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ENGINEERING EVALUATION / FACT SHEET

BACKGROUND INFORMATION

Application No.: R13-2313B (*After-the-Fact*)
Plant ID No.: 033-00138
Applicant: Greer Industries, Inc. dba Clarksburg Asphalt Company
Facility Name: Bridgeport Facility
Location: Bridgeport, Harrison County
SIC Code: 2951
NAICS Code: 324121 / 423320
Application Type: Modification
Received Date: November 07, 2013
Engineer Assigned: Thornton E. Martin Jr.
Fee Amount: \$1,000.00
Date Received: November 12, 2013
Complete Date: March 26, 2014
Applicant Ad Date: November 12, 2013
Newspaper: *The Exponent-Telegram*
UTM's: Easting: 567.23 km Northing: 4352.30 km Zone: 17
Description: Applicant proposes to modify Permit R13-2313P1A to include the existing stone yard operations co-located with the existing asphalt plant. The asphalt plant includes replacement equipment and trucking types not included in previous permitting actions. The aggregate throughput for the facility is being increased from 400,000 tons per year (TPY) to 1,000,000 TPY to reflect the stone yard operations, of which, up to the existing 400,000 TPY may be used by the asphalt plant.

BACKGROUND

13-2313-P

Permit 13-2313P was issued to Greer Industries dba Cascade Asphalt Company, Buckeye Stone Company Facility (ID 061-00121) for the construction and operation of a portable hot mix asphalt plant. The plant was located near Morgantown, Monongalia County, West Virginia. The Genetec/Stansteel 400 TPH/400,000 TPY portable, continuous, hot-mix asphalt plant consisted of five (5) cold feed bins, three (3) belt conveyors, one (1) scalping screen, one (1) baghouse, two (2) silos (1 dust silo and 1 loadout bin), and one (1) 1MMBtu/hr hot oil heater (#2 fuel or natural gas).

13-2313-P1

Permit 13-2313-P1 was issued to Greer Industries dba Cascade Asphalt Company to relocate the portable hot mix asphalt plant to Bridgeport, Harrison County, West Virginia. A new plant ID number of 033-00138 was given to the facility due to the relocation. The facility also added one (1) stockpile area to the operation. A stockpile area was previously not necessary, because the plant was originally located at the Buckeye Stone site.

PD02-175

Greer Industries submitted a permit determination form on November 13, 2002. The facility proposed the following changes: add two (2) 100 ton asphalt storage silos, exchange the 1.0 MMBtu/hr hot oil heater with a 2.2 MMBtu/hr hot oil heater, add two (2) belt conveyors for loading of the additional silos, add one (1) 20,000 gallon asphaltic cement tank, and add (1) 2,000 gallon #2 fuel oil tank. It was determined on January 29, 2003 that no permit was necessary (PD02-175).

PD03-079

Greer Industries submitted a permit determination form on August 19, 2003. The facility requested the increase on one (1) 100 ton asphalt storage silo to 200 tons and the increase of one (1) 100 ton asphalt storage silo to 240 tons. It was determined on September 25, 2008 that no permit was necessary (PD03-079).

13-2313-P1A

Greer Industries submitted a modification permit application on July 30, 2008 under Greer Industries dba Clarksburg Asphalt Company. The facility requested the changes made in permit determinations PD02-175 and PD03-079 be included in the permit modification along with the addition of a new burner system (CC-1) for the rotary dryer and a coal stockpile (OS-2) for the fuel storage. During the review process and writing of the draft permit, discrepancies were found between past permits, determinations, and current application. and corrections were made. See “Changes to Permit 13-2313-P1A” section for all changes made during this permit modification. These changes include the replacement of the hot oil heater (H-1) from a 1.0 MMBtu unit to a 2.2 MMBtu unit, addition of two (2) storage silos (S-3 and S-4), addition of two (2) belt conveyors (BC-4 and BC-5), addition of two (2) asphaltic cement tank (LA-2 and LA-3), and the addition of one (1) #2 fuel oil tank (FO-1).

DESCRIPTION OF PROCESS

Stone Yard

Aggregates will be trucked to the site and dumped into the open stockpile area OS-1/N (TP1/MDH). OS1/N consists of multiple piles of various aggregate sizes, sand and coal. Coal is for use in the asphalt dryer burner (TP9/MDH). The aggregates, etc. may be used by the asphalt plant (TP2/MDH) or sold to off-site customers (TP12/MDH).

Asphalt Plant

Aggregates are transferred (TP2/MDH) by endloader to cold feed bins B1-5/PE. Integral belt feeders transfer (TP3/N) the material to conveyor BC1/N to screen SC1/PE (TP4/N) where the oversize drops to the ground (TP5/N) and the pass through transfers (TP6/PE) to BC2/N to BC3/PE (TP7/PE) and enters the dryer AP1. The burner for dryer AP1 may be fueled by natural gas, No. 2

fuel oil or a combination fuel of natural gas/coal or No.2 fuel oil/coal. The natural gas is pipeline gas, the No.2 fuel oil is trucked to the facility and fed from tank FO1. The coal is fed from hopper B6 (TP10/FE) to BC4/PE to the Astec Phoenix coal burner system (TP11/PE) where the coal is pulverized in an enclosed system and blown into the dryer burner. Emissions from the coal pulverizer are directed to the fuel stream for the burner and, therefore, have no air emissions. Asphaltic cement is fed to the asphalt mixer where it combines with the dried aggregates to form hot mix asphalt (HMA). The HMA is transferred to slat conveyor SLC1/FE then to transfer conveyors (TC1/FE, TC2/FE) that transfers the HMA to the silo (S2-4/FE) selected by the operator. HMA is transferred to truck via a chute and then delivered to off-site customers.

Emissions from AP1 are vented to baghouse BH1 (E-001). Particulate matter collected in the bottom of BH1 is transferred by an integral screw conveyor (SC1/BH) to a blower to silo S1/BH. S1/BH is controlled by BH1 (E-001). Since the baghouse dust silo is a closed loop system it is assumed that the dust transfer emissions are included in the baghouse emissions calculations. The dust is transferred to truck (TP13/PE) for off-site disposal.

Note on the Phoenix coal burner: The burner can use the combination fuels of coal/natural gas or coal/No. 2 fuel oil. In addition, the burner has the capability of operating on the support fuel alone, either natural gas or No. 2 fuel oil. The various fuel use scenarios are reflected within the application.

A natural gas fired hot oil heater H1/N (E-002) is used to heat the asphaltic cement tanks (LA1-LA3) and other plant components for efficient transfer of asphaltic cement and HMA.

The following equipment has been replaced at the asphaltic plant: Dust silo S1 was increased from 100 tons to 200 tons; coal hopper B6; belt conveyor BC4; slat conveyor SLC1; transfer conveyors TC1 and TC2; and HMA silo S4 was replaced and silos S2 and S3 were replaced and increased from 200 tons to 240 tons. The replacement equipment does not result in an emissions change.

Note on the nomenclature used in Permit R13-2313P1A: CC-1 and AP-1 were previously identified separately within the Emission Units Table of the Application. CC-1 is considered an integral component of the rotary dryer and is a dual-fuel system which operates on either coal and natural gas or coal and fuel oil. Fuel oil is provided to CC-1 by a 15,000 gallon fuel oil tank (FO1). This Application identifies the integral configuration as only AP1 (Dryer/Mixer).

See the following table for description, installation year, maximum throughput, control equipment, and maximum storage 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	Control Device
OS1	OS1	Aggregate/Limestone/Coal Stockpile	2014	M	150,000 tons 1,000,000 TPY	N
B1	B1	Aggregate Bin	1999	M	35 tons ³	PE
B2	B2	Aggregate Bin	1999	M	35 tons ³	PE
B3	B3	Aggregate Bin	1999	M	35 tons ³	PE
B4	B4	Aggregate Bin	1999	M	35 tons ³	PE
B5	B5	Aggregate Bin	1999	M	35 tons ³	PE
BC1	BC1	Belt Conveyor	1999	M	400 TPH	N
SC1	SC1	Screen	1999	M	400 TPH	PE
BC2	BC2	Belt Conveyor	1999	M	400 TPH	N
BC3	BC3	Belt Conveyor	1999	M	400 TPH	N
B6	B6	Coal Hopper	2010	R	10 tons 3,800 TPY	PE
BC4	BC4	Belt Conveyor	2010	R	4 TPH	N
AP1	AP1	Genetec/Stansteel continuous hot-mix asphalt CFDM w/PhoenixCoal PC-100 Dryer / Burner (fueled by #2 fuel oil/coal or natural gas/coal)	1999	M	400 TPH 400,000 TPY	BH1
SLC1	SLC1	Slat Conveyor	2011	R	400 TPH	FE
TC1	TC1	Transfer Conveyor	2011	R	400 TPH	FE
TC2	TC2	Transfer Conveyor	2011	R	400 TPH	FE
S1	S1	Baghouse Dust Silo	2011	R	200 tons 5,594 TPY	
S2	S2	HMA Silo	2011	R	240 tons ²	FE
S3	S3	HMA Silo	2011	R	240 tons ²	FE
S4	S4	HMA Silo	2011	M	240 tons ²	FE
FO1	E-006	No. 2 Fuel Oil Storage Tank	2003	M	15,000 gal	N
LA1	E-005	Asphalt Cement Storage Tank	2003	M	20,000 gal	N
LA2	E-003	Asphalt Cement Storage Tank	2000	renamed: was LA 1	30,000 gal	N
LA3	E-004	Asphalt Cement Storage Tank	2003	M	20,000 gal	N
BH1	E-001	Dust Collector	1999	M	NA	NA
H1	E-002	Hot Oil Heater	2003	M	2.2 mmbtu/hr	NA

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

² 400,000 tons per year is the COMBINED annual throughput for storage silos S2, S3, and S4.

³ 400,000 tons per year is the COMBINED annual throughput for all five (5) cold feed bins.

The particulate matter capture system is comprised of a baghouse, exhaust fans, motors and ducting. The particulates pass from the dryer through the ductwork and into the baghouse where the particulate is captured by the bags (12,536 ft²) and released by pulse jet air to the bottom of the baghouse. The particulate is sent to silo S1.

DESCRIPTION OF FUGITIVE EMISSIONS

Fugitive emissions of particulate matter occur during loading and unloading operations, the transfer of aggregates and sand, stockpile wind erosion and vehicle travel on haul roads. Fugitive emissions from loading and unloading operations are controlled by minimization of drop height. Fugitive emissions from the transfer of aggregates and sand are controlled by minimization of drop height in combination with transfers being made to bins with partial enclosure. Wind erosion in the

stockpile areas are controlled by the moisture content in the raw materials. A water truck is used to control fugitive emissions from the haul roads.

SITE INSPECTION

Lou Ann Lee, of the DAQ's North Central Regional Office, Compliance and Enforcement Section conducted a full on-site targeted inspection of the facility on October 25, 2013. The facility was given a score of 30 - Facility In Compliance.

Brian Tephabock, Senior Technical Analyst of the North Central Regional Office has expressed concerns on how the Applicant has proposed to minimize fugitive emissions with any increased traffic flow. The following inquiry was made after receipt of this application for modification: *We dealt with some dust complaints this past fall allegedly linked to increased truck traffic at this Facility. We previously didn't have any dust complaints associated with this Facility. The Facility Manager has maintained an aggressive approach and concern to those recent complaints and our concerns. I understand that the proposed permit modification requests approval to greatly increase the amount of stone stored at the Facility. The activity associated with hauling larger amounts of stone to and from the Facility may also lead to a much higher potential for increased fugitive road dust.*

With respect to this concern, increased truck traffic will result to support the increase in aggregate storage throughput. Aggregate storage throughput will increase from 400,000 TPY to 1,000,000 TPY with the asphalt plant utilizing 400,000 TPY. Since the difference of 600,000 TPY will be trucked in and out of the facility, adequate controls must be in place to minimize dust concerns.

To address these concerns, the applicant has stated that they will employ a full time water truck operator, treat facility haulroads and stockyard areas with a chemical dust suppressant (calcium chloride) a minimum of two applications per year (spring and summer) with additional applications on an as-needed basis. In addition, Greer is amenable to installing and maintaining an underbody truck wash at the primary truck exit onto the main roadway.

Directions to the facility as given in the application:

Facility is located on State Route 131 (Benedum Drive) approximately 0.25 miles north of the intersection of State Routes 131 and 279. Facility entrance is on the left.

Directions to the facility as listed in AIRTRAX:

Saltwell / Shinnston exit off of I79 then South 1.2 miles on State Route 73 towards Bridgeport. Property is located on the right.

ESTIMATE OF EMISSIONS BY REVIEWING ENGINEER

Emission calculations for this facility were performed by Potesta & Associates, Inc. (Consultant) and reviewed by the writer for accuracy.

Fugitive emissions from vehicle traffic on the storage area and haulroad will be controlled using a water truck as needed. The unpaved haulroads will be used by product trucks, aggregate trucks, asphaltic cement trucks, fuel trucks, and endloaders. Emission factors for haulroads were taken from AP-42 Sections 13.2.1 and 13.2.2 (Miscellaneous Sources: Unpaved Roads).

Fugitive emissions occur during load-in and load-out of materials to the stockpiles and aggregate feed bins. AP-42 Section 13.2.4 (Miscellaneous Sources: Aggregate Handling and Storage Piles) was used to obtain emission factors for stockpiles and material handling transfer points. Silo filling and plant loadout emissions were calculated using emission factors from AP-42 Table 11.1-14. (Hot Mix Asphalt Plants: Predictive Emission Factor Equations for Load-Out and Silo Filling Operations) and Table 11.1-16 (Hot Mix Asphalt Plants: Speciation Profiles for Load-Out, Silo Filling, and Asphalt Storage Emissions - Organic Volatile-Based Compounds).

The dryer and associated emissions were calculated using emission factors from EPA's AP-42., a "Compilation of Air Pollutant Emission Factors", 5th edition, specifically Chapter 11.1 - "Hot Mix Asphalt Plants".

The Genetec/Stanteel 400 DDM counterflow drum mix plant (AP1) will utilize a PhoenixCoal PC-100 Dryer/ Burner. The burner is a single unit that attaches to the rotary dryer and is a dual-fuel system which operates on either coal and natural gas or coal and fuel oil. The burner will operate a maximum of 8,760 hours per year. . Emission factors for the calculations were taken from the AP-42 Tables 11.1-7 and 11.1-8 (03/04).

The Bridgeport facility will utilize one (1) natural gas-fired asphalt heater. The 2.2 MMBtu/hr heater (H1) will be used to heat the asphaltic cement tanks LA1 - LA3. The heater uses a maximum of 2,200 scf per hour of natural gas. Annual emissions were calculated assuming the heater would operate a maximum of 8,760 hours per year. Emission factors for the calculations were taken from the AP-42 Tables 1.4-1, 1.4-2 and 1.4-3 (07/98).

The applicant estimates an increased potential to discharge Regulated Air Pollutants from point sources will be: PM of 195.10 TPY, PM₁₀ of 58.20 TPY, PM_{2.5} of 10.29 TPY, VOC of 3.29 TPY, SO₂ of 1.34 TPY, NO_x of 0.32 TPY and CO of 0.82 TPY. Total HAP's have been reduced by 1.77 TPY. The fugitive emissions of Regulated Air Pollutants from the facility will be: PM of 186.85 TPY, PM₁₀ of 54.45 TPY and PM_{2.5} of 5.44 TPY. Facility emissions are summarized in the following tables:

Table 2: Existing Facility Emissions

Pollutant	Point Source Controlled		Fugitive Controlled		Facility Total Controlled	
	(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)
PM	22.31	11.64	10.13	7.10	32.44	18.74
PM ₁₀	12.51	6.87	4.82	3.38	17.34	10.25
PM _{2.5}	1.54	0.80	0.72	0.51	2.27	1.30
CO	105.15	56.48			105.15	56.48
NO _x	96.37	52.04			96.37	52.04
SO ₂	97.29	51.90			97.29	51.90
VOC	13.91	7.42			13.91	7.42
Total HAP's	7.31	3.90			7.31	3.90

Table 3: Proposed Facility Emissions

Pollutant	Point Source Controlled		Fugitive Controlled		Facility Total Controlled	
	(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)
PM	32.64	19.89	129.77	193.95	162.41	213.84
PM ₁₀	17.77	10.61	38.41	57.84	56.18	68.45
PM _{2.5}	10.61	5.64	3.92	5.95	14.53	11.59
CO	106.07	57.30			106.07	57.30
NO _x	96.46	52.35			96.46	52.35
SO ₂	97.27	53.25			97.27	53.25
VOC	20.37	10.70			20.37	10.70
Acetaldehyde	0.52	0.26			0.52	0.26
Benzene	0.16	0.08			0.16	0.08
Ethylbenzene	0.11	0.05			0.11	0.05
Toluene	1.17	0.58			1.17	0.58
Xylene	0.10	0.05			0.10	0.05
Formaldehyde	1.28	0.64			1.28	0.64
PAH HAP's	0.35	0.18			0.35	0.18
Total VOC HAP's	4.23	2.11			4.23	2.11
Metal HAP's	0.04	0.02			0.04	0.02
Total HAP's	4.27	2.13			4.27	2.13

Table 4: Change in Facility Emissions

Pollutant	Point Source Controlled		Fugitive Controlled		Facility Total Controlled	
	(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)
PM	10.33	8.25	119.64	186.85	129.97	195.10
PM ₁₀	5.26	3.74	33.59	54.46	38.84	58.20
PM _{2.5}	9.07	4.84	3.20	5.44	12.26	10.29
CO	0.92	0.82			0.92	0.82
NO _x	0.09	0.32			0.09	0.32
SO ₂	-0.02	1.34			-0.02	1.34
VOC	6.47	3.29			6.47	3.29
PAH HAP's	0.35	0.18			0.35	0.18
Metal HAP's	0.04	0.02			0.04	0.02
Total HAP's	-3.04	-1.77			-3.04	-1.77

REGULATORY APPLICABILITY

Clarksburg Asphalt Companys' 400 TPH hot-mix asphalt plant is located in Bridgeport, Harrison County, WV. It does not emit 250 TPY or more of any regulated air pollutant and is not one of the stationary sources named in 45CSR14, Table 1; therefore, it is not a major source.

The facility is subject to the following regulations:

45CSR3 To prevent and control air pollution from the operation of hot mix asphalt plants

The proposed facility is subject to paragraphs 3.1 and 4.1 of this rule and will meet the opacity and weight requirements of those paragraphs or determine compliance by opacity testing, in accordance with 40 CFR Part 60, Appendix A, Method 9, or by stack testing in accordance with 40 CFR Part 60 Subpart I.

45CSR7 To prevent and control particulate air pollution from manufacturing process operations

The proposed facility has the potential to emit particulate matter during routine process operations. Therefore, the provisions of this rule are applicable to the proposed facility. As defined by 45CSR7-2.39, the facility is a type 'a' emission source. Per Table 45-7A, the maximum throughput rate of 400 tons per hour results in a maximum allowable PM emission rate from any single point source of 50 pounds per hour. As documented in the emission estimates within this evaluation, the facility will remain well below such a limit. The facility will install and operate water spray systems (to include a full time water truck operator, calcium chloride applications and an underbody truck wash) for the purpose of minimizing fugitive particulate emissions.

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 an increase in potential controlled emissions greater than six (6) pounds per hour and ten (10) tons per year of a regulated air pollutant (PM and PM₁₀). Therefore, the proposed changes requires a modification permit. The applicant published a Class I legal advertisement in *The Exponent-Telegram* on November 12, 2013 and submitted \$1,000 for the application fee.

45CSR16 Standards of performance for new stationary sources

The proposed facility shall be subject to 40 CFR60, Subpart I as described below.

45CSR30 Requirements for operating permits

This rule provides for the establishment of a comprehensive air quality permitting system consistent with the requirements of Title V of the Clean Air Act. The Bridgeport Plant is a deferred Title V Source, due to the facility's applicability to 40 CFR 60 - Subpart I, that is required to submit an annual Certified Emission Statement. The issuance of the proposed permit will not change that applicability.

40CFR60 Subpart I, Standards of performance for hot mix asphalt facilities

Per 40CFR60.671, the proposed facility meets the definition of a non-metallic mineral processing plant and is thus, subject to this particular Subpart. Compliance of all emission sources affected by the proposed modification shall be demonstrated through an opacity test in accordance to USEPA Method 9. All emission sources shall be maintained at or below 20% opacity.

TOXICITY OF NON-CRITERIA REGULATED POLLUTANTS

Benzene

Acute (short-term) inhalation exposure of humans to benzene may cause drowsiness, dizziness, headaches, as well as eye, skin, and respiratory tract irritation, and, at high levels, unconsciousness. Chronic (long-term) inhalation exposure has caused various disorders in the blood, including reduced numbers of red blood cells and aplastic anemia, in occupational settings. Reproductive effects have been reported for women exposed by inhalation to high levels, and adverse effects on the developing fetus have been observed in animal tests. Increased incidence of leukemia (cancer of the tissues that form white blood cells) have been observed in humans occupationally exposed to benzene. EPA has classified benzene as a Group A, human carcinogen.

Ethylbenzene

Ethyl benzene is mainly used in the manufacturing of styrene. Acute (short-term) exposure to ethyl benzene in humans results in respiratory effects, such as throat irritation and chest constriction, irritation of the eyes, and neurological effects, such as dizziness. Chronic (long-term) exposure to ethyl benzene by inhalation in humans has shown conflicting results regarding its effects on the blood. Animal studies have reported effects on the blood, liver, and kidneys from chronic inhalation exposure to ethyl benzene. Limited information is available on the carcinogenic effects of ethyl benzene in humans. In a study by the National Toxicology Program (NTP), exposure to ethyl benzene by inhalation resulted in an increased incidence of kidney and testicular tumors in rats, and lung and liver tumors in mice. EPA has classified ethyl benzene as a Group D, not classifiable as to human carcinogenicity.

Formaldehyde

Acute (short-term) and chronic (long-term) inhalation exposure to formaldehyde in humans can result in respiratory symptoms, and eye, nose, and throat irritation. Limited human studies have reported an association between formaldehyde exposure and lung and nasopharyngeal cancer. Animal inhalation studies have reported an increased incidence of nasal squamous cell cancer. EPA considers formaldehyde a probable human carcinogen (Group B1).

Toluene

The central nervous system (CNS) is the primary target organ for toluene toxicity in both humans and animals for acute (short-term) and chronic (long-term) exposures. CNS dysfunction and narcosis have been frequently observed in humans acutely exposed to toluene by inhalation; symptoms include fatigue, sleepiness, headaches, and nausea. CNS depression has been reported to occur in chronic abusers exposed to high levels of toluene. Chronic inhalation exposure of humans to toluene also causes irritation of the upper respiratory tract and eyes, sore throat, dizziness, and headache. Human studies have reported developmental effects, such as CNS dysfunction, attention deficits, and minor craniofacial and limb anomalies, in the children of pregnant women exposed to toluene or mixed solvents by inhalation. Reproductive effects, including an association between exposure to toluene and an increased incidence of spontaneous abortions, have also been noted. However, these studies are not conclusive due to many confounding variables. EPA has classified toluene as a Group D, not classifiable as to human carcinogenicity.

Xylene

Commercial or mixed xylene usually contains about 40-65% m-xylene and up to 20% each of o-xylene and p-xylene and ethyl benzene. Xylenes are released into the atmosphere as fugitive emissions from industrial sources, from auto exhaust, and through volatilization from their use as solvents. Acute (short-term) inhalation exposure to mixed xylenes in humans results in irritation of the eyes, nose, and throat, gastrointestinal effects, eye irritation, and neurological effects. Chronic (long-term) inhalation exposure of humans to mixed xylenes results primarily in central nervous system (CNS) effects, such as headache, dizziness, fatigue, tremors, and incoordination; respiratory, cardiovascular, and kidney effects have also been reported. EPA has classified mixed xylenes as a Group D, not classifiable as to human carcinogenicity.

AIR QUALITY IMPACT ANALYSIS

The proposed construction associated with this application does not constitute a major source as defined in 45CSR14. As a result, no air quality impact analysis was required.

MONITORING OF OPERATIONS

The facility will be required to monitor and maintain records of the following:

- Daily and yearly asphalt production -- 400,000 tons per year maximum.
(Appendix A and Appendix B)
- Daily and yearly fuel usage -- natural gas, #2 fuel oil, and coal -- 64,000 gallons of fuel oil maximum per year, 3,800 tons of coal maximum per year, and 27,636,000 cubic feet of natural gas (21.3 million cubic feet for AP1-Burner and 6.336 million cubic feet for H-1) maximum. (Appendix C and Appendix D)
- Daily and yearly hours of operation of AP1-Burner -- 1,400 hours annually maximum.
(Appendix E and Appendix F)
- Water truck usage.
(Appendix G)
- Opacity observations -- must be below 20%.
(Appendix H)
- Sulfur content of fuel oil and coal -- sulfur must be below 0.05% by weight and coal must be below 1.00% by weight -- obtain from supplier once per calendar month.
(Appendix I)

CHANGES TO PERMIT R13-2313-P1A

- The following information was added to section 4.1.10 (Limitations and Standards):

Fugitive particulate dust control system(s) shall be properly designed, installed, operated and maintained in such a manner so as to minimize the generation and atmospheric entrainment of fugitive particulate emissions. Such system(s) at a minimum shall include, but not be limited to:

- a. Fugitive Dust Control of Premises: The registrant shall adequately maintain and operate on-site: (1) a water truck, or (2) a fixed system of water sprays, or (3) a combination of a water truck and a fixed system of water sprays to minimize the emission of particulate matter generated from access roads, haulroads, open storage piles and work areas. Any fixed water spray system shall be no less effective than a water truck in minimizing fugitive particulate emissions from the area under control. The water truck and/or fixed water spray system shall be operated at all times when

fugitive particulate emissions from access roads, haulroads, open storage piles and work areas are generated as a result of vehicular traffic, operational activity or wind. All water trucks and fixed water sprays shall be equipped with a pump and spraybars to apply water or a mixture of water and an environmentally acceptable dust control additive (solution) to access roads, haulroads, open storage piles and work areas where mobile equipment is used. Spraybars shall be equipped with commercially available spray nozzles of sufficient size and number so as to provide adequate coverage to the area being treated. The pump and piping system used to deliver the water or solution shall be of sufficient size and capacity to deliver an adequate quantity of water or solution to the spray nozzles at a sufficient pressure to provide an effective spray.

- b. Haulroad Maintenance: All haulroads, access roads, open storage piles and work areas shall be kept clean and in good condition by replacing base material and/or grading as required.
- c. Vehicular Tracking: If tracking of solids by vehicular traffic from access and/or haulroads onto any public road or highway occurs and generates or has the potential to generate fugitive particulate emissions, the registrant shall properly operate and maintain an underbody truck wash, rumble strips or employ other suitable measures to maintain effective fugitive dust control of the premises and minimize the emission of particulate matter;
- d. All water trucks and water sprays shall employ properly designed, installed and maintained winterization systems in such a manner so that all fugitive particulate dust control systems remain functional when ambient temperatures are below 32 degrees Fahrenheit.

RECOMMENDATION TO DIRECTOR

The information contained in permit modification application R13-2313B 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. dba Clarksburg Asphalt Company for the modification of a hot mix asphalt plant located in Bridgeport, Harrison County, WV, is hereby recommended.

Thornton E. Martin Jr.
Permit Engineer

March 26, 2014
Date