

Application for NSR Permit Modification

(45 CSR 13)

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

January 2016

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): Riverton Facility		4. The applicant is the: <input type="checkbox"/> OWNER <input type="checkbox"/> OPERATOR <input checked="" type="checkbox"/> BOTH	
5A. Applicant's mailing address: 8477 Veterans Memorial Highway Masontown, West Virginia 26542		5B. Facility's present physical address: Germany Valley Limestone Road Riverton, Pendleton County, West Virginia	
6. West Virginia Business Registration. Is the applicant a resident of the State of West Virginia? <input checked="" type="checkbox"/> YES <input type="checkbox"/> 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: N/A			
8. Does the applicant own, lease, have an option to buy or otherwise have control of the <i>proposed site</i> ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO - If YES, please explain: Owner - 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 and hydrate production.		10. North American Industry Classification System (NAICS) code for the facility: 32741	
11A. DAQ Plant ID No. (for existing facilities only): 071-00001		11B. List all current 45CSR13 and 45CSR30 (Title V) permit numbers associated with this process (for existing facilities only): R30-07100001-2015, R13-1396C, and R13-2113J	

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**.

Approximately four (4) 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. Facility is located one (1) mile up the road from the turn.

12.B. New site address (if applicable):

N/A

12C. Nearest city or town:

Riverton, WV

12D. County:

Pendleton

12.E. UTM Northing (KM): 4,293.455

12F. UTM Easting (KM): 639.519

12G. UTM Zone: 17

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

Adding one screw conveyor to the lime handling circuit to facilitate the ability to process large pebble lime in storage to smaller products and adding one screw conveyor to the outside hydrate storage bin to better control the flow of product to trucks.

14A. Provide the date of anticipated installation or change: **April 2016**

- If this is an **After-The-Fact** permit application, provide the date upon which the proposed change did happen:

14B. Date of anticipated Start-Up if a permit is granted:

May 2016

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 **24** Days Per Week **7** 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:

<input type="checkbox"/> Bulk Liquid Transfer Operations	<input type="checkbox"/> Haul Road Emissions	<input type="checkbox"/> Quarry
<input type="checkbox"/> Chemical Processes	<input type="checkbox"/> Hot Mix Asphalt Plant	<input checked="" type="checkbox"/> Solid Materials Sizing, Handling and Storage Facilities
<input type="checkbox"/> Concrete Batch Plant	<input type="checkbox"/> Incinerator	<input type="checkbox"/> Storage Tanks
<input type="checkbox"/> Grey Iron and Steel Foundry	<input type="checkbox"/> Indirect Heat Exchanger	
<input type="checkbox"/> 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:

<input type="checkbox"/> Absorption Systems	<input type="checkbox"/> Baghouse	<input type="checkbox"/> Flare
<input type="checkbox"/> Adsorption Systems	<input type="checkbox"/> Condenser	<input type="checkbox"/> Mechanical Collector
<input type="checkbox"/> Afterburner	<input type="checkbox"/> Electrostatic Precipitator	<input type="checkbox"/> Wet Collecting System
<input type="checkbox"/> 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:

<input type="checkbox"/> Authority of Corporation or Other Business Entity	<input type="checkbox"/> Authority of Partnership
<input type="checkbox"/> Authority of Governmental Agency	<input type="checkbox"/> 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.

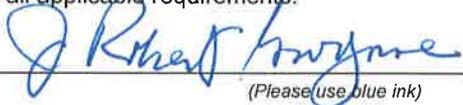
35A. **Certification of Information.** To certify this permit application, a Responsible Official (per 45CSR§13-2.22 and 45CSR§30-2.28) or Authorized Representative shall check the appropriate box and sign below.

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  DATE: 1-13-16
(Please use blue ink) (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: N/A
36A. Printed name of contact person (if different from above): Scott Kisner		36B. Title: Environmental Compliance Manager
36C. E-mail: skisner@greerindustries.com	36D. Phone: 304-864-5411	36E. FAX: N/A

PLEASE CHECK ALL APPLICABLE ATTACHMENTS INCLUDED WITH THIS PERMIT APPLICATION:

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

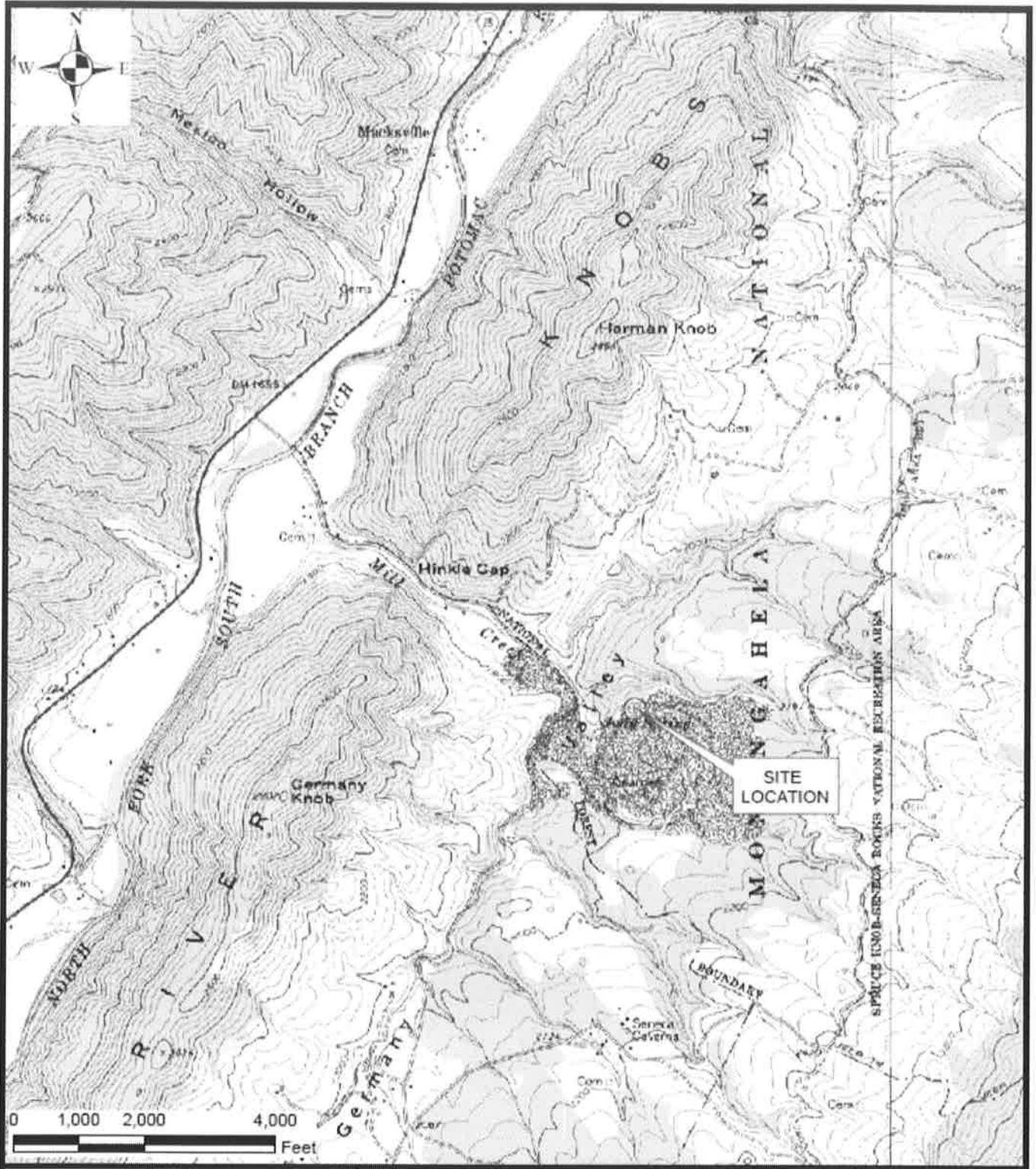
This certificate shall be permanent until cessation of the business for which the certificate of registration was granted or until it is suspended, revoked or cancelled by the Tax Commissioner.

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.

Attachment B – Area Map

ATTACHMENT B – AREA MAP



Riverton Facility

Greer Industries, Inc. dba Greer Lime Co.

Riverton, Pendleton County, West Virginia

Attachment C – Installation and Startup Schedule

ATTCHMENT C

INSTALLATION AND STARTUP SCHEDULE

Greer Lime Company plans to commence construction of the proposed equipment approximately April 11, 2016. Startup of operations is anticipated to begin on or about May 16, 2016.

Attachment D – Regulatory Discussion

ATTCHMENT D

REGULATORY DISCUSSION

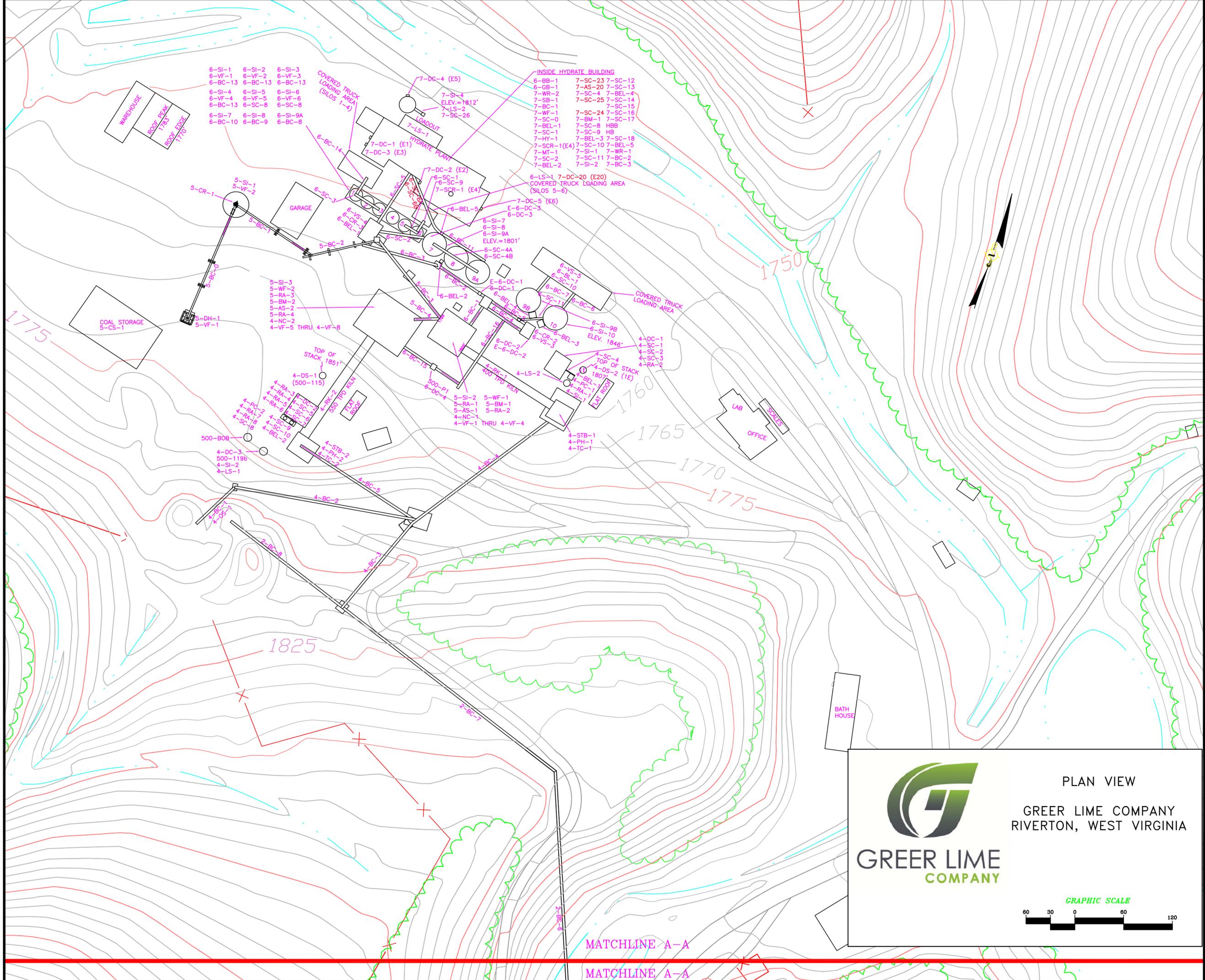
The proposed physical modification of the lime and hydrate handling system consists of the addition of two (2) screw conveyors. The new equipment will be required to comply with the applicable provisions of 45 CSR 7, 45 CSR 13, and 45 CSR 30.

45 CSR 7 requires the facility to control particulate matter from manufacturing processes. The applicability of 45 CSR 7 to Greer Lime Company has not changed.

45 CSR 13 requires the facility to operate within the limits of the permit and in accordance with the permit application. The applicability of 45 CSR 13 to Greer Lime Company has not changed.

45 CSR 30 requires the facility to file annual Certified Emission Statements and pay appropriate fees. The Title V permit will be revised to include the proposed equipment. The applicability of 45 CSR 30 to Greer Lime Company has not changed.

Attachment E – Plot Map




 PLAN VIEW
 GREER LIME COMPANY
 RIVERTON, WEST VIRGINIA

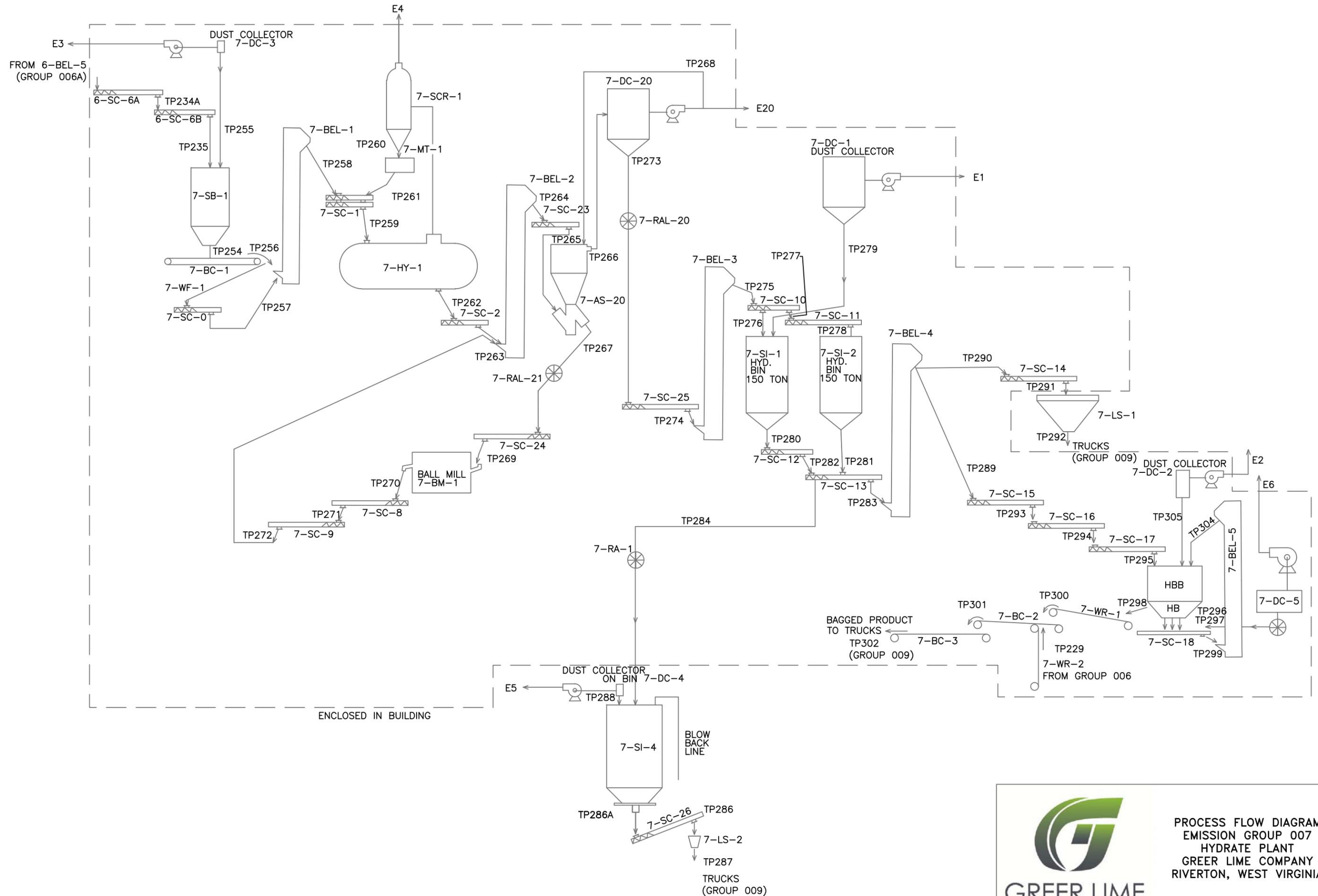
GREER LIME COMPANY

GRAPHIC SCALE


MATCHLINE A-A

MATCHLINE A-A

Attachment F – Process Flow Diagram



PROCESS FLOW DIAGRAM
 EMISSION GROUP 007
 HYDRATE PLANT
 GREER LIME COMPANY
 RIVERTON, WEST VIRGINIA

(GROUP 007)

Attachment G – Process Description

ATTCHMENT G

PROCESS DESCRIPTION

Greer Lime Company (Greer Lime), located in Riverton, Pendleton County, West Virginia, proposes to modify the lime handling circuit (Drawing - Group 006B) and hydrate truck loadout (Drawing – Group 007) through the addition of two (2) new screw conveyors.

New screw conveyor 6-SC-11 will be added to the discharge of existing large pebble silo 6-SI-10 for the purpose of transferring large pebble lime to existing belt conveyor 6-BC-5. This will allow Greer Lime the flexibility to process stored large pebble lime to other smaller sized products (mid-size pebble, granular, and/or fines) through processing (crushing and screening) on existing equipment. The discharge of large pebble lime from silo 6-SI-10 will either be to new screw conveyor 6-SC-11 or to the existing loadout belt 6-BC-6. Product will never be transferred in both directions simultaneously. The addition of the new screw conveyor will result in one new transfer point [TP248A (FE): 6-SC-11 to 6-BC-5] and additional particulate matter emissions associated with this single new transfer point. There will be no increase in regulated pollutant emissions from existing equipment, as all existing equipment in lime handling is already permitted for the full maximum production of both preheater rotary lime kilns. In keeping with this permitting methodology, new screw conveyor 6-SC-11 will be rated at 50 TPH and 311,000 TPY, although actual annual throughput will be considerably less.

New screw conveyor 7-SC-26 will be added to the discharge of the existing outside hydrate loadout silo 7-SI-4 for the purpose of better regulating the flow of finished product to trucks. Currently, finished hydrate product is loaded through existing loading spout 7-LS-2 directly from silo 7-SI-4. This configuration has proved difficult to control as the loading speed of product to truck is impacted by silo level and other fluctuating material characteristics. The addition of a new incline screw conveyor (7-SC-26) to this loadout will allow Greer Lime to more consistently regulate the flow of material to truck regardless of other factors. The addition of the new screw conveyor will result in one new transfer point [TP286A (FE): 7-SI-4 to 7-SC-26] and additional particulate matter emissions associated with this single new transfer point. There will be no increase in regulated pollutant emissions from other existing equipment as a result of this addition. Screw conveyor 7-SC-26 will be rated at 45 TPH and 100,000 TPY to match the permitted throughput rates of existing equipment before and after its placement.

Attachment H – Safety Data Sheets (formally MSDSs)

GREER LIME COMPANY SAFETY DATA SHEET (SDS)

Section I – Product and Company Identification

Product Identification	Manufacturer	24-Hour Emergency Contact No.	Recommended Use
Hydrated Lime; Hydrate; Calcium Hydroxide, Ca(OH) ₂ CAS No: 1305-62-0	Greer Lime Company 1088 Germany Valley Limestone Road Riverton, WV 26814	In WV: (800) 344-5133 Outside WV: (800) 538-3100	Water and sewage treatment, manufacturing, acid neutralization, sterilization, manufacturing, etc.
		Telephone No. for Information (304) 567-2141	

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
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Section III – Composition / Information on Ingredients

INGREDIENTS (Specific Chemical Identity; Common Names)	CAS REGISTRY NO.	% By Weight (Approx)
Calcium Hydroxide (Ca(OH) ₂)	1305-62-0	>94
Calcium Oxide (CaO)	1305-78-8	<1
Magnesium Oxide (MgO)	1309-48-4	<2
Silicon Dioxide (SiO ₂), Amorphous	7631-86-9	<1
Silica (Si), Crystalline Quartz	14808-60-7	<0.1
Aluminum Oxide (Al ₂ O ₃)	1344-28-1	<0.3
Iron Oxide (Fe ₂ O ₃)	1309-37-1	<0.1

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 foreign material has been washed out. Seek medical attention immediately.

Section V – Firefighting Measures

Extinguishing Method	Use dry chemical fire extinguisher or water
Special Firefighting Equipment and Precautions	Respirators may be necessary to prevent inhalation of fumes or vapors
Specific Hazards in Case of Fire	None, hydrated lime is not an explosion hazard

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. Evacuate area down wind of clean-up operations to avoid dust exposure. Residual amounts can be flushed with large amounts of water or neutralized with a dilute vinegar solution.

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 Hydroxide (Ca(OH) ₂)	(T) 15 mg/m ³ (R) 5 mg/m ³	(T) 5 mg/m ³
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 ₂ O ₃)	(T) 15 mg/m ³ (R) 5 mg/m ³	(T) 10 mg/m ³
Iron Oxide (Fe ₂ O 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 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	2.3
Solubility	In water: slight, 0.2% @ 32 °F
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 slowly with carbon dioxide to form calcium carbonate.
Incompatibility – Conditions to Avoid	Hydrated Lime should not be mixed or stored with the following materials due to the potential for violent reaction and release of heat: 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	Hydrated Lime will decompose at 1,076 °F to form calcium oxide and water.
Hazardous Polymerization	None

Section XI – Toxicological Information

Acute Effects	Skin Contact: May cause irritation or allergic reaction Eye Contact: May cause severe burning and irritation Inhalation: May cause lung irritation or distressed breathing
Chronic Effects	Hydrated 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	LD50 Oral – Rat 7,340 mg/kg IDLH – Humans 25 mg/m ³ (Crystobalite and Tridymite), 50 mg/m ³ (Quartz and Tripoli)

Section XII – Ecological Information

Ecotoxicity	Acute Aquatic Toxicity: LC50 – Water Flea (<i>Daphnia magna</i>) 48 hrs, 49.1 mg/L LC50 – Zambezi barbell (<i>Clarias gariepinus</i>) 96 hrs, 33.9 mg/L
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

Hydrated Lime is not classified as a hazardous material by the Department of Transportation (DOT). 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 – 2; Flammability – 0; Physical Hazard – 1; 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.

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	Water and sewage treatment, manufacturing, acid neutralization, industrial applications, construction, etc.
		Telephone No. for Information (304) 567-2141	

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
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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 ₂ O ₃)	1344-28-1	<0.5
Iron Oxide (Fe ₂ O 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. Do 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 ₂ O ₃)	(T) 15 mg/m ³ (R) 5 mg/m ³	(T) 10 mg/m ³
Iron Oxide (Fe ₂ O 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.
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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 Group 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

Attachment J – Emission Point Data Summary Sheet

**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 ³)
		ID No.	Source	ID No.	Device Type	Short Term ²	Max (hr/yr)		lb/hr	ton/yr	lb/hr	ton/yr			
TP248A	Point Source No Stack	Transfer Point	6-SC-11	N/A	FE	N/A	N/A	TSP PM-10	19.50 9.00	60.65 27.99	3.90 1.80	12.13 5.60	Solid	EE	N/A
TP286A	Point Source No Stack	Transfer Point	7-SC-26	N/A	FE	N/A	N/A	TSP PM-10	17.55 8.10	19.50 9.00	3.51 1.62	3.90 1.80	Solid	EE	N/A

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, CS₂, VOCs, H₂S, Inorganics, Lead, Organics, O₃, NO, NO₂, SO₂, SO₃, all applicable Greenhouse Gases (including CO₂ and methane), etc. DO NOT LIST H₂, H₂O, N₂, O₂, 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/m³) at standard conditions (68 °F and 29.92 inches Hg) (see 45CSR7). If the pollutant is SO₂, use units of ppmv (See 45CSR10).

Attachment L – Emission Unit Data Sheet: General

**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*): 6-SC-11 and 7-SC-26

<p>1. Name or type and model of proposed affected source:</p> <p>Two (2) screw conveyors, typical.</p>
<p>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.</p> <p>*See Process Flow Diagram and Process Description</p>
<p>3. Name(s) and maximum amount of proposed process material(s) charged per hour:</p> <p>6-SC-11 calcium oxide (lime) @ 50 TPH 7-SC-26 calcium hydroxide (hydrate) @ 45 TPH</p>
<p>4. Name(s) and maximum amount of proposed material(s) produced per hour:</p> <p>Material is only transferred, not produced.</p>
<p>5. Give chemical reactions, if applicable, that will be involved in the generation of air pollutants:</p> <p>N/A</p>

* 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:					
N/A					
(b) Chemical analysis of proposed fuel(s), excluding coal, including maximum percent sulfur and ash:					
N/A					
(c) Theoretical combustion air requirement (ACF/unit of fuel):					
N/A	@	N/A	°F and	N/A	psia.
(d) Percent excess air: N/A					
(e) Type and BTU/hr of burners and all other firing equipment planned to be used:					
N/A					
(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:					
N/A					
(g) Proposed maximum design heat input: N/A × 10 ⁶ BTU/hr.					
7. Projected operating schedule:					
Hours/Day	24	Days/Week	7	Weeks/Year	52

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

@	Ambient Temp.	°F and	Atmospheric Pressure	psia	
a. NO _x		0	lb/hr	0	grains/ACF
b. SO ₂		0	lb/hr	0	grains/ACF
c. CO		0	lb/hr	0	grains/ACF
d. PM ₁₀		9.0 (6-SC-11) 8.1 (7-SC-26)	lb/hr	N/A	grains/ACF
e. Hydrocarbons		0	lb/hr	0	grains/ACF
f. VOCs		0	lb/hr	0	grains/ACF
g. Pb		0	lb/hr	0	grains/ACF
h. Specify other(s)					
	N/A		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

No additional monitoring is proposed beyond the existing Title V requirements.

RECORDKEEPING

No additional recordkeeping is proposed beyond the existing Title V requirements.

REPORTING

No additional reporting is proposed beyond the existing Title V requirements.

TESTING

No additional testing is proposed beyond the existing Title V requirements.

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

Grease carrier bearings on a regularly prescribe schedule and replace wear parts as necessary.

Attachment N – Supporting Emission Calculations

PM Emissions from New Lime & Hydrate Transfer Points Assoc. w/ Proposed Screw Conveyors
 AP-42, 13.2.4 Aggregate Handling and Storage Piles (11/06)

E= Emission factor

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

Equation (1)

Parameters

k= particle size multiplier	PM-10	0.35	AP-42, 13.2.4-4
U=mean wind speed, mph	PM-TSP	0.74	AP-42, 13.2.4-4
M= material moisture content (%)		10	Avg. wind speed
		0.10	%
			Avg. moisture content of product

Calculated Emission Factor

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

Maximum Hourly Rates

New Lime Transfer TP248A =	50	ton/hr
New Hydrate Transfer TP286A =	45	ton/hr

Maximum Annual Rates

New Lime Transfer TP248A =	311,000	ton/yr
New Hydrate Transfer TP286A =	100,000	ton/yr

Uncontrolled		PM-10 (lb/hr)	PM-TSP (lb/hr)	PM-10 (ton/yr)	PM-TSP (ton/yr)
Transfer Point ID	Description				
TP248A	6-SC-11 to 6-BC-5	9.00	19.50	27.99	60.65
TP286A	7-SI-4 to 7-SC-26	8.10	17.55	9.00	19.50
	TOTALS	17.10	37.05	36.99	80.15

Controlled		PM-10 (lb/hr)	PM-TSP (lb/hr)	PM-10 (ton/yr)	PM-TSP (ton/yr)
Transfer Point ID	Description				
TP248A	6-SC-11 to 6-SC-5	1.80	3.90	5.60	12.13
TP286A	7-SI-4 to 7-SC-26	1.62	3.51	1.80	3.90
	TOTALS	3.42	7.41	7.40	16.03

Assuming 80% Control Efficiency for Full Enclosure
 Assuming 80% Control Efficiency for Full Enclosure

Attachment O – Monitoring, Recordkeeping, and Reporting Plans

ATTCHMENT O

MONITORING / RECORDKEEPING / REPORTING / TESTING PLANS

Greer Lime Company proposes no additional monitoring, recordkeeping, reporting or testing conditions above and beyond the existing requirements found in Title V Permit No. R30-07100001-2015.

Attachment P – Example Legal Ad

ATTCHMENT 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 Modification Permit for a Lime Manufacturing Plant located on Germany Valley Limestone Road, near Riverton, in Pendleton County, West Virginia. The latitude and longitude coordinates are: 38.778278, -79.393786.

The applicant estimates the increased potential to discharge the following Regulated Air Pollutants will be: 16.03 tons per year of PM and 7.40 tons per year of PM₁₀.

Startup of operation is planned to begin on our about the 11th day of April, 2016. 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 14th day of January, 2016.

By: Greer Industries, Inc. dba Greer Lime Company
J. Robert Gwynne
Executive Vice President
8477 Veterans Memorial Highway
Masontown, WV 26542

Attachment S – Title V Permit Revision Information

Attachment S
Title V Permit Revision Information

1. New Applicable Requirements Summary	
Mark all applicable requirements associated with the changes involved with this permit revision:	
<input type="checkbox"/> SIP	<input type="checkbox"/> FIP
<input checked="" type="checkbox"/> Minor source NSR (45CSR13)	<input type="checkbox"/> PSD (45CSR14)
<input type="checkbox"/> NESHAP (45CSR15)	<input type="checkbox"/> Nonattainment NSR (45CSR19)
<input type="checkbox"/> Section 111 NSPS (Subpart(s) _____)	<input type="checkbox"/> Section 112(d) MACT standards (Subpart(s) _____)
<input type="checkbox"/> Section 112(g) Case-by-case MACT	<input type="checkbox"/> 112(r) RMP
<input type="checkbox"/> Section 112(i) Early reduction of HAP	<input type="checkbox"/> Consumer/commercial prod. reqts., section 183(e)
<input type="checkbox"/> Section 129 Standards/Reqts.	<input type="checkbox"/> Stratospheric ozone (Title VI)
<input type="checkbox"/> Tank vessel reqt., section 183(f)	<input type="checkbox"/> Emissions cap 45CSR§30-2.6.1
<input type="checkbox"/> NAAQS, increments or visibility (temp. sources)	<input type="checkbox"/> 45CSR27 State enforceable only rule
<input type="checkbox"/> 45CSR4 State enforceable only rule	<input type="checkbox"/> Acid Rain (Title IV, 45CSR33)
<input type="checkbox"/> Emissions Trading and Banking (45CSR28)	<input type="checkbox"/> Compliance Assurance Monitoring (40CFR64) ⁽¹⁾
<input type="checkbox"/> NO _x Budget Trading Program Non-EGUs (45CSR1)	<input type="checkbox"/> NO _x Budget Trading Program EGUs (45CSR26)
⁽¹⁾ If this box is checked, please include Compliance Assurance Monitoring (CAM) Form(s) for each Pollutants Specific Emission Unit (PSEU) (See Attachment H to Title V Application). If this box is not checked, please explain why Compliance Assurance Monitoring is not applicable: <div style="text-align: center; padding: 10px;">N/A</div>	

2. Non Applicability Determinations
List all requirements, which the source has determined not applicable to this permit revision and for which a permit shield is requested. The listing shall also include the rule citation and a rationale for the determination. <div style="text-align: center; padding: 10px;">N/A</div>
<input type="checkbox"/> Permit Shield Requested <i>(not applicable to Minor Modifications)</i>
<i>All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.</i>

3. Suggested Title V Draft Permit Language

Are there any changes involved with this Title V Permit revision outside of the scope of the NSR Permit revision? Yes No If Yes, describe the changes below.

Also, please provide **Suggested Title V Draft Permit language** for the proposed Title V Permit revision (including all applicable requirements associated with the permit revision and any associated monitoring /recordkeeping/ reporting requirements), OR attach a marked up pages of current Title V Permit. Please include appropriate citations (Permit or Consent Order number, condition number and/or rule citation (e.g. 45CSR§7-4.1)) for those requirements being added / revised.

Revise Section 1.0 Emission Units Table as necessary to include new screw conveyors 6-SC-11 and 7-SC-26.

4. Active NSR Permits/Permit Determinations/Consent Orders Associated With This Permit Revision

Permit or Consent Order Number	Date of Issuance	Permit/Consent Order Condition Number
R13-1396C	08/29/2013	
R13-2113J	06/22/2011	

5. Inactive NSR Permits/Obsolete Permit or Consent Orders Conditions Associated With This Revision

Permit or Consent Order Number	Date of Issuance	Permit/Consent Order Condition Number
N/A		

6. Change in Potential Emissions

Pollutant	Change in Potential Emissions (+ or -), TPY
PM	16.03
PM10	7.40

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

7. Certification For Use Of Minor Modification Procedures (Required Only for Minor Modification Requests)

Note: This certification must be signed by a responsible official. Applications without a signed certification will be returned as incomplete. The criteria for allowing the use of Minor Modification Procedures are as follows:

- i. Proposed changes do not violate any applicable requirement;
- ii. Proposed changes do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit;
- iii. Proposed changes do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient air quality impacts, or a visibility increment analysis;
- iv. Proposed changes do not seek to establish or change a permit term or condition for which there is no underlying applicable requirement and which permit or condition has been used to avoid an applicable requirement to which the source would otherwise be subject (synthetic minor). Such terms and conditions include, but are not limited to a federally enforceable emissions cap used to avoid classification as a modification under any provision of Title I or any alternative emissions limit approved pursuant to regulations promulgated under § 112(j)(5) of the Clean Air Act;
- v. Proposed changes do not involve preconstruction review under Title I of the Clean Air Act or 45CSR14 and 45CSR19;
- vi. Proposed changes are not required under any rule of the Director to be processed as a significant modification;

Notwithstanding subparagraph 45CSR§30-6.5.a.1.A. (items i through vi above), minor permit modification procedures may be used for permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, to the extent that such minor permit modification procedures are explicitly provided for in rules of the Director which are approved by the U.S. EPA as a part of the State Implementation Plan under the Clean Air Act, or which may be otherwise provided for in the Title V operating permit issued under 45CSR30.

Pursuant to 45CSR§30-6.5.a.2.C., the proposed modification contained herein meets the criteria for use of Minor permit modification procedures as set forth in Section 45CSR§30-6.5.a.1.A. The use of Minor permit modification procedures are hereby requested for processing of this application.

(Signed):


(Please use blue ink)

Date:

1 / 13 / 16
(Please use blue ink)

Named (typed):

J. Robert Gwynne

Title:

Executive Vice President

Note: Please check if the following included (if applicable):

- Compliance Assurance Monitoring Form(s)
- Suggested Title V Draft Permit Language

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