



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

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

**GENERAL PERMIT REGISTRATION APPLICATION
ENGINEERING EVALUATION / FACT SHEET**

BACKGROUND INFORMATION

Application No.: G40-C079
Plant ID No.: 777-00140
Applicant: Greer Industries, Inc. dba Cheat River Limestone Company (Rowlesburg)
dba Buckeye Stone Company (Morgantown¹)
dba Deckers Creek Limestone Company (Greer)

Facility Name: Rowlesburg Facility
Location: Rowlesburg, Preston County, WV
SIC Code: 1422 (Crushed and Broken Limestone Mining and Quarrying)
Application Type: Construction
Received Date: April 13, 2016
Engineer Assigned: Thornton E. Martin Jr.
Fee Amount: \$1,500
Date Received: April 14, 2016
Complete Date: May 09, 2016
Applicant's Ad Date: April 12, 2016
Newspaper: *The Preston County Journal*
UTM's: Rowlesburg: Easting: 612.575 km Northing: 4357.823 km Zone: 17
Morgantown: Easting: 603.957 km Northing: 4395.276 km Zone: 17
Greer: Easting: 597.735 km Northing: 4381.281 km Zone: 17

Description: The Applicant proposes to operate a portable crushing/screening plant with air classifier at three (3) possible locations. The primary site will be in Rowlesburg, Preston County, WV (Cheat River Limestone Company). The first alternative site will be in Morgantown, Monongalia County, WV (Buckeye Stone Company). The second alternative site will be in Greer, Monongalia County, WV (Deckers Creek Limestone Company). The equipment will be moved between the facilities as needed.

DESCRIPTION OF PROCESS

Greer Industries, Inc. Will use existing stone stockpiles to feed a Mellot MC 300HPS-CC Portable Recrush Circuit Plant. Greer will feed the new portable circuit with a bucket loader from existing permitted stockpiles into a 14-yard feed hopper. From the hopper, a series of belts will transfer the material into a Metso FS303CL Triple Deck Screen. Oversized material will be directed to a Metso HP 300 Cone Crusher

Promoting a healthy environment.

and re-routed back to the screen. This screen will use three (3) different belts with water sprays to create three (3) stockpiles: #57's, #8's and sand.

With a radial stacker, Greer will have the option to re-direct the sand into a Fisher 13' Portable Air Separator. The classifier uses an internal fan assembly with no air discharge to separate unwanted fines from sand to produce a clean manufactured sand.

The portable plant will re-process finished product from each facility in which it operates. The operation of this plant will not affect permitted throughputs at any of the three (3) facilities.

The portable plant shall be constructed and operated in accordance with the following equipment and control device information taken from permit applications G40-C079:

| Emission Unit ID | A M R ¹ | Emission Unit Description | Year Installed | Design Capacity | | Control Equipment ² |
|------------------|--------------------------|---|----------------|-----------------|---------|--------------------------------|
| | | | | TPH | TPY | |
| CR-1 | A | Cone Crusher | 2016 | 400 | 446,000 | FE |
| S-1 | A | Triple Deck Screen | 2016 | 700 | 780,000 | PW |
| AC-1 | A | Air Classifier | 2016 | 300 | 390,000 | FE |
| BC-1 | A | Belt Conveyor | 2016 | 300 | 780,000 | N |
| BC-2 | A | Belt Conveyor | 2016 | 700 | 780,000 | N |
| BC-3 | A | Belt Conveyor | 2016 | 700 | 780,000 | N |
| BC-4 | A | Belt Conveyor | 2016 | 400 | 446,000 | N |
| BC-5 | A | Belt Conveyor | 2016 | 200 | 390,000 | FE |
| BC-6 | A | Belt Conveyor | 2016 | 300 | 780,000 | N |
| BC-7 | A | Belt Conveyor | 2016 | 300 | 780,000 | N |
| BC-8 | A | Belt Conveyor | 2016 | 200 | 390,000 | N |
| BC-9 | A | Belt Conveyor | 2016 | 200 | 390,000 | PE |
| BC-10 | A | Belt Conveyor | 2016 | 200 | 390,000 | PE |
| BC-11 | A | Belt Conveyor | 2016 | 200 | 390,000 | PE |
| OS-1 | A | 50,000 Ton Open Stockpile (Multiple Stockpiles) | 2016 | ---- | 780,000 | SW-WS |

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

² FE - Full Enclosure; PE - Partial Enclosure; PW - Partial Enclosure w/Water Spray; SW-WS - Water Spray; N - None.

SITE INSPECTIONS

Cheat River Limestone Company (077-00014): Brian Tephabock of the DAQ's North Central Regional Office Compliance and Enforcement Section performed a partial on-site inspection (Cheat River

Limestone Company) on March 30, 2010. The facility received a status code of 41 - Not in Operation. It was noted that the facility was only loading trucks to haul stone, no crushing being conducted due to belt replacement and water sprays were functional.

Buckeye Stone Company (061-00009): Brian Tephabock of the DAQ's North Central Regional Office Compliance and Enforcement Section performed a site inspection (Buckeye Stone Company) pertaining to the Temporary Permit Application (R13-2920T) on February 22, 2012. The portable crusher and screen were both onsite, but were only being stored near the main office. A Company Official indicated that the manufacturer had supplied the equipment earlier than what Buckeye Stone had anticipated, but Buckeye would only store the equipment and not use it until the temporary permit was approved. The location is already used for a limestone surface mine and processing operation, and would be suitable for the addition of a portable crusher and screen for testing the marketability of a stone product.

Deckers Creek Limestone Company (061-00004): Brian Tephabock of the DAQ's North Central Regional Office Compliance and Enforcement Section performed a full on-site inspection (Deckers Creek Limestone Company) on January 14, 2015. The facility received a status code of 30 - In Compliance.

Directions from Charleston:

Cheat River Limestone Company (Rowlesburg, Preston County) - From US Route 50, take SR 72 to Rowlesburg. Take County Route 80 East across the Cheat River and make a left onto Manheim Road. Follow Manheim Road to the facility.

Buckeye Stone Company (Morgantown, Monongalia County) - take I-79 N towards Clarksburg, take exit #148/I-68 E/Cumberland, take exit #10/CR-857/Cheat Lake/Fairchance Rd., turn left onto CR-69 / 6 toward CR-857/Fairchance Rd/Cheat Lake, turn right onto Fairchance Rd (CR-857), turn right onto Blaney Hollow Rd (CR-69 / 9), facility is on the right.

Deckers Creek Limestone Company (Greer, Monongalia County) - From I-68, take Exit 4 (Sebarton), turn left onto SR 7 East. Follow Route 7 East approximately 5.4 miles to the facility on the right.

ESTIMATE OF EMISSIONS BY REVIEWING ENGINEER

Fugitive emission sources associated with this permit includes only wind erosion from open stockpiles. New stockpiles associated with this plant will not exceed a cumulative base area of three (3) acres or 130,680 square feet of various limestone products.

The operation of this portable plant will not result in any increase in fugitive emissions associated with vehicular traffic from haul trucks. Haulroad emissions from haul trucks for maximum facility throughput have already been permitted for each potential site. The increase in fugitive emissions from additional endloader use is calculated as part of this application.

Fugitive emission calculations for continuous and batch drop operations, transfer points, crushing and screening, storage piles, and paved and unpaved haul roads are based on AP-42 "Compilation of Air Pollution Emission Factors." Control efficiencies were applied based on the Reference Document for General Permit G40-C. The estimated emission calculations were performed by the applicant using the

General Permit G40-C Excel emission calculation spreadsheet and were checked for accuracy and completeness by the writer.

Greer Industries' proposed operation of a portable crushing/screening plant with air classifier will result in a potential to discharge controlled emissions of 45.03 TPY of particulate matter (PM), of which 15.08 TPY will be particulate matter less than 10 microns in diameter (PM₁₀).

The proposed operation of this equipment at one of three possible sites will result in the following estimated potential to discharge controlled emissions:

| <i>Emissions Summary - Greer Industries, Inc. G40-C079</i> | Controlled PM Emissions | | Controlled PM ₁₀ Emissions | |
|--|----------------------------|--------------|--|--------------|
| | lb/hr | TPY | lb/hr | TPY |
| Fugitive Emissions | | | | |
| Stockpile Emissions | 0.16 | 0.71 | 0.08 | 0.34 |
| Unpaved Haulroad Emissions | 7.52 | 32.95 | 2.22 | 9.73 |
| Paved Haulroad Emissions | 0.00 | 0.00 | 0.00 | 0.00 |
| Fugitive Emissions Total | 7.68 | 33.66 | 2.30 | 10.07 |
| Point Source Emissions | | | | |
| Equipment Emissions | 5.16 | 3.01 | 1.82 | 1.06 |
| Transfer Point Emissions | 9.59 | 8.36 | 4.54 | 3.95 |
| Point Source Emissions Total | 14.75 | 11.37 | 6.36 | 5.01 |
| FACILITY EMISSIONS TOTAL | 22.43 | 45.03 | 8.66 | 15.08 |

REGULATORY APPLICABILITY

NESHAPS and PSD have no applicability to the proposed facility. The proposed operation for limestone processing at any one of the three Greer plants is subject to the following state and federal rules:

45CSR7 To Prevent and Control Particulate Matter Air Pollution From Manufacturing Processes and Associated Operations

The facility is subject to the requirements of 45CSR7 because it meets the definition of "Manufacturing Process" found in subsection 45CSR7.2.20. The facility should be in compliance with Subsection 3.1 (no greater than 20% opacity), Subsection 3.7 (no visible emissions from any storage structure pursuant to subsection 5.1 which is required to have a full enclosure and be equipped with a control device), Subsection 4.1 (PM emissions shall not exceed those allowed under Table 45-7A), Subsection 5.1 (manufacturing process and storage structures must be equipped with a system to minimize emissions), Subsection 5.2 (minimize PM emissions from haulroads and plant premises) when the particulate matter control methods and devices proposed within application G40-C079 are in operation.

According to Table 45-7A, for a type 'a' source with a maximum process weight rate of 1,400,000 lb/hour, the maximum allowable emission rate is 50 lb/hour of particulate matter. This portable source will yield an emissions rate of approximately 14.75 lb/hour of particulate matter according to calculated emissions in fact sheet G40-C079. Emission rates are comparable for the other two proposed locations.

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 addition of a portable crushing/screening plant with air classifier is subject to the requirements of 45CSR13, Subsection 11. Therefore, the proposed additions require a permit to construct. The applicant published a Class I legal advertisement in the *The Preston County Journal* on April 12, 2016 and submitted \$1,500 for the application fee and NSPS fee.

45CSR16 *Standards of Performance for New Stationary Sources*
40 CFR 60 *Subpart OOO: Standards of Performance for Nonmetallic Mineral Processing Plants*

The proposed portable crushing/screening plant with air classifier are subject to 40 CFR 60 Subpart OOO because it will occur after April 22, 2008 and the plant processes more than 25 tons of rock per hour. The proposed construction will include one (1) crusher, one (1) open stockpiles, one (1) screen, one (1) air classifier and eleven (11) belt conveyors, which are defined as affected facilities in 40 CFR 60 Subpart OOO. Therefore, the proposed construction is subject to 45CSR16, which incorporates by reference 40 CFR 60 Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants. The facility should be in compliance with 60.672 (b) no greater than 7% opacity from any transfer point on belt conveyors or from any other affected facility (as defined in 60.670 and 60.671) and no greater than 12% opacity from any crusher when the particulate matter control methods and devices proposed within application G40-C079 are in operation.

45CSR30 *Requirements for Operating Permits*

This portable source combined with the host site emissions result in a potential to emit of 5.98 TPY (**Cheat River Limestone**) of a regulated air pollutant (PM₁₀), not including fugitive emissions from haulroads, which is less than the 45CSR30 threshold of 100 TPY for a major source. Potential to emit value is similar for the other two proposed locations: 13.06 TPY (**Buckeye Stone Company**) and 12.36 TPY (**Deckers Creek Limestone**).

The proposed additions for limestone processing at Greer Industries' plant's are not subject to the following state and federal rules:

45CSR14 *Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution for the Prevention of Significant Deterioration*

In accordance with 45CSR14 Major Source Determination, the proposed limestone processing facility is not listed in Table 1. This portable source combined with the host site emissions result in a potential to emit 14.02 TPY (**Cheat River Limestone**) of a regulated air pollutant (PM), not including fugitive emissions from haulroads, which is less than the 45CSR14 threshold of 250 TPY. Potential to emit value is similar for the other two proposed locations: 33.59 TPY (**Buckeye Stone Company**) and 28.48 TPY (**Deckers Creek Limestone**). This facility is not listed in Table 2, and so fugitive emissions are not included when determining source applicability. Therefore, the proposed construction of a portable crushing/screening plant with air classifier is not subject to the requirements set forth within 45CSR14.

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 PM₁₀ (particulate matter less than 10 microns in diameter), which are non-toxic pollutants.

AIR QUALITY IMPACT ANALYSIS

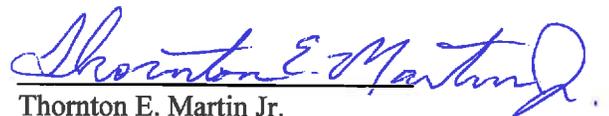
Air dispersion modeling was not performed due to the size and proposed location of this facility. This facility will be located in one of two locations in Monongalia County, WV, or Preston County, WV. Both Monongalia and Preston Counties are currently in attainment for PM (particulate matter), PM₁₀ (particulate matter less than 10 microns in diameter) and PM_{2.5} (particulate matter less than 2.5 microns in diameter).

MONITORING OF OPERATIONS

For the purposes of determining compliance with maximum throughput limits, the applicant shall maintain certified daily records and monthly records of the amount of coal processed. Also, the applicant shall maintain certified maintenance records. Such records shall be retained on site by the permittee for at least five (5) years and shall be made available to the Director of the Division of Air Quality or his or her duly authorized representative upon request.

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 portable limestone processing unit at one of three plant locations is hereby recommended.



Thornton E. Martin Jr.
Permit Engineer

May 09, 2016

Date