0394 FILENAME: B13-0394-01-2



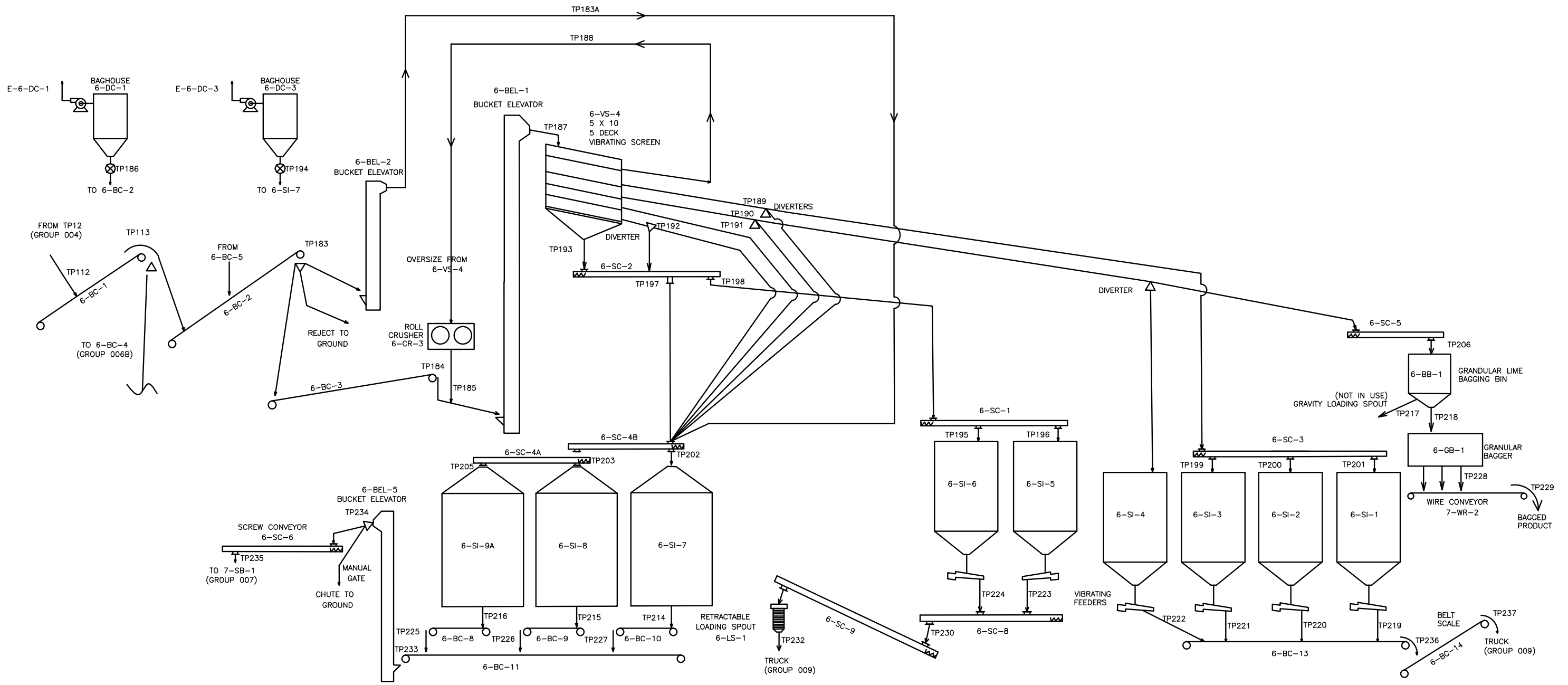
Potesta & Associates, Inc.  
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7012 MacCorkle Ave. SE, Charleston, WV 25304  
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 E-Mail Address: potesta@potesta.com

Project PROCESS FLOW DIAGRAM  
 EMISSION GROUP 005  
 500TPD ROTARY KILN SYSTEM  
 GREER LIME COMPANY  
 RIVERTON, WEST VIRGINIA

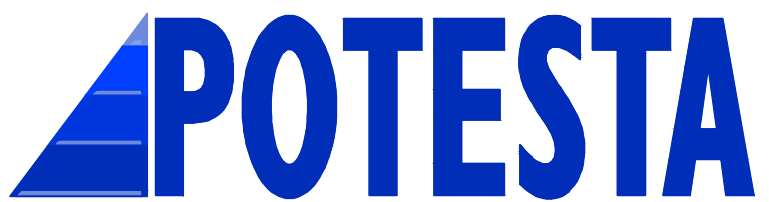
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 Date MAY 2014 2019

Dwg. No. GROUP 005



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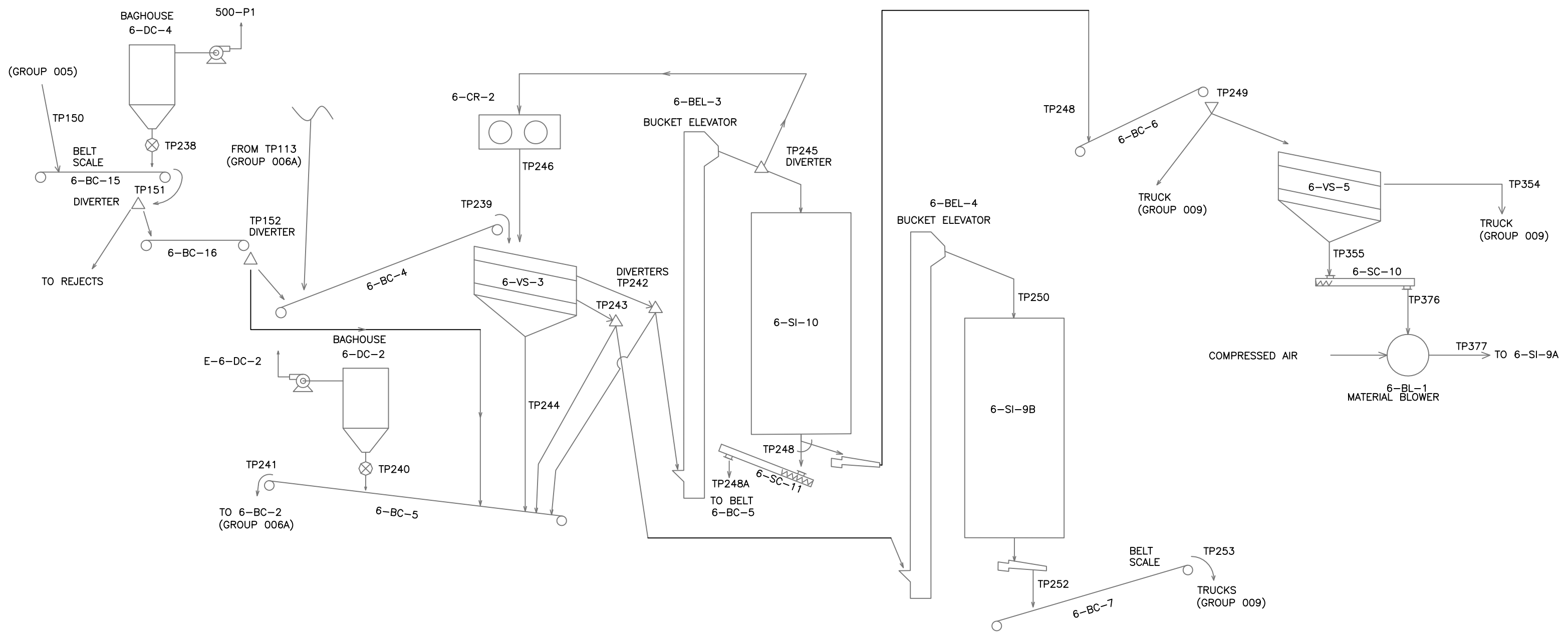


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 E-Mail Address: potesta@potesta.com

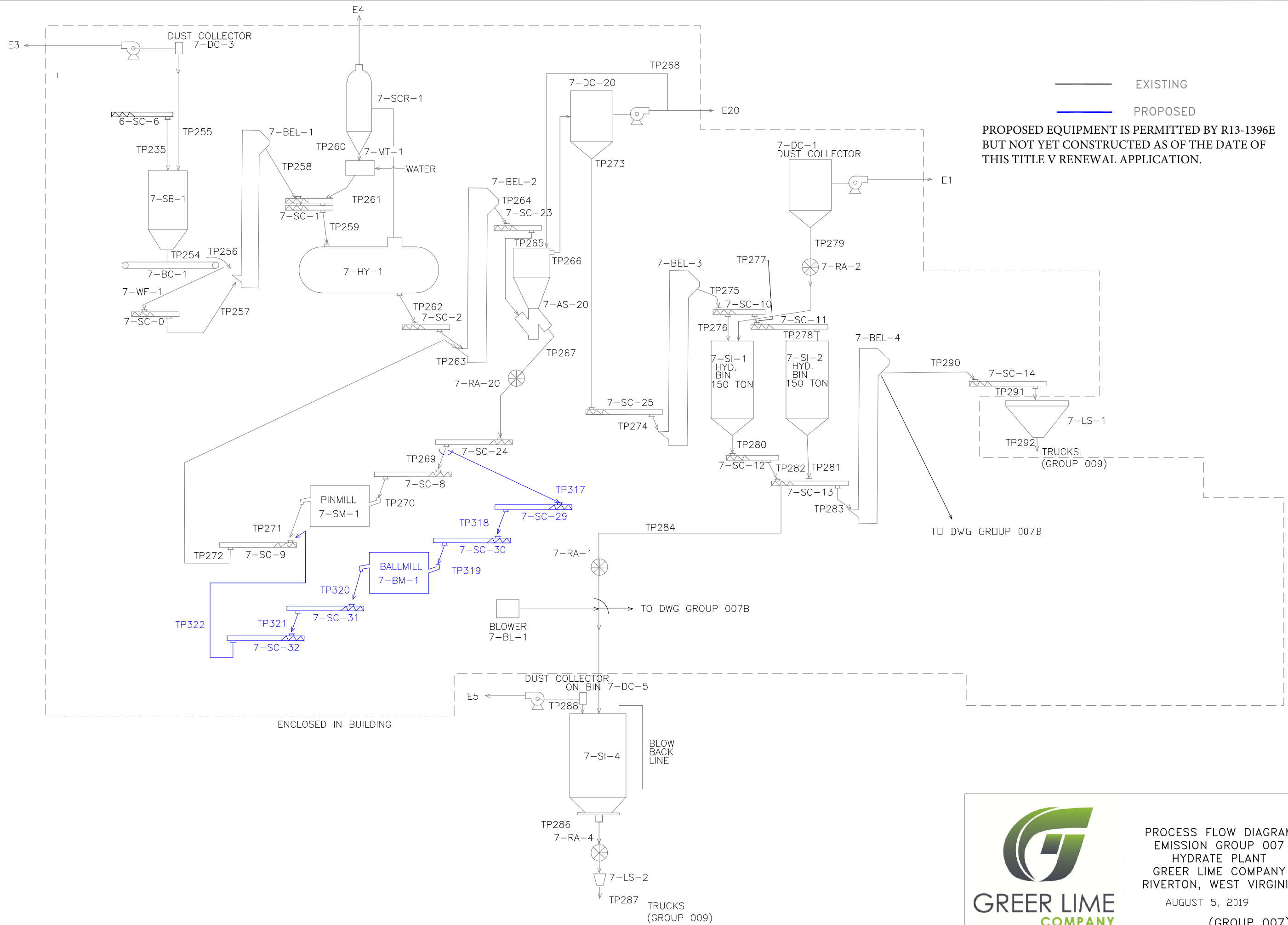
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Scale	NOT TO SCALE	Dwg. No.
Date	MAY 2014	GROUP 006A



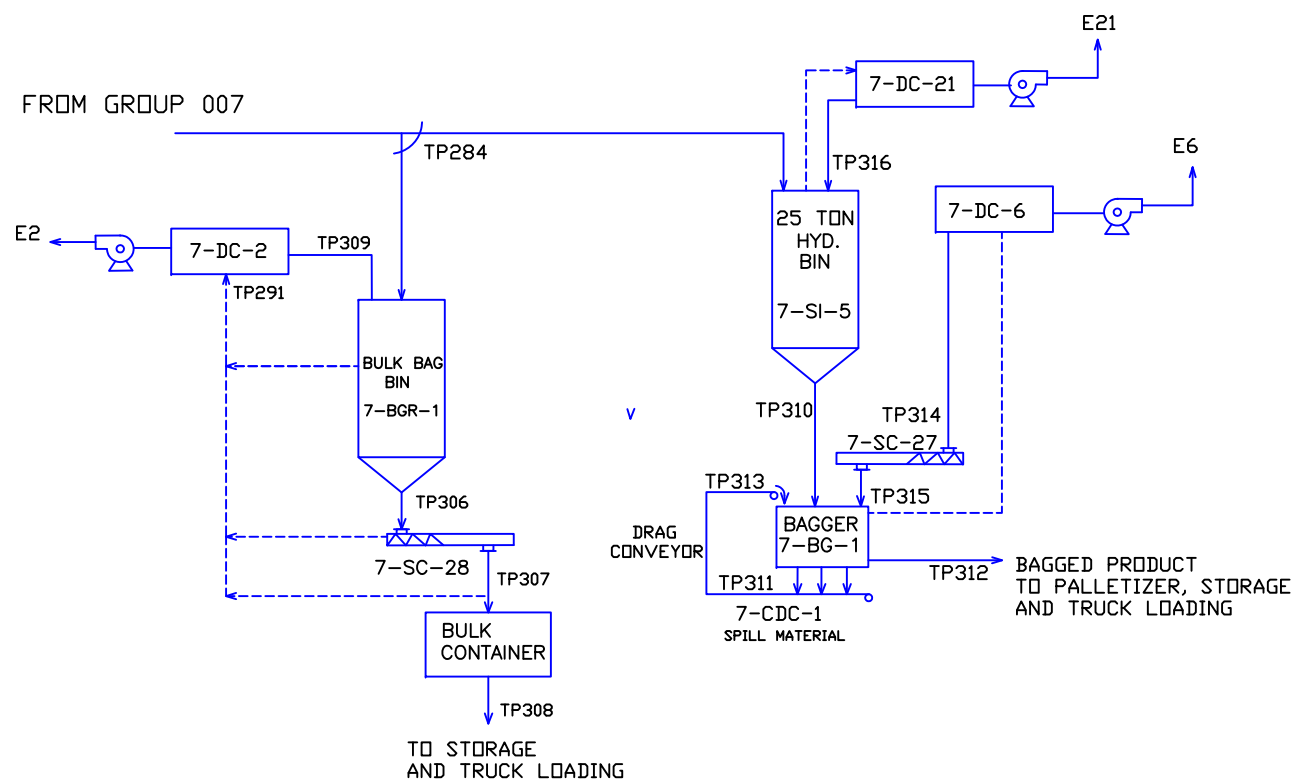


PROCESS FLOW DIAGRAM  
 EMISSION GROUP 006  
 LIME HANDLING SYSTEM  
 GREER LIME COMPANY  
 RIVERTON, WEST VIRGINIA

(GROUP 006B)



PROCESS FLOW DIAGRAM  
 EMISSION GROUP 007  
 HYDRATE PLANT  
 GREER LIME COMPANY  
 RIVERTON, WEST VIRGINIA  
 AUGUST 5, 2019  
 (GROUP 007)



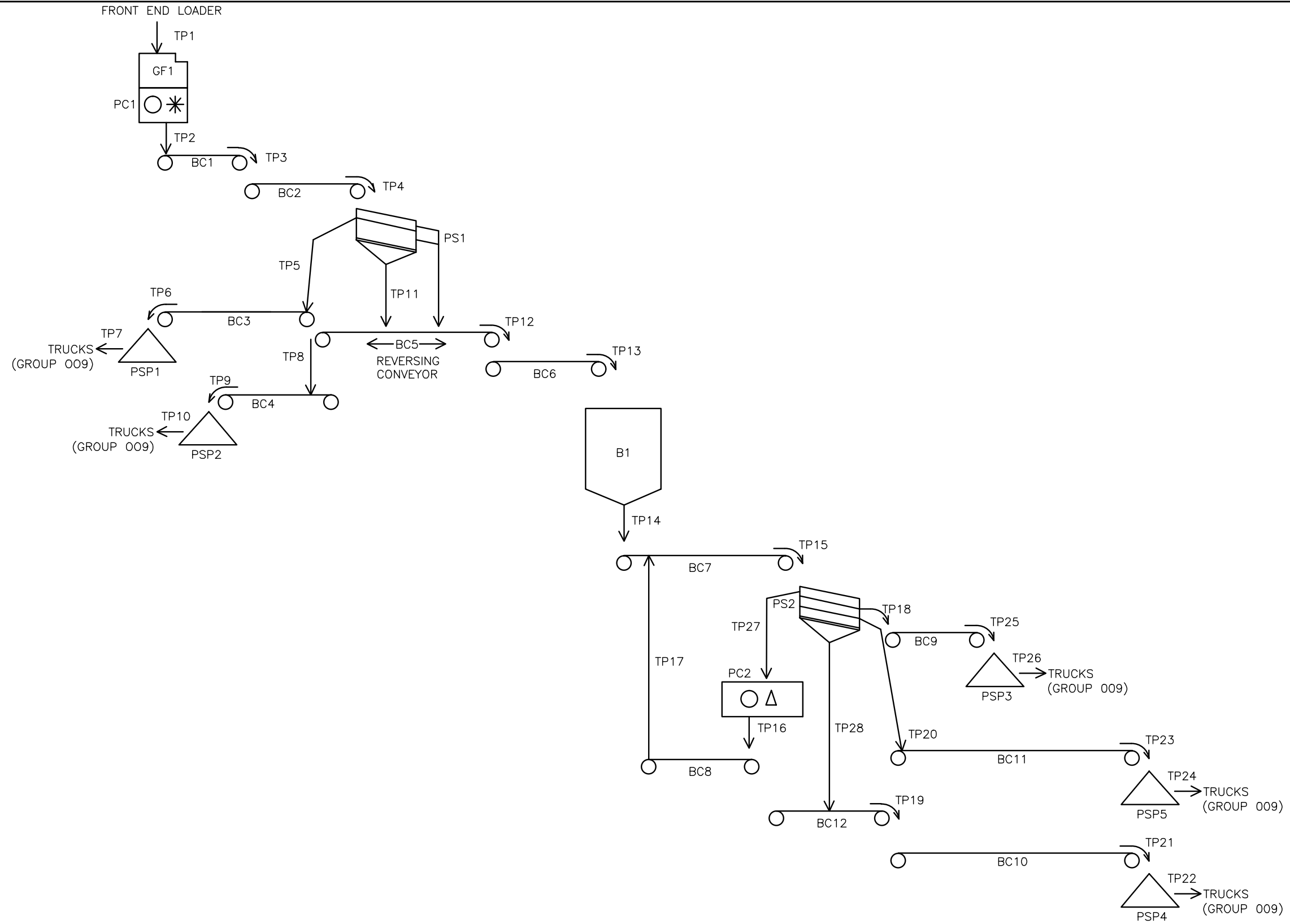
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- DELETED
- PROPOSED

EQUIPMENT IDENTIFIED AS PROPOSED WAS CONSTRUCTED DURING 2018/2019 BY APPROVAL OF R13-1396D. AS OF THE THIS TITLE V RENEWAL APPLICATION, THIS EQUIPMENT IS OPERATIONAL.



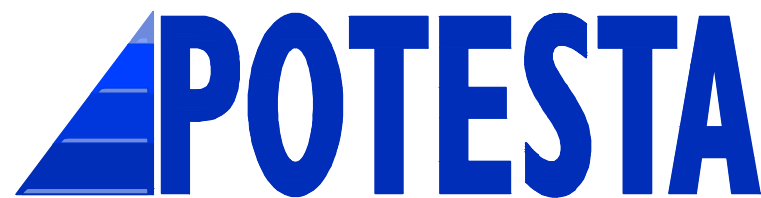
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HYDRATE PLANT  
GREER LIME COMPANY  
RIVERTON, WEST VIRGINIA  
MAY 31, 2018

(GROUP 007B)



XREF Files: IMAGE Files:  
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PROJECT #: 13-0394 FILENAME: B13-0394-01-2



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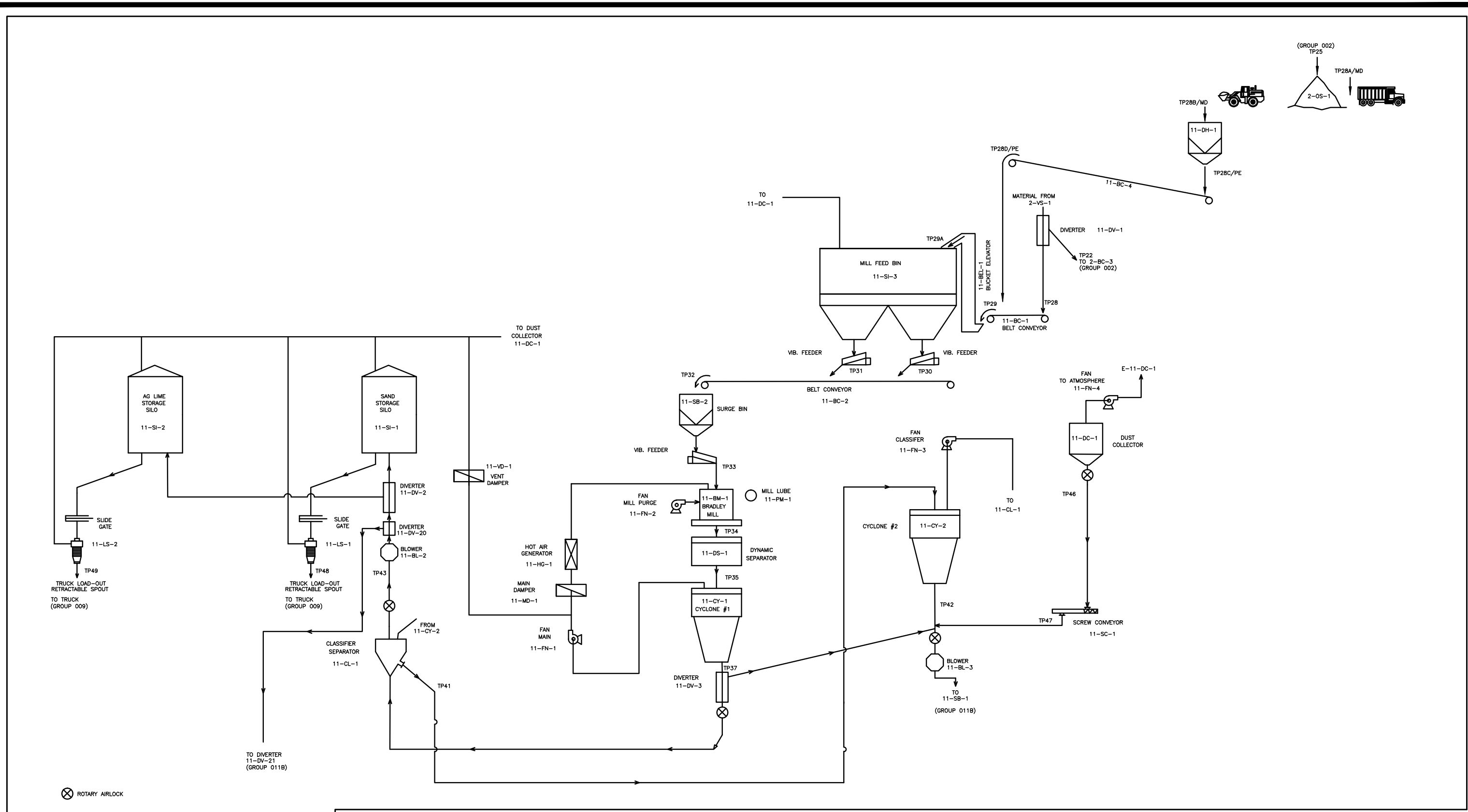
7012 MacCorkle Ave. SE, Charleston, WV 25304  
 TEL: (304) 342-1400 FAX: (304) 343-9031  
 E-Mail Address: potesta@potesta.com

Project **PROCESS FLOW DIAGRAM  
 EMISSION GROUP 008  
 PORTABLE LIMESTONE PLANT  
 GREER LIME COMPANY  
 RIVERTON, WEST VIRGINIA**

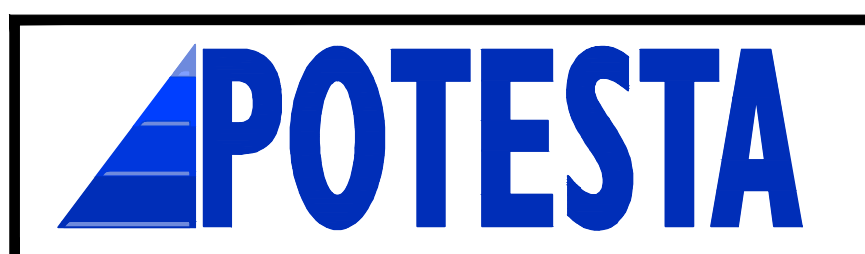
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 Date **MAY 2014**

Dwg. No. **GROUP 008**

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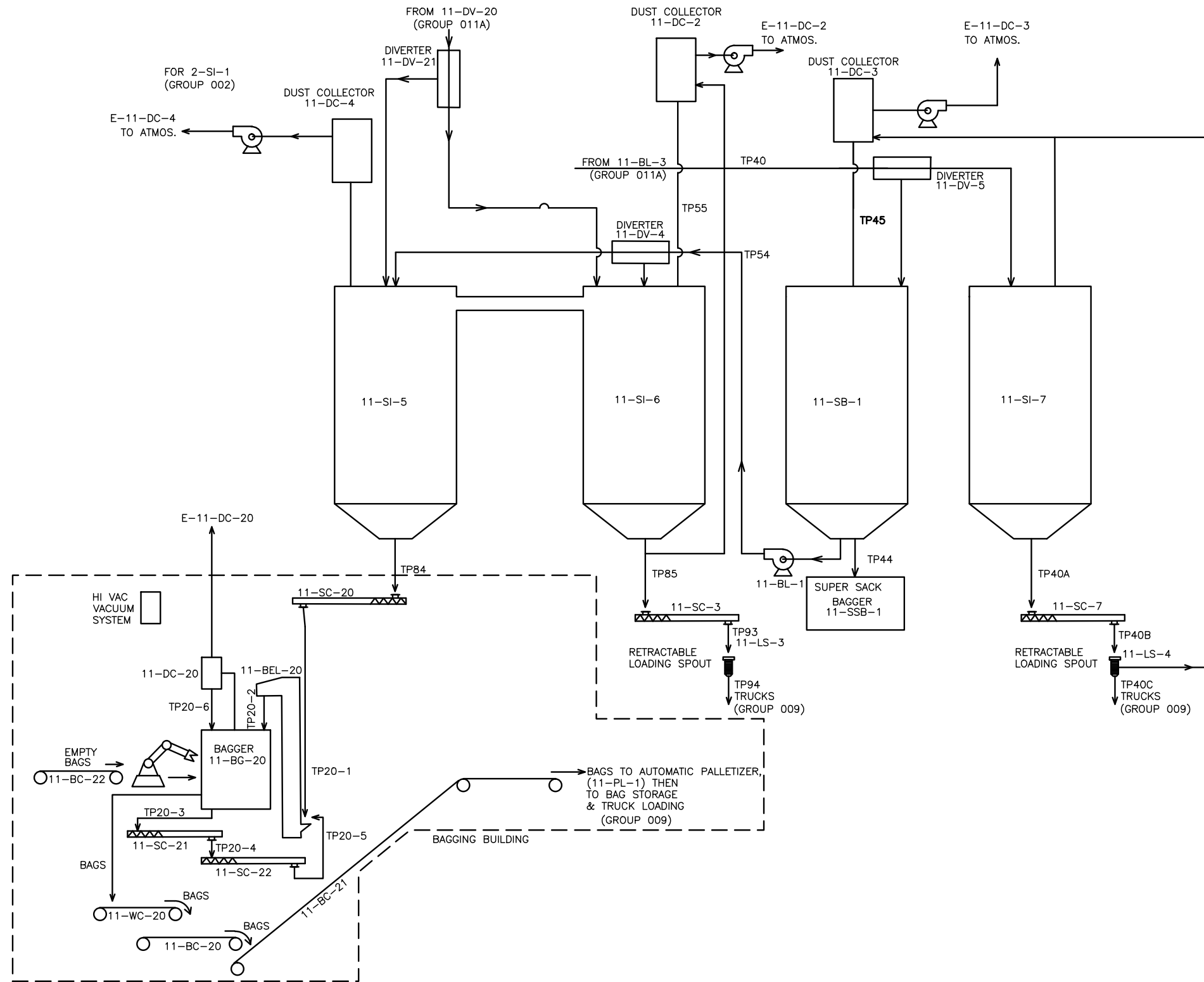
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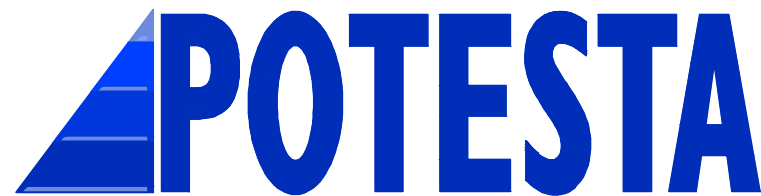
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 TEL: (304) 342-1400 FAX: (304) 343-9031  
 E-Mail Address: potesta@potesta.com

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 011A

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PROJECT #: 13-0394 FILENAME: B13-0394-01-2



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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  
 Date MAY 2014

Dwg. No.  
**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 <sup>1</sup>	Emission Point ID <sup>1</sup>	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device <sup>1</sup>
<b>PRIMARY AND SECONDARY CRUSHING (Group 002)</b>					
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, E-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-CR-2	1-CR-2	Secondary Cone Crusher (5 ½ ")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
1-SI-2	1-SI-2	Stone Silo 2	Pre 1976	2,000 Tons/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

<sup>1</sup>For 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**  
**(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 <sup>1</sup>	Emission Point ID <sup>1</sup>	Emission Unit Description	Year Installed/Modified	Design Capacity	Control Device <sup>1</sup>
<b>PRIMARY AND SECONDARY CRUSHING (Group 002) CONTINUED</b>					
2-SI-1	2-SI-1	Storage Silo	1960	400 TPH/0.6 MMTPY	FE
2-BC-9	2-BC-9	Belt Conveyor	1997	400 TPH/0.6 MMTPY	FE
2-OS-2	2-OS-2	Open Stockpile	1996	400 TPH/0.6 MMTPY	WS
2-BC-4	2-BC-4	Stockpile Belt	1996	400 TPH/0.6 MMTPY	FE
2-OS-1	2-OS-1	Open Stockpile	2009	14,500 Tons/0.6 MMTPY	WS
2-BC-5	2-BC-5	Kiln Stone Belt	Pre 1990	400 TPH/0.9 MMTPY	FE
2-BC-6	2-BC-6	Kiln Stone Conveyor Belt	Pre 1990	400 TPH/0.9 MMTPY	FE
2-BC-7	2-BC-7	Kiln Stone Conveyor Belt	Pre 1990	400 TPH/0.9 MMTPY	FE
2-BC-8	2-BC-8	Kiln Stone Conveyor Belt	Pre 1990	400 TPH/0.9 MMTPY	FE
1-VF-1	1-VF-1	Vibrating Feeder	1994	500 TPH/1.04 MMTPY	PE
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-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

<sup>1</sup>For 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**  
(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 <sup>1</sup>	Emission Point ID <sup>1</sup>	Emission Unit Description	Year Installed/Modified	Design Capacity	Control Device <sup>1</sup>
<b>400 TPD LIME KILN (GROUP 004)</b>					
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 Startup Fuel: No. 2 FO	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
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-BM-1	1E	Ball Mill	Pre-1990	3 TPH/0.0263 MMTPY	4-DC-1
5-AS-1	1E	Classifier	Pre-1990	3 TPH/0.0263 MMTPY	4-DC-1
4-PC-1	1E	Primary Collector	Pre-1990	3 TPH/0.015 MMTPY	4-DC-1
4-SI-1	4-SI-1	Dust Bin	Pre-1990	30 Tons/0.015 MMTPY	FE
4-LS-2	4-LS-2	Loading Spout	Pre-1990	30 TPH/0.015 MMTPY	FE

<sup>1</sup>For 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**  
**(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 <sup>1</sup>	Emission Point ID <sup>1</sup>	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device <sup>1</sup>
<b>400 TPD LIME KILN (GROUP 004) CONTINUED</b>					
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-SC-4	4-SC-4	Dust Screw Conveyor	Pre-1990	3 TPH/0.015 MMTPY	FE
4-BEL-1	4-BEL-1	Dust Elevator	Pre-1990	3 TPH/0.015 MMTPY	FE
5-CS-1	5-CS-1	3 - Sided Covered Coal Storage Pile	2002	5,000 Tons/0.054 MMTPY	PE
5-CS-1A	5-CS-1A	Coal Storage Pile	2014	15,000 TPY	NA
5-CS-2	5-CS-2	Coal Storage Pile	2014	15,000 TPY	NA
5-DH-1	5-DH-1	Dump Hopper - Coal	2006	50 TPH/0.054 MMTPY	PE
5-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-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
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-VF-1	5-VF-1	Vibrating Feeder	2006	50 TPH/0.054 MMTPY	PE
5-VF-2	5-VF-2	Vibrating Feeder	2006	60 TPH/0.054 MMTPY	FE

<sup>1</sup>For 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**  
**(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 <sup>1</sup>	Emission Point ID <sup>1</sup>	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device <sup>1</sup>
<b>500 TPD LIME KILN (GROUP 005)</b>					
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 Calcimining System Manufacture: Kennedy Van Saun (KVS), Allis Mineral Systems Burner: 89 MMBtu/hr Fuel: Coal Startup Fuel: No. 2 FO	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
5-BC-4	5-BC-4	Conveyor Belt	1995	60 TPH/0.028 MMTPY	FE
5-SI-3	5-SI-3	Coal Bin	1995	50 Tons/0.028 MMTPY	FE
5-WF-2	5-WF-2	Coal Weigh Feeder	1995	3.5 TPH/0.028 MMTPY	FE
5-BM-2	500-115	Ball Mill	1995	3.5 TPH/0.028 MMTPY	4-DC-2
5-AS-2	500-115	Classifier	1995	3.5 TPH/0.028 MMTPY	4-DC-2
4-PC-2	500-115	Primary Separator	1995	3 TPH/0.015 MMTPY	4-DC-2
4-SC-9	500-119b	Screw Conveyor	1995	3 TPH/0.015 MMTPY	4-DC-3

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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 <sup>1</sup>	Emission Point ID <sup>1</sup>	Emission Unit Description	Year Installed/Modified	Design Capacity	Control Device <sup>1</sup>
<b>500 TPD LIME KILN (GROUP 005) CONTINUED</b>					
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-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
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

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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 <sup>1</sup>	Emission Point ID <sup>1</sup>	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device <sup>1</sup>
<b>LIME HANDLING SYSTEM (GROUP 006)</b>					
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 <sup>1</sup>	Emission Point ID <sup>1</sup>	Emission Unit Description	Year Installed/Modified	Design Capacity	Control Device <sup>1</sup>
<b>LIME HANDLING SYSTEM (GROUP 006) CONTINUED</b>					
6-BB-1	6-BB-1	Granular Lime Bagging Bin	Pre 1990	25 TPH/0.311 MMTPY	FE+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
6-SC-8	6-SC-8	Screw Conveyor	1998	150 TPH/0.311 MMTPY	FE
6-SC-9	6-SC-9	Screw Conveyor	1998	150 TPH/0.311 MMTPY	FE
6-SC-11	6-SC-11	Screw Conveyor	2016	50 TPH/0.311 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	E3	Screw Conveyor	2018	50 TPH/0.125 MMTPY	7-DC-3
6-BC-13	6-BC-13	Belt Conveyor	1998	150 TPH/0.311 MMTPY	FE
6-BC-14	6-BC-14	Belt Conveyor	1998	150 TPH/0.311 MMTPY	FE
6-DC-4	500-P1	Dust Collector	1995	NA	NA
6-BC-15	500-P1	Belt Conveyor	1995	20.8 TPH/0.165 MMTPY	6-DC-4
6-BC-16	500-P1	Belt Conveyor	1995	20.8 TPH/0.165 MMTPY	6-DC-4
6-BC-4	500-P1	Product Belt Conveyor	1995	50 TPH/0.311 MMTPY	6-DC-4

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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 <sup>1</sup>	Emission Point ID <sup>1</sup>	Emission Unit Description	Year Installed/Modified	Design Capacity	Control Device <sup>1</sup>
<b>LIME HANDLING SYSTEM (GROUP 006) CONTINUED</b>					
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-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-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
6-VF-1	6-VF-1	Vibrating Feeder	1998	150TPH/0311MMTPY	FE
6-VF-2	6-VF-2	Vibrating Feeder	1998	150TPH/0311MMTPY	FE
6-VF-3	6-VF-3	Vibrating Feeder	1998	150TPH/0311MMTPY	FE
6-VF-4	6-VF-4	Vibrating Feeder	1998	150TPH/0311MMTPY	FE
6-VF-5	6-VF-5	Vibrating Feeder	1998	150TPH/0311MMTPY	FE
6-VF-6	6-VF-6	Vibrating Feeder	1998	150TPH/0311MMTPY	FE

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**ATTACHMENT D - Emission Units Table**  
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insignificant activities in Section 4, Item 24 of the General Forms)

Emission Unit ID <sup>1</sup>	Emission Point ID <sup>1</sup>	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device <sup>1</sup>
<b>HYDRATE PLANT (GROUP 007)</b>					
7-SB-1	E3	Hydrate Feed Bin	1984	50 TPH	7-DC-3
7-DC-3	E3	Dust Collector	1984	NA	NA
7-BC-1	7-BC-1	Belt Conveyor	1984	15 TPH	FE+FE
7-SC-0	7-SC-0	Screw Conveyor	1984	15 TPH	FE+FE
7-BEL-1	7-BEL-1	Bucket Elevator	1984	15 TPH	FE+FE
7-SC-1	E4	Screw Conveyor	2013	15 TPH	7-SCR-1
7-SCR-1	E4	Wet Scrubber	1999	NA	NA
7-MT-1	7-MT-1	Mixing Tub	1999	15 TPH	FE+FE
7-HY-1	E4	Atmospheric Hydrator	1999	15 TPH	7-SCR-1
7-SC-2	E20	Screw Conveyor	1984	15 TPH	7-DC-20
7-BEL-2	E20	Bucket Elevator	2013	25 TPH	7-DC-20
7-SC-23	E20	Screw Conveyor	2013	25 TPH	7-DC-20
7-AS-20	E20	Air Separator	2013	25 TPH	7-DC-20
7-BM-1	E20	Ball Mill	2019	20 TPH	7-DC-20
7-SM-1	E20	Pin Mill	2018	20 TPH	7-DC-20
7-SC-24	E20	Screw Conveyor	2013	20 TPH	7-DC-20
7-SC-8	E20	Screw Conveyor	1984	20 TPH	7-DC-20
7-SC-9	E20	Screw Conveyor	1984	20 TPH	7-DC-20
7-SC-29	E20	Screw Conveyor	2019	20 TPH	7-DC-20
7-SC-30	E20	Screw Conveyor	2019	20 TPH	7-DC-20
7-SC-31	E20	Screw Conveyor	2019	20 TPH	7-DC-20
7-SC-32	E20	Screw Conveyor	2019	20 TPH	7-DC-20
7-DC-20	E20	Dust Collector	2013	NA	NA
7-SC-25	E1	Screw Conveyor	2013	20 TPH	7-DC-1

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**ATTACHMENT D - Emission Units Table**  
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Emission Unit ID <sup>1</sup>	Emission Point ID <sup>1</sup>	Emission Unit Description	Year Installed/Modified	Design Capacity	Control Device <sup>1</sup>
<b>HYDRATE PLANT (GROUP 007) CONTINUED</b>					
7-BEL-3	E1	Bucket Elevator	1984	20 TPH	7-DC-1
7-SC-10	E1	Screw Conveyor	1984	20 TPH	7-DC-1
7-SC-11	E1	Screw Conveyor	1984	20 TPH	7-DC-1
7-DC-1	E1	Dust Collector	1984	NA	NA
7-SI-1	E1	Hydrate Bin	1984	150 TONS	7-DC-1
7-SI-2	E1	Hydrate Bin	1984	150 TONS	7-DC-1
7-SC-12	E1	Screw Conveyor	1984	25 TPH	7-DC-1
7-SC-13	E1	Screw Conveyor	1984	25 TPH	7-DC-1
7-BL-1	E2/E5/E21	Blower	2018	25 TPH	7-DC-2/5/21
7-SI-4	E5	Hydrate Silo	1997	200 TONS	7-DC-5
7-LS-2	7-LS-2	Truck Loading Spout	1997	100 TPH	PE
7-DC-5	E5	Dust Collector	2018	NA	NA
7-BEL-4	E1	Bucket Elevator	1984	25 TPH	7-DC-1
7-SC-14	E1	Screw Conveyor	1984	25 TPH	7-DC-1
7-LS-1	E1	Truck Loading Spout	1991	25 TPH	PE
7-SI-5	E21	Hydrate Bagging Bin	2018	25 TONS	7-DC-21
7-DC-21	E21	Dust Collector	2018	NA	NA
7-SC-27	E6	Screw Conveyor	2018	5 TPH	7-DC-6
7-SC-28	E2	Screw Conveyor	2018	25 TPH	7-DC-2
7-BG-1	E6	Hydrate Bagging Machine	2018	25 TPH	7-DC-6
7-CDC-1	E6	Chain Drag Conveyor	2018	2.5 TPH	7-DC-6
7-BGR-1	E6	Hydrate Bulk Bin	2018	15 TONS	7-DC-6
7-DC-2	E2	Dust Collector	2018	NA	NA
7-DC-6	E6	Dust Collector	2018	NA	NA

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Emission Unit ID <sup>1</sup>	Emission Point ID <sup>1</sup>	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device <sup>1</sup>
<b>PORTABLE PLANT (GROUP 008)</b>					
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 <sup>2</sup> 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 <sup>2</sup> 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
BC12	BC12	Under Screen Belt Conveyor	2002	300 TPH/1.2 MMTPY	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 <sup>2</sup> 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 <sup>2</sup> 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 <sup>2</sup> Height: 32 Feet	2002	8,000 Tons/0.6 MMTPY	COM

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Emission Unit ID <sup>1</sup>	Emission Point ID <sup>1</sup>	Emission Unit Description	Year Installed/Modified	Design Capacity	Control Device <sup>1</sup>
<b>LIMESTONE GRINDING SYSTEM (GROUP 011)</b>					
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-DC-4	E-11-DC4	Dust Collector	2011	0.022 gr/dscf	N/A
11-SI-5	E-11-DC-4	Rock Dust Silo	2007	400 Tons/0.5694 MMTPY	11-DC-4
11-SI-6	E-11-DC-2	Rock Dust Bulk Silo	2007	400 Tons/0.5694 MMTPY	11-DC-2

<sup>1</sup>For 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**  
(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 <sup>1</sup>	Emission Point ID <sup>1</sup>	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device <sup>1</sup>
<b>LIMESTONE GRINDING SYSTEM (GROUP 011) CONTINUED</b>					
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	2011	NA	NA
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	2011	NA	NA
11-SC-4	E-11-DC-3	Screw Conveyor	2008	2 TPH/0.002934 MMTPY	11-DC-3
11-SC-5	E-11-DC-3	Screw Conveyor	2008	2 TPH/0.002934 MMTPY	11-DC-3
11-SC-6	E-11-DC-3	Screw Conveyor	2008	2 TPH/0.002934 MMTPY	11-DC-3
11-SI-4	E-11-DC-3	Baghouse Dust Bin	2008	50 Tons/0.002934	11-DC-3
11-LS-3	E-11-DC-2	Truck Loading Spout	2008	65 TPH/0.5694 MMTPY	11-DC-2
11-LS-2	E-11-DC-1	Truck Loading Spout	2007	65 TPH/0.5694 MMTPY	11-DC-1
11-LS-1	E-11-DC-1	Truck Loading Spout	2007	65 TPH/0.5694 MMTPY	11-DC-1
11-SC-20	E-11-DC-20	Screw Conveyor	2011	30 TPH/262,800 TPY	11-DC-20
11-BEL-20	E-11-DC-20	Bucket Elevator	2011	38 TPH/332,880 TPY	11-DC-20
11-BG-20	E-11-DC-20	Bagger	2011	30 TPH/262,800 TPY	11-DC-20
11-SC-21	E-11-DC-20	Screw Conveyor	2011	7.5 TPH/65,700 TPY	11-DC-20
11-SC-22	E-11-DC-20	Screw Conveyor	2011	7.5 TPH/65,700 TPY	11-DC-20
11-WC-20	N/A	Wire Conveyor	2011	30 TPH/262,800 TPY	No Emissions
11-BC-20	N/A	Belt Conveyor (bagged product)	2011	30 TPH/262,800 TPY	No Permitted Emissions
11-BC-21	N/A	Belt Conveyor (bagged product)	2011	30TPH/262,800 TPY	No Permitted Emissions
11-BC-22	N/A	Belt Conveyor (empty bags)	2011	30TPH/262,800 TPY	No Permitted Emissions
11-DC-20	E-11-DC-20	Dust Collector	2011	0.014 gr/dscf	N/A
Hi Vac	Hi Vac	Vacuum System	2012	N/A	N/A

<sup>1</sup>For 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**  
(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 <sup>1</sup>	Emission Point ID <sup>1</sup>	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device <sup>1</sup>
<b>Tanks (Group 010)</b>					
6	6	Fine Grinding Dryer Diesel Fuel	2007	8,000 gal	N
7	7	Quarry Trucks Diesel Fuel	1999	15,000 gal	N
8	NA	Mechanic Shop Motor Oil	2013	500 gal	N
9	NA	Mechanic Shop Hydraulic Oil	2013	500 gal	N
10	NA	Mechanic Shop Transmission Oil	2013	300 gal	N
11	NA	Mechanic Shop Gear Oil	2013	300 gal	N
12	NA	Mechanic Shop Heater Fuel	2000	300 gal	N
14	NA	Mechanic Shop Used Oil	2000	2,000 gal	N
15	15	Mechanic Shop Diesel Fuel	2000	500 gal	N
16	16	Mechanic Shop Gasoline Fuel	2013	1,000 gal	N
17	17	Buckeye Shop Heater Diesel Fuel	1990	275 gal	N
19	NA	Used Oil Collection	2013	1,000 gal	N
20	20	Lime Kiln Startup Diesel Fuel	2017	2,000 gal	N
49	49	Buckeye Shop Gear Oil	2017	720 gal	N
Contractor	Contractor	Contractor Trucks Diesel Fuel	Unknown	8,000 gal	N

<sup>1</sup>For 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**  
**(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 <sup>1</sup>	Emission Point ID <sup>1</sup>	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device <sup>1</sup>
<b>Building Heaters/Torch</b>					
Lowboy	Lowboy	Lowboy OAL112-DHS	~1990	140,000 Btu/hr	N/A
Horizon	Horizon	Horizon 315	2005	315,000 Btu/hr	N/A
Carrier	Carrier	Carrier Z158MXA120	2003	120,000 Btu/hr	N/A
Torch	Torch	Torch – Hand Held	~1980	150,000 Btu/hr	N/A

<sup>1</sup>For 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 E**  
**EMISSION UNIT FORMS**

## ATTACHMENT E - Emission Unit Form

**Emission Unit Description** Group 002

<b>Emission unit ID number:</b> 1-VGF-1, 1-BC-1, 1-BC-2, 1-BC-3, 1-BC-4, 1-BC-5, 2-BC-5, 2-BC-1, 2-BC-2, 2-BC-3, 2-BC-9, 2-BC-4, 2-BC-6, 2-BC-7, 2-BC-8 2-BC-5, 1-VF-1, 2-VF-1, 2-VF-2, 2- VF-3, 2-VF-4	<b>Emission unit name:</b> Group 002 Conveying	<b>List any control devices associated with this emission unit.</b> 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).

<b>Manufacturer:</b> See Attachment D	<b>Model number:</b> See Attachment D	<b>Serial number:</b> See Attachment D
<b>Construction date:</b> See Attachment D	<b>Installation date:</b> See Attachment D	<b>Modification date(s):</b> See Attachment D

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

<b>Maximum Hourly Throughput:</b> See Attachment D	<b>Maximum Annual Throughput:</b> See Attachment D	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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**Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE**

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

**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 <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	7.78/2.44	8.16/2.55
Total Particulate Matter (TSP)	16.03	15.41
Sulfur Dioxide (SO <sub>2</sub> )		
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 (PTE has not changed for this Group since the previous Title V renewal).

***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 applicable requirements starting on page E13.

  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 applicable requirements starting on page E13.

**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* Group 002

<b>Emission unit ID number:</b> 1-IH-1, 1-CR-1, 1-CR-2,	<b>Emission unit name:</b> Group 002 Crushing	<b>List any control devices associated with this emission unit.</b> 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 (I-IH-1), a primary jaw crusher (1-CR-1) and a cone crusher (1-CR2).

<b>Manufacturer:</b> See Attachment D	<b>Model number:</b> See Attachment D	<b>Serial number:</b> See Attachment D
<b>Construction date:</b> See Attachment D	<b>Installation date:</b> See Attachment D	<b>Modification date(s):</b> See Attachment D

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

<b>Maximum Hourly Throughput:</b> See Attachment D	<b>Maximum Annual Throughput:</b> See Attachment D	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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**Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE**

<b>Does this emission unit combust fuel?</b> ___Yes    X No	<b>If yes, is it?</b>  ___ Indirect Fired    ___Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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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 <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	7.78/2.44	8.16/2.55
Total Particulate Matter (TSP)	16.03	15.41
Sulfur Dioxide (SO <sub>2</sub> )		
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 (PTE has not changed for this Group since the previous Title V renewal).

***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 applicable requirements starting on page E13.

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**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 applicable requirements starting on page E13.

**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

<b>Emission unit ID number:</b> 1-VS-1, 2-VS-1	<b>Emission unit name:</b> Group 002 Screening	<b>List any control devices associated with this emission unit.</b> 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).

<b>Manufacturer:</b> See Attachment D	<b>Model number:</b> See Attachment D	<b>Serial number:</b> See Attachment D
<b>Construction date:</b> See Attachment D	<b>Installation date:</b> See Attachment D	<b>Modification date(s):</b> See Attachment D

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

<b>Maximum Hourly Throughput:</b> See Attachment D	<b>Maximum Annual Throughput:</b> See Attachment D	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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**Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE**

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

**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 <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	7.78/2.44	8.16/2.55
Total Particulate Matter (TSP)	16.03	15.41
Sulfur Dioxide (SO <sub>2</sub> )		
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 (PTE has not changed for this Group since the previous Title V renewal).

***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 applicable requirements starting on page E13.

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 applicable requirements starting on page E13.

**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* Group 002

<b>Emission unit ID number:</b> 1-DH-1, 1-SB-1, 1-SI-1, 1-SI-2, 2-SI-1, 2-OS-1, 2-OS-2	<b>Emission unit name:</b> Group 002 Storage	<b>List any control devices associated with this emission unit.</b> 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).

<b>Manufacturer:</b> See Attachment D	<b>Model number:</b> See Attachment D	<b>Serial number:</b> See Attachment D
<b>Construction date:</b> See Attachment D	<b>Installation date:</b> See Attachment D	<b>Modification date(s):</b> See Attachment D

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

<b>Maximum Hourly Throughput:</b> See Attachment D	<b>Maximum Annual Throughput:</b> See Attachment D	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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*Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE*

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

**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 <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	7.78/2.44	8.16/2.55
Total Particulate Matter (TSP)	16.03	15.41
Sulfur Dioxide (SO <sub>2</sub> )		
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 (PTE has not changed for this Group since the previous Title V renewal).

***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 applicable requirements starting on page E13.

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 applicable requirements starting on page E13.

**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 002**

**Applicable Requirements**

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
1	45CSR13, R13-1685, (A)(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)	4.1.2.	<p>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:</p> <p>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.</p> <p>b) Primary and secondary screens (1-VS-1 and 2-VS-1) shall be fully enclosed except for entry and discharge points.</p> <p>c) Water sprays at stockpile, 2-OS-2, during material storage.</p> <p>d) Water truck utilizing pressurized spray nozzles for dust control of haulroads and stockpile areas.</p>
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	<p>45CSR16, 40CFR60, Subpart OOO.</p> <p>3.1.19. 45CSR16, 40 C.F.R. § 60.672 (a), Table 2, Group (002, 004, 005, 008, 011)</p>	4.1.4.	<p>See Section 3.1.19. through 3.1.22. 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.</p> <p>Affected facilities as defined in 40 C.F.R. §§ 60.670 and 60.671 must meet the stack emission limits and compliance requirements in Table 2 of 40 C.F.R. Part 60 Subpart OOO within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under 40 C.F.R. § 60.8. The requirements in Table 2 of 40 C.F.R. Part 60 Subpart OOO apply for affected facilities with capture systems used to capture and transport particulate matter to a control device.</p> <p>(a) Affected facilities that commenced construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008 must meet the following stack emission limits:</p> <p>(1) A particulate matter (PM) limit of 0.05 g/dscm (0.022 gr/dscf), except for equipment identified in 40 C.F.R. §§ 60.672 (d) through (f); and</p> <p>(2) An opacity limit of 7 percent for dry control devices.</p> <p>(b) Affected facilities that commenced construction, modification, or reconstruction on or after April 22,</p>

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
	<p data-bbox="245 600 607 716">3.1.20. 45CSR16, 40 C.F.R. § 60.672 (b), and Table 3 Group (002, 004, 005, 008,011)</p> <p data-bbox="245 1667 570 1755">3.1.21. 45CSR16, 40 C.F.R. § 60.672 (d), Group (002 and 008)</p>		<p data-bbox="868 205 1455 384">2008 must meet the following stack emission limits: (1) A particulate matter (PM) limit of 0.032 g/dscm (0.014 gr/dscf), except for equipment identified in 40 C.F.R. §§ 60.672 (d) through (f); and (2) An opacity limit of 7 percent for dry control devices on individual enclosed storage bins.</p> <p data-bbox="868 600 1455 1633">3.1.20. Affected facilities as defined in 40 C.F.R. §§ 60.670 and 60.671 must meet the fugitive emission limits and compliance requirements in Table 3 of 40 C.F.R. Part 60 Subpart OOO within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under 40 C.F.R. § 60.11. The requirements in Table 3 of 40 C.F.R. Part 60 Subpart OOO apply for fugitive emissions from affected facilities without capture systems and for fugitive emissions escaping capture systems. Affected facilities that commenced construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008 must meet the following fugitive emission limits: a. Ten (10) percent opacity for grinding mills, screening operations, bucket elevators, transfer points on belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations or from any other affected facility. b. Fifteen (15) percent opacity for crushers without a capture system. Affected facilities that commenced construction, modification, or reconstruction on or after April 22, 2008 must meet the following fugitive emission limits: c. Seven (7) percent opacity for grinding mills, screening operations, bucket elevators, transfer points on belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations or from any other affected facility. d. Twelve (12) percent opacity for crushers without a capture system.</p> <p data-bbox="868 1667 1455 1787">3.1.21. Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of 40 C.F.R. §60.672.</p>

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
	3.1.22. 45CSR16, 40 C.F.R. § 60.672 (e), Group (002, 004, 005, 008, 011)		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) and (b) [Sections 3.1.19 and 3.1.20.], or the building enclosing the affected facility or facilities must comply with the following emission limits: (1) Fugitive emissions from the building openings (except for vents as defined in 40 C.F.R. § 60.671) must not exceed 7 percent opacity; and (2) Vents (as defined in 40 C.F.R. § 60.671) in the building must meet the applicable stack emission limits and compliance requirements in Table 2 of 40 C.F.R. Part 60 Subpart OOO (see Section 3.1.19.).
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**

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
1	<p>3.2.1. 45CSR§30-5.1.c., Emission Groups (002, 004, 005, 006, 007, 008, 011)</p> <p>3.2.2 45CSR§30-5.1.c., Section 1.0 (Dust Collectors)</p>	4.2.1.	<p>See Section 3.2. for opacity and dust collector monitoring requirements.</p> <p>3.2.1. The permittee shall implement the following maintenance and monitoring work practices in order to demonstrate continuous compliance with opacity requirements of 45CSR7 and 40 C.F.R. Part 60 Subparts OOO and HH. 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 400 TPD &amp; 500 TPD Lime Kilns, PSP1, PSP2, PSP3, PSP4, PSP5, and haulroads] Visible emission observations shall be conducted at least annually 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 or transfer points have visible emissions. If emissions are evident and quantifiable their opacity shall be determined by conducting a documented Method 9 observation. If any emission unit or transfer point has visible emissions exceeding the applicable regulatory limit then it should be documented as such and the permittee shall initiate corrective actions to minimize emissions in a timely manner in accordance with the maintenance and monitoring work practice procedures established below.</p> <p>a. Monitoring in the form of inspections shall be conducted at least once per calendar quarter on all transfer points and emission units subject to the opacity requirements of 45CSR7 and 40 C.F.R. Part 60 Subpart OOO or HH. The inspections shall utilize a certified Method 9 observer to evaluate each source of emissions using Method 22. If during the inspection or anytime the permittee recognizes visual emissions approaching opacity limits, maintenance activities shall be initiated to minimize PM emissions and maintain opacity within compliance levels based on the applicable opacity standard. Maintenance activities shall be completed and a satisfactory inspection documented before the end of the following quarterly inspection.</p> <p>b. A record of each visible emissions observation shall be maintained, including any data required by 40 C.F.R. Part 60 Appendix A, Method 22 or Method 9, whichever is appropriate. The record shall include, at a minimum, the date, time, name of the emission unit, the applicable visible emissions requirement, the results of the observation, and the name of the observer. Records shall be maintained on site stating any maintenance or corrective actions taken as a result of the quarterly inspections, and the times the fugitive dust control system(s) are inoperable and any corrective actions taken</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</p>

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
			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.
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> <p>3.3.6. 45CSR16, 40 C.F.R. § 60.675 (c), and Table 3 45CSR13, R13-1685, (B) (5) and (6), Group (002, 004, 005, 008, 011)</p>	4.3.1	<p>See Sections 3.3.4. through 3.3.9. for Opacity and PM testing requirements from 40 CFR60 Part 000.</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 40 C.F.R. Part 60 Appendices A–1 through A–7 or other methods and procedures as specified in this section, except as provided in 40 C.F.R. § 60.8 (b). Acceptable alternative methods and procedures are given in 40 C.F.R. § 60.675 (e) [Section 3.3.8.].</p> <p>3.3.5. The owner or operator shall determine compliance with the particulate matter (PM) standards in 40 C.F.R. § 60.672 (a) [Section 3.1.19.] as follows: (1) Method 5 of 40 C.F.R. Part 60 Appendix A–3 or Method 17 of 40 C.F.R. Part 60 Appendix A–6 shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5 (40 C.F.R. Part 60, Appendix A–3), if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter. (2) Method 9 of 40 C.F.R. Part 60 Appendix A–4 and the procedures in 40 C.F.R. § 60.11 shall be used to determine opacity.</p> <p>3.3.6. In determining compliance with the particulate matter standards in 40 C.F.R. § 60.672 (b) [Section 3.1.20.] or 40 C.F.R. § 60.672 (e) (1) [Section 3.1.22. (1)], the owner or operator shall use Method 9 of 40 C.F.R. Part 60 Appendix A–4 and the procedures in 40 C.F.R. § 60.11, with the following additions: (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 of 40 C.F.R. Part 60 Appendix A–4, 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. (2) (i) 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),</p>

Ref #	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>using Method 9 (40 C.F.R. Part 60 Appendix A–4), the duration of the Method 9 (40 C.F.R. Part 60 Appendix A–4) observations shall be 1 hour (ten 6-minute averages).</p> <p>(ii) The duration of the Method 9 (40 C.F.R. Part 60 Appendix A–4) observations may be reduced to the duration the affected facility operates (but not less than 30 minutes) for baghouses that control storage bins or enclosed truck or railcar loading stations that operate for less than 1 hour at a time.</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 3.1.20.] or 40 C.F.R. § 60.672 (e) (1) [Section 3.1.22. (1)], the duration of the Method 9 (40 C.F.R. Part 60 Appendix A–4) observations must be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits in Table 3 of 40 C.F.R. Part 60 Subpart OOO must be based on the average of the five 6-minute averages.</p> <p>3.3.7. To demonstrate compliance with the fugitive emission limits for buildings specified in 40 C.F.R. § 60.672 (e) (1) [Section 3.1.22. (1)], the owner or operator must complete the testing specified in 40 C.F.R. § 60.675 (d) (1) and (2) [Section 3.3.7. (1) and (2)]. Performance tests must be conducted while all affected facilities inside the building are operating.</p> <p>(1) If the building encloses any affected facility that commences construction, modification, or reconstruction on or after April 22, 2008, the owner or operator of the affected facility must conduct an initial Method 9 (40 C.F.R. Part 60 Appendix A–4) performance test according to this section and 40 C.F.R. § 60.11.</p> <p>(2) If the building encloses only affected facilities that commenced construction, modification, or reconstruction before April 22, 2008, and the owner or operator has previously conducted an initial Method 22 (40 C.F.R. Part 60 Appendix A–7) performance test showing zero visible emissions, then the owner or operator has demonstrated compliance with the opacity limit in 40 C.F.R. § 60.672 (e) (1) [Section 3.1.22. (1)]. If the owner or operator has not conducted an initial performance test for the building before April 22, 2008, then the owner or operator must conduct an initial Method 9 (40 C.F.R. Part 60 Appendix A–4) performance test according to this section and 40 C.F.R. § 60.11 to show compliance with the opacity limit in 40 C.F.R. § 60.672 (e) (1) [Section 3.1.22. (1)].</p> <p>3.3.8. The owner or operator may use the following as alternatives to the reference methods and procedures specified in 40 C.F.R. § 60.675:</p> <p>(1) For the method and procedure of 40 C.F.R. § 60.675 (c) [Section 3.3.6.], if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:</p> <p>(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.</p> <p>(ii) Separate the emissions so that the opacity of emissions from each affected facility can be read.</p>

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
	<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>(2) A single visible emission observer may conduct visible emission observations for up to three fugitive, stack, or vent emission points within a 15-second interval if the following conditions are met:</p> <p>(i) No more than three emission points may be read concurrently.</p> <p>(ii) All three emission points must be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points.</p> <p>(iii) If an opacity reading for any one of the three emission points equals or exceeds the applicable standard, then the observer must stop taking readings for the other two points and continue reading just that single point.</p> <p>(3) Method 5I of 40 C.F.R. Part 60, Appendix A-3 may be used to determine the PM concentration as an alternative to the methods specified in 40 C.F.R. § 60.675 (b) (1). Method 5I (40 C.F.R. Part 60, Appendix A-3) may be useful for affected facilities that operate for less than 1 hour at a time such as (but not limited to) storage bins or enclosed truck or railcar loading stations.</p> <p>(4) In some cases, velocities of exhaust gases from building vents may be too low to measure accurately with the type S pitot tube specified in EPA Method 2 of 40 C.F.R. Part 60 Appendix A-1 of this part [<i>i.e.</i>, velocity head &lt;1.3 mm H<sub>2</sub>O (0.05 in. H<sub>2</sub>O)] and referred to in EPA Method 5 of 40 C.F.R. Part 60 Appendix A-3. For these conditions, the owner or operator may determine the average gas flow rate produced by the power fans (<i>e.g.</i>, from vendor-supplied fan curves) to the building vent. The owner or operator may calculate the average gas velocity at the building vent measurement site using Equation 1 of this section and use this average velocity in determining and maintaining isokinetic sampling rates.</p> $V_e = Q_f / A_e \text{ (Eq. 1)}$ <p>Where:  V<sub>e</sub> = average building vent velocity (feet per minute);  Q<sub>f</sub> = average fan flow rate (cubic feet per minute); and  A<sub>e</sub> = area of building vent and measurement location (square feet).</p> <p>3.3.9. For performance tests involving only Method 9 (40 C.F.R. Part 60 Appendix A-4) testing, the owner or operator may reduce the 30-day advance notification of performance test in 40 C.F.R. § 60.7 (a) (6) and 40 C.F.R. § 60.8 (d) to a 7-day advance notification.</p>
3	45CSR13, R13-1685, (B) (8), 45CSR§30-.1.c.2.B.	4.4.1.	<p>For the purpose of determining compliance:</p> <p>(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.</p> <p>(b) The applicant shall maintain certified daily records of water used for particulate control in gallons per day.</p> <p>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>

## ATTACHMENT E - Emission Unit Form

**Emission Unit Description:** Group 004

**Emission unit ID number:**  
 4-BC-1, 4-BC-2, 4-BC-3,  
 4-BC-4, 4-TC-1, 4-SC-1, 4-SC-2,  
 4-SC-3, 4-SC-4, 4-BEL-1, 4-LS-2,  
 4-VF-1, 4-VF-2, 4-VF-3, 4-VF-4

**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.

**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

**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:**  
 8,760 hrs/yr

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

**Does this emission unit combust fuel?** \_\_\_ Yes  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 <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	5.11/1.61	5.89/1.80
Total Particulate Matter (TSP)	10.57	11.84
Sulfur Dioxide (SO <sub>2</sub> )		
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 (PTE has not changed for this Group since the previous Title V renewal).

***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 applicable requirements starting on page E35.

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 applicable requirements starting on page E35.

**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:* Group 004

<b>Emission unit ID number:</b> 5-SI-2, 5-WF-1, 5-BM-1, 5-AS-1	<b>Emission unit name:</b> Group 004 Coal Circuit	<b>List any control devices associated with this emission unit.</b> 4-DC-1
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 Coal system for feed sizing and separating the coal to be fed to the kiln for combustion.

<b>Manufacturer:</b> See Attachment D	<b>Model number:</b> See Attachment D	<b>Serial number:</b> See Attachment D
<b>Construction date:</b> See Attachment D	<b>Installation date:</b> See Attachment D	<b>Modification date(s):</b> See Attachment D

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

<b>Maximum Hourly Throughput:</b> See Attachment D	<b>Maximum Annual Throughput:</b> See Attachment D	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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**Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE**

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

**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 <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	5.11/1.61	5.89/1.80
Total Particulate Matter (TSP)	10.57	11.84
Sulfur Dioxide (SO <sub>2</sub> )		
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 (PTE has not changed for this Group since the previous Title V renewal).

***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 applicable requirements starting on page E35.

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 applicable requirements starting on page E35.

**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:** Group 004

<b>Emission unit ID number:</b> 4-OS-1, 4-STB-1, 4-SI-1	<b>Emission unit name:</b> Group 004 Storage	<b>List any control devices associated with this emission unit.</b> 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 400 TPD lime kiln operations in an open stockpile (OS), a stone bin (STB), 3-sided covered coal storage pile (CS), and silos (SI).

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

<b>Maximum Hourly Throughput:</b> See Attachment D	<b>Maximum Annual Throughput:</b> See Attachment D	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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**Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE**

<b>Does this emission unit combust fuel?</b> ___Yes <u>X</u> No	<b>If yes, is it?</b> ___ Indirect Fired ___Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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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 <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	5.11/1.61	5.89/1.80
Total Particulate Matter (TSP)	10.57	11.84
Sulfur Dioxide (SO <sub>2</sub> )		
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 (PTE has not changed for this Group since the previous Title V renewal).

***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 applicable requirements starting on page E35.

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 applicable requirements starting on page E35.

**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:** Group 004

<b>Emission unit ID number:</b> 4-PH-1, 4-RK-1, 4-NC-1	<b>Emission unit name:</b> Group 004 Pre-Heater, 400 TPD Lime Kiln, and Lime Cooler	<b>List any control devices associated with this emission unit.</b> 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 (4-PH-1), 400 TPD Rotary Lime Kiln (4-RK-1) and NIEMS Lime Cooler (4-NC-1).

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

<b>Maximum Hourly Throughput:</b> See Attachment D	<b>Maximum Annual Throughput:</b> See Attachment D	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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**Fuel Usage Data (fill out all applicable fields)**

<b>Does this emission unit combust fuel?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>If yes, is it?</b>  <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b> 75 MMBtu/hour	<b>Type and Btu/hr rating of burners:</b>  NA
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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, 3.0 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
No. 2 Fuel Oil (Startup Fuel Only)	0.05%	NA	138,000

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	17.0	74.5
Nitrogen Oxides (NO <sub>x</sub> )	30.0	131.4
Lead (Pb)		
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )		1.21/0.60
Total Particulate Matter (TSP)	0.5	2.20
Sulfur Dioxide (SO <sub>2</sub> )	16.0	70.08
Volatile Organic Compounds (VOC)	4.0	17.52
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total HAPs*	5.86	59
* For speciated list see Appendix 1.		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
CO <sub>2e</sub>	NA	188.253
<p><b>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.).</b></p> <p>PM and NO<sub>x</sub> emission factors were calculated from February 25, 1991 stack test.</p> <p>SO<sub>2</sub> 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 and Hg. HCl and Hg emission factors were 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 applicable requirements starting on page E35.

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 applicable requirements starting on page E35.

**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:** Group 004 and 005

<b>Emission unit ID number:</b> 5-CS-1, 5-CS-1A, 5-CS-2, 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, 5- VF-1, 5-VF-2	<b>Emission unit name:</b> Common Coal Circuit for Group 004 and 005	<b>List any control devices associated with this emission unit.</b> 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 R13-2670B.

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

<b>Maximum Hourly Throughput:</b> See Attachment D.	<b>Maximum Annual Throughput:</b> See Attachment D.	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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**Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE**

<b>Does this emission unit combust fuel?</b> ___Yes <u>X</u> No	<b>If yes, is it?</b>  ___ Indirect Fired    ___Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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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 <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	5.11/1.61	5.89/1.80
Total Particulate Matter (TSP)	10.57	11.84
Sulfur Dioxide (SO <sub>2</sub> )		
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.).**

PTE has not changed for this Group since the previous Title V renewal.

***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 applicable requirements starting on page E35.

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 applicable requirements starting on page E35.

**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 004

Applicable Requirements

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement																		
1	45CSR16, 40 C.F.R. § 60.342 (a), 45CSR13, R13-1381A, A.1. 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 [4-RK-1] after baghouse 112 [4-DC-1]) shall not exceed the more stringent limitation of either 0.6 pounds particulate matter per ton of limestone feed according to 40 C.F.R. Part 60 Subpart HH (following), "Standards of Performance for Lime Manufacturing Plants," or that particulate matter emission limitation in Section 6.1.2. On and after the date on which the performance test required to be conducted by 40 C.F.R. § 60.8 is completed, no owner or operator subject to the provisions of this 40 C.F.R. Part 60, Subpart HH, shall cause to be discharged into the atmosphere from any rotary lime kiln any gases which: (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. <i>Compliance with Section 6.1.1 (1) is streamlined by demonstrating compliance with 40 C.F.R. Part 63 Subpart AAAAA [0.12 lb/ton stone feed (tsf)] incorporated within Section 12.1.1.</i>																		
2	45CSR13, R13-1381A, A.2.	6.1.2.	Emissions to the atmosphere from emission point 1E [4-DS-2] that is controlled by the 4 module baghouse (4-DC-1) shall not exceed the following maximum rates: <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
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Carbon Monoxide	17.0	74.5																			
Non-Methane Hydrocarbons	4.0	17.5																			
3	45CSR13, R13-1381A, A.3	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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Lime Product	16.7	400	146,000																		
4	45CSR13, R13-1381A, A.4., R13-1788, (A) 6.	6.1.4.	Bituminous coal as fired in the rotary lime kiln 4-RK-1 shall not exceed 1.1% sulfur by weight and 10% by weight in ash content.																		
5	45CSR§10-4.1., 45CSR13, R13-1381A, B.3., R13-1788, (B)3.	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.																		

<b>Ref #</b>	<b>Rule/ Regulation/ R13 Permit</b>	<b>Existing R30 Permit Condition</b>	<b>Requirement</b>
<b>6</b>	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.
<b>7</b>	45CSR16, 40 C.F.R. § 60.672 (a) and (b)	6.1.7.	See Sections 3.1.19. and 3.1.20. 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.
<b>8</b>	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.
<b>9</b>	45CSR13, R13-1381A, 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.
<b>10</b>	45CSR§10-8.2.c.	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.
<b>11</b>	45CSR§10-8.3.a.	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.

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
12	45CSR§10-8.3.b.	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.	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.	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

Ref #	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.	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., R13-1788 (B) 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 $\pm 5$ percent of the mass rate over its operating range.

<b>Ref #</b>	<b>Rule/ Regulation/ R13 Permit</b>	<b>Existing R30 Permit Condition</b>	<b>Monitoring/Testing/Recordkeeping/Reporting</b>
3	45CSR§10-8.2.a., 45CSR13, R13-1381A, (B)3, R13-1788, (B)3.	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	45CSR§10-8.2.b. 45CSR13, R13-1381A, B.3. and R13-1788, (B)3.  45CSR10-8.1.a., 45CSR13, R13-1381A, B.3. R13- 1788, (B)3.  45CSR§10-8.1.b., 45CSR13, R13-1381A, B. 3., R13-1788, (B) 3.	6.3.1.	45CSR10 Testing Requirement 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.
5	45CSR16, 40 C.F.R. § 60.344 (a), 45CSR13, R13- 1381A, B. 2., R13-1788, (B) 2.	6.3.2.	In conducting the performance tests required in 40 C.F.R. § 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 C.F.R. Part 60 Appendix A or other methods and procedures as specified in 40 C.F.R. § 60.344, except as provided in 40 C.F.R. §60.8(b).

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
6	40CFR16, 40 C.F.R. § 60.344 (b), 45CSR13, R13-1381A, B.2., R13-1788, (B) 2.	6.3.3.	<p>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:</p> <p>(1) The emission rate (E) of particulate matter shall be computed for each run using the following equation:  <math display="block">E = (cs \text{ Qsd}) / PK</math> 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>



Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting																											
7	45CSR§30-5.1.c.	6.3.4.	<p>The permittee shall conduct tests to determine compliance with the nitrogen oxides (NO<sub>x</sub>) 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="1" data-bbox="755 478 1063 569"> <thead> <tr> <th>Pollutant</th> <th>Method</th> </tr> </thead> <tbody> <tr> <td>Carbon Monoxide</td> <td>10</td> </tr> <tr> <td>Nitrogen Oxides</td> <td>7</td> </tr> </tbody> </table> <p>Tests for nitrogen oxides (NO<sub>x</sub>) were conducted in October of 2005 and in October of 2008 and resulted in mass emission rates between 50% and 90 % for each test. The results of those tests showed that the current nitrogen oxides (NO<sub>x</sub>) testing frequency is "Once/ 3 years." A test for carbon monoxide (CO) was conducted in October of 2005 and resulted in mass emission rates #50%. The results of this test showed that the current carbon monoxide (CO) testing frequency is "Once/5 years." Subsequent testing to determine compliance with the nitrogen oxides (NO<sub>x</sub>) 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" data-bbox="755 976 1453 1770"> <thead> <tr> <th>Test</th> <th>Test Results</th> <th>Testing Frequency</th> </tr> </thead> <tbody> <tr> <td>Annual</td> <td>If annual testing is required, after two successive tests indicate mass emission rates between 50% and 90 % of nitrogen oxides (NO<sub>x</sub>) or carbon monoxide (CO) limit</td> <td>Once/3 years</td> </tr> <tr> <td>Annual</td> <td>If annual testing is required, after three successive tests indicate mass emission rates #50% of nitrogen oxides (NO<sub>x</sub>) or carbon monoxide (CO) limit</td> <td>Once/5 years</td> </tr> <tr> <td>Once/3 years</td> <td>If testing is required once/3 years, after two successive tests indicate mass emission rates 50% of nitrogen oxides (NO<sub>x</sub>) or carbon monoxide (CO) limit</td> <td>Once/5 years</td> </tr> <tr> <td>Once/3 years</td> <td>If testing is required once/3 years and any test indicates a mass emission rate ≥90% of nitrogen oxides (NO<sub>x</sub>) or carbon monoxide (CO) limit</td> <td>Annual</td> </tr> <tr> <td>Once/5 years</td> <td>If testing is required once /5 years and any test indicates mass emission rates between 50% and 90 % of nitrogen oxides (NO<sub>x</sub>) or carbon monoxide (CO) limit</td> <td>Once/3 years</td> </tr> <tr> <td>Once/5 years</td> <td>If testing is required once/5 years and any test indicates a mass emission rate ≥90% of nitrogen oxides (NO<sub>x</sub>) or carbon monoxide (CO) limit</td> <td>Annual</td> </tr> </tbody> </table>	Pollutant	Method	Carbon Monoxide	10	Nitrogen Oxides	7	Test	Test Results	Testing Frequency	Annual	If annual testing is required, after two successive tests indicate mass emission rates between 50% and 90 % of nitrogen oxides (NO <sub>x</sub> ) 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 <sub>x</sub> ) 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 <sub>x</sub> ) 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 <sub>x</sub> ) 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 <sub>x</sub> ) 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 <sub>x</sub> ) or carbon monoxide (CO) limit	Annual
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Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting												
8	45CSR13, R13-1381A, B.5.	6.3.5.	<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 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 border="0"> <thead> <tr> <th data-bbox="753 600 854 625"><u>Pollutant</u></th> <th data-bbox="1227 600 1317 625"><u>Method</u></th> </tr> </thead> <tbody> <tr> <td data-bbox="753 632 948 657">Particulate Matter</td> <td data-bbox="1256 632 1292 657">5D</td> </tr> <tr> <td data-bbox="753 663 915 688">Sulfur Dioxide</td> <td data-bbox="1256 663 1292 688">6B</td> </tr> <tr> <td data-bbox="753 695 932 720">Nitrogen Oxides</td> <td data-bbox="1256 695 1273 720">7</td> </tr> <tr> <td data-bbox="753 726 948 751">Carbon Monoxide</td> <td data-bbox="1256 726 1292 751">10</td> </tr> <tr> <td data-bbox="753 758 1122 783">Total Non-methane Hydrocarbons</td> <td data-bbox="1256 758 1292 783">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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9	45CSR§30-5.1.c., 45CSR§30-5.1.c.2.B., 45CSR13, R13-1381A, B.1.	6.4.1.	<p>For the purpose of determining compliance with Sections 6.1.1 through 6.1.6, the company shall maintain certified monthly and annual records on the following for the 400 TPD Rotary Lime Kiln. Such records shall be retained by the permittee for at least five (5) years. Certified records shall be made available to the Director or the duly authorized representative upon request.</p> <ol style="list-style-type: none"> <li>(1) daily usage of the amount of coal purchased to determine the monthly usage and the twelve- (12) monthly rolling total</li> <li>(2) sulfur content on a weight basis of the coal purchased</li> <li>(3) ash content on a weight basis of the coal purchased</li> <li>(4) the approximate heating value of the coal purchased</li> <li>(5) limestone feed rates to determine the monthly usage and the twelve- (12) monthly rolling total</li> <li>(6) lime production to determine the monthly usage and the twelve- (12) monthly rolling total.</li> </ol>												
10	45CSR13, R13-1381A, B.1., R13-1788, (B).1.	6.4.2.	Compliance with the emission limits set forth in Section 6.1.2. For VOC, SO <sub>2</sub> and PM from bag houses (4-DC-1 and 4-DC-2) shall be demonstrated by complying with Section 6.1.4.												
11	45CSR§10-8.3 45CSR13, R13-1381A, B.3. and R13-1788, (B)3.	6.4.3.	In accordance with Greer's 45CSR10 Monitoring Plan that was submitted on March 30, 2001, Greer will maintain sulfur content statements from the fuel suppliers on-site for a period of at least five (5) years in accordance with 45CSR10A, Section 7. Greer will submit a "Monitoring Summary Report" and an "Excursion and Monitoring Plan Performance Report" on a quarterly basis to the 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.												
12	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)

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
1	45CSR13, R13-2670B, 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, R13-2670B, 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, R13-2670B, 4.1.3., 45CSR§5-3.4	11.1.3.	<b>Opacity Limit.</b> 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, R13-2670B, 4.1.4., 45CSR16, 40CFR§60.252(c)	11.1.4.	<b>Standards for Particulate Matter.</b> 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.

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
5	45CSR13, R13-2670B, 4.1.4.3, 45CSR16, 40CFR§60.254(c)	11.1.5.	The owner or operator of an open storage pile constructed after May 27, 2009, must prepare and operate in accordance with a fugitive emissions control plan as specified.
6	45CSR13, R13-2670B, 4.1.5.	11.1.6.	The amount of coal loaded into open stockpiles 5-CS-1A and 5-CS-2 shall not exceed 15,000 TPY.
7	45CSR13, R13-2670B, 4.1.6., 45CSR§13-5.11	11.1.7.	The permittee shall to the extent practicable, install, maintain and operate all air pollution control equipment in a manner consistent with good practices.

**Monitoring/Testing/Recordkeeping/Reporting**

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
1	45CSR13, R13-2670B, 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, R13-2670B, 4.2.2.	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, R13-2670B, 4.2.3., 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>

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
		11.2.3 Cont'd	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, R13-2670B, 4.2.4.	11.2.4.	To determine compliance with the maximum throughput limit set in 11.1.6., certified monthly and annual records will be maintained for at least five (5) years.
5	45CSR13, R13-2670B, 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.
6	45CSR16, 40CFR§60.257(a)	11.3.2.	To determine compliance with opacity standards from 11.1.4., the owner or operator must use the standards specified in this section.
7	45CSR13, R13-2670B, 4.4.2.	11.4.1.	<b>Record of Maintenance of Air Pollution Control Equipment.</b> 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.
8	45CSR13, R13-2670B, 4.4.3.	11.4.2.	<b>Record of Malfunctions of Air Pollution Control Equipment.</b> 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.
9	45CSR13, R13-2670B, 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.

<b>Ref #</b>	<b>Rule/ Regulation/ R13 Permit</b>	<b>Existing R30 Permit Condition</b>	<b>Monitoring/Testing/Recordkeeping/Reporting</b>
<b>10</b>	45CSR16, 40CFR§60.258(a) and (d)	11.4.4.	The owner or operator of an open storage pile constructed after May 27, 2009, shall maintain a logbook containing the information specified in 11.4.4.1. through 11.4.4.6.
<b>11</b>	45CSR13, R13-2670B, 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)**

<b>Ref #</b>	<b>Rule/ Regulation/ R13 Permit</b>	<b>Existing R30 Permit Condition</b>	<b>Requirement</b>
<b>1</b>	45CSR34, 40CFR§63.7090(a), Table 1-#1	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).
<b>2</b>	45CSR34, 40CFR§63.7090(a), Table 1-#7	12.1.2.	Fugitive emissions from all process stone handling (PSH) operations must not exceed 10 percent opacity.

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
3	<p>45CSR34, 40CFR§63.7090(b), Table 2-#1</p> <p>45CSR34, 40CFR§63.7090(b), Table 2-#5, 40CFR§63.7100(d)</p> <p>45CSR34, 40CFR§63.7090(b), Table 2-#6</p>	12.1.3.	<p>The permittee shall meet the following operating limits from Table 2 of 40 C.F.R. Part 63 Subpart AAAAA:</p> <p>(a) Each lime kiln equipped with a fabric filter (FF) shall maintain a 6-minute average opacity for any 6-minute block period that does not exceed 15% percent; and comply with the requirements in 40 C.F.R. §§ 63.7113 (f) and (g) and Table 5 of 40 C.F.R. Part 63 Subpart AAAAA. The referenced requirements are incorporated Sections 12.2.1 and 12.2.2.</p> <p>(b) The permittee shall prepare and implement for each lime manufacturing plant (LMP) a written operations, maintenance, and monitoring (OM&amp;M) plan in accordance with 40 C.F.R. § 63.7100 (d). This plan has been approved and is provided for reference as Appendix B. Any subsequent changes to the plan must be submitted to the applicable permitting authority, WVDEP Division of Air Quality, for review and approval. Pending approval of an initial or amended plan, the permittee must comply with the provisions of the submitted plan. Each plan must contain the information listed in 40 C.F.R. §§ 63.7100 (d) (1) through (7).</p> <p>(c) Each emission unit equipped with an add-on air pollution control device shall vent captured emissions through a closed system, except that dilution air may be added to emission streams for the purpose of controlling temperature at the inlet to a fabric filter (FF); and operate each capture/collection system in accordance with the procedures and requirements defined in the OM&amp;M plan required by Section 12.1.3. (b).</p>
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 C.
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 of 40 C.F.R. Part 63 Subpart AAAAA 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 40 C.F.R. § 63.7131 incorporated herein as Section 12.5.2.

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
7	45CSR34, 40CFR§63.6(e)(1)(i)	12.1.7.	<p>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 40 C.F.R. § 63.6 (e) (3), review of operation and maintenance records, and inspection of the source.</p>



Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
8	45CSR34, 40CFR§63.6(e)(3)(viii)	12.1.8.	<p>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 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.</p>
9	45CSR34, 40CFR§63.7140	12.1.9.	<p>The permittee shall comply with the General Provisions of 40 C.F.R. § 63.1 through § 63.15 that apply in accordance with Table 8 of 40 C.F.R. Part 63 Subpart AAAAA. When there is overlap between 40 C.F.R. Part 63 Subpart A and 40 C.F.R. Part 63 Subpart AAAAA, as indicated in the Explanations” column in Table 8, 40 C.F.R. Part 63 Subpart AAAAA takes precedence.</p>

**Monitoring/Testing/Recordkeeping/Reporting**

Ref #	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	12.2.1.	<p>The permittee must install, operate, and maintain each continuous opacity monitoring system (COMS) in accordance with the following:</p> <p>For each COMS used to monitor an add-on air pollution control device, you must install the COMS at the outlet of the control device and install, maintain, calibrate, and operate the COMS as required by 40 C.F.R. Part 63 Subpart A, General Provisions and according to 40 C.F.R. Part 60 Appendix B, Performance Specifications (PS)-1. Facilities that operate COMS installed before February 6, 2001, may continue to meet the requirements in effect at the time of COMS installation unless specifically required to recertify the COMS by their permitting authority.</p> <p>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.</p>
2	45CSR34, 40CFR§63.7113(f)	12.2.2.	<p>For each emission unit equipped with an add-on air pollution control device you must inspect each capture/collection and closed vent system at least once each calendar year to ensure each system is operating in accordance with the operating requirements of 40 C.F.R. Part 63 Subpart AAAAA, Table 2 Item 6, incorporated herein as Section 12.1.3 (c), and record the results of each inspection.</p>
3	45CSR34, 40CFR§63.7120(b)	12.2.3.	<p>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.</p>
4	45CSR34, 40CFR§63.7120(c)	12.2.4.	<p>Data recorded during the conditions described in 40 C.F.R. §§ 63.7120 (c) (1) through (3) [Section 12.2.4.] may not be used either in data averages or calculations of emission or operating limits; or in fulfilling a minimum data availability requirement. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system.</p> <p>(1) Monitoring system breakdowns, repairs, preventive maintenance, calibration checks, and zero (low-level) and high-level adjustments;</p> <p>(2) Periods of non-operation of the process unit (or portion thereof), resulting in cessation of the emissions to which the monitoring applies; and</p> <p>(3) Start-ups, shutdowns, and malfunctions.</p>

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
5	40CFR§63.7121(a) and Table 6 of 40CFR Part 63, Subpart AAAAA	12.2.5.	<p>Ongoing compliance with the fugitive opacity requirements referenced in Section 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 40 C.F.R. § 63.7121 (e), which is stated as follows:</p> <p>(e) For each PSH operation subject to an opacity limit as specified in 40 C.F.R. Part 63 Subpart AAAAA, Table 1, and any vents from buildings subject to an opacity limit, you must conduct a VE check according to item 1 in 40 C.F.R. Part 63 Subpart AAAAA, Table 6, and as follows:</p> <p>(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.</p> <p>(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.</p> <p>(3) The observer conducting the VE checks need not be certified to conduct 40 C.F.R. Part 60 Appendix A, Method 9, but must meet the training requirements as described in 40 C.F.R. Part 60 Appendix A, Method 22.</p> <p>Additionally, 40 C.F.R. Part 63 Subpart AAAAA, Table 6, items 1 (a) (ii), (iii), and (iv) allows a tiered monitoring frequency to be utilized in accordance with the following criteria:</p> <p>(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;</p> <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 40 C.F.R. Part 60 Appendix A, Method 9; you must begin the method 9 test within 1 hour of any observation of VE and the 6-minute opacity reading must not exceed the applicable opacity limit.</p>
6	45CSR34, 40CFR§63.7111	12.3.1.	<p>The permittee shall conduct a subsequent performance test for sources defined in 40 C.F.R. Part 63 Subpart AAAAA, Table 4, 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.</p>

<b>Ref #</b>	<b>Rule/ Regulation/ R13 Permit</b>	<b>Existing R30 Permit Condition</b>	<b>Monitoring/Testing/Recordkeeping/Reporting</b>
7	45CSR34, 40CFR§63.7132(a), (b), and (c)	12.4.1.	<p>(a) You must keep the records specified in 40 C.F.R. §§ 63.7132 (a) (1) through (3) [Section 12.4.1 (a)].</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 40 C.F.R. § 63.10 (b) (2) ( xiv).</p> <p>(2) The records in 40 C.F.R. §§ 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 40 C.F.R. § 63.10 (b) (2) (viii).</p> <p>(b) You must keep the records in 40 C.F.R. § 63.6 (h) (6) for VE observations. Compliance with this condition shall be satisfied by documenting the VE monitoring required by Section 12.2.5.</p> <p>(c) You must keep the records required by 40 C.F.R. Part 63 Subpart AAAAA, Tables 5 and 6 incorporated as Sections 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>
9	45CSR34, 40CFR§63.7130(d)	12.5.1.	When conducting performance test, such as those incorporated by 12.3.1, 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).

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
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 40 C.F.R. Part 63 Subpart AAAAA, Table 7 as applicable.</p> <p>Table 7 as referenced above as well as 40 C.F.R. § 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 Section 3.5.6. Each semiannual compliance report must contain the information specified by 40 C.F.R. §§ 63.7131 (c), (d), and (e) as follows.</p> <p><b>40 C.F.R. § 63.7131 (c)</b></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 40 C.F.R. § 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 out-of-control as specified in 40 C.F.R. § 63.8 (c) (7), a statement that there were no periods during which the CMS were out-of-control during the reporting period.</p> <p>The permittee shall also report any deviations as applicable according to the following criteria:</p> <p><b>40 C.F.R. § 63.7131 (d)</b></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 40 C.F.R. §§ 63.7131 (c) (1) through (4) and 40 C.F.R. §§ 63.7131 (d) (1) and (2). The deviations must be reported in accordance with the requirements in 40 C.F.R. § 63.10 (d).</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><b>40 C.F.R. § 63.7131 (e)</b></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 40 C.F.R. §§ 63.7131 (c) (1) through (4) and 40 C.F.R. §§ 63.7131 (e) (1) through (11). This includes periods of startup, shutdown, and malfunction.</p>

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
			<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 40 C.F.R. § 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.</p> <p>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 40 C.F.R. § 63.10 (d) (5) (ii). The information required by the 40 C.F.R. § 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 40 C.F.R. § 63.6 (e) (1) (i).</p>

<b>Ref #</b>	<b>Rule/ Regulation/ R13 Permit</b>	<b>Existing R30 Permit Condition</b>	<b>Monitoring/Testing/Recordkeeping/Reporting</b>
<b>11</b>	45CSR34, 40CFR§63.7131(f)	12.5.3.	Each facility that has obtained a title V operating permit pursuant to 40 C.F.R. Part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report 40 C.F.R. §§ 70.6 (a) (3) (iii) (A) or 71.6 (a) (3) (iii) (A). If you submit a compliance report specified in 40 C.F.R. Part 63 Subpart AAAAA, Table 7 along with, or as part of, the semiannual monitoring report required by 40 C.F.R. §§ 70.6 (a) (3) (iii) (A) or 71.6 (a) (3) (iii) (A), and the compliance report includes all required information concerning deviations from any emission limitation (including any operating limit), submission of the compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report shall not otherwise affect any obligation you may have to report deviations from permit requirements to the permit authority.

## ATTACHMENT E - Emission Unit Form

**Emission Unit Description:** Group 005

**Emission unit ID number:**  
4-BC-5, 4-TC-2, 4-SC-9, 4-SC-10,  
4-BEL-2, 4-SC-5, 4-SC-6, 4-SC-7,  
4-SC-8, 4-LS-1, 4-VF-5, 4-VF-6, 4-  
VF-7, 4-VF-8

**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.

**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), transfer chute (TC), vibrating feeders (VF), radial airlocks (RA), screw conveyors (SC), a bucket elevator (BEL), and a retractable loading chute.

**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:**  
8,760 hrs/yr

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

**Does this emission unit combust fuel?** \_\_\_Yes XNo

**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 <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	8.59/2.57	11.54/5.92
Total Particulate Matter (TSP)	16.92	20.35
Sulfur Dioxide (SO <sub>2</sub> )		
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 (PTE has not changed for this Group since the previous Title V renewal).

***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 applicable requirements starting on page E67.

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 applicable requirements starting on page E67.

**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:* Group 005

<b>Emission unit ID number:</b> 4-STB-2, 4-SI-2, 500-BOB	<b>Emission unit name:</b> Group 005 Storage	<b>List any control devices associated with this emission unit.</b> 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 500 TPD kiln operations in a stone bin (STB), a silo (SI) and a blow-off bin (BOB).

<b>Manufacturer:</b> See Attachment D	<b>Model number:</b> See Attachment D	<b>Serial number:</b> See Attachment D
<b>Construction date:</b> See Attachment D	<b>Installation date:</b> See Attachment D	<b>Modification date(s):</b> See Attachment D

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

<b>Maximum Hourly Throughput:</b> See Attachment D	<b>Maximum Annual Throughput:</b> See Attachment D	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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**Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE**

<b>Does this emission unit combust fuel?</b> ___Yes <u>X</u> No	<b>If yes, is it?</b>  ___ Indirect Fired    ___Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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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 <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	8.59/2.57	11.54/5.92
Total Particulate Matter (TSP)	16.92	20.35
Sulfur Dioxide (SO <sub>2</sub> )		
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 (PTE has not changed for this Group since the previous Title V renewal).

***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 applicable requirements starting on page E67.

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 applicable requirements starting on page E67.

**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:** Group 005

<b>Emission unit ID number:</b> 4-PH-2, 4-RK-2, 4-NC-2	<b>Emission unit name:</b> Group 005 Pre-Heater, 500 TPD Lime Kiln and Lime Cooler	<b>List any control devices associated with this emission unit.</b> 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.

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

<b>Maximum Hourly Throughput:</b> See Attachment D	<b>Maximum Annual Throughput:</b> See Attachment D	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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**Fuel Usage Data (fill out all applicable fields)**

<b>Does this emission unit combust fuel?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>If yes, is it?</b>  <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b> 89 MMBtu/hour	<b>Type and Btu/hr rating of burners:</b> NA
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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
No. 2 Fuel Oil (Startup Fuel Only)	0.05%	NA	138,000

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	21.0	83.16
Nitrogen Oxides (NO <sub>x</sub> )	42.0	166.32
Lead (Pb)	0.0001	0.0001
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	2.30/1.10	8.91/4.40
Total Particulate Matter (TSP)	4.1	16.25
Sulfur Dioxide (SO <sub>2</sub> )	12.1	47.84
Volatile Organic Compounds (VOC)	5.0	19.8
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total HAPs*	4.06	16.00
* For speciated HAPs see Appendix 1.		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
CO <sub>2</sub> e	NA	207,171
<p><b>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.).</b></p> <p>PM and NO<sub>x</sub> emission factors were calculated from February 25, 1991 stack test.</p> <p>SO<sub>2</sub> 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 and Hg. HCl and Hg emission factors were 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 applicable requirements starting on page E67.

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 applicable requirements starting on page E67.

**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:* Group 005

<b>Emission unit ID number:</b> 5-BC-4, 5-SI-3, 5-WF-2, 5-BM-2, 5-AS-2	<b>Emission unit name:</b> Group 005 Coal Circuit	<b>List any control devices associated with this emission unit.</b> 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.):**  
 Coal system for feed, sizing, and separating the coal to be fed to the kiln for combustion.

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

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

<b>Maximum Hourly Throughput:</b> See Attachment D.	<b>Maximum Annual Throughput:</b> See Attachment D.	<b>Maximum Operating Schedule:</b> 7,920 hrs/yr
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**Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE**

<b>Does this emission unit combust fuel?</b> ___Yes <u>X</u> No	<b>If yes, is it?</b>  ___ Indirect Fired    ___Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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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 <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	8.59/2.57	11.54/5.92
Total Particulate Matter (TSP)	16.92	20.35
Sulfur Dioxide (SO <sub>2</sub> )		
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 total for Group 005 (PTE has not changed for this Group since the previous Title V renewal).

**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 applicable requirements starting on page E67.

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 applicable requirements starting on page E67.

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

Ref #	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).	7.1.1.	<p>Total particulate emissions to the atmosphere from emission point 500-115 [4-DS-1], the 500 TPD lime kiln (500-105) [4-RK-2] baghouse [4-DC-2], 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.</p> <p>On and after the date on which the performance test required to be conducted by 40 C.F.R. § 60.8 is completed, no owner or operator subject to the provisions of 40 C.F.R. Part 60 Subpart HH, shall cause to be discharged into the atmosphere from any rotary lime kiln any gases which:</p> <p>(1) Contain particulate matter in excess of 0.30 kilogram per megagram (0.60 lb/ton) of stone feed.</p> <p>(2) Exhibit greater than 15 percent opacity when exiting from a dry emission control device.</p> <p>Compliance with Section 7.1.1 (1) is streamlined by demonstrating compliance with 40 C.F.R. Part 63 Subpart AAAAA [0.12 lb/ton stone feed (tsf)] incorporated within Section 12.1.1.</p>																		
2	45CSR13, R13-1381A, A.4., and R13-1788, (A)6	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.	7.1.3.	<p>Emissions to the atmosphere from the emission point 500-115 [vent stack (4-DS-1)], the 500 TPD lime kiln (500-105) baghouse (500-110 [4-DC-2]), shall not exceed the following maximum rates.</p> <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
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4	45CSR13, R13-1788, (A) 3.	7.1.4.	<p>The maximum throughputs associated with lime kiln 500-105 shall not exceed.</p> <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		
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5	45CSR13, R13-1788, (A)4.	7.1.5.	The bituminous coal fuel stockpile, common to both lime kilns 400-105 (4-RK-1) (R13-1381) and 500-105 (4-RK-2) (R13-1788), shall not exceed 5,000 tons at any given time.																		
6	45CSR13, R13-1788, (A) 5.	7.1.6.	The limestone feed stockpile (4-OS-1) common to both lime kilns 500-105 (4-RK-2) and 400-105 (4-RK-1) (R13-1381), shall not exceed 6,000 tons at any given time.																		

<b>Ref #</b>	<b>Rule/ Regulation/ R13 Permit</b>	<b>Existing R30 Permit Condition</b>	<b>Requirement</b>												
7	45CSR13, R13-1788, (A) 8.	7.1.7.	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.												
8	45CSR13, R13-1788, (A) 9.	7.1.8.	<p>The following equipment shall vent to baghouse 500-119 (4-DC-3).</p> <table border="1"> <thead> <tr> <th><b>Identification Number</b></th> <th><b>Equipment Description</b></th> </tr> </thead> <tbody> <tr> <td>4-SI-2 (500-114)</td> <td>Baghouse Dust Bin</td> </tr> <tr> <td>4-SC-7 (500-119b)</td> <td>Dust Screw Conveyor #1</td> </tr> <tr> <td>4-SC-8 (500-119b)</td> <td>Dust Screw Conveyor #2</td> </tr> <tr> <td>4-BEL-2 (500-119b)</td> <td>Dust Bucket Elevator</td> </tr> <tr> <td>4-LS-1 (500-119b)</td> <td>Dust Truck Loading Spout</td> </tr> </tbody> </table>	<b>Identification Number</b>	<b>Equipment Description</b>	4-SI-2 (500-114)	Baghouse Dust Bin	4-SC-7 (500-119b)	Dust Screw Conveyor #1	4-SC-8 (500-119b)	Dust Screw Conveyor #2	4-BEL-2 (500-119b)	Dust Bucket Elevator	4-LS-1 (500-119b)	Dust Truck Loading Spout
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4-LS-1 (500-119b)	Dust Truck Loading Spout														
9	45CSR13, R13-1788, (A) 10.	7.1.9.	Maximum particulate emissions from the truck cleaning blow off bin and 50 ton dust bin baghouse 500-119 (4-DC-3) emission point 500-119b shall not exceed 0.273 lb/hr.												
10	45CSR13, R13-1788, (A) 11.	7.1.10.	Side of baghouse 500-119 (4-DC-3) 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.	7.1.11.	<p>The following equipment shall vent to baghouse 500-P1.</p> <table border="1"> <thead> <tr> <th><b>Identification Number</b></th> <th><b>Equipment Description</b></th> </tr> </thead> <tbody> <tr> <td>6-BC-15 (500-P1)</td> <td>Product Conveyor #1</td> </tr> <tr> <td>6-BC-16 (500-P1)</td> <td>Product Conveyor #2</td> </tr> <tr> <td>6-BC-4 (500-P1)</td> <td>Product Conveyor #3</td> </tr> </tbody> </table>	<b>Identification Number</b>	<b>Equipment Description</b>	6-BC-15 (500-P1)	Product Conveyor #1	6-BC-16 (500-P1)	Product Conveyor #2	6-BC-4 (500-P1)	Product Conveyor #3				
<b>Identification Number</b>	<b>Equipment Description</b>														
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6-BC-16 (500-P1)	Product Conveyor #2														
6-BC-4 (500-P1)	Product Conveyor #3														
12	45CSR13, R13-1788, (A) 13.	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) 4.1.4.	7.1.13	Side of baghouse 6-DC-4 emission point 500-P1 shall be equipped in such a manner as to discharge emissions vertically into the atmosphere.												
14	45CSR13, R13-2113K, 4.1.4.	7.1.14.	The maximum processing rate of material to or from the Blow Off Bin (500-BOB) shall not exceed 20 TPH and 3,000 TPY.												

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement																		
15	45CSR13, R13-2113K, 1.0	7.1.15.	<p>In accordance with the information filed in amended Permit Application R13-2113K, 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.</p> <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.
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16	45CSR§10-4.1., 45CSR13, R13-1381A, B.3., and R13-1788K, (B) 3.	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	45CSR§7-3.7., 45CSR13, R13-1788, (B)4.a.	7.1.17.	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.																		
18	45CSR13, R13-1788, General Requirements 3.	7.1.18.	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.																		
19	None	7.1.19.	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**

Ref #	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	None	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	None	7.2.3.	See Section 6.2.3. for the 500 TPD Rotary Lime Kiln, (4-RK-2), 45CSR10 stack monitoring provisions.															
4	None	7.3.1.	See Section 3.3.4 through 3.3.9 for NSPS testing requirements. NOTE: See Attachment E pp 16-18 for the above referenced sections.															
5	None	7.3.2.	See Sections 6.3.2 and 6.3.3 for Subpart HH testing requirements.															
6	None	7.3.3.	See Sections 6.3.1. for 45CSR10 SO2 testing requirements.															
7	45CSR§30-5.1.c.	7.3.4.	<p>The permittee shall conduct tests to determine compliance with the nitrogen oxides (NO<sub>x</sub>) and carbon monoxide (CO) emission limitations in Section 7.1.3 for the one (1) vent stack (4-DC-2). The Methods listed below from 40 C.F.R. Part 60 Appendix A shall be utilized for purposes of conducting performance tests, unless the Director approves an alternate or equivalent method. Requirements shall be met with respect to submission of a test protocol and notification of testing.</p> <table border="0" data-bbox="748 1087 1339 1178"> <tr> <td style="text-align: left;">Pollutant</td> <td style="text-align: right;">Method</td> </tr> <tr> <td>Carbon Monoxide</td> <td style="text-align: right;">10</td> </tr> <tr> <td>Nitrogen Oxides</td> <td style="text-align: right;">7</td> </tr> </table> <p>Tests for nitrogen oxides (NO<sub>x</sub>) were conducted in October of 2005 and in October of 2008 and resulted in mass emission rates between 50% and 90 % for each test. The results of those tests showed that the current nitrogen oxides (NO<sub>x</sub>) testing frequency is "Once/ 3 years." A test for carbon monoxide (CO) was conducted in October of 2005 and resulted in mass emission rates #50%. The results of this test showed that the current carbon monoxide (CO) testing frequency is "Once/5 years." Subsequent testing to determine compliance with the nitrogen oxides (NO<sub>x</sub>) 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" data-bbox="748 1549 1450 1934"> <thead> <tr> <th>Test</th> <th>Test Results</th> <th>Testing Frequency</th> </tr> </thead> <tbody> <tr> <td>Annual</td> <td>If annual testing is required, after two successive tests indicate mass emission rates between 50% and 90 % of nitrogen oxides (NO<sub>x</sub>) or carbon monoxide (CO) limit</td> <td>Once/3 years</td> </tr> <tr> <td>Annual</td> <td>If annual testing is required, after three successive tests indicate mass emission rates #50% of nitrogen oxides (NO<sub>x</sub>) or carbon monoxide (CO) limit</td> <td>Once/5 years</td> </tr> </tbody> </table>	Pollutant	Method	Carbon Monoxide	10	Nitrogen Oxides	7	Test	Test Results	Testing Frequency	Annual	If annual testing is required, after two successive tests indicate mass emission rates between 50% and 90 % of nitrogen oxides (NO <sub>x</sub> ) 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 <sub>x</sub> ) or carbon monoxide (CO) limit	Once/5 years
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Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting		
		7.3.4. Cont'd	Once/3 years	If testing is required once/3 years, after two successive tests indicate mass emission rates 50% of nitrogen oxides (NO <sub>x</sub> ) 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 $\geq$ 90% of nitrogen oxides (NO <sub>x</sub> ) or carbon monoxide (CO) limit	Annual
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			Once/5 years	If testing is required once/5 years and any test indicates a mass emission rate $\geq$ 90% of nitrogen oxides (NO <sub>x</sub> ) or carbon monoxide (CO) limit	Annual
8	45CSR§ 30-5.1.c., 45CSR§ 30-5.1.c.2.B., 45CSR13, R13-1788, (B)1.	7.4.1	<p>For the purpose of determining compliance with Sections 7.1.1 through 7.1.6, the company shall maintain certified monthly and annual records on the following for the 500 TPD Rotary Lime Kilns. Such records shall be retained by the permittee for at least five (5) years. Certified records shall be made available to the Director or the duly authorized representative upon request.</p> <p>(1) daily usage of the amount of coal purchased to determine the monthly usage and the twelve- (12) monthly rolling total  (2) sulfur content on a weight basis of the coal purchased  (3) ash content on a weight basis of the coal purchased  (4) the approximate heating value of the coal purchased  (5) limestone feed rates to determine the monthly usage and the twelve- (12) monthly rolling total  (6) lime production to determine the monthly usage and the twelve- (12) monthly rolling total</p>		
9	45CSR§30-5.1.c., 45CSR13, R13-2113K, 4.4.4.	7.4.2.	<p>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 D. Such records shall be maintained in accordance with condition 3.4.2.</p>		
10	45CSR16, 40CFR60.343(e)	7.5.1.	<p>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.</p>		



**Attachment E Groups 004 and 005**

**Applicable Requirements (NESHAPS MACT AAAAA)**

<b>Ref #</b>	<b>Rule/ Regulation/ R13 Permit</b>	<b>Existing R30 Permit Condition</b>	<b>Requirement</b>
1	45CSR34, 40CFR§63.7090(a), Table 1-#1	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	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  45CSR34, 40CFR§63.7090(b), Table 2-#5, 40CFR§63.7100(d)  45CSR34, 40CFR§63.7090(b), Table 2-#6	12.1.3.	<p>The permittee shall meet the following operating limits from Table 2 of 40CFR63, Subpart AAAAA:</p> <p>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.</p> <p>(b) The permittee shall prepare and implement for each lime manufacturing plant (LMP) a written operations, maintenance, and monitoring (OM&amp;M) plan in accordance with 40 C.F.R. § 63.7100 (d). This plan has been approved and is provided for reference as Appendix B. Any subsequent changes to the plan must be submitted to the applicable permitting authority, WVDEP Division of Air Quality, for review and approval. Pending approval of an initial or amended plan, the permittee must comply with the provisions of the submitted plan. Each plan must contain the information listed in 40 C.F.R. §§ 63.7100 (d) (1) through (7).</p> <p>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&amp;M plan required by 12.1.3.(b).</p>
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 C.
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).

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
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 of 40 C.F.R. Part 63 Subpart AAAAA 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 40 C.F.R. § 63.7131 incorporated herein as Section 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 40 C.F.R. § 63.6 (e) (3), review of operation and maintenance records, and inspection of the source.

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
8	45CSR34, 40CFR§63.6(e)(3)(viii)	12.1.8.	<p>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 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.</p>
9	45CSR34, 40CFR§63.7140	12.1.9.	<p>The permittee shall comply with the General Provisions of 40 C.F.R. § 63.1 through § 63.15 that apply in accordance with Table 8 of 40 C.F.R. Part 63 Subpart AAAAA. When there is overlap between 40 C.F.R. Part 63 Subpart A and 40 C.F.R. Part 63 Subpart AAAAA, as indicated in the Explanations” column in Table 8, 40 C.F.R. Part 63 Subpart AAAAA takes precedence.</p>

**Monitoring/Testing/Recordkeeping/Reporting**

Ref #	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	12.2.1.	<p>The permittee must install, operate, and maintain each continuous opacity monitoring system (COMS) in accordance with the following:</p> <p>For each COMS used to monitor an add-on air pollution control device, you must install the COMS at the outlet of the control device and install, maintain, calibrate, and operate the COMS as required by 40 C.F.R. Part 63 Subpart A, General Provisions and according to 40 C.F.R. Part 60 Appendix B, Performance Specifications (PS)-1. Facilities that operate COMS installed before February 6, 2001, may continue to meet the requirements in effect at the time of COMS installation unless specifically required to recertify the COMS by their permitting authority.</p> <p>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.</p>
2	45CSR34, 40CFR§63.7113(f)	12.2.2.	<p>For each emission unit equipped with an add-on air pollution control device you must inspect each capture/collection and closed vent system at least once each calendar year to ensure each system is operating in accordance with the operating requirements of 40 C.F.R. Part 63 Subpart AAAAA, Table 2 Item 6, incorporated herein as Section 12.1.3 (c), and record the results of each inspection.</p>
3	45CSR34, 40CFR§63.7120(b)	12.2.3.	<p>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.</p>
4	45CSR34, 40CFR§63.7120(c)	12.2.4.	<p>Data recorded during the conditions described in 40 C.F.R. §§ 63.7120 (c) (1) through (3) [Section 12.2.4.] may not be used either in data averages or calculations of emission or operating limits; or in fulfilling a minimum data availability requirement. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system.</p> <p>(1) Monitoring system breakdowns, repairs, preventive maintenance, calibration checks, and zero (low-level) and high-level adjustments;</p> <p>(2) Periods of non-operation of the process unit (or portion thereof), resulting in cessation of the emissions to which the monitoring applies; and</p> <p>(3) Start-ups, shutdowns, and malfunctions.</p>

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
5	40CFR§63.7121(a) and Table 6 of 40CFR Part 63, Subpart AAAAA	12.2.5.	<p>Ongoing compliance with the fugitive opacity requirements referenced in Section 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 40 C.F.R. § 63.7121 (e), which is stated as follows:</p> <p>(e) For each PSH operation subject to an opacity limit as specified in 40 C.F.R. Part 63 Subpart AAAAA, Table 1, and any vents from buildings subject to an opacity limit, you must conduct a VE check according to item 1 in 40 C.F.R. Part 63 Subpart AAAAA, Table 6, and as follows:</p> <p>(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.</p> <p>(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.</p> <p>(3) The observer conducting the VE checks need not be certified to conduct 40 C.F.R. Part 60 Appendix A, Method 9, but must meet the training requirements as described in 40 C.F.R. Part 60 Appendix A, Method 22.</p> <p>Additionally, 40 C.F.R. Part 63 Subpart AAAAA, Table 6, items 1 (a) (ii), (iii), and (iv) allows a tiered monitoring frequency to be utilized in accordance with the following criteria:</p> <p>(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;</p> <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 40 C.F.R. Part 60 Appendix A, Method 9; you must begin the method 9 test within 1 hour of any observation of VE and the 6-minute opacity reading must not exceed the applicable opacity limit.</p>
6	45CSR34, 40CFR§63.7111	12.3.1.	<p>The permittee shall conduct a subsequent performance test for sources defined in 40 C.F.R. Part 63 Subpart AAAAA, Table 4, 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.</p>

<b>Ref #</b>	<b>Rule/ Regulation/ R13 Permit</b>	<b>Existing R30 Permit Condition</b>	<b>Monitoring/Testing/Recordkeeping/Reporting</b>
7	45CSR34, 40CFR§63.7132(a), (b), and (c)	12.4.1.	<p>(a) You must keep the records specified in 40 C.F.R. §§ 63.7132 (a) (1) through (3) [Section 12.4.1 (a)].</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 40 C.F.R. § 63.10 (b) (2) ( xiv).</p> <p>(2) The records in 40 C.F.R. §§ 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 40 C.F.R. § 63.10 (b) (2) (viii).</p> <p>(b) You must keep the records in 40 C.F.R. § 63.6 (h) (6) for VE observations. Compliance with this condition shall be satisfied by documenting the VE monitoring required by Section 12.2.5.</p> <p>(c) You must keep the records required by 40 C.F.R. Part 63 Subpart AAAAA, Tables 5 and 6 incorporated as Sections 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>
9	45CSR34, 40CFR§63.7130(d)	12.5.1.	<p>When conducting performance test, such as those incorporated by 12.3.1, 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).</p>

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
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 40 C.F.R. Part 63 Subpart AAAAA, Table 7 as applicable.</p> <p>Table 7 as referenced above as well as 40 C.F.R. § 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 Section 3.5.6. Each semiannual compliance report must contain the information specified by 40 C.F.R. §§ 63.7131 (c), (d), and (e) as follows.</p> <p><b>40 C.F.R. § 63.7131 (c)</b></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 40 C.F.R. § 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 out-of-control as specified in 40 C.F.R. § 63.8 (c) (7), a statement that there were no periods during which the CMS were out-of-control during the reporting period.</p> <p>The permittee shall also report any deviations as applicable according to the following criteria:</p> <p><b>40 C.F.R. § 63.7131 (d)</b></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 40 C.F.R. §§ 63.7131 (c) (1) through (4) and 40 C.F.R. §§ 63.7131 (d) (1) and (2). The deviations must be reported in accordance with the requirements in 40 C.F.R. § 63.10 (d).</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><b>40 C.F.R. § 63.7131 (e)</b></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 40 C.F.R. §§ 63.7131 (c) (1) through (4) and 40 C.F.R. §§ 63.7131 (e) (1) through (11). This includes periods of startup, shutdown, and malfunction.</p>

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
			<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 40 C.F.R. § 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.</p> <p>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 40 C.F.R. § 63.10 (d) (5) (ii). The information required by the 40 C.F.R. § 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 40 C.F.R. § 63.6 (e) (1) (i).</p>



<b>Ref #</b>	<b>Rule/ Regulation/ R13 Permit</b>	<b>Existing R30 Permit Condition</b>	<b>Monitoring/Testing/Recordkeeping/Reporting</b>
<b>11</b>	45CSR34, 40CFR§63.7131(f)	12.5.3.	Each facility that has obtained a title V operating permit pursuant to 40 C.F.R. Part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report 40 C.F.R. §§ 70.6 (a) (3) (iii) (A) or 71.6 (a) (3) (iii) (A). If you submit a compliance report specified in 40 C.F.R. Part 63 Subpart AAAAA, Table 7 along with, or as part of, the semiannual monitoring report required by 40 C.F.R. §§ 70.6 (a) (3) (iii) (A) or 71.6 (a) (3) (iii) (A), and the compliance report includes all required information concerning deviations from any emission limitation (including any operating limit), submission of the compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report shall not otherwise affect any obligation you may have to report deviations from permit requirements to the permit authority.

## ATTACHMENT E - Emission Unit Form

**Emission Unit Description:** Group 006

<b>Emission unit ID number:</b> 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-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-BC-6, 6-BEL-4, 6-BC-7, 6-VF-1, 6-VF-2, 6-VF-3, 6-VF-4, 6-VF-5, 6- VF-6, 6-BEL-2, 6-SC-11	<b>Emission unit name:</b> Group 006 Conveying and Transfer	<b>List any control devices associated with this emission unit.</b> 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).

<b>Manufacturer:</b> See Attachment D	<b>Model number:</b> See Attachment D	<b>Serial number:</b> See Attachment D
<b>Construction date:</b> See Attachment D	<b>Installation date:</b> See Attachment D	<b>Modification date(s):</b> See Attachment D

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

<b>Maximum Hourly Throughput:</b> See Attachment D	<b>Maximum Annual Throughput:</b> See Attachment D	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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**Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE**

<b>Does this emission unit combust fuel?</b> ___Yes <u>X</u> No	<b>If yes, is it?</b>  ___ Indirect Fired    ___Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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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 <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	18.69/5.99	57.20/18.32
Total Particulate Matter (TSP)	39.43	120.55
Sulfur Dioxide (SO <sub>2</sub> )		
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. These emissions have been adjusted since the last Title V renewal application to reflect the change in PTE caused by the issuance of R13-2113K.

***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 applicable requirements starting on page E99.

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 applicable requirements starting on page E99.

**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:** Group 006

<b>Emission unit ID number:</b> 6-CR-3, 6-CR-2	<b>Emission unit name:</b> Group 006 Crushing	<b>List any control devices associated with this emission unit.</b> 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).

<b>Manufacturer:</b> See Attachment D	<b>Model number:</b> See Attachment D	<b>Serial number:</b> See Attachment D
<b>Construction date:</b> See Attachment D	<b>Installation date:</b> See Attachment D	<b>Modification date(s):</b> See Attachment D

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

<b>Maximum Hourly Throughput:</b> See Attachment D	<b>Maximum Annual Throughput:</b> See Attachment D	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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**Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE**

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

**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 <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	18.69/5.99	57.20/18.32
Total Particulate Matter (TSP)	39.43	120.55
Sulfur Dioxide (SO <sub>2</sub> )		
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. These emissions have been adjusted since the last Title V renewal application to reflect the change in PTE caused by the issuance of R13-2113K.

***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 applicable requirements starting on page E99.

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 applicable requirements starting on page E99.

**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:** Group 006

<b>Emission unit ID number:</b> 6-VS-4, 6-VS-3	<b>Emission unit name:</b> Group 006 Screening	<b>List any control devices associated with this emission unit.</b> 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).

<b>Manufacturer:</b> See Attachment D	<b>Model number:</b> See Attachment D	<b>Serial number:</b> See Attachment D
<b>Construction date:</b> See Attachment D	<b>Installation date:</b> See Attachment D	<b>Modification date(s):</b> See Attachment D

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

<b>Maximum Hourly Throughput:</b> See Attachment D	<b>Maximum Annual Throughput:</b> See Attachment D	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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**Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE**

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

**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 <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	18.69/5.99	57.20/18.32
Total Particulate Matter (TSP)	39.43	120.55
Sulfur Dioxide (SO <sub>2</sub> )		
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. These emissions have been adjusted since the last Title V renewal application to reflect the change in PTE caused by the issuance of R13-2113K.

***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 applicable requirements starting on page E99.

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 applicable requirements starting on page E99.

**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:** Group 006

<b>Emission unit ID number:</b> 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	<b>Emission unit name:</b> Group 006 Storage	<b>List any control devices associated with this emission unit.</b> 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).

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

<b>Maximum Hourly Throughput:</b> See Attachment D	<b>Maximum Annual Throughput:</b> See Attachment D	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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**Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE**

<b>Does this emission unit combust fuel?</b> ___Yes <u>X</u> No	<b>If yes, is it?</b>  ___ Indirect Fired    ___Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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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 <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	18.69/5.99	57.20/18.32
11.22	39.43	120.55
Sulfur Dioxide (SO <sub>2</sub> )		
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. These emissions have been adjusted since the last Title V renewal application to reflect the change in PTE caused by the issuance of R13-2113K.

***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 applicable requirements starting on page E99.

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 applicable requirements starting on page E99.

**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:* Group 006

<b>Emission unit ID number:</b> 6-GB-1	<b>Emission unit name:</b> Group 006 Granular Bagger	<b>List any control devices associated with this emission unit.</b> 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.

<b>Manufacturer:</b> See Attachment D	<b>Model number:</b> See Attachment D	<b>Serial number:</b> See Attachment D
<b>Construction date:</b> See Attachment D	<b>Installation date:</b> See Attachment D	<b>Modification date(s):</b> See Attachment D

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

<b>Maximum Hourly Throughput:</b> See Attachment D	<b>Maximum Annual Throughput:</b> See Attachment D	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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**Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE**

<b>Does this emission unit combust fuel?</b> ___Yes <u>X</u> No	<b>If yes, is it?</b> ___ Indirect Fired ___Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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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 <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	18.69/5.99	57.20/18.32
Total Particulate Matter (TSP)	39.43	120.55
Sulfur Dioxide (SO <sub>2</sub> )		
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. These emissions have been adjusted since the last Title V renewal application to reflect the change in PTE caused by the issuance of R13-2113K.

***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 applicable requirements starting on page E99.

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 applicable requirements starting on page E99.

**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:** Group 006

<b>Emission unit ID number:</b> 6-VS-5, 6-SC-10, 6-BL-1	<b>Emission unit name:</b> Group 006 Screen and Conveyors	<b>List any control devices associated with this emission unit.</b> 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.

<b>Manufacturer:</b> 6-BL-1 - DensPhase™	<b>Model number:</b> NA	<b>Serial number:</b> NA
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<b>Construction date:</b> 2006	<b>Installation date:</b> 2006	<b>Modification date(s):</b> NA
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
NA

<b>Maximum Hourly Throughput:</b> See Attachment D	<b>Maximum Annual Throughput:</b> See Attachment D	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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**Fuel Usage Data (fill out all applicable fields) Not Applicable**

<b>Does this emission unit combust fuel?</b> ___Yes <input checked="" type="checkbox"/> No	<b>If yes, is it?</b> ___ Indirect Fired ___Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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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 <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	18.69/5.99	57.20/18.32
Total Particulate Matter (TSP)	39.43	120.55
Sulfur Dioxide (SO <sub>2</sub> )		
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. These emissions have been adjusted since the last Title V renewal application to reflect the change in PTE caused by the issuance of R13-2113K.

***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 applicable requirements starting on page E99.

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 applicable requirements starting on page E99.

**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 006

Applicable Requirements

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
1	45CSR13, R13-2113K, 1.0	8.1.1.	In accordance with the information filed in amended Permit Application R13-2113K, 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 <sup>6</sup>	
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.

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement		
Equipment Capacity ID Number	Year Constructed	Description	Maximum Capacity		Control Equipment
			TPH	TPY x 10 <sup>6</sup>	
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.
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	Fully enclosed. Vented to existing Dust collector (6-DC-2)
2	45CSR13, R13-2113K, 4.1.2.	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, R13-2113K, 4.1.3., 45CSR§7-3.1. and 45CSR§7-3.2.	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**

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
1	None	8.2.1.	See Sections 3.2.1. and 3.2.2. for 45CSR7 opacity monitoring requirements and dust collector monitoring. See pp. 15 and 16.
2	None	8.3.1.	See Sections 3.3.1. and 3.3.2.
3	45CSR§30-5.1.c., 45CSR13, R13-2113K, 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.

## ATTACHMENT E - Emission Unit Form

**Emission Unit Description:** Group 007

<b>Emission unit ID number:</b> 7-BC-1, 7-SC-0, 7-BEL-1, 7-SC-1, 7-SC-2, 7-BEL-2, 7-SC-23, 7-SC-24, 7-SC-8, 7-SC-9, 7-SC-29, 7-SC-30, 7-SC-31, 7-SC-32, 7-SC-25, 7-BEL- 3, 7-SC-10, 7-SC-11, 7-SC-12, 7- SC-13, 7-BL-1, 7-LS-2, 7-BEL-4, 7- SC-14, 7-LS-1, 7-SC-27, 7-SC-28, 7- CDC-1	<b>Emission unit name:</b> Group 007 Conveying and Transfer	<b>List any control devices associated with this emission unit.</b> 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).

<b>Manufacturer:</b> See Attachment D	<b>Model number:</b> See Attachment D	<b>Serial number:</b> See Attachment D
<b>Construction date:</b> See Attachment D	<b>Installation date:</b> See Attachment D	<b>Modification date(s):</b> See Attachment D

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

<b>Maximum Hourly Throughput:</b> See Attachment D	<b>Maximum Annual Throughput:</b> See Attachment D	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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**Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE**

<b>Does this emission unit combust fuel?</b> ___ Yes <u>X</u> No	<b>If yes, is it?</b> ___ Indirect Fired    ___ Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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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 <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	23.14/7.73	41.95/22.14
Total Particulate Matter (TSP)	30.26	50.40
Sulfur Dioxide (SO <sub>2</sub> )		
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. These emissions have been adjusted since the last Title V renewal application to reflect the change in PTE caused by the issuance of R13-1396D.

***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 applicable requirements starting on page E119.

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 applicable requirements starting on page E119.

**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:* Group 007

<b>Emission unit ID number:</b> 7-BM-1, 7-SM-1	<b>Emission unit name:</b> Group 007 Crushing	<b>List any control devices associated with this emission unit.</b> 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.

<b>Manufacturer:</b> See Attachment D	<b>Model number:</b> See Attachment D	<b>Serial number:</b> See Attachment D
<b>Construction date:</b> See Attachment D	<b>Installation date:</b> See Attachment D	<b>Modification date(s):</b> See Attachment D

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

<b>Maximum Hourly Throughput:</b> See Attachment D	<b>Maximum Annual Throughput:</b> See Attachment D	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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**Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE**

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

**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 <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	23.14/7.73	41.95/22.14
Total Particulate Matter (TSP)	30.26	50.40
Sulfur Dioxide (SO <sub>2</sub> )		
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. These emissions have been adjusted since the last Title V renewal application to reflect the change in PTE caused by the issuance of R13-1396D.

***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 applicable requirements starting on page E119.

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 applicable requirements starting on page E119.

**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:* Group 007

<b>Emission unit ID number:</b> 7-AS-20	<b>Emission unit name:</b> Group 007 Air Separation	<b>List any control devices associated with this emission unit.</b> 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.

<b>Manufacturer:</b> See Attachment D	<b>Model number:</b> See Attachment D	<b>Serial number:</b> See Attachment D
<b>Construction date:</b> See Attachment D	<b>Installation date:</b> See Attachment D	<b>Modification date(s):</b> See Attachment D

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

<b>Maximum Hourly Throughput:</b> See Attachment D	<b>Maximum Annual Throughput:</b> See Attachment D	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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**Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE**

<b>Does this emission unit combust fuel?</b> ___Yes <u>X</u> No	<b>If yes, is it?</b>  ___ Indirect Fired    ___Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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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 <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	23.14/7.73	41.95/22.14
Total Particulate Matter (TSP)	30.26	50.40
Sulfur Dioxide (SO <sub>2</sub> )		
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. These emissions have been adjusted since the last Title V renewal application to reflect the change in PTE caused by the issuance of R13-1396D.

***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 applicable requirements starting on page E119.

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 applicable requirements starting on page E119.

**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:* Group 007

<b>Emission unit ID number:</b> 7-SB-1, 7-SI-1, 7-SI-2, 7-SI-4, 7-SI-5, 7-BGR-1	<b>Emission unit name:</b> Group 007 Storage	<b>List any control devices associated with this emission unit.</b> 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).

<b>Manufacturer:</b> See Attachment D	<b>Model number:</b> See Attachment D	<b>Serial number:</b> See Attachment D
<b>Construction date:</b> See Attachment D	<b>Installation date:</b> See Attachment D	<b>Modification date(s):</b> See Attachment D

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

<b>Maximum Hourly Throughput:</b> See Attachment D	<b>Maximum Annual Throughput:</b> See Attachment D	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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**Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE**

<b>Does this emission unit combust fuel?</b> ___Yes <u>X</u> No	<b>If yes, is it?</b>  ___ Indirect Fired    ___Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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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 <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	23.14/7.73	41.95/22.14
Total Particulate Matter (TSP)	30.26	50.40
Sulfur Dioxide (SO <sub>2</sub> )		
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. These emissions have been adjusted since the last Title V renewal application to reflect the change in PTE caused by the issuance of R13-1396D.



***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 applicable requirements starting on page E119.

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 applicable requirements starting on page E119.

**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:* Group 007

<b>Emission unit ID number:</b> 7-MT-1, 7-HY-1	<b>Emission unit name:</b> Group 007 Mixing Tub and Atmospheric Hydrator	<b>List any control devices associated with this emission unit.</b> 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.

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

<b>Maximum Hourly Throughput:</b> See Attachment D	<b>Maximum Annual Throughput:</b> See Attachment D	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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**Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE**

<b>Does this emission unit combust fuel?</b> ___Yes <u>X</u> No	<b>If yes, is it?</b>  ___ Indirect Fired    ___Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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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 <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	23.14/7.73	41.95/22.14
Total Particulate Matter (TSP)	30.26	50.40
Sulfur Dioxide (SO <sub>2</sub> )		
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. These emissions have been adjusted since the last Title V renewal application to reflect the change in PTE caused by the issuance of R13-1396D.

***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 applicable requirements starting on page E119.

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 applicable requirements starting on page E119.

**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:* Group 007

<b>Emission unit ID number:</b> 7-BG-1	<b>Emission unit name:</b> Group 007 Hydrate Bagger	<b>List any control devices associated with this emission unit.</b> 7-DC-6
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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.

<b>Manufacturer:</b> See Attachment D	<b>Model number:</b> See Attachment D	<b>Serial number:</b> See Attachment D
<b>Construction date:</b> See Attachment D	<b>Installation date:</b> See Attachment D	<b>Modification date(s):</b> See Attachment D

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

<b>Maximum Hourly Throughput:</b> See Attachment D	<b>Maximum Annual Throughput:</b> See Attachment D	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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**Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE**

<b>Does this emission unit combust fuel?</b> ___Yes <u>X</u> No	<b>If yes, is it?</b> ___ Indirect Fired    ___Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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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 <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	23.14/7.73	41.95/22.14
Total Particulate Matter (TSP)	30.26	50.40
Sulfur Dioxide (SO <sub>2</sub> )		
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. These emissions have been adjusted since the last Title V renewal application to reflect the change in PTE caused by the issuance of R13-1396D.

***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 applicable requirements starting on page E119.

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 applicable requirements starting on page E119.

**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, R13-1396E, 4.1.2.	9.1.1.	Hydrated lime production shall not exceed 125,000 TPY.
2	45CSR13, R13-1396, 4.1.1.	9.1.2.	Only those emission units identified in Table 1.0 of R13-1396E, with the exception of de minimis sources, are authorized at the Hydrate Plant.
3	45CSR13, R13-1396E, 4.1.3.	9.1.3.	Emissions of particulate matter for the listed emission points shall not exceed the limits given in the table. Limits are given for E1 (7-DC-1), E2 (7-DC-2), E3 (7-DC-3), E4 (7-SCR-1), E5 (7-DC-5), E6 (7-DC-6), E20 (7-DC-20) and E21 (7-DC-21). See Table 9.1.3. in the Title V permit or Table 4.1.3. in R13-1396E.
4	45CSR13, R13-1396E, 4.1.10.	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 45CSR§7-5.1 is required to have a full enclosure and be equipped with a particulate matter control device.
5	45CSR13, R13-1396E, 4.1.4.	9.1.5.	Dust collectors 7-DC-1 and 7-DC-3 shall not exceed 0.03 grains/ACF.
6	None	9.1.6.	See Sections 3.1.9 through 3.1.18 for 45CSR7 limitation and standard requirements for the Hydrate System.
7	45CSR13, R13-1396E, 4.1.6.	9.1.7.	Dust collector 7-DC-20 shall not exceed 0.01 grains/ACF.
8	45CSR13, R13-1396E, 4.1.11.	9.1.8.	<b>Operation and Maintenance of Air Pollution Control Equipment.</b> The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 of R13-1396E 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.
9	45CSR13, R13-1396E, 4.1.5.	9.1.11.	Dust collectors 7-DC-2, 7-DC-5, 7-DC-6 and 7-DC-21 shall not exceed 0.02 grains/ACF.
10	45CSR13, R13-1396E, 4.1.7.	None	Transfer points will use the following controls: TP287 and TP292 will use partial enclosures; TP254, TP256-TP258 will use double full enclosures; TP 259 will be controlled by 7-SCR-1; and All other TPs with the exception of TP260 and TP261 will use dust collectors as specified for control.



**Monitoring/Testing/Recordkeeping/Reporting**

<b>Ref #</b>	<b>Rule/ Regulation/ R13 Permit</b>	<b>Existing R30 Permit Condition</b>	<b>Monitoring/Testing/Recordkeeping/Reporting</b>
1	45CSR13, R13-1396E, 4.2.1.	9.2.1.	For the purpose of demonstrating compliance with the maximum production limit set forth in 9.1.1, the permittee shall monitor and record the monthly and rolling twelve month amount of hydrated lime produced.
2	45CSR13, R13-1396E, 4.2.2.	9.2.2.	For the purposes of demonstrating compliance with visible emissions limitations set forth in 3.1.9, the permittee shall: a. Conduct monthly Method 22 visible emission observations of the applicable units (or associated control devices) to ensure proper operation for a sufficient time interval, but no less than one (1) minute each month the units are in operation. b. In the event visible emissions are observed in excess of the limitations given under 3.1.9, take immediate corrective action. c. Maintain records of all visual emission observations pursuant to the monitoring required under 9.2.2. including any corrective action taken. d. In the event of any deviation(s) from the allowable visible emission requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 or 22, report in writing to the Director of the Division of Air Quality as soon as practicable, but in any case within ten (10) calendar days of the occurrence and shall include at least the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.
3	45CSR13, R13-1396E, 4.3.1.	9.3.1.	At such reasonable time(s) as the Secretary may designate, in accordance with the provisions of 3.3 of this permit, the permittee shall conduct or have conducted test(s) to determine compliance with the emission limitations established in the permit application and/or applicable regulations.
4	45CSR13, R13-1396E, 4.3.2.	9.3.2.	The permittee shall meet all applicable Performance Testing Requirements as given under 45CSR7.
5	45CSR13, R13-1396E, 4.4.2.	9.4.1.	<b>Record of Maintenance of Air Pollution Control Equipment.</b> For all pollution control equipment listed in Section 1.0 of R13-1396, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
6	45CSR13, R13-1396E, 4.4.3.	9.4.2.	<b>Record of Malfunctions of Air Pollution Control Equipment.</b> For all air pollution control equipment listed in Section 1.0 of R13-1396, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur.

## ATTACHMENT E - Emission Unit Form

**Emission Unit Description:** Group 008

<b>Emission unit ID number:</b> GF1, BC1, BC2, BC3, BC4, BC5, BC6, BC7, BC8, BC9, BC10, BC11, BC-12	<b>Emission unit name:</b> Group 008 Conveying	<b>List any control devices associated with this emission unit.</b> 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).

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

<b>Maximum Hourly Throughput:</b> See Attachment D	<b>Maximum Annual Throughput:</b> See Attachment D	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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**Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE**

<b>Does this emission unit combust fuel?</b> ___Yes <u>X</u> No	<b>If yes, is it?</b>  ___ Indirect Fired    ___Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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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 <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	4.73/1.51	7.01/2.23
Total Particulate Matter (TSP)	9.92	14.70
Sulfur Dioxide (SO <sub>2</sub> )		
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 total for Group 008 (PTE has not changed for this Group since the previous Title V renewal).

***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 applicable requirements starting on page E133.

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 applicable requirements starting on page E133.

**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:* Group 008

<b>Emission unit ID number:</b> PC1, PC2	<b>Emission unit name:</b> Group 008 Crushing	<b>List any control devices associated with this emission unit.</b> 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).

<b>Manufacturer:</b> See Attachment D	<b>Model number:</b> See Attachment D	<b>Serial number:</b> See Attachment D
<b>Construction date:</b> See Attachment D	<b>Installation date:</b> See Attachment D	<b>Modification date(s):</b> See Attachment D

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

<b>Maximum Hourly Throughput:</b> See Attachment D	<b>Maximum Annual Throughput:</b> See Attachment D	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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**Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE**

<b>Does this emission unit combust fuel?</b> ___ Yes <u>X</u> No	<b>If yes, is it?</b> ___ Indirect Fired    ___ Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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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 <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	4.73/1.51	7.01/2.23
Total Particulate Matter (TSP)	9.92	14.70
Sulfur Dioxide (SO <sub>2</sub> )		
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 total for Group 008 (PTE has not changed for this Group since the previous Title V renewal).

***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 applicable requirements starting on page E133.

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 applicable requirements starting on page E133.

**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:* Group 008

<b>Emission unit ID number:</b> PS1, PS2	<b>Emission unit name:</b> Group 008 Screening	<b>List any control devices associated with this emission unit.</b> 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).

<b>Manufacturer:</b> See Attachment D	<b>Model number:</b> See Attachment D	<b>Serial number:</b> See Attachment D
<b>Construction date:</b> See Attachment D	<b>Installation date:</b> See Attachment D	<b>Modification date(s):</b> See Attachment D

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

<b>Maximum Hourly Throughput:</b> See Attachment D	<b>Maximum Annual Throughput:</b> See Attachment D	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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*Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE*

<b>Does this emission unit combust fuel?</b> ___Yes <u>X</u> No	<b>If yes, is it?</b> ___ Indirect Fired    ___Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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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 <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	4.73/1.51	7.01/2.23
Total Particulate Matter (TSP)	9.92	14.70
Sulfur Dioxide (SO <sub>2</sub> )		
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 total for Group 008 (PTE has not changed for this Group since the previous Title V renewal).

***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 applicable requirements starting on page E133.

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 applicable requirements starting on page E133.

**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:** Group 008

<b>Emission unit ID number:</b> PSP1, PSP2, B1, PSP3, PSP4, PSP5	<b>Emission unit name:</b> Group 008 Storage	<b>List any control devices associated with this emission unit.</b> 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).

<b>Manufacturer:</b> See Attachment D	<b>Model number:</b> See Attachment D	<b>Serial number:</b> See Attachment D
<b>Construction date:</b> See Attachment D	<b>Installation date:</b> See Attachment D	<b>Modification date(s):</b> See Attachment D

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

<b>Maximum Hourly Throughput:</b> See Attachment D	<b>Maximum Annual Throughput:</b> See Attachment D	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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**Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE**

<b>Does this emission unit combust fuel?</b> ___Yes <u>X</u> No	<b>If yes, is it?</b> ___ Indirect Fired    ___Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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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 <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	4.73/1.51	7.01/2.23
Total Particulate Matter (TSP)	9.92	14.70
Sulfur Dioxide (SO <sub>2</sub> )		
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 total for Group 008 (PTE has not changed for this Group since the previous Title V renewal).

***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 applicable requirements starting on page E133.

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 applicable requirements starting on page E133.

**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**

Ref #	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 10 <sup>6</sup>	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	550	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	COM MD	
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	

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement							
			Equipment Capacity ID Number	Description	Method of Control	Maximum Capacity		Associated Transfer Points or Equipment		
						TPH	TPY x 10 <sup>6</sup>	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	COM MD
			BC7	Under-Bin Main Feed Belt Conveyor (BC7) to screen - Receives limestone from 50 Ton Bin and Belt Conveyor (BC8), and transfers it to Three Deck (TD) Screen (PS2).	COM	300	1.2 MM	B A	TP14 TP17 TP15	COM COM COM
			PS2	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	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	None	10.1.4.	See Section 3.1.19 through 3.1.20. for NSPS subpart OOO requirement NOTE: See Attachment E pp 13-14 for above referenced sections.							

**Monitoring/Testing/Recordkeeping/Reporting**

	<b>Rule/ Regulation/ R13 Permit</b>	<b>Existing R30 Permit Condition</b>	<b>Monitoring/Testing/Recordkeeping/Reporting</b>
<b>1</b>	45CSR16, 40 C.F.R. § 60.672 (b) and Table 3, 45CSR13, R13-2222-P2, B.4.c.	10.2.1.	See Sections 3.1.20 (b) and (d) for fugitive emissions from any crushers without a capture system. Note: See Attachment E, pp. 13 – 14 for above-referenced sections.
<b>2</b>	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.



## ATTACHMENT E - Emission Unit Form

*Emission Unit Description:* Group 009

<b>Emission unit ID number:</b> VT	<b>Emission unit name:</b> Group 009 Vehicular Traffic	<b>List any control devices associated with this emission unit.</b> 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.

<b>Manufacturer:</b> NA	<b>Model number:</b> NA	<b>Serial number:</b> NA
<b>Construction date:</b> See Attachment D	<b>Installation date:</b> See Attachment D	<b>Modification date(s):</b> See Attachment D

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

<b>Maximum Hourly Throughput:</b> See Attachment D	<b>Maximum Annual Throughput:</b> See Attachment D	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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**Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE**

<b>Does this emission unit combust fuel?</b> ___Yes <u>X</u> No	<b>If yes, is it?</b> ___ Indirect Fired ___Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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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 <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	48.98/25.75	41.85/21.99
Total Particulate Matter (TSP)	169.44	144.69
Sulfur Dioxide (SO <sub>2</sub> )		
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.).**

PTE has not changed for this Group since the previous Title V renewal.

***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 applicable requirements starting on page E139.

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 applicable requirements starting on page E139.

**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**

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
1	45CSR§7-5.2.	3.1.15.	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)	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) 45CSR13, R13-1396E, 4.1.9.	4.1.3.	Water spray systems and water trucks shall be winterized.
5	45CSR13, R13-2670B, 4.1.2. 45CSR13, R13-1396E, 4.1.8.	11.1.2.  11.1.2 Cont'd	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 haulroads and work areas where mobile equipment is used.

<b>Ref #</b>	<b>Rule/ Regulation/ R13 Permit</b>	<b>Existing R30 Permit Condition</b>	<b>Requirement</b>
			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**

<b>Ref #</b>	<b>Rule/ Regulation/ R13 Permit</b>	<b>Existing R30 Permit Condition</b>	<b>Monitoring/Testing/Recordkeeping/Reporting</b>
<b>1</b>	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.
<b>2</b>	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.
<b>3</b>	45CSR13, R13-2670B, 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:** Group 010

<b>Emission unit ID number:</b> Tanks 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 19, 20, 49 and Contractor	<b>Emission unit name:</b> Group 010 Tanks	<b>List any control devices associated with this emission unit.</b> NA
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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.

<b>Manufacturer:</b> See Attachment D	<b>Model number:</b> See Attachment D	<b>Serial number:</b> See Attachment D
<b>Construction date:</b> See Attachment D	<b>Installation date:</b> See Attachment D	<b>Modification date(s):</b> See Attachment D

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

<b>Maximum Hourly Throughput:</b> See Attachment D	<b>Maximum Annual Throughput:</b> See Attachment D	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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**Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE**

<b>Does this emission unit combust fuel?</b> ___Yes <u>X</u> No	<b>If yes, is it?</b> ___ Indirect Fired    ___Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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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 <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)	NA	0.27
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.).**

PTE has not changed for this Group since the previous Title V renewal.

***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.

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.)**

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? 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-1

<b>Emission unit ID number:</b> 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-HG-1, 11-LS-1, 11-LS-2	<b>Emission unit name:</b> Group 011 Limestone Grinding	<b>List any control devices associated with this emission unit.</b> 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), and loading spouts (LS).

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

<b>Maximum Hourly Throughput:</b> See Attachment D	<b>Maximum Annual Throughput:</b> See Attachment D	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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**Fuel Usage Data (fill out all applicable fields)** Hot Air Generator 11-HG-1

<b>Does this emission unit combust fuel?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>If yes, is it?</b>  <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>  7.5MM Btu/hr	<b>Type and Btu/hr rating of burners:</b>
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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 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	138,000

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.59	2.58
Nitrogen Oxides (NO <sub>x</sub> )	0.72	3.15
Lead (Pb)	NA	NA
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	0.83/0.83	3.64/3.64
Total Particulate Matter (TSP)	1.75	7.64
Sulfur Dioxide (SO <sub>2</sub> )	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
CO <sub>2e</sub>	NA	5.340
<p><b>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.).</b></p> <p>For particulate matter an engineering estimate based on the baghouse manufacturer's stated emissions of 0.01 grains PM/ actual cubic foot of flow.</p> <p>CO and NO<sub>x</sub> emission factors provided by manufacturer. Other emission factors referenced from AP-42, Section 1.3, Fuel Oil Combustion (9/98).</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 applicable requirements starting on page E159.

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 applicable requirements starting on page E159.

**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 & 11-DC-4

<b>Emission unit ID number:</b> 11-SI-5, 11-SC-2, 11-SI-6, 11-SC-3, 11-LS-3	<b>Emission unit name:</b> Group 011 Limestone Grinding	<b>List any control devices associated with this emission unit.</b> 11-DC-2 Emission Point E-11-DC-2 11-DC-4 Emission Point E-11-DC-4 11-SI-5 & 6 are connected and can vent through either dust collector
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 Silos (SI), screw conveyors (SC), and loading spout (LS).

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

<b>Maximum Hourly Throughput:</b> See Attachment D	<b>Maximum Annual Throughput:</b> See Attachment D	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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**Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE**

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

**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 <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	7.57/2.82	14.77/9.59
Total Particulate Matter (TSP)	15.49	29.19
Sulfur Dioxide (SO <sub>2</sub> )		
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 total for Group 011 (PTE has not changed for this Group since the previous Title V renewal).

***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 applicable requirements starting on page E159.

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 applicable requirements starting on page E159.

**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

<b>Emission unit ID number:</b> 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	<b>Emission unit name:</b> Group 011	<b>List any control devices associated with this emission unit.</b> 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.):**  
 Bins (SB),super sack bagger (SSB), silos (SI), screw conveyors (SC), , and loading spout (LS).

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

<b>Maximum Hourly Throughput:</b> See Attachment D	<b>Maximum Annual Throughput:</b> See Attachment D	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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**Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE**

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

**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 <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	7.57/2.82	14.77/9.59
Total Particulate Matter (TSP)	15.49	29.19
Sulfur Dioxide (SO <sub>2</sub> )		
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 total for Group 011 (PTE has not changed for this Group since the previous Title V renewal).



***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 applicable requirements starting on page E159.

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 applicable requirements starting on page E159.

**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

<b>Emission unit ID number:</b> 11-DH-1, 11-BC-4, 11-BC-1, 11-BEL-1, 11-BC-2, 11-SB-2, 11-SC-1, 11-BC-3	<b>Emission unit name:</b> Group 011 Limestone Grinding	<b>List any control devices associated with this emission unit.</b> 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), and screw conveyor (SC).

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

<b>Maximum Hourly Throughput:</b> See Attachment D	<b>Maximum Annual Throughput:</b> See Attachment D	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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**Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE**

<b>Does this emission unit combust fuel?</b> ___Yes <u>X</u> No	<b>If yes, is it?</b>  ___ Indirect Fired    ___Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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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 <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>10</sub> /PM <sub>2.5</sub> )	7.57/2.82	14.77/9.59
Total Particulate Matter (TSP)	15.49	29.19
Sulfur Dioxide (SO <sub>2</sub> )		
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 total for Group 011 (PTE has not changed for this Group since the previous Title V renewal).

**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 applicable requirements starting on page E159.

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 applicable requirements starting on page E159.

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-20

<b>Emission unit ID number:</b> 11-SC-20, 11-BEL-20, 11-BG-20, 11-SC-21, 11-SC-22, 11-WC-20, 11- BC-20, 11-BC-21, 11-BC-22	<b>Emission unit name:</b> Group 011 Bagging	<b>List any control devices associated with this emission unit.</b>  11-DC-20 through Emission Point E-11-DC-20
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 Rock dust bagging system.

<b>Manufacturer:</b> NA	<b>Model number:</b> NA	<b>Serial number:</b> NA
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<b>Construction date:</b> 2011	<b>Installation date:</b> 2011	<b>Modification date(s):</b> NA
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 See Attachment D

<b>Maximum Hourly Throughput:</b> See Attachment D	<b>Maximum Annual Throughput:</b> See Attachment D	<b>Maximum Operating Schedule:</b> 8,760 hrs/yr
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**Fuel Usage Data (fill out all applicable fields) NOT APPLICABLE**

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

<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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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 <sub>x</sub> )		
Lead (Pb)		
Particulate Matter PM <sub>10</sub> /PM <sub>2.5</sub>	7.57/2.82	14.77/9.59
Total Particulate Matter (TSP)	15.49	29.19
Sulfur Dioxide (SO <sub>2</sub> )		
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 total for Group 011 (PTE has not changed for this Group since the previous Title V renewal).

**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 applicable requirements starting on page E159.

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 applicable requirements starting on page E159.

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**

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement																										
1	45CSR13, R13-2113K, 4.1.1.	5.1.1.	The maximum processing rate of limestone to the Fine Grinding System from the Secondary Crushing System shall not exceed 400 tons per hour (TPH) and 600,000 tons per year (TPY).																										
2	45CSR13, R13-2113K, 4.1.5., 45CSR16, 40 CFR §60.672(a)(2)	5.1.2.	The fine grinding circuit shall employ a hot air generator, grinding mill, dynamic separator, cyclone #1, cyclone #2, classifier separator and two centrifugal blowers identified as 11-HG-1, 11-BM-1, 11-DS-1, 11-CY-1, 11-CY-2, 11-CL-1, 11-BL-2, 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.																										
<table border="1"> <thead> <tr> <th colspan="4">Table 4.1.5.a.</th> </tr> <tr> <th rowspan="2">Emission Source ID</th> <th rowspan="2">Pollutant</th> <th colspan="2">Maximum Emissions</th> </tr> <tr> <th>Hourly (lb/hr)</th> <th>Annual TPY</th> </tr> </thead> <tbody> <tr> <td rowspan="5">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</td> <td>PM</td> <td>1.75</td> <td>7.64</td> </tr> <tr> <td>PM10</td> <td>0.83</td> <td>3.64</td> </tr> <tr> <td>SO2</td> <td>3.84</td> <td>16.8</td> </tr> <tr> <td>NOx</td> <td>0.72</td> <td>3.2</td> </tr> <tr> <td>CO</td> <td>0.59</td> <td>2.6</td> </tr> </tbody> </table> <p>[40 CFR §60.672(a)(1) for PM and 45CS R§10-4.1. for SO2]</p>				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
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																										
3	45CSR13, R13-2113K, 4.1.6., 45CSR16, 40 C.F.R. § 60.672 (a)	5.1.3.	Emissions discharged to the atmosphere from emission points E-11-DC-20, E-11-DC-4, E-11-DC-3 and E-11-DC-2 shall be limited to the following maximum emission limitations:																										



Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Requirement
			<p>a. PM concentration in the exhaust stream from the emission points E-11-DC-2, E-11-DC-4, and E-11-DC-3 shall not exceed 0.022 gr/dscf while emissions from emission point E-11-DC-20 shall not exceed 0.014 gr/dscf;</p> <p>b. Annual PM<sub>10</sub> and PM emissions from emission point E-11-DC-3 shall not exceed 1.18 TPY and 2.48 TPY respectively;</p> <p>c. Annual PM<sub>10</sub> and PM emissions from emission point E-11-DC-2/E-11-DC-4 (combined) shall not exceed 1.18 TPY and 2.48 TPY respectively; and</p> <p>d. Annual PM<sub>10</sub> and PM emissions from E-11-DC-20 shall not exceed 1.00 TPY and 2.1 TPY respectively; and</p> <p>e. Visible PM from the emission point shall not exceed greater than 7 percent opacity.</p>
4	45CSR13, R13-2113K, 4.1.7., 45CSR16, 40 CFR §§60.672(a)(2) and 60.672(e)	5.1.4.	<p>The equipment listed in Table 4.1.7.1 shall not exhibit visible PM emissions greater than 10 percent opacity, unless the transfer points of belt conveyors or the unit is located in an enclosed building. Then, the enclosed building shall not exhibit visible PM emissions greater than 7 percent opacity.</p> <p>*Since 11-DH-1 and 11-BC-4 were installed after April 22, 2008, they are subject to 7 percent opacity requirement [see Section 3.1.19. (b) (2)].</p>

Emission Unit ID	Emission Point ID	Emission Unit Description
11-BC-1	11-BC-1	Belt conveyor
11-BEL-1	11-BEL-1	Bucket elevator
11-BC-2	11-BC-2	Belt conveyor
11-BC-4	11-BC-4	Belt Conveyor
11-SB-2	11-SB-2	Surge Bin
2-SI-1	2-SI-1	Storage Silo

	<b>Rule/ Regulation/ R13 Permit</b>	<b>Existing R30 Permit Condition</b>	<b>Requirement</b>																				
5	45CSR13, R13-2113K, 4.1.8	5.1.5.	Compliance with all annual limits stated in Section 5.1 of this permit shall be demonstrated using a 12 month rolling total.																				
6	45CSR13, R13-2113K, 4.1.10, 45CSR§13-5.11	5.1.6.	<b>Operation and Maintenance of Air Pollution Control Equipment.</b> The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in the Fine Grinding Circuit [dust collectors (11-DC-1, 11-DC-2, 11-DC-3, 11-DC-4, 11-DC-20)] and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.																				
7	45CSR13, R13-2113K, 4.1.9., 45CSR16, 40 C.F.R. §60.672(b)	5.1.7	The equipment listed in Table 5.1.7.1. shall not exhibit visible PM emissions greater than 7 percent opacity. <table border="1"> <thead> <tr> <th colspan="4"><b>Table 5.1.7.1</b></th> </tr> <tr> <th>Emission Unit ID</th> <th>Unit</th> <th>Emission Point ID</th> <th>Emission Unit Description</th> </tr> </thead> <tbody> <tr> <td>11-BC-20</td> <td></td> <td>None</td> <td>Belt Conveyor</td> </tr> <tr> <td>11-BC-21</td> <td></td> <td>None</td> <td>Belt Conveyor</td> </tr> <tr> <td>11-BC-22</td> <td></td> <td>None</td> <td>Belt Conveyor</td> </tr> </tbody> </table>	<b>Table 5.1.7.1</b>				Emission Unit ID	Unit	Emission Point ID	Emission Unit Description	11-BC-20		None	Belt Conveyor	11-BC-21		None	Belt Conveyor	11-BC-22		None	Belt Conveyor
<b>Table 5.1.7.1</b>																							
Emission Unit ID	Unit	Emission Point ID	Emission Unit Description																				
11-BC-20		None	Belt Conveyor																				
11-BC-21		None	Belt Conveyor																				
11-BC-22		None	Belt Conveyor																				

**Monitoring/Testing/Recordkeeping/Reporting**

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
1	45CSR13, R13-2113K, 4.2.1.	5.2.1.	<p>For the purpose of determining compliance with the opacity limits in Sections 5.1.2.e, 5.1.3. e and 5.1.4, the permittee shall conduct visible emission checks and/or opacity monitoring and recordkeeping for all emission sources subject to an opacity limit.</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 40 C.F.R. Part 60 Appendix A, Method 22 or from the lecture portion of the 40 C.F.R. Part 60 Appendix A, Method 9 certification course.</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 (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.</p> <p>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.</p>
2	45CSR13, R13-2113K, 4.2.1., 45CSR16, and 40 CFR Part 60, Subpart OOO	5.2.2	<p>The owner or operator shall determine compliance with the opacity limits in Section 5.1.7. in accordance with the requirements of 40 CFR Part 60, Subpart OOO, Section 60.75(b)(2) and Table 3 with an initial Method 9 performance test and a repeat performance test within 5 years from the previous performance test.</p>
3	45CSR16, 40CFR60, Subpart OOO, (Section 1.0, Emission Group 011)	5.3.1.	<p>See Section 3.3.4 through 3.3.9 for 40 C.F.R. Part 60 Subpart OOO testing requirements. NOTE: See Attachment E pp 16-18 for above referenced sections.</p>
4	45CSR13, R13-2113K, 4.4.4.	5.4.1.	<p>For the purpose of determining compliance with the maximum processing limits set in 5.1.1. and 5.1.2.d., maintain certified monthly and annual records of limestone processing rates of the Fine Grinding System.</p>
5	45CSR13, R13-2113K, 4.4.5.	5.4.2.	<p>For the purpose of determining compliance with the maximum fuel consumption limit set forth for in Section 5.1.2.b, the company shall maintain certified monthly and annual records of #2 fuel oil consumption.</p>
6	45CSR§30-5.1.c.	5.4.3.	<p>The permittee shall maintain records from fuel oil supplier certifying the fuel sulfur content in order to demonstrate compliance with 5.1.2.c.</p>

Ref #	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Monitoring/Testing/Recordkeeping/Reporting
7	45CSR13, R13-2113K, 4.4.6.	5.4.4.	The permittee shall maintain records of all monitoring data required by Section 5.2.1 documenting the date and time of each visible emission check, the emission point or equipment/source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°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.
8	45CSR13, R13-2113K, 4.4.2.	5.4.5.	Record of Maintenance of Air Pollution Control Equipment. For all pollution control equipment listed in Emission Group (011) of Section 1.0 as dust collectors (11-DC-1, 11-DC-2, and 11-DC-3), the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
9	45CSR13, R13-2113K, 4.4.3.	5.4.6.	Record of Malfunctions of Air Pollution Control Equipment. For all air pollution control equipment listed Emission Group (011) of Section 1.0 as dust collectors (11-DC-1, 11-DC-2, and 11-DC-3), 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.
10	45CSR13, R13-2113K, 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.

<b>Ref #</b>	<b>Rule/ Regulation/ R13 Permit</b>	<b>Existing R30 Permit Condition</b>	<b>Monitoring/Testing/Recordkeeping/Reporting</b>
11	45CSR13, R13-2113K, 4.5.2., 45CSR16, 40 CFR §60.676(f)	5.5.2.	The permittee shall submit a written report of the results of testing required in 40 CFR Part 60, Subpart OOO before the close of business on the 60 <sup>th</sup> 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 E - Emission Unit Form

**Emission Unit Description**

<b>Emission unit ID number:</b> Building Heaters/Torch	<b>Emission unit name:</b> Building Heaters/Torch	<b>List any control devices associated with this emission unit:</b> None
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**

Make	Model	Heat Input	Fuel	Type	Year Installed
Lowboy	OAL112-DHS	140,000 Btu/hr	No. 2 Fuel Oil	Indirect	1990s
Horizon	315	315,000 Btu/hr	No. 2 Fuel Oil and Used Oil	Indirect	2005
Carrier	Z158MXA120	120,000 Btu/hr	Propane	Indirect	2003
Torch	Hand Held Torch	150,000 Btu/hr	Propane	Direct	1980s

<b>Manufacturer:</b> See Above	<b>Model number:</b> See Above	<b>Serial number:</b> NA
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<b>Construction date:</b> See Above	<b>Installation date:</b> See Above	<b>Modification date(s):</b> NA
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** See Above

<b>Maximum Hourly Throughput:</b> See Above	<b>Maximum Annual Throughput:</b> See Above	<b>Maximum Operating Schedule:</b> As Needed
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**Fuel Usage Data (fill out all applicable fields)**

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

<b>Maximum design heat input and/or maximum horsepower rating:</b> See Above	<b>Type and Btu/hr rating of burners:</b> See Above
---	--

**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.**  
See Above

**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	15 ppm	Trace	138,000 per gal
Used Oil	15 ppm	Trace	138,000 per gal
Propane	0.15 gr/100 scf	NA	91,000 per gal

\*Btu/gallon is the default values provided by 40CFR98.

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.06	0.16
Nitrogen Oxides (NO <sub>x</sub> )	0.11	0.52
Lead (Pb)	4.10 x 10 <sup>-6</sup>	1.79 x 10 <sup>-5</sup>
Particulate Matter (PM <sub>2.5</sub> )	0.04	0.04
Particulate Matter (PM <sub>10</sub> )	0.04	0.04
Total Particulate Matter (TSP)	0.04	0.05
Sulfur Dioxide (SO <sub>2</sub> )	0.04	0.04
Volatile Organic Compounds (VOC)	0.04	0.04
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total HAPs	1.53 x 10 <sup>-4</sup>	6.70 x 10 <sup>-4</sup>
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
CO <sub>2</sub> e	NA	490
<p><b>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.).</b></p> <p>AP-42 and 40CFR98</p>		

***Applicable Requirements***

**List all applicable requirements for this emission unit. 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). 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.**

None

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.)**

None

**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 G**  
**AIR POLLUTION CONTROL DEVICE FORMS**

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> 1-DC-1 Emission Point E-1-DC-1	<b>List all emission units associated with this control device.</b> See Attachment D
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<b>Manufacturer:</b> Dalamatic	<b>Model number:</b> 30/15	<b>Installation date:</b> 1994
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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		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 <sup>2</sup> ): 340	Air Flow (ft <sup>3</sup> /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

<b>Control device ID number:</b> 4-DC-1 Emission Point 1E	<b>List all emission units associated with this control device.</b> See Attachment D
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<b>Manufacturer:</b> MikroPul	<b>Model number:</b> 289S-12-20-TRH	<b>Installation date:</b> 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		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 <sup>2</sup> ): 16,300	Air Flow (ft <sup>3</sup> /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, and 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 40 C.F.R. Part 63 Subpart A, General Provisions and according to 40 C.F.R. Part 60 Appendix B, Performance Specifications (PS)-1. Facilities that operate COMS installed before February 6, 2001, may continue to meet the requirements in effect at the time of COMS installation unless specifically required to recertify the COMS by their permitting authority.

Continuous compliance shall be established by collecting the COMS data at a frequency of at least once every 15 seconds, determining block averages for each 6-minute period and demonstrating for each 6-minute block period the average opacity does not exceed 15 percent.

**Section 12.2.2.** [45CSR34, 40CFR§63.7113(f), (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 40 C.F.R. Part 63 Subpart AAAAA, Table 2 Item 6, incorporated herein as Section 12.1.3 (c), and record the results of each inspection.

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> 4-DC-2 Emission Point 500-115	<b>List all emission units associated with this control device.</b> See Attachment D
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<b>Manufacturer:</b> Amerex	<b>Model number:</b> RP-14-225 D6	<b>Installation date:</b> 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		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 <sup>2</sup> ): 20,800	Air Flow (ft <sup>3</sup> /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 40 C.F.R. Part 63 Subpart A, General Provisions and according to 40 C.F.R. Part 60 Appendix B, Performance Specifications (PS)-1. Facilities that operate COMS installed before February 6, 2001, may continue to meet the requirements in effect at the time of COMS installation unless specifically required to recertify the COMS by their permitting authority.

Continuous compliance shall be established by collecting the COMS data at a frequency of at least once every 15 seconds, determining block averages for each 6-minute period and demonstrating for each 6-minute block period the average opacity does not exceed 15 percent.

**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 40 C.F.R. Part 63 Subpart AAAAA, Table 2 Item 6, incorporated herein as Section 12.1.3 (c), and record the results of each inspection.

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> 4-DC-3 Emission Point 500-119b	<b>List all emission units associated with this control device.</b> See Attachment D
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<b>Manufacturer:</b> Amerex	<b>Model number:</b> RP-10-36 D4	<b>Installation date:</b> 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 <sup>2</sup> ): 440	Air Flow (ft <sup>3</sup> /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		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: 48 pleated cartridges	Exhaust Temp (°F): ambient
Cloth Area (ft <sup>2</sup> ): 1,100	Air Flow (ft <sup>3</sup> /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		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: 12 pleated cartridges	Exhaust Temp (°F): ambient
Cloth Area (ft <sup>2</sup> ): 540	Air Flow (ft <sup>3</sup> /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		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: 12 pleated cartridges	Exhaust Temp (°F): ambient
Cloth Area (ft <sup>2</sup> ): 540	Air Flow (ft <sup>3</sup> /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 <sup>2</sup> ): 1,080	Air Flow (ft <sup>3</sup> /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

<b>Control device ID number:</b> 7-DC-1 Emission Point E1	<b>List all emission units associated with this control device.</b> See Attachment D
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<b>Manufacturer:</b> Pneumafil	<b>Model number:</b> PCFH-16	<b>Installation date:</b> 1984
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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		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 <sup>2</sup> ): 720	Air Flow (ft <sup>3</sup> /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:**  
Camfil APC

**Model number:**  
GS4

**Installation date:**  
2018

**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 - 10 inches water
Number of Bags: 4 pleated cartridges	Exhaust Temp (°F): ambient
Cloth Area (ft <sup>2</sup> ): 1,300	Air Flow (ft <sup>3</sup> /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.

## 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		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 - 10 inches water
Number of Bags: 4 pleated cartridges	Exhaust Temp (°F): ambient
Cloth Area (ft <sup>2</sup> ): 200	Air Flow (ft <sup>3</sup> /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 E5

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

**Manufacturer:**  
Camfil APC

**Model number:**  
GS4

**Installation date:**  
2018

**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 - 10 inches water
Number of Bags: 4 pleated cartridges	Exhaust Temp (°F): ambient
Cloth Area (ft <sup>2</sup> ): 1,300	Air Flow (ft <sup>3</sup> /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.

## ATTACHMENT G - Air Pollution Control Device Form

**Control device ID number:** 7-DC-6  
Emission Point E6

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

**Manufacturer:**  
Camfil APC

**Model number:**  
GS6

**Installation date:**  
2018

**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 - 10 inches water
Number of Bags: 4 pleated cartridges	Exhaust Temp (°F): ambient
Cloth Area (ft <sup>2</sup> ): 1,950	Air Flow (ft <sup>3</sup> /min): 5,500

**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.



## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> 7-DC-20 Emission Point E20	<b>List all emission units associated with this control device.</b> See Attachment D
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<b>Manufacturer:</b> Mac Process LLC	<b>Model number:</b> 144MCF494	<b>Installation date:</b> 2013
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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		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 - 10 inches water
Number of Bags: 494 bags	Exhaust Temp (°F): ambient
Cloth Area (ft <sup>2</sup> ): 7,118	Air Flow (ft <sup>3</sup> /min): 5,500

**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.

**ATTACHMENT G - Air Pollution Control Device Form**

<b>Control device ID number:</b> 7-DC-21 Emission Point E21	<b>List all emission units associated with this control device.</b> See Attachment D
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<b>Manufacturer:</b> Camfil APC	<b>Model number:</b> GS4	<b>Installation date:</b> 2018
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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		99.9%

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

Cloth Type: polyester	$\Delta P$ Compliant Range: 0.5 - 10 inches water
Number of Bags: 4 pleated cartridges	Exhaust Temp (°F): ambient
Cloth Area (ft <sup>2</sup> ): 1,300	Air Flow (ft <sup>3</sup> /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.

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> 7-SCR-1 Emission Point E4	<b>List all emission units associated with this control device.</b> See Attachment D
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<b>Manufacturer:</b> Glean Gas System	<b>Model number:</b> Wet dynamic scrubber with wet fan using re-circulated water	<b>Installation date:</b> 1999
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**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 9.2.2.** [45CSR13, R13-1396E]  
 Conduct monthly Method 22 observations for no less than one minute. Take immediate corrective action if emissions are in excess of limitation. Maintain all observation records. Report deviations to DAQ.

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> 11-DC-1 Emission Point E-11-DC-1	<b>List all emission units associated with this control device.</b> See Attachment D
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<b>Manufacturer:</b> Pinnacle APC, Inc.	<b>Model number:</b> 6P-345-11-TA	<b>Installation date:</b> 2007
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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		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: 345	Exhaust Temp (°F): 160
Cloth Area (ft <sup>2</sup> ): 5,713	Air Flow (ft <sup>3</sup> /min): 20,360

**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 G20.

\* 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, E-11-DC-3, E-11-DC-2, and Table 4.1.7.1 Transfer Points)]

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

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

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

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

## 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:**  
Camfil APC

**Model number:**  
GFS-4

**Installation date:**  
2011

**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%

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

Cloth Type: polyester	ΔP Range: 0~80" H <sub>2</sub> O
Number of Bags: 4 (cartridges)	Exhaust Temp (°F): 100
Cloth Area (ft <sup>2</sup> ): 1,300	Air Flow (ft <sup>3</sup> /min): 3,000

**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.

**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, E-11-DC-3, E-11-DC-2, and Table 4.1.7.1 Transfer Points)]

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

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

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

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

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> 11-DC-3 Emission Point E-11-DC-3	<b>List all emission units associated with this control device.</b> See Attachment D
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<b>Manufacturer:</b> Camfil APC	<b>Model number:</b> GS-4	<b>Installation date:</b> 2011
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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	100%	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: 8.0" H <sub>2</sub> O
Number of Bags: 4 (cartridges)	Exhaust Temp (°F): 100
Cloth Area (ft <sup>2</sup> ): 1,300	Air Flow (ft <sup>3</sup> /min): 3,000

**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 G24.



**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, E-11-DC-3, E-11-DC-2, and Table 4.1.7.1 Transfer Points)]

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

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

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

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

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> 11-DC-4 Emission Point E-11-DC-4	<b>List all emission units associated with this control device.</b> See Attachment D
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<b>Manufacturer:</b> Camfil APC	<b>Model number:</b> GS-4	<b>Installation date:</b> 2011
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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	100%	99%

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

Cloth Type: Polyester	ΔP: ~8.0" H <sub>2</sub> O
Number of Bags: 4 (cartridges)	Exhaust Temp (°F): 100
Cloth Area (ft <sup>2</sup> ): 1,300	Air Flow (ft <sup>3</sup> /min): 3,000

**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 G26.

**Attachment G 11-DC-4 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, E-11-DC-3, E-11-DC-2, and Table 4.1.7.1 Transfer Points)]

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

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

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

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

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> 11-DC-20 Emission Point E-11-DC-20	<b>List all emission units associated with this control device.</b> See Attachment D
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<b>Manufacturer:</b> Camfil APC	<b>Model number:</b> GS-6	<b>Installation date:</b> 2011
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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	100%	99%

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

Cloth Type: Polyester	ΔP: ~8.0" H <sub>2</sub> O
Number of Bags: 6 (cartridges)	Exhaust Temp (°F): 100
Cloth Area (ft <sup>2</sup> ): 1,950	Air Flow (ft <sup>3</sup> /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 G28.

**Attachment G 11-DC-4 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, E-11-DC-3, E-11-DC-2, and Table 4.1.7.1 Transfer Points)]

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

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

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

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

**APPENDIX 1**  
**SUMMARY OF SPECIATED HAPs PTE**

**Hazardous Air Pollutants**  
**Kilns (Coal and No. 2 FO startup) + Fines Dryer (No. 2 FO)**

Hazardous Air Pollutant	CAS Number	Emission Factor <sup>1</sup> (lb/ton)	Coal Consumption (tons)	Annual Emissions (TPY)		
				Coal Burning	No.2 Fuel Oil Burning	Total
1,1,1-Trichloroethane	71556	2.00E-05	54,000	0.0005	0.0001	0.0006
2-Chloroacetophenone	532274	7.00E-06		0.0002		0.0002
2,4-Dinitrotoluene	121142	2.80E-07		0.0000		0.0000
Acetaldehyde	75070	5.70E-04		0.0154		0.0154
Acetophenone	98862	1.50E-05		0.0004		0.0004
Acrolein	107028	2.90E-04		0.0078		0.0078
Antimony (Sb <sub>2</sub> O <sub>3</sub> )	1327339	1.80E-05		0.0005		0.0005
Arsenic (As <sub>2</sub> O <sub>3</sub> )	1303282	4.10E-04		0.0111		0.0111
Benzene	71432	1.30E-03		0.0351	0.0001	0.0352
Benzyl chloride	100447	7.00E-04		0.0189		0.0189
Beryllium (BeO)	1304569	2.10E-05		0.0006		0.0006
Biphenyl	92524	1.70E-06		0.0000		0.0000
Bis (2-ethylhexyl)phthalate (DEHP)	117817	7.30E-05		0.0020		0.0020
Bromoform	75252	3.90E-05		0.0011		0.0011
Cadmium (CdO)	1306190	5.10E-05		0.0014		0.0014
Carbon disulfide	75150	1.30E-04		0.0035		0.0035
Chlorobenzene	108907	2.20E-05		0.0006		0.0006
Chloroform	67663	5.90E-05		0.0016		0.0016
Chromium (CrO <sub>3</sub> )	1333820	2.60E-04		0.0070		0.0070
Chromium (VI)	18540299	7.90E-05		0.0021		0.0021
Cobalt (CoO)	1307966	1.00E-04		0.0027		0.0027
Cumene	98828	5.30E-06		0.0001		0.0001
Cyanide	57125	2.50E-03		0.0675		0.0675
Dimethyl sulfate	77781	4.80E-05		0.0013		0.0013
Ethyl Benzene	100414	9.40E-05		0.0025	0.0001	0.0026
Ethyl chloride	75003	4.20E-05		0.0011		0.0011
Ethylene dibromide	106934	1.20E-06		0.0000		0.0000
Ethylene dichloride	107062	4.00E-05		0.0011		0.0011
Formaldehyde	50000	2.40E-04		0.0065	0.0087	0.0152
Hexane	110543	6.70E-05		0.0018		0.0018
Hydrogen Fluoride	7664393	1.50E-01		4.0500		4.0500
Isophorone	78591	5.80E-04		0.0157		0.0157
Lead <sup>2</sup>	7439921	1.15E-06		0.0002		0.0002
Manganese (MnO <sub>2</sub> )	1313139	4.90E-04		0.0132		0.0132
Mercury <sup>3</sup>	7439976	1.90E-05		0.0030		0.0030
Methyl bromide	74839	1.60E-04		0.0043		0.0043
Methyl chloride	74873	5.30E-04		0.0143		0.0143
Methyl hydrazine	60344	1.70E-04		0.0046		0.0046
Methyl methacrylate	80626	2.00E-05		0.0005		0.0005
Methyl tert butyl ether	1634044	3.50E-05		0.0009		0.0009
Methylene chloride	75092	2.90E-04		0.0078		0.0078
Naphthalene	91203	1.30E-05		0.0004	0.0003	0.0007
Nickel (NiO)	1313991	2.80E-04		0.0076		0.0076
Phenol	108952	1.60E-05		0.0004		0.0004
Propionaldehyde	123386	3.80E-04	0.0103		0.0103	
Selenium (SeO <sub>2</sub> )	12640890	1.30E-03	0.0351		0.0351	
Styrene	100425	2.50E-05	0.0007		0.0007	
Tetrachloroethylene	127184	4.30E-05	0.0012		0.0012	
Toluene	108883	2.40E-04	0.0065	0.0017	0.0082	
Vinyl Acetate	108054	7.60E-06	0.0002		0.0002	
Xylene	1330207	3.70E-05	0.0010	0.0001	0.0011	
				<b>Total =</b>	<b>41.60</b>	

Notes:

1. From AP-42, Section 1.1, dated September 1998. All factors are based on coal combustion in a boiler and have not been shown to apply to kiln calcination.
2. National Lime Association EF in lb/ton lime.
3. Hg EF based on Greer Lime stack testing.
4. Fuel oil HAPs PTE based on permit limit of fines plant dryer of 473,040 gallons and assumed maximum kiln startup quantity of 50,000 gallons.

## **APPENDIX 2**

### **USB FLASH DRIVES CONTAINING THE APPLICATION**