Application for NSR Permit

(45 CSR 13)

West Virginia Division of Air Quality

Greer Industries, Inc. dba Greer Lime Company

Petersburg Rail Loading Facility

Petersburg, Grant County, West Virginia

Greer Engineering

8477 Veterans Memorial Highway

Masontown, West Virginia 26542

(304) 864-5411

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WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF AIR QUALITY

601 57th Street, SE
Charleston, WV 25304
(304) 926-0475
www.dep.wv.gov/daq

APPLICATION FOR NSR PERMIT AND TITLE V PERMIT REVISION (OPTIONAL)

PLEASE CHECK ALL THAT APPLY TO **NSR (45CSR13)** (IF KNOWN):

☒ **CONSTRUCTION** ☐ **MODIFICATION** ☐ **RELOCATION**
☐ **CLASS I ADMINISTRATIVE UPDATE** ☐ **TEMPORARY**
☐ **CLASS II ADMINISTRATIVE UPDATE** ☒ **AFTER-THE-FACT**

PLEASE CHECK TYPE OF **45CSR30 (TITLE V)** REVISION (IF ANY):

☐ **ADMINISTRATIVE AMENDMENT** ☐ **MINOR MODIFICATION**
☐ **SIGNIFICANT MODIFICATION**

IF ANY BOX ABOVE IS CHECKED, INCLUDE TITLE V REVISION INFORMATION AS **ATTACHMENT S** TO THIS APPLICATION

FOR TITLE V FACILITIES ONLY: Please refer to "Title V Revision Guidance" in order to determine your Title V Revision options (Appendix A, "Title V Permit Revision Flowchart") and ability to operate with the changes requested in this Permit Application.

Section I. General

1. Name of applicant *(as registered with the WV Secretary of State's Office):*
Greer Industries, Inc. dba Greer Lime Company

2. Federal Employer ID No. ***(FEIN):***
34-073-7241

3. Name of facility *(if different from above):*
Petersburg Rail Loading Facility

4. The applicant is the:
☐ **OWNER** ☐ **OPERATOR** ☒ **BOTH**

5A. Applicant's mailing address:
8477 Veterans Memorial Highway
Masontown, WV 26542

5B. Facility's present physical address:
Rt 220/2
Petersburg, WV 26847

6. **West Virginia Business Registration.** Is the applicant a resident of the State of West Virginia? ☒ **YES** ☐ **NO**

- If **YES,** provide a copy of the **Certificate of Incorporation/Organization/Limited Partnership** (one page) including any name change amendments or other Business Registration Certificate as **Attachment A.**
- If **NO,** provide a copy of the **Certificate of Authority/Authority of L.L.C./Registration** (one page) including any name change amendments or other Business Certificate as **Attachment A.**

7. If applicant is a subsidiary corporation, please provide the name of parent corporation:

8. Does the applicant own, lease, have an option to buy or otherwise have control of the *proposed site?* ☒ **YES** ☐ **NO**

- If **YES,** please explain: Applicant Owns the Facility

- If **NO,** you are not eligible for a permit for this source.

9. Type of plant or facility (stationary source) to be **constructed, modified, relocated, administratively updated** or **temporarily permitted** (e.g., coal preparation plant, primary crusher, etc.): Lime Rail Loadout Facility

10. North American Industry Classification System **(NAICS)** code for the facility:
488210

11A. DAQ Plant ID No. (for existing facilities only):
–

11B. List all current 45CSR13 and 45CSR30 (Title V) permit numbers associated with this process (for existing facilities only):
N/A

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

12A.

- For **Modifications, Administrative Updates** or **Temporary permits** at an existing facility, please provide directions to the *present location* of the facility from the nearest state road;
- For **Construction** or **Relocation permits,** please provide directions to the *proposed new site location* from the nearest state road. Include a **MAP** as **Attachment B**.

Traveling from the North on WV-42. Turn left onto WV-28/WV-55/Keyser Ave. Keep straight onto US-220, passing through Petersburg, WV. Turn right onto CR-220/2. The facility will be about 0.5 miles past the right turn, on your right.

12.B. New site address (if applicable):	12C. Nearest city or town:	12D. County:
N/A	Petersburg, WV	Grant
12.E. UTM Northing (KM): 4316947.6	12F. UTM Easting (KM): 661386.2	12G. UTM Zone: 17

13. Briefly describe the proposed change(s) at the facility:
See Attachment G

14A. Provide the date of anticipated installation or change: / / – If this is an **After-The-Fact** permit application, provide the date upon which the proposed change did happen: The facility began operation at its current location in January 1994.	14B. Date of anticipated Start-Up if a permit is granted: N/A/ /

14C. Provide a **Schedule** of the planned **Installation** of/**Change** to and **Start-Up** of each of the units proposed in this permit application as **Attachment C** (if more than one unit is involved).

15. Provide maximum projected **Operating Schedule** of activity/activities outlined in this application:
Hours Per Day 16 Days Per Week 5 Weeks Per Year 52

16. Is demolition or physical renovation at an existing facility involved? ☐ **YES** ☒ **NO**

17**. Risk Management Plans.** If this facility is subject to 112(r) of the 1990 CAAA, or will become subject due to proposed changes (for applicability help see www.epa.gov/ceppo), submit your **Risk Management Plan (RMP)** to U. S. EPA Region III.

18**. Regulatory Discussion.** List all Federal and State air pollution control regulations that you believe are applicable to the proposed process *(if known).* A list of possible applicable requirements is also included in Attachment S of this application (Title V Permit Revision Information). Discuss applicability and proposed demonstration(s) of compliance *(if known).* Provide this information as **Attachment D.**

Section II. Additional attachments and supporting documents.

19. Include a check payable to WVDEP – Division of Air Quality with the appropriate **application fee** (per 45CSR22 and 45CSR13).

20. Include a **Table of Contents** as the first page of your application package.

21. Provide a **Plot Plan,** e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is or is to be located as **Attachment E** (Refer to ***Plot Plan Guidance***) **.**

– Indicate the location of the nearest occupied structure (e.g. church, school, business, residence).

22. Provide a **Detailed Process Flow Diagram(s)** showing each proposed or modified emissions unit, emission point and control device as **Attachment F.**

23. Provide a **Process Description** as **Attachment G.**

– Also describe and quantify to the extent possible all changes made to the facility since the last permit review (if applicable).

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

24. Provide **Material Safety Data Sheets (MSDS)** for all materials processed, used or produced as **Attachment H.**

– For chemical processes, provide a MSDS for each compound emitted to the air.

25. Fill out the **Emission Units Table** and provide it as **Attachment I.**

26. Fill out the **Emission Points Data Summary Sheet (Table 1 and Table 2)** and provide it as **Attachment J.**

27. Fill out the **Fugitive Emissions Data Summary Sheet** and provide it as **Attachment K.**

28. Check all applicable **Emissions Unit Data Sheets** listed below:

☐ Bulk Liquid Transfer Operations	☒ Haul Road Emissions	☐ Quarry
☐ Chemical Processes	☐ Hot Mix Asphalt Plant	☐ Solid Materials Sizing, Handling and Storage Facilities
☐ Concrete Batch Plant	☐ Incinerator	☐ Storage Tanks
☐ Grey Iron and Steel Foundry	☐ Indirect Heat Exchanger	

☒ General Emission Unit, specify: Transfer Points T1-T4

Fill out and provide the **Emissions Unit Data Sheet(s)** as **Attachment L.**

29. Check all applicable **Air Pollution Control Device Sheets** listed below:

☐ Absorption Systems	☐ Baghouse	☐ Flare
☐ Adsorption Systems	☐ Condenser	☐ Mechanical Collector
☐ Afterburner	☐ Electrostatic Precipitator	☐ Wet Collecting System

☐ Other Collectors, specify

Fill out and provide the **Air Pollution Control Device Sheet(s)** as **Attachment M.**

30. Provide all **Supporting Emissions Calculations** as **Attachment N,** or attach the calculations directly to the forms listed in Items 28 through 31.

31. **Monitoring, Recordkeeping, Reporting and Testing Plans.** Attach proposed monitoring, recordkeeping, reporting and testing plans in order to demonstrate compliance with the proposed emissions limits and operating parameters in this permit application. Provide this information as **Attachment O.**

➢ Please be aware that all permits must be practically enforceable whether or not the applicant chooses to propose such measures. Additionally, the DAQ may not be able to accept all measures proposed by the applicant. If none of these plans are proposed by the applicant, DAQ will develop such plans and include them in the permit.

32. **Public Notice.** At the time that the application is submitted, place a **Class I Legal Advertisement** in a newspaper of general circulation in the area where the source is or will be located (See 45CSR§13-8.3 through 45CSR§13-8.5 and ***Example Legal Advertisement*** for details). Please submit the **Affidavit of Publication** as **Attachment P** immediately upon receipt.

33**. Business Confidentiality Claims.** Does this application include confidential information (per 45CSR31)?

☐ **YES** ☒ **NO**

➢ If **YES,** identify each segment of information on each page that is submitted as confidential and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's ***"Precautionary Notice – Claims of Confidentiality"*** guidance found in the ***General Instructions*** as **Attachment Q.**

Section III. Certification of Information

34. **Authority/Delegation of Authority.** Only required when someone other than the responsible official signs the application. Check applicable **Authority Form** below:

☐ Authority of Corporation or Other Business Entity	☐ Authority of Partnership
☐ Authority of Governmental Agency	☐ Authority of Limited Partnership

Submit completed and signed **Authority Form** as **Attachment R.**

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

35A. **Certification of Information.** To certify this permit application, a Responsible Official (per 45CSR§13-2.22 and 45CSR§30-2.28) or Authorized Representative shall check the appropriate box and sign below.

Certification of Truth, Accuracy, and Completeness

I, the undersigned ☒ **Responsible Official** / ☐ **Authorized Representative,** hereby certify that all information contained in this application and any supporting documents appended hereto, is true, accurate, and complete based on information and belief after reasonable inquiry I further agree to assume responsibility for the construction, modification and/or relocation and operation of the stationary source described herein in accordance with this application and any amendments thereto, as well as the Department of Environmental Protection, Division of Air Quality permit issued in accordance with this application, along with all applicable rules and regulations of the West Virginia Division of Air Quality and W.Va. Code § 22-5-1 et seq. (State Air Pollution Control Act). If the business or agency changes its Responsible Official or Authorized Representative, the Director of the Division of Air Quality will be notified in writing within 30 days of the official change.

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.

SIGNATURE J. Robert Gwynne *(Please use blue ink)* DATE: 9/23/15 *(Please use blue ink)*

35B. Printed name of signee: J. Robert Gwynne		35C. Title: Executive Vice President
35D. E-mail: gwynne@greerindustries.com	36E. Phone: 304-864-5411	36F. FAX:
36A. Printed name of contact person (if different from above): Scott Kisner		36B. Title: Environmental Manager
36C. E-mail: skisner@greerindustries.com	36D. Phone: 304-864-5411	36E. FAX:

PLEASE CHECK ALL APPLICABLE ATTACHMENTS INCLUDED WITH THIS PERMIT APPLICATION:

- ☒ **Attachment A: Business Certificate**
- ☒ **Attachment B: Map(s)**
- ☐ **Attachment C: Installation and Start Up Schedule**
- ☐ **Attachment D: Regulatory Discussion**
- ☒ **Attachment E: Plot Plan**
- ☒ **Attachment F: Detailed Process Flow Diagram(s)**
- ☒ **Attachment G: Process Description**
- ☒ **Attachment H: Material Safety Data Sheets (MSDS)**
- ☒ **Attachment I: Emission Units Table**
- ☒ **Attachment J: Emission Points Data Summary Sheet**
- ☒ **Attachment K: Fugitive Emissions Data Summary Sheet**
- ☒ **Attachment L: Emissions Unit Data Sheet(s)**
- ☐ **Attachment M: Air Pollution Control Device Sheet(s)**
- ☒ **Attachment N: Supporting Emissions Calculations**
- ☒ **Attachment O: Monitoring/Recordkeeping/Reporting/Testing Plans**
- ☒ **Attachment P: Public Notice**
- ☐ **Attachment Q: Business Confidential Claims**
- ☐ **Attachment R: Authority Forms**
- ☐ **Attachment S: Title V Permit Revision Information**
- ☒ **Application Fee**

Please mail an original and three (3) copies of the complete permit application with the signature(s) to the DAQ, Permitting Section, at the address listed on the first page of this application. Please DO NOT fax permit applications.

FOR AGENCY USE ONLY – IF THIS IS A TITLE V SOURCE:

- ☐ ***Forward 1 copy of the application to the Title V Permitting Group and:***
- ☐ ***For Title V Administrative Amendments:***
  - ☐ ***NSR permit writer should notify Title V permit writer of draft permit,***
- ☐ ***For Title V Minor Modifications:***
  - ☐ ***Title V permit writer should send appropriate notification to EPA and affected states within 5 days of receipt,***
  - ☐ ***NSR permit writer should notify Title V permit writer of draft permit.***
- ☐ ***For Title V Significant Modifications processed in parallel with NSR Permit revision:***
  - ☐ ***NSR permit writer should notify a Title V permit writer of draft permit,***
  - ☐ ***Public notice should reference both 45CSR13 and Title V permits,***
  - ☐ ***EPA has 45 day review period of a draft permit.***

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

Attachment A

Business Certificate

WEST VIRGINIA
STATE TAX DEPARTMENT
BUSINESS REGISTRATION CERTIFICATE

ISSUED TO:
GREER INDUSTRIES INC
HC 78 BOX 93A
RIVERTON, WV 26814-9709

BUSINESS REGISTRATION ACCOUNT NUMBER: **1027-2440**

This certificate is issued on: 07/11/2011

This certificate is issued by
the West Virginia State Tax Commissioner
in accordance with Chapter 11, Article 12, of the West Virginia Code

The person or organization identified on this certificate is registered to conduct business in the State of West Virginia at the location above.

This certificate is not transferrable and must be displayed at the location for which issued.

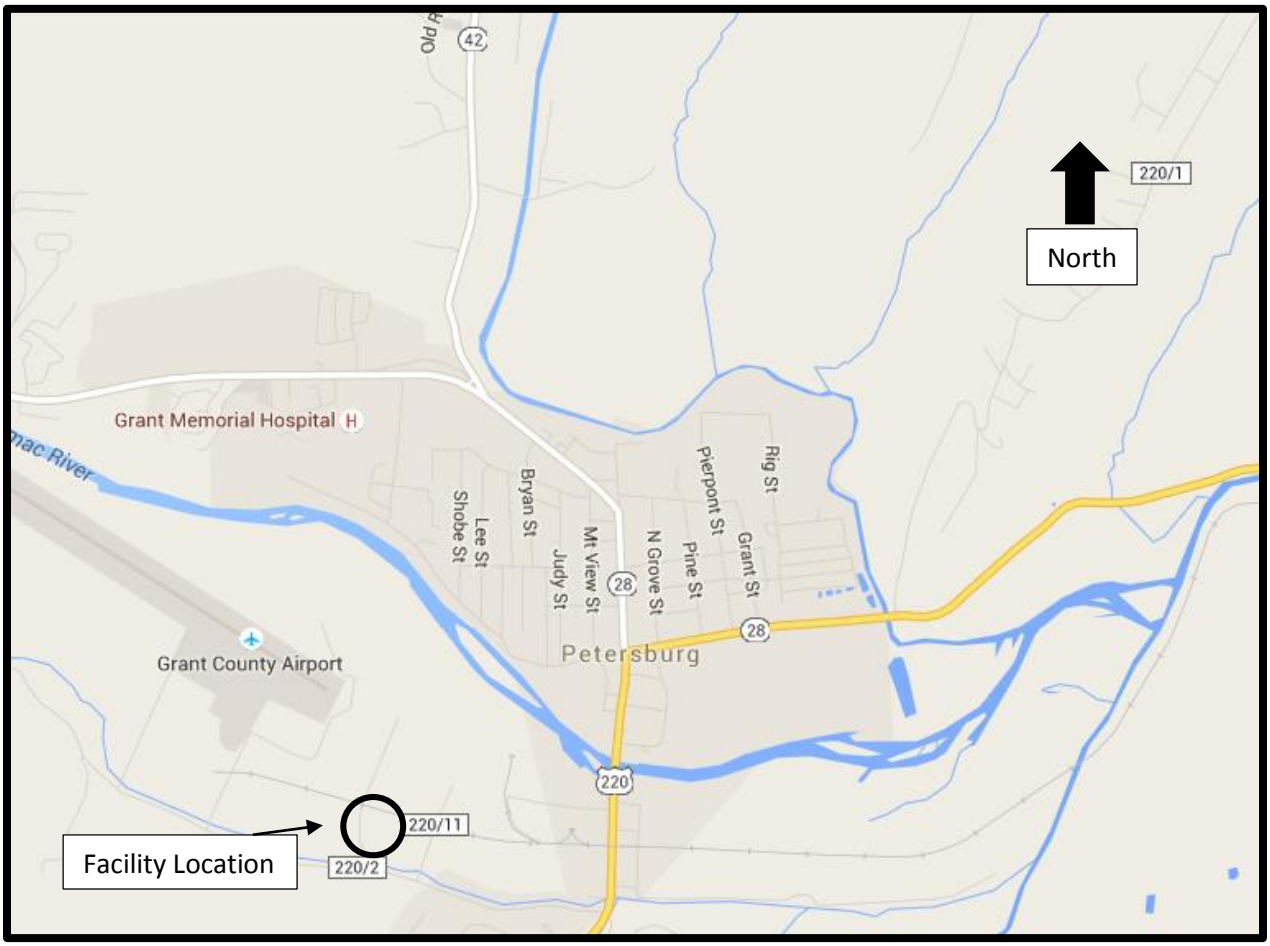
This certificate shall be permanent until cessation of the business for which the certificate of registration was granted or until it is suspended, revoked or cancelled by the Tax Commissioner.

Change in name or change of location shall be considered a cessation of the business and a new certificate shall be required.

TRAVELING/STREET VENDORS: Must carry a copy of this certificate in every vehicle operated by them.
CONTRACTORS, DRILLING OPERATORS, TIMBER/LOGGING OPERATIONS: Must have a copy of this certificate displayed at every job site within West Virginia.

atL006 v.4
L2147220608

Attachment B



Petersburg Rail Loading Facility

Greer Industries, Inc. dba Greer Lime Co.

Vicinity Map

Approximate Scale: 1” = 2500’

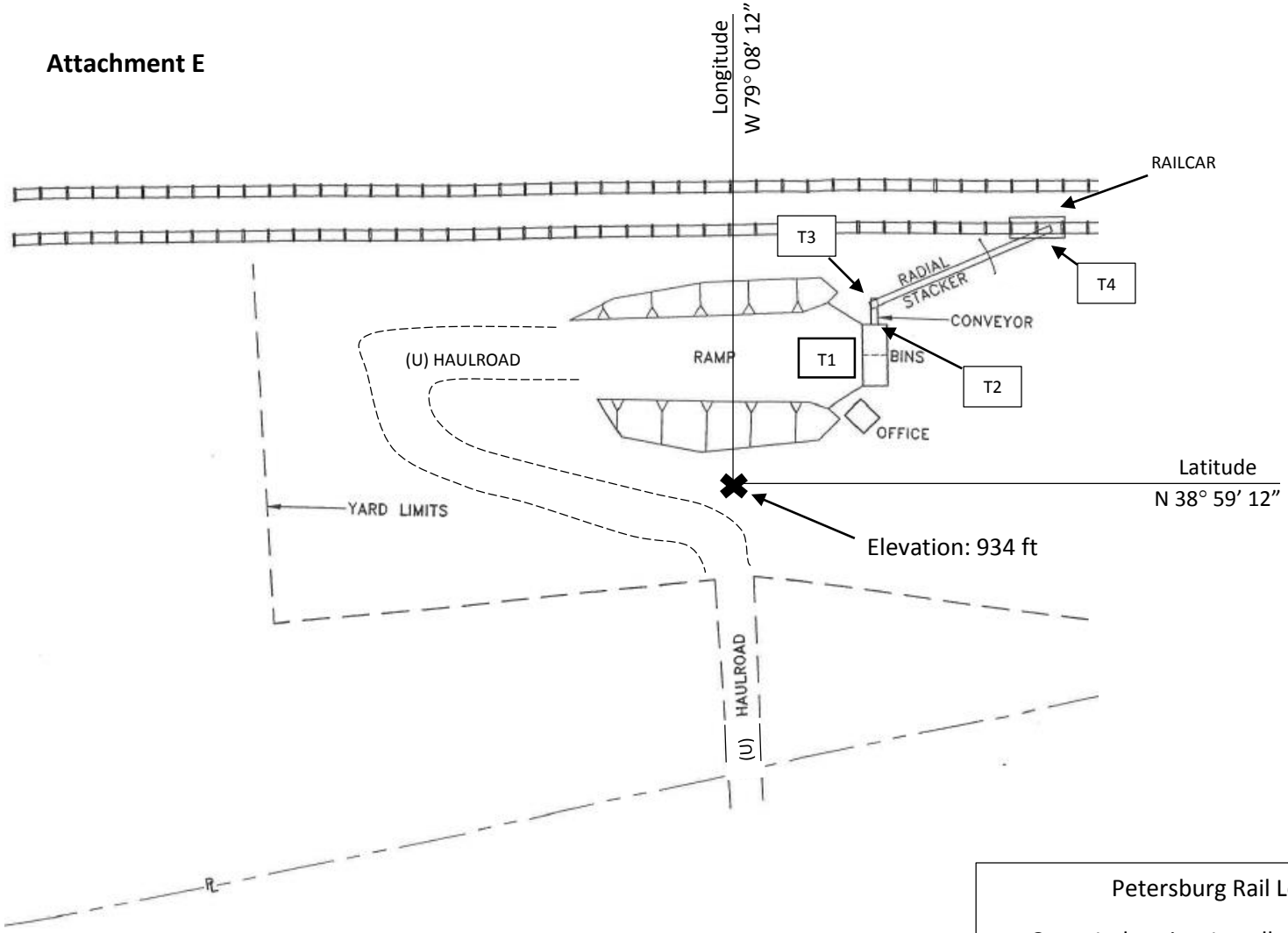
Source Data:

Google

Petersburg, WV

Map data ©2015 Google

Attachment E



Petersburg Rail Loading Facility

Greer Industries, Inc. dba Greer Lime Company

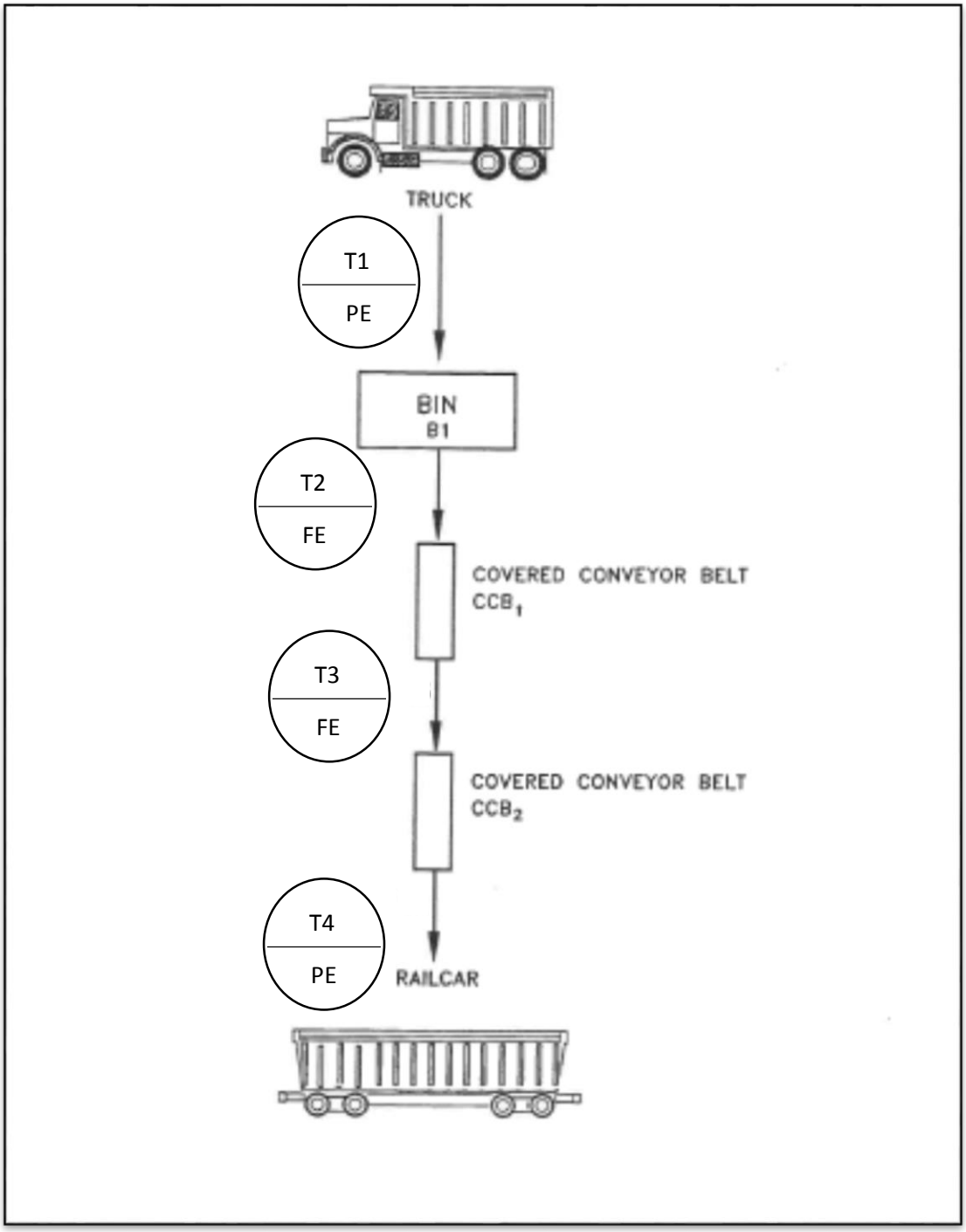
Plot Plan

Approximate Scale: 1" = 90'

Attachment F

Petersburg Rail Loading Facility

Process Flow Diagram



Attachment G

Process Description

Greer Industries, Inc. dba Greer Lime Company operates a lime loadout facility, Petersburg Rail Loading Facility, which is located in Petersburg, Grant County, WV. The material which is transferred through this facility is pebble lime.

In August 1996 a Permit Determination Form was completed for the site with the intention that the facility would be transferring 'various limestone products'. On September 25, 1996, the West Virginia Office of Air Quality determined that, based on this information, no permit was required under 45CSR13 for the facility. A recent environmental audit, conducted by Greer Industries Inc., discovered that, historically, Petersburg Rail Loading Facility was only transferring pebble lime, rather than a variety of limestone products. New calculations using corrected variables for pebble lime, determined the need for an air permit under 45CSR13. This application includes the emission calculations for pebble lime as the sole product that is transferred through the site.

Petersburg Rail Loading Facility includes 0.1 miles of unpaved haulroad, one dump bin, and two conveyors. Dust control measures include partial and full enclosures of equipment to reduce emissions of PM and PM-10. The bin is a three-sided, roofed partial enclosure with only its front side exposed during truck dumps. The conveyors are both fully enclosed, and the second conveyor loads into railcars through a dust sock.

The facility consists primarily of emissions from transfer points, labeled T1-T4. The process includes trucks dumping pebble lime into bin B1. This transfer point is identified as T1. The bin loads onto conveyor CCB1 (transfer point T2), which transfers onto conveyor CCB2 (transfer point T3). Finally, the pebble lime is loaded from conveyor CCB2 to a Railcar at transfer point T4, through a dust sock.

Maximum material throughput is estimated at 100 TPH, and 100,000 TPY of pebble lime. Maximum truck miles traveled on the unpaved haulroad is 690 miles/yr.

Attachment H

SDS of Material

GREER LIME COMPANY
SAFETY DATA SHEET (SDS)

Section I – Product and Company Identification

Product Identification	Manufacturer	24 -Hour Emergency Contact No.	Recommended Use
Burnt Lime; Pebble Lime; Quicklime; Calcium Oxide, CaO CAS No. 1305-78-8	Greer Lime Company 1088 Germany Valley Limestone Road Riverton, WV 26814	In WV: (800) 344-5133 Outside WV: (800) 538-3100 **Telephone No. for Information** (304) 567-2141	Water and sewage treatment, manufacturing, acid neutralization, industrial applications, construction, etc.

Section II – Hazards Identification

Health Hazards	Skin Irritation (Category 2) Serious Eye Damage (Category 1) Respiratory Sensitization (Category 1B) Specific Target Organ Toxicity Single Exposure: Respiratory System (Category 3)
Pictograms	
Signal Word	Danger
Hazard Statements	Causes skin irritation. Causes serious eye damage. May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Precautionary Statements	Keep out of reach of children. Avoid breathing dust. Use only outdoors or in a well-ventilated area. In case of inadequate ventilation wear respiratory protection. Wear protective gloves and eye protection. Wash exposed skin thoroughly after handling. Store product in a dry place. Do not handle until all safety precautions have been read and understood. Dispose of contents or containers in accordance with applicable regulations. IF ON SKIN: Wash exposed skin with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention immediately. IF INHALED: Remove person to fresh air and keep at rest and comfortable. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. If exposed and concerned; or if experiencing respiratory symptoms: Get medical advice.

Other Hazards not covered by GHS	None

Section III – Composition / Information on Ingredients

INGREDIENTS (Specific Chemical Identity; Common Names)	CAS REGISTRY NO.	% By Weight (Approx)
Calcium Oxide (CaO)	1305-78-8	>94
Magnesium Oxide (MgO)	1309-48-4	<3
Silicon Dioxide (SiO_2), Amorphous	7631-86-9	<1.5
Silica (Si), Crystalline Quartz	14808-60-7	<0.1
Aluminum Oxide (Al_2O_3)	1344-28-1	<0.5
Iron Oxide (Fe_2O_3)	1309-37-1	<0.2

Section IV – First Aid Measures

Inhalation	Move to fresh air. Seek medical attention if necessary. If breathing has stopped, give artificial respiration.
Ingestion	Do NOT induce vomiting. Drink large quantities of water. Seek medical attention immediately.
Skin Contact	Remove excess material from skin and flush the affected area with plenty of water. Remove contaminated clothing and wash before reuse. Seek medical attention immediately.
Eye Contact	Immediately flush eyes with large amounts of water for at least 15 minutes. Pull back the eyelid to make certain all lime dust has been washed out. Seek medical attention immediately.

Section V – Firefighting Measures

Extinguishing Method	Use dry chemical fire extinguisher. Dot not use water except in those cases that water may be used to deluge small amounts of Calcium Oxide.
Special Firefighting Equipment and Precautions	Reaction with water may produce enough heat to ignite combustible materials. Respirators may be necessary to prevent inhalation of fumes or vapors.
Specific Hazards in Case of Fire	Material may be an explosion hazard when wet and confined.

Section VI – Accidental Release Measures

Initial Actions to Be Taken	Ventilate the area around the accidental release and remove all unnecessary personnel.
Cleaning Methods	Use dry methods to collect large spills. Care should be taken to avoid causing dust to become airborne. Vacuum cleaning systems recommended. Do not use water on material spills.

Section VII – Handling and Storage

Waste Disposal Method	Dispose of product in accordance with Federal, State, and Local regulations.
Precautions to be Taken during Handling/Storage	Keep in tightly closed containers in a cool, dry, and well-ventilated location. Keep away from moisture. Store away from incompatible chemicals and acids.

Section VIII – Exposure Controls / Personal Protection

Respiratory Protection	NIOSH approved dust filter mask as minimal protection	
Ventilation	Local Exhaust	To maintain TLV and PEL
	Mechanical	To maintain TLV and PEL
	Special	None
	Other	None
Protective Gloves	Gauntlets cuff style	
Eye Protection	Shielded glasses or fitted goggles to reduce the chance of eye injury	
Other Protective Clothing	Clothing fully covering skin.	
Work / Hygienic Practices	Maintain dust exposure limits below TLV and PEL. If not possible, use respiratory protection. Avoid contact with eyes and skin. Wash thoroughly after handling. Wash clothing after contact.	

INGREDIENTS	OSHA PEL[(1)]	ACGIH TLV[(2)]
Calcium Oxide (CaO)	(T) 5 mg/m^3	(T) 2 mg/m^3
Magnesium Oxide (MgO)	(T) 15 mg/m^3 (R) 5 mg/m^3	(F) 10 mg/m^3
Silicon Dioxide (SiO_2), Amorphous	(T) [80 mg/m^3 / (%SiO_2)]	(I) 10 mg/m^3 (R) 3 mg/m^3
Silica (Si), Crystalline Quartz	(T) [30 mg/m^3 / (SiO_2 + 2)] (R) [10 mg/m^3 / (SiO_2 + 2)]	(R) 0.05 mg/m^3
Aluminum Oxide (Al_2O_3)	(T) 15 mg/m^3 (R) 5 mg/m^3	(T) 10 mg/m^3
Iron Oxide (Fe_2O_3)	(T) 10 mg/m^3	(T) 5 mg/m^3

(T): Total; (R): Respirable; (I): Inhalable

(1) OSHA PEL: Occupational Safety and Health Administration, Permissible Exposure Limit is the time weighted average exposure for an 8-hr work shift of a 40-hr workweek.
(2) ACGIH TLV: American Conference of Governmental Industrial Hygienists, Threshold Limit Value is the time weighted average recommended concentration for an 8-hr work shift of a 40-hr workweek.

Section IX – Physical and Chemical Properties

Appearance	White/gray lumps, granules, or powder
Odor and Threshold	None
pH	12.45 @ 25°C (in water at maximum solubility)
Melting Point	4,658 °F
Initial Boiling Point	5,162 °F
Flash Point	N/A
Evaporation Rate	N/A
Flammability	Product not flammable
Explosive Limits	No data available
Vapor Pressure	0.0 mm Hg
Vapor Density	N/A

Relative Density	3.3
Solubility	Reacts with water to form calcium hydroxide while generating heat.
Partition Coefficient: n-octanol/water	No data available
Autoignition Temperature	No data available
Decomposition Temperature	No data available

Section X – Stability and Reactivity

Stability	Chemically stable, but reacts rapidly with water to form calcium hydroxide, generating heat
Incompatibility – Conditions to Avoid	Burnt Lime should not be mixed or stored with the following materials due to the potential for violent reactions and release of heat: water (except when controlled), acids, reactive fluorinated compounds, reactive brominated compounds, reactive powdered metals, organic acid anhydrides, nitro-organic compounds, reactive phosphorous compounds, and other potentially reactive materials.
Hazardous Decomposition Products	None
Hazardous Polymerization	None

Section XI – Toxicological Information

Acute Effects	Skin Contact: May cause irritation. Corrosive with contact Eye Contact: may cause irritation. Corrosive with contact Inhalation: May cause lung irritation and inflammation to mucus membranes and respiratory passages
Chronic Effects	May cause irritation, ulceration, and perforation of nasal septum. Burnt Lime is not found to be toxic. It is not listed by MSHA, OSHA, or IARC as a carcinogen. This product may contain Crystalline Silica which has been classified as carcinogenic to humans when inhaled in the form of Quartz, Crystobalite, and/or Tridymite. Long-term exposure to crystalline silica may result in silicosis, lung cancer, or other respiratory diseases
Acute Toxicity	IDLH – Humans 25 mg/m^3 (Crystobalite and Tridymite), 50 mg/m^3 (Quartz and Tripoli)

Section XII – Ecological Information

Ecotoxicity	Due to the high pH of the product, upon exposure to aquatic organisms and aquatic systems, it may produce significant ecotoxicity in high concentrations.
Persistence and Degradability	No data available
Bioaccumulative Potential	This material shows no bioaccumulation potential.
Mobility in Soil	No data available
Other Adverse Effects	Due to the material's alkalinity, if released into water or moist soil will cause an increase in pH

Section XIII – Disposal Considerations

Dispose of unused material in accordance with the Federal, State, and Local disposal requirements.

Section XIV – Transport Information

UN Number	UN1910
UN Proper Shipping Name	Calcium Oxide
Transport Hazard Class	When transported by air: Hazard Class 8-Corrosive
Packing Group	When transported by air: Packing Ground III
Environmental Hazards/Marine Pollutant	Due to the material's alkalinity, if released into water or moist soil will cause an increase in pH
Special Precautions Which User Needs to be Aware	Burnt Lime is not classified as a hazardous material by the Department of Transportation (DOT) when transported by ground. However, when transported by air, this material is classified by DOT as a hazardous material. Disposal of product may be subject to state, federal, or local laws and regulations.

Section XV – Regulatory Information

EPA, RCRA Hazardous Waste Classification (40CFR261)	Not Listed
EPA, RCRA Hazardous Waste Number (40CFR261.33)	Not Listed
EPA, CERCLA Hazardous Substance (40CFR261)	Not Listed
EPA, CERCLA Reportable Quantity (RQ)	Not Listed
EPA, SARA 311/312 Codes	Not Listed
EPA, SARA Toxic Chemical (40CFR372.65)	Not Listed
EPA, SARA EHS (Extremely Hazardous Substance (40CFR355)	Not Listed
EPA Threshold Planning Quantity (TPQ)	Not Listed
EPA, TSCA Inventory List	All Components Listed
OSHA, Air Contaminant (29CFR1910.1000, Table Z-1)	Not Listed
OSHA, Specifically Regulated Substance (29CFR1910)	Not Listed
MSHA	Not Listed
State Regulations – Consult state and local authorities for guidance	See Note
Canadian Environmental Protection Act, Domestic Substances List	Listed

Section XVI – Other Information

HMIS III Safety Rating	Health – 3; Flammability – 0; Physical Hazard – 2; Protective Equipment - E
Revision Information	This SDS was revised on 5/14/15. All previous versions are obsolete
WARNING	This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
CANADA - WHMIS	Classification D2A (Toxic) and Class E (Corrosive)
Disclaimer	The technical data presented herein is given as information only and is assumed to be reliable. Greer Lime Company assumes no responsibility for any inaccuracies or for any damage or injury that may occur during the use of this information.

Attachment I

Emission Units Table

(includes all emission units and air pollution control devices that will be part of this permit application review, regardless of permitting status)

Emission Unit ID[1]	Emission Point ID[2]	Emission Unit Description	Year Installed/ Modified	Design Capacity	Type[3] and Date of Change	Control Device[4]
T1	E-T1	Truck to Bin transfer point	1994	100 TPH	New 01/1994	PE
T2	E-T2	Bin to Conveyor transfer point	1994	100 TPH	New 01/1994	FE
T3	E-T3	Conveyor to Conveyor transfer point	1994	100 TPH	New 01/1994	FE
T4	E-T4	Conveyor to Railcar transfer point	1994	100 TPH	New 01/1994	PE
HR	FE-HR	Unpaved Haulroad	1994	100 TPH	New 01/1994	None

[1] For Emission Units (or Sources) use the following numbering system:1S, 2S, 3S,... or other appropriate designation.
[2] For Emission Points use the following numbering system:1E, 2E, 3E, ... or other appropriate designation.
[3] New, modification, removal
[4] For Control Devices use the following numbering system: 1C, 2C, 3C,... or other appropriate designation.

Attachment J
EMISSION POINTS DATA SUMMARY SHEET

Table 1: Emissions Data

Emission Point ID No. *(Must match Emission Units Table & Plot Plan)*	Emission Point Type[1]	Emission Unit Vented Through This Point *(Must match Emission Units Table & Plot Plan)*		Air Pollution Control Device *(Must match Emission Units Table & Plot Plan)*		Vent Time for Emission Unit *(chemical processes only)*		All Regulated Pollutants - Chemical Name/CAS[3] *(Speciate VOCs & HAPS)*	Maximum Potential Uncontrolled Emissions [4]		Maximum Potential Controlled Emissions [5]		Emission Form or Phase *(At exit conditions, Solid, Liquid or Gas/Vapor)*	Est. Method Used [6]	Emission Concentration [7] (ppmv or mg/m^4)
		ID No.	Source	ID No.	Device Type	Short Term[2]	Max (hr/yr)		lb/hr	ton/yr	lb/hr	ton/yr			
E-T1	Point Source No Stack	Transfer Point	T1	PE	NA	NA	NA	PM PM-10	39.00 18.00	19.50 9.00	19.50 9.00	9.75 4.50	Solid	EE	NA
E-T2	Point Source No Stack	Transfer Point	T2	FE	NA	NA	NA	PM PM-10	39.00 18.00	19.50 9.00	7.80 3.60	3.90 1.80	Solid	EE	NA
E-T3	Point Source No Stack	Transfer Point	T3	FE	NA	NA	NA	PM PM-10	39.00 18.00	19.50 9.00	7.80 3.60	3.90 1.80	Solid	EE	NA
E-T4	Point Source No Stack	Transfer Point	T4	PE	NA	NA	NA	PM PM-10	39.00 18.00	19.50 9.00	19.50 9.00	9.75 4.50	Solid	EE	NA

The EMISSION POINTS DATA SUMMARY SHEET provides a summation of emissions by emission unit. Note that uncaptured process emission unit emissions are not typically considered to be fugitive and must be accounted for on the appropriate EMISSIONS UNIT DATA SHEET and on the EMISSION POINTS DATA SUMMARY SHEET. Please note that total emissions from the source are equal to all vented emissions, all fugitive emissions, plus all other emissions (e.g. uncaptured emissions). Please complete the FUGITIVE EMISSIONS DATA SUMMARY SHEET for fugitive emission activities.

1 Please add descriptors such as upward vertical stack, downward vertical stack, horizontal stack, relief vent, rain cap, etc.

2 Indicate by "C" if venting is continuous. Otherwise, specify the average short-term venting rate with units, for intermittent venting (ie., 15 min/hr). Indicate as many rates as needed to clarify frequency of venting (e.g., 5 min/day, 2 days/wk).

3 List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. **LIST** Acids, CO, CS_2, VOCs, H_2S, Inorganics, Lead, Organics, O_3, NO, NO_2, SO_2, SO_3, all applicable Greenhouse Gases (including CO_2 and methane), etc. **DO NOT LIST** H_2, H_2O, N_2, O_2, and Noble Gases.

4 Give maximum potential emission rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

[5] Give maximum potential emission rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

[6] Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).

[7] Provide for all pollutant emissions. Typically, the units of parts per million by volume (ppmv) are used. If the emission is a mineral acid (sulfuric, nitric, hydrochloric or phosphoric) use units of milligram per dry cubic meter (mg/m^3) at standard conditions (68 °F and 29.92 inches Hg) (see 45CSR7). If the pollutant is SO_2, use units of ppmv (See 45CSR10).

Attachment J
EMISSION POINTS DATA SUMMARY SHEET

Table 2: Release Parameter Data

Emission Point ID No. *(Must match Emission Units Table)*	Inner Diameter (ft.)	Exit Gas			Emission Point Elevation (ft)		UTM Coordinates (km)	
		Temp. (^oF)	Volumetric Flow [1] (acfm) *at operating conditions*	Velocity (fps)	Ground Level *(Height above mean sea level)*	Stack Height [2] *(Release height of emissions above ground level)*	Northing	Easting
NA								

Attachment K

FUGITIVE EMISSIONS DATA SUMMARY SHEET

The FUGITIVE EMISSIONS SUMMARY SHEET provides a summation of fugitive emissions. Fugitive emissions are those emissions which could not reasonably pass through a stack, chimney, vent or other functionally equivalent opening. Note that uncaptured process emissions are not typically considered to be fugitive, and must be accounted for on the appropriate EMISSIONS UNIT DATA SHEET and on the EMISSION POINTS DATA SUMMARY SHEET.

Please note that total emissions from the source are equal to all vented emissions, all fugitive emissions, plus all other emissions (e.g. uncaptured emissions).

APPLICATION FORMS CHECKLIST - FUGITIVE EMISSIONS
1.) Will there be haul road activities? ☒ Yes ☐ No ☒ If YES, then complete the HAUL ROAD EMISSIONS UNIT DATA SHEET.
2.) Will there be Storage Piles? ☐ Yes ☒ No ☐ If YES, complete Table 1 of the NONMETALLIC MINERALS PROCESSING EMISSIONS UNIT DATA SHEET.
3.) Will there be Liquid Loading/Unloading Operations? ☐ Yes ☒ No ☐ If YES, complete the BULK LIQUID TRANSFER OPERATIONS EMISSIONS UNIT DATA SHEET.
4.) Will there be emissions of air pollutants from Wastewater Treatment Evaporation? ☐ Yes ☒ No ☐ If YES, complete the GENERAL EMISSIONS UNIT DATA SHEET.
5.) Will there be Equipment Leaks (e.g. leaks from pumps, compressors, in-line process valves, pressure relief devices, open-ended valves, sampling connections, flanges, agitators, cooling towers, etc.)? ☐ Yes ☒ No ☐ If YES, complete the LEAK SOURCE DATA SHEET section of the CHEMICAL PROCESSES EMISSIONS UNIT DATA SHEET.
6.) Will there be General Clean-up VOC Operations? ☐ Yes ☒ No ☐ If YES, complete the GENERAL EMISSIONS UNIT DATA SHEET.
7.) Will there be any other activities that generate fugitive emissions? ☐ Yes ☒ No ☐ If YES, complete the GENERAL EMISSIONS UNIT DATA SHEET or the most appropriate form.
If you answered "NO" to all of the items above, it is not necessary to complete the following table, "Fugitive Emissions Summary."

FUGITIVE EMISSIONS SUMMARY	All Regulated Pollutants - Chemical Name/CAS [1]	Maximum Potential Uncontrolled Emissions [2]		Maximum Potential Controlled Emissions [3]		Est. Method Used [4]
		lb/hr	ton/yr	lb/hr	ton/yr	
Haul Road/Road Dust Emissions Paved Haul Roads						
Unpaved Haul Roads	PM; PM10	5.42; 1.60	2.34; 0.69			EE
Storage Pile Emissions						
Loading/Unloading Operations						
Wastewater Treatment Evaporation & Operations						
Equipment Leaks						
General Clean-up VOC Emissions						
Other						

[1] List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. LIST Acids, CO, CS_2, VOCs, H_2S, Inorganics, Lead, Organics, O_3, NO, NO_2, SO_2, SO_3, all applicable Greenhouse Gases (including CO_2 and methane), etc. DO NOT LIST H_2, H_2O, N_2, O_2, and Noble Gases.

[2] Give rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

[3] Give rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

[4] Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).

Attachment L
EMISSIONS UNIT DATA SHEET
GENERAL

To be used for affected sources other than asphalt plants, foundries, incinerators, indirect heat exchangers, and quarries.

Identification Number (as assigned on *Equipment List Form*): T1

1. Name or type and model of proposed affected source:

   Drop transfer from truck unloading into a storage bin (Truck to B1)

2. On a separate sheet(s), furnish a sketch(es) of this affected source. If a modification is to be made to this source, clearly indicated the change(s). Provide a narrative description of all features of the affected source which may affect the production of air pollutants.

   *See Process Flow Diagram and Process Description

3. Name(s) and maximum amount of proposed process material(s) charged per hour:

   Pebble Lime; 100 TPH

4. Name(s) and maximum amount of proposed material(s) produced per hour:

   NA. Material is only transferred, not produced.

5. Give chemical reactions, if applicable, that will be involved in the generation of air pollutants:

   NA

* The identification number which appears here must correspond to the air pollution control device identification number appearing on the *List Form*.

6. Combustion Data (if applicable):

(a) Type and amount in appropriate units of fuel(s) to be burned:

NA

(b) Chemical analysis of proposed fuel(s), excluding coal, including maximum percent sulfur and ash:

(c) Theoretical combustion air requirement (ACF/unit of fuel):

@ °F and psia.

(d) Percent excess air:

(e) Type and BTU/hr of burners and all other firing equipment planned to be used:

(f) If coal is proposed as a source of fuel, identify supplier and seams and give sizing of the coal as it will be fired:

(g) Proposed maximum design heat input: × 10^6 BTU/hr.

7. Projected operating schedule:

Hours/Day	8	Days/Week	5	Weeks/Year	52

8. Projected amount of pollutants that would be emitted from this affected source if no control devices were used:

@ Atmospheric Temperature °F and Atmospheric Pressure psia

a.	NO_X		lb/hr	grains/ACF
b.	SO_2		lb/hr	grains/ACF
c.	CO		lb/hr	grains/ACF
d.	PM_{10}	18.00	lb/hr	grains/ACF
e.	Hydrocarbons		lb/hr	grains/ACF
f.	VOCs		lb/hr	grains/ACF
g.	Pb		lb/hr	grains/ACF
h.	Specify other(s)			
			lb/hr	grains/ACF
			lb/hr	grains/ACF
			lb/hr	grains/ACF
			lb/hr	grains/ACF

NOTE: (1) An Air Pollution Control Device Sheet must be completed for any air pollution device(s) used to control emissions from this affected source.

(2) Complete the Emission Points Data Sheet.

9. Proposed Monitoring, Recordkeeping, Reporting, and Testing
Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.

MONITORING	RECORDKEEPING
Monitor equipment on a daily basis.	Maintain records on a daily basis of lime transfers through plant.
REPORTING	**TESTING**
Records kept daily and maintained for 5 years. Records made available to DEP for review upon request.	

MONITORING. PLEASE LIST AND DESCRIBE THE PROCESS PARAMETERS AND RANGES THAT ARE PROPOSED TO BE MONITORED IN ORDER TO DEMONSTRATE COMPLIANCE WITH THE OPERATION OF THIS PROCESS EQUIPMENT OPERATION/AIR POLLUTION CONTROL DEVICE.

RECORDKEEPING. PLEASE DESCRIBE THE PROPOSED RECORDKEEPING THAT WILL ACCOMPANY THE MONITORING.

REPORTING. PLEASE DESCRIBE THE PROPOSED FREQUENCY OF REPORTING OF THE RECORDKEEPING.

TESTING. PLEASE DESCRIBE ANY PROPOSED EMISSIONS TESTING FOR THIS PROCESS EQUIPMENT/AIR POLLUTION CONTROL DEVICE.

10. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty

NA

Attachment L
EMISSIONS UNIT DATA SHEET
GENERAL

To be used for affected sources other than asphalt plants, foundries, incinerators, indirect heat exchangers, and quarries.

Identification Number (as assigned on *Equipment List Form*): T2

1. Name or type and model of proposed affected source:

   Drop transfer from a storage bin to a covered conveyor belt (B1 to CCB1)

2. On a separate sheet(s), furnish a sketch(es) of this affected source. If a modification is to be made to this source, clearly indicated the change(s). Provide a narrative description of all features of the affected source which may affect the production of air pollutants.

   *See Process Flow Diagram and Process Description

3. Name(s) and maximum amount of proposed process material(s) charged per hour:

   Pebble Lime; 100 TPH

4. Name(s) and maximum amount of proposed material(s) produced per hour:

   NA. Material is only transferred, not produced.

5. Give chemical reactions, if applicable, that will be involved in the generation of air pollutants:

   NA

* The identification number which appears here must correspond to the air pollution control device identification number appearing on the *List Form*.

6. Combustion Data (if applicable):

(a) Type and amount in appropriate units of fuel(s) to be burned:

NA

(b) Chemical analysis of proposed fuel(s), excluding coal, including maximum percent sulfur and ash:

(c) Theoretical combustion air requirement (ACF/unit of fuel):

@ °F and psia.

(d) Percent excess air:

(e) Type and BTU/hr of burners and all other firing equipment planned to be used:

(f) If coal is proposed as a source of fuel, identify supplier and seams and give sizing of the coal as it will be fired:

(g) Proposed maximum design heat input: $\times 10^6$ BTU/hr.

7. Projected operating schedule:

Hours/Day	8	Days/Week	5	Weeks/Year	52

8. Projected amount of pollutants that would be emitted from this affected source if no control devices were used:

@ Atmospheric Temperature °F and Atmospheric Pressure psia

a.	NO_X		lb/hr	grains/ACF
b.	SO_2		lb/hr	grains/ACF
c.	CO		lb/hr	grains/ACF
d.	PM_{10}	18.00	lb/hr	grains/ACF
e.	Hydrocarbons		lb/hr	grains/ACF
f.	VOCs		lb/hr	grains/ACF
g.	Pb		lb/hr	grains/ACF
h.	Specify other(s)			
			lb/hr	grains/ACF
			lb/hr	grains/ACF
			lb/hr	grains/ACF
			lb/hr	grains/ACF

NOTE: (1) An Air Pollution Control Device Sheet must be completed for any air pollution device(s) used to control emissions from this affected source.

(2) Complete the Emission Points Data Sheet.

9. Proposed Monitoring, Recordkeeping, Reporting, and Testing
Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.

MONITORING	RECORDKEEPING
Monitor equipment on a daily basis.	Maintain records on a daily basis of lime transfers through plant.
REPORTING	**TESTING**
Records kept daily and maintained for 5 years. Records made available to DEP for review upon request.	

MONITORING. PLEASE LIST AND DESCRIBE THE PROCESS PARAMETERS AND RANGES THAT ARE PROPOSED TO BE MONITORED IN ORDER TO DEMONSTRATE COMPLIANCE WITH THE OPERATION OF THIS PROCESS EQUIPMENT OPERATION/AIR POLLUTION CONTROL DEVICE.

RECORDKEEPING. PLEASE DESCRIBE THE PROPOSED RECORDKEEPING THAT WILL ACCOMPANY THE MONITORING.

REPORTING. PLEASE DESCRIBE THE PROPOSED FREQUENCY OF REPORTING OF THE RECORDKEEPING.

TESTING. PLEASE DESCRIBE ANY PROPOSED EMISSIONS TESTING FOR THIS PROCESS EQUIPMENT/AIR POLLUTION CONTROL DEVICE.

10. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty

NA

Attachment L
EMISSIONS UNIT DATA SHEET
GENERAL

To be used for affected sources other than asphalt plants, foundries, incinerators, indirect heat exchangers, and quarries.

Identification Number (as assigned on *Equipment List Form*): T3

1. Name or type and model of proposed affected source:

   Drop transfer from a covered conveyor belt to a second covered conveyor belt (CCB1 to CCB2)

2. On a separate sheet(s), furnish a sketch(es) of this affected source. If a modification is to be made to this source, clearly indicated the change(s). Provide a narrative description of all features of the affected source which may affect the production of air pollutants.

   *See Process Flow Diagram and Process Description

3. Name(s) and maximum amount of proposed process material(s) charged per hour:

   Pebble Lime; 100 TPH

4. Name(s) and maximum amount of proposed material(s) produced per hour:

   NA. Material is only transferred, not produced.

5. Give chemical reactions, if applicable, that will be involved in the generation of air pollutants:

   NA

* The identification number which appears here must correspond to the air pollution control device identification number appearing on the *List Form*.

6. Combustion Data (if applicable):

(a) Type and amount in appropriate units of fuel(s) to be burned:

NA

(b) Chemical analysis of proposed fuel(s), excluding coal, including maximum percent sulfur and ash:

(c) Theoretical combustion air requirement (ACF/unit of fuel):

@ °F and psia.

(d) Percent excess air:

(e) Type and BTU/hr of burners and all other firing equipment planned to be used:

(f) If coal is proposed as a source of fuel, identify supplier and seams and give sizing of the coal as it will be fired:

(g) Proposed maximum design heat input: $\times 10^6$ BTU/hr.

7. Projected operating schedule:

Hours/Day	8	Days/Week	5	Weeks/Year	52

8. Projected amount of pollutants that would be emitted from this affected source if no control devices were used:

@ Atmospheric Temperature °F and Atmospheric Pressure psia

a.	NO_X		lb/hr	grains/ACF
b.	SO_2		lb/hr	grains/ACF
c.	CO		lb/hr	grains/ACF
d.	PM_{10}	18.00	lb/hr	grains/ACF
e.	Hydrocarbons		lb/hr	grains/ACF
f.	VOCs		lb/hr	grains/ACF
g.	Pb		lb/hr	grains/ACF
h.	Specify other(s)			
			lb/hr	grains/ACF
			lb/hr	grains/ACF
			lb/hr	grains/ACF
			lb/hr	grains/ACF

NOTE: (1) An Air Pollution Control Device Sheet must be completed for any air pollution device(s) used to control emissions from this affected source.

(2) Complete the Emission Points Data Sheet.

9. Proposed Monitoring, Recordkeeping, Reporting, and Testing
Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.

MONITORING	RECORDKEEPING
Monitor equipment on a daily basis.	Maintain records on a daily basis of lime transfers through plant.
REPORTING	**TESTING**
Records kept daily and maintained for 5 years. Records made available to DEP for review upon request.	

MONITORING. PLEASE LIST AND DESCRIBE THE PROCESS PARAMETERS AND RANGES THAT ARE PROPOSED TO BE MONITORED IN ORDER TO DEMONSTRATE COMPLIANCE WITH THE OPERATION OF THIS PROCESS EQUIPMENT OPERATION/AIR POLLUTION CONTROL DEVICE.

RECORDKEEPING. PLEASE DESCRIBE THE PROPOSED RECORDKEEPING THAT WILL ACCOMPANY THE MONITORING.

REPORTING. PLEASE DESCRIBE THE PROPOSED FREQUENCY OF REPORTING OF THE RECORDKEEPING.

TESTING. PLEASE DESCRIBE ANY PROPOSED EMISSIONS TESTING FOR THIS PROCESS EQUIPMENT/AIR POLLUTION CONTROL DEVICE.

10. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty

NA

Attachment L
EMISSIONS UNIT DATA SHEET
GENERAL

To be used for affected sources other than asphalt plants, foundries, incinerators, indirect heat exchangers, and quarries.

Identification Number (as assigned on *Equipment List Form*): T4

1. Name or type and model of proposed affected source:

   Drop transfer from a covered conveyor belt into a railcar (CCB2 to Railcar)

2. On a separate sheet(s), furnish a sketch(es) of this affected source. If a modification is to be made to this source, clearly indicated the change(s). Provide a narrative description of all features of the affected source which may affect the production of air pollutants.

   *See Process Flow Diagram and Process Description

3. Name(s) and maximum amount of proposed process material(s) charged per hour:

   Pebble Lime; 100 TPH

4. Name(s) and maximum amount of proposed material(s) produced per hour:

   NA. Material is only transferred, not produced.

5. Give chemical reactions, if applicable, that will be involved in the generation of air pollutants:

   NA

* The identification number which appears here must correspond to the air pollution control device identification number appearing on the *List Form*.

6. Combustion Data (if applicable):

(a) Type and amount in appropriate units of fuel(s) to be burned:

NA

(b) Chemical analysis of proposed fuel(s), excluding coal, including maximum percent sulfur and ash:

(c) Theoretical combustion air requirement (ACF/unit of fuel):

@ °F and psia.

(d) Percent excess air:

(e) Type and BTU/hr of burners and all other firing equipment planned to be used:

(f) If coal is proposed as a source of fuel, identify supplier and seams and give sizing of the coal as it will be fired:

(g) Proposed maximum design heat input: $\times 10^6$ BTU/hr.

7. Projected operating schedule:

Hours/Day	8	Days/Week	5	Weeks/Year	52

8. Projected amount of pollutants that would be emitted from this affected source if no control devices were used:

@ Atmospheric Temperature °F and Atmospheric Pressure psia

a.	NO_X		lb/hr	grains/ACF
b.	SO_2		lb/hr	grains/ACF
c.	CO		lb/hr	grains/ACF
d.	PM_{10}	18.00	lb/hr	grains/ACF
e.	Hydrocarbons		lb/hr	grains/ACF
f.	VOCs		lb/hr	grains/ACF
g.	Pb		lb/hr	grains/ACF
h.	Specify other(s)			
			lb/hr	grains/ACF
			lb/hr	grains/ACF
			lb/hr	grains/ACF
			lb/hr	grains/ACF

NOTE: (1) An Air Pollution Control Device Sheet must be completed for any air pollution device(s) used to control emissions from this affected source.

(2) Complete the Emission Points Data Sheet.

9. Proposed Monitoring, Recordkeeping, Reporting, and Testing
Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.

MONITORING	RECORDKEEPING
Monitor equipment on a daily basis.	Maintain records on a daily basis of lime transfers through plant.
REPORTING	**TESTING**
Records kept daily and maintained for 5 years. Records made available to DEP for review upon request.	

MONITORING. PLEASE LIST AND DESCRIBE THE PROCESS PARAMETERS AND RANGES THAT ARE PROPOSED TO BE MONITORED IN ORDER TO DEMONSTRATE COMPLIANCE WITH THE OPERATION OF THIS PROCESS EQUIPMENT OPERATION/AIR POLLUTION CONTROL DEVICE.

RECORDKEEPING. PLEASE DESCRIBE THE PROPOSED RECORDKEEPING THAT WILL ACCOMPANY THE MONITORING.

REPORTING. PLEASE DESCRIBE THE PROPOSED FREQUENCY OF REPORTING OF THE RECORDKEEPING.

TESTING. PLEASE DESCRIBE ANY PROPOSED EMISSIONS TESTING FOR THIS PROCESS EQUIPMENT/AIR POLLUTION CONTROL DEVICE.

10. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty

NA

Attachment L
FUGITIVE EMISSIONS FROM UNPAVED HAULROADS

UNPAVED HAULROADS (including all equipment traffic involved in process, haul trucks, endloaders, etc.)

		PM	PM-10
k =	Particle size multiplier	0.80	0.36
s =	Silt content of road surface material (%)	10	10
p =	Number of days per year with precipitation >0.01 in.	160	160

Item Number	Description	Number of Wheels	Mean Vehicle Weight (tons)	Mean Vehicle Speed (mph)	Miles per Trip	Maximum Trips per Hour	Maximum Trips per Year	Control Device ID Number	Control Efficiency (%)
1	Empty Trucks	14	15	13	0.1	4	3448		0
2	Fully Loaded Trucks	14	44	13	0.1	4	3448		0
3	NOTE: See Attachment N for calculations using the Emission Factor Equation from AP-42 2006 version								
4									
5									
6									
7									
8									

Source: *AP-42 Fifth Edition – 13.2.2 Unpaved Roads*

$E = k \times 5.9 \times (s \div 12) \times (S \div 30) \times (W \div 3)^{0.7} \times (w \div 4)^{0.5} \times ((365 - p) \div 365) =$ lb/Vehicle Mile Traveled (VMT)

Where:

		PM	PM-10
k =	Particle size multiplier	0.80	0.36
s =	Silt content of road surface material (%)	10	10
S =	Mean vehicle speed (mph)	13	13
W =	Mean vehicle weight (tons)	29.5	29.5
w =	Mean number of wheels per vehicle	14	14
p =	Number of days per year with precipitation >0.01 in.	160	160

For lb/hr: [lb ÷ VMT] × [VMT ÷ trip] × [Trips ÷ Hour] = lb/hr

For TPY: [lb ÷ VMT] × [VMT ÷ trip] × [Trips ÷ Hour] × [Ton ÷ 2000 lb] = Tons/year

SUMMARY OF UNPAVED HAULROAD EMISSIONS

Item No.	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
1	5.42	2.34			1.60	0.69		
2								
3								
4								
5								
6								
7								
8								
TOTALS	5.42	2.34			1.60	0.69		

FUGITIVE EMISSIONS FROM PAVED HAULROADS

INDUSTRIAL PAVED HAULROADS (including all equipment traffic involved in process, haul trucks, endloaders, etc.)

I =	Industrial augmentation factor (dimensionless)	
n =	Number of traffic lanes	
s =	Surface material silt content (%)	
L =	Surface dust loading (lb/mile)	

Item Number	Description	Mean Vehicle Weight (tons)	Miles per Trip	Maximum Trips per Hour	Maximum Trips per Year	Control Device ID Number	Control Efficiency (%)
1							
2							
3							
4							
5							
6							
7							
8							

Source: *AP-42 Fifth Edition – 11.2.6 Industrial Paved Roads*

$E = 0.077 \times I \times (4 \div n) \times (s \div 10) \times (L \div 1000) \times (W \div 3)^{0.7}$ = lb/Vehicle Mile Traveled (VMT)

Where:

I =	Industrial augmentation factor (dimensionless)	
n =	Number of traffic lanes	
s =	Surface meterial silt content (%)	
L =	Surface dust loading (lb/mile)	
W =	Average vehicle weight (tons)	

For lb/hr: [lb ÷ VMT] × [VMT ÷ trip] × [Trips ÷ Hour] = lb/hr

For TPY: [lb ÷ VMT] × [VMT ÷ trip] × [Trips ÷ Hour] × [Ton ÷ 2000 lb] = Tons/year

SUMMARY OF PAVED HAULROAD EMISSIONS

Item No.	Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY
1				
2				
3				
4				
5				
6				
7				
8				
TOTALS				

Attachment N: Supporting Emission Calculations

Emissions from Unpaved Haulroad

AP-42, 13.2.2 Unpaved Roads (11/06)

E= Emission factor extrapolated for natural mitigation

$$E_{ext} = k\left(\frac{s}{12}\right)^{a}\left(\frac{W}{3}\right)^{b}[(365-P)/365]$$ **lb/VMT**

Equations (1a; 2)

Parameters

k= particle size multipier	PM-10	1.5		AP-42, Table 13.2.2-2; Industrial Roads
	PM-TSP	4.9		AP-42, Table 13.2.2-2; Industrial Roads
s= surface material silt content (%)		10%		AP-42, Table 13.2.2-1; Stone quarrying and processing, Plant road, mean silt content
W= mean vehicle weight, tons		29.5	tons	Mean vehicle weight (15 tons empty; 44 tons fully loaded)
a (empirical constant)	PM-10	0.9		AP-42, Table 13.2.2-2; Industrial Roads
	PM-TSP	0.7		AP-42, Table 13.2.2-2; Industrial Roads
b (empirical constant)	PM-10	0.45		AP-42, Table 13.2.2-2; Industrial Roads
	PM-TSP	0.45		AP-42, Table 13.2.2-2; Industrial Roads
P= number of days per year with ≥0.01 in of precipitation		160	days	AP-42, Figure 13.2.2-1
Calculated Emission Factor	PM-10	2.00	lb/VMT	
	PM-TSP	6.78	lb/VMT	
Round-trip Distance per Truck		0.2	miles/truck	
Maximum Production Rate	up to	100	ton/hr	
Maximum Round-trips (Trucks) per Hour	up to	4	trucks/hr	
Maximum Total Miles Traveled	up to	690	miles/yr	Based on 100,000 TPY maximum throughput

Uncontrolled Emissions

Emission ID	Description	PM-10 (lb/hr)	PM-TSP (lb/hr)	PM-10 (ton/yr)	PM-TSP (ton/yr)
HR	Haulroad fugitive emissions	1.60	5.42	0.69	2.34

Emissions from Non-metallic Minerals Processing

AP-42, 13.2.4 Aggregate Handling and Storage Piles (11/06)

E= Emission factor

$$E = k(0.0032)\frac{\left(\frac{U}{5}\right)^{1.3}}{\left(\frac{M}{2}\right)^{1.4}} lb/ton$$

Equation (1)

Parameters

k= particle size multipier	PM-10	0.35		AP-42, 13.2.4-4
	PM-TSP	0.74		AP-42, 13.2.4-4
U=mean wind speed, mph		10	mph	Avg. wind speed
M= material moisture content (%)		0.10	%	Product avg. moisture content provided by Greer Lime Co.

Calculated Emission Factor

PM-10	0.18	lb/ton	
PM-TSP	0.39	lb/ton	

Maximum Production Rate up to 100 ton/hr

Maximum Total Production up to 100,000 ton/yr

Uncontrolled Emissions

Transfer Point ID	Description	PM-10 (lb/hr)	PM-TSP (lb/hr)	PM-10 (ton/yr)	PM-TSP (ton/yr)
T1	Truck to Bin	18.00	39.00	9.00	19.50
T2	Bin to CCB1	18.00	39.00	9.00	19.50
T3	CCB1 to CCB2	18.00	39.00	9.00	19.50
T4	CCB2 to Railcar	18.00	39.00	9.00	19.50
	TOTALS	72.00	156.00	36.00	78.00

Controlled Emissions

Transfer Point ID	Description	PM-10 (lb/hr)	PM-TSP (lb/hr)	PM-10 (ton/yr)	PM-TSP (ton/yr)	
T1	Truck to Bin	9.00	19.50	4.50	9.75	Assuming 50% Control Efficiency for Partially Enclosed Truck Drop
T2	Bin to CCB1	3.60	7.80	1.80	3.90	Assuming 80% Control Efficiency for Fully Enclosed Belt Transfers
T3	CCB1 to CCB2	3.60	7.80	1.80	3.90	Assuming 80% Control Efficiency for Fully Enclosed Belt Transfers
T4	CCB2 to Railcar	9.00	19.50	4.50	9.75	Assuming 50% Control Efficiency for Partially Enclosed Rail Loadout
	TOTALS	25.20	54.60	12.60	27.30	

Attachment O

Monitoring, Recordkeeping & Reporting

Greer Industries, Inc. dba Greer Lime Company will maintain records of daily pebble lime transfers though the Petersburg Rail Facility in tons. The records will be kept at the Greer Lime Company plant in Riverton, WV for a minimum of 5 years. These records will be made available to DEP, for review, upon request.

Attachment P

Air Quality Permit Notice

Notice of Application

Notice is given that Greer Industries, Inc. dba Greer Lime Company has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a Construction Permit for a Rail Loading Facility located on Rt. 220/2, in Petersburg, in Grant County, West Virginia. The latitude and longitude coordinates are: 38.98667, -79.13667.

The applicant estimates the potential to discharge the following Regulated Air Pollutants will be: 29.64 tons per year of PM and 13.29 tons per year of PM_{10}.

Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE, Charleston, WV 25304, for at least 30 calendar days from the date of publication of this notice.

Any questions regarding this permit application should be directed to the DAQ at (304) 926-0499, extension 1250, during normal business hours.

Dated this the 29th day of September, 2015.

By: Greer Industries, Inc. dba Greer Lime Company

J. Robert Gwynne

Executive Vice President

8477 Veterans Memorial Highway

Masontown, WV 26542