west virginia department of environmental protection

Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone (304) 926-0475 • FAX: (304) 926-0479

Joe Manchin, III, Governor
Randy C. Huffman, Cabinet Secretary
www.wvdep.org

ENGINEERING EVALUATION / FACT SHEET

BACKGROUND INFORMATION

Application No.:	R13-3274 ***(After-the-Fact)***
Plant ID No.:	023-00052
Applicant:	Greer Industries, Inc. dba Greer Lime
Facility Name:	Petersburg Facility
Location:	Petersburg, Grant County
SIC Code:	4013
NAICS Code:	488210
Application Type:	Construction
Received Date:	September 28, 2015
Engineer Assigned:	Thornton E. Martin Jr.
Fee Amount:	$1,000.00
Date Received:	September 30, 2015
Complete Date:	November 02, 2015
Applicant Ad Date:	September 29, 2015
Newspaper:	*Grant County Press*
UTM's:	Easting: 661.3862 km Northing: 4316.9476 km Zone: 17
Description:	This is an After-the-Fact application for the construction and operation of a lime loadout facility. The material transferred through this facility is pebble lime.

HISTORY

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 the information provided, 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 Quality permit under 45CSR13.

DESCRIPTION OF PROCESS

Petersburg Rail Loadout 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 the 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/year.

See the following table for description, installation year, maximum throughput, and control equipment for all permitted equipment at the facility:

Table 1: Equipment summary

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	A M R[1]	Design Capacity TPH	Control Device
B1	T1	Truck to Pebble Lime Dump Bin	1994	M	100	UD-PE
CCB1	T2	Dump Bin to Conveyor 1	1994	M	100	TC-FE
CCB2	T3	Conveyor 1 to Conveyor 2	1994	M	100	TC-FE
Railcar	T4	Conveyor 2 to Railcar	1994	M	100	LR-TC

[1] A - Addition; M - Modification; R - Replaced (Existing unmodified equipment to be included in the permit is labeled with an M.)

DESCRIPTION OF FUGITIVE EMISSIONS

Fugitive emissions of particulate matter occur during loading and unloading operations, the transfer of pebble lime and vehicle travel on haul roads. Fugitive emissions from loading and unloading operations are controlled by minimization of drop height to a partially enclosed bin and loading of the railcar through a dust sock.

SITE INSPECTION

This is an after-the-fact application to construct. Based on the size and scope of the operation proposed, the writer deemed that a site-visit was not warranted at this time. The facility will be added to our database of emission sources for future inspections.

Directions to the facility as given in the application: Traveling from the North on WV-42, turn left onto WV-28/WV-55/Keyser Avenue. 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.

ESTIMATE OF EMISSIONS BY REVIEWING ENGINEER

Emission calculations for this facility were performed by Greer Engineering (Applicant) and reviewed by the writer for accuracy.

The Applicants' calculations are based on AP-42, 13.2.2 Unpaved Roads (11/06) and AP-42, 13.2.4 Aggregate Handling and Storage Piles (11/06), however, the writer was unable to duplicate the Applicants' results. It is believed the Applicant utilized rounding in their calculations resulting in the difference.

The applicant estimated a potential to discharge Regulated Air Pollutants to be: PM of 29.64 TPY and PM_{10} of 13.29 TPY. Utilizing the G40-C Emissions Spreadsheet (Excel) and information supplied by the Applicant, the writer estimates the potential to discharge Regulated Air Pollutants to be: PM of 31.08 TPY and PM_{10} of 13.98 TPY.

The Emissions Summary is as follows:

Emissions Summary - *Greer Industries Inc. dba Greer Lime* ***R13-3274***	**Controlled PM Emissions**		**Controlled PM_{10} Emissions**	
	lb/hr	TPY	lb/hr	TPY
		Fugitive Emissions		
Stockpile Emissions	0.00	0.00	0.00	0.00
Unpaved Haulroad Emissions	9.34	4.02	2.76	1.19
Paved Haulroad Emissions	0.00	0.00	0.00	0.00
Fugitive Emissions Total	*9.34*	*4.02*	*2.76*	*1.19*
		Point Source Emissions		
Equipment Emissions	0.00	0.00	0.00	0.00
Transfer Point Emissions	54.11	27.06	25.59	12.80
Point Source Emissions Total	*54.11*	*27.06*	*25.59*	*12.80*
FACILITY EMISSIONS TOTAL	**63.45**	**31.08**	**28.35**	**13.98**

REGULATORY APPLICABILITY

NESHAPS and PSD have no applicability to the proposed facility. The proposed construction of a pebble lime transfer facility is subject to the following state and federal rules:

45CSR13 *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits, and Procedures for Evaluation*

The proposed modification is subject to the requirements of 45CSR13 because it will result in the potential to discharge 63.45 pounds per hour and 31.08 TPY of PM (particulate matter), of which 28.35 pounds per hour and 13.98 TPY will be PM_{10}

(particulate matter less than 10 microns in diameter). Since the calculated potential to discharge is greater than six (6) pounds per hour and ten (10) tons per year, and 144 pounds per day of a regulated air pollutant (PM and PM_{10}), the proposed facility requires an application to construct. The applicant published a Class I legal advertisement in the *Grant County Press* on September 29, 2015 and submitted $1,000 for the application fee.

45CSR17 *To Prevent and Control Particulate Matter Air Pollution from Materials Handling, Preparation, Storage and Other Sources of Fugitive Particulate Matter*

Per §45-17-3.1 no person shall cause, suffer, allow or permit fugitive particulate matter to be discharged beyond the boundary lines of the property on which the discharge originates or at any public or residential location, which causes or contributes to statutory air pollution.

45CSR22 *Air Quality Management Fee Program*

This rule establishes a program to collect fees for certificates to operate and for permits to construct, modify or relocate sources of air pollution. Funds collected from these fees will be used to supplement the Director's budget for the purpose of maintaining an effective air quality management program. An Application for a Certificate to Operate (CTO) will be enclosed with the permit at time of issuance as this will be a new construction.

Greer Industries, Inc., dba Greer Lime is required to pay the appropriate annual fees and keep their Certificate to Operate current.

TOXICITY OF NON-CRITERIA REGULATED POLLUTANTS

A toxicity analysis was not performed because the pollutants being emitted from this facility are PM (particulate matter) and PM_{10} (particulate matter less than 10 microns in diameter), which are non-toxic pollutants.

AIR QUALITY IMPACT ANALYSIS

Air dispersion modeling was not performed due to the size and proposed location of this facility. This facility will be located in Grant County, WV. Grant County is currently in attainment for PM (particulate matter), PM_{10} (particulate matter less than 10 microns in diameter) and $PM_{2.5}$ (particulate matter less than 2.5 microns in diameter).

RECOMMENDATION TO DIRECTOR

The information contained in this permit application indicates that compliance with all applicable regulations should be achieved when all of the proposed particulate matter control methods are in operation. Due to the location, nature of the process, and control methods proposed, adverse impacts on the surrounding area should be minimized. Therefore, the granting of a permit to Greer Industries, Inc. for the operation of a pebble lime transfer facility is hereby recommended.

Thornton E. Martin Jr.
Permit Engineer

November 02, 2015
Date