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**west virginia department of environmental protection**

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Earl Ray Tomblin, Governor  
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**ENGINEERING EVALUATION / FACT SHEET**

**BACKGROUND INFORMATION**

Application No.: R13-2104F **After-the-Fact**  
Plant ID No.: 109-00013  
Applicant: Kepler Processing Company, LLC  
Facility Name: Pocahontas No. 51 Preparation Plant  
Location: Pineville, Wyoming County, WV  
SIC Codes: 1221 (Bituminous Coal & Lignite - Surface)  
1222 (Bituminous Coal & Lignite - Underground)  
NAICS Codes: 212111 (Bituminous Coal and Lignite Surface Mining)  
212112 (Bituminous Coal Underground Mining)  
Application Type: Modification  
Received Date: 4/27/12  
Engineer Assigned: Dan Roberts  
Fee Amount: \$2000  
Date Received: 2/23/10 (from withdrawn permit application R13-2104E)  
Complete Date: 5/8/13  
Applicant's Ad Date: 4/25/12  
Newspaper: *The Independent Herald*  
UTM's: Easting: 449.67 km Northing: 4,158.67 km Zone: 17  
Description: **After-the-Fact** modification permit to replace bar grate screen SC2 and crusher HMCR1 with new vibrating screen SC2, conveyor C-21 and open storage pile OS6; construct new refuse conveyors C-22 and C-23 to deposit refuse directly into the lower portion of the refuse area; and correct condition B.5 from current permit R13-2104D by changing the SO<sub>2</sub> emission calculation formula from to calculate the controlled SO<sub>2</sub> emissions as opposed to the uncontrolled SO<sub>2</sub> emissions.

## BACKGROUND

Kepler Processing Company, LLC proposes to modify their existing wet wash coal preparation plant with a thermal dryer through an After-the-Fact permit modification. The facility is located on County Route 33 (Coal City Road) approximately 3.4 miles from the intersection with State Route 16 and past Pineville and almost to Killarney, Wyoming County, WV.

## PROCESS DESCRIPTION

The facility is responsible for removing the refuse from raw coal and preparing the final product, clean coal, for shipment by railcar or truck. Raw coal is received at the plant from trucking and an on-site underground mine. The raw coal is either sent directly to the plant dump bins and conveyed to a raw coal silo or stores in a raw coal stockpile. Once the coal is conveyed to the plant, the material is broken and sized via mechanical and wet washing systems. Refuse material is removed by gravity and mechanical separation, and ultimately sent to the refuse area for storage/disposal. Clean coal is loaded to railcars or stored in a clean coal stockpile and then loaded to railcars or trucks.

This facility does have a thermal dryer. The thermal dryer is used to dry the finer clean coal prior to re-mixing with the course clean coal to produce a final product with a specified water content. To fuel the dryer, the coal is cleaned in the plant and then placed in the furnace fire chamber after further pulverization to aid in proper burning. All coal burned in the thermal dryer is cleaned prior to burning. Also, natural gas is utilized to aid in proper burning and startup.

### *Raw Coal Description*

Raw coal is delivered to the facility by trucks or bottom unloading railcars directly to dump hoppers B3 and B4 or to raw coal open stockpile OS1. A front endloader transfer the raw coal from open stockpile OS1 to dump hoppers B3 and B4. Dump hoppers B3 and B4 then feed the raw coal to conveyor C-1, where it is transferred to vibrating screen SC. The oversize refuse from screen SC1 is diverted to rotary breaker RB-1, conveyor C-3 or conveyor C-4. Rotary Breaker RB1 drops the crushed raw coal to conveyor C-4, while the oversize refuse (or rock) drops to conveyor C-17. The oversize refuse used to go to rock crusher RC1, but it has not operated since 1982 and has been retired in place.

The sized raw coal is then transferred by conveyors C-4 and C-5 to 5,000 ton raw coal silo B6. From Silo B6, the raw coal is dropped onto conveyor C-6, which transfers it to conveyor C-9. Conveyor C-9 transfers the raw coal to the preparation plant where it enters the wet process.

Raw coal is also stockpiled at the facility. Raw coal is trucked to open stockpile OS2, where it is reclaimed using a front endloader and dumped into the endloader feeder. Clean coal is also conveyed to open stockpile OS2 by conveyor C-14 (see below). From the feeder, the raw coal is dropped onto conveyor C-7 or conveyor C-8. Conveyor C-7 transports the raw coal to vibrating screen SC2. The raw coal that is rejected by the screen is transported by conveyor C-21 to open stockpile OS5. Reject open stockpile OS5 is managed via an endloader, which transfers the refuse

to trucks for transport to the disposal area. The material that passes through screen SC2 drops immediately onto conveyor C-9. Conveyor C-9 transfers the raw coal to the preparation plant where it enters the wet process. Conveyor C-8 receives direct ship raw coal from conveyor C-7 and transfers it to clean coal conveyor C-13B.

### *Clean Coal System*

Clean coal from the wet wash process is dropped onto conveyor C-12 or conveyor C-13A. Conveyor C-12 feeds the clean coal to Heyl & Patterson, Inc. fluid bed thermal dryer TD1 to be dried. Clean coal is pulverized to aid in proper burning and fed to the thermal dryer for fuel. Natural gas is also utilized to aid in burning and proper startup. The thermally dried coarse coal fines pass through transfer point T31 while the recovered fines from the Cyclo-Trell Collector pass through transfer point T32 onto conveyor C-13-A. There is a bypass around the thermal dryer where conveyor C-12 drops the coal to conveyor C-13A. Clean coal from the wet wash process is combined with the clean coal that has been dried on conveyor C-13A and the clean coal from conveyor C-8. Conveyor C-13A transfers the clean coal to rail car loadout bin B1 or conveyor C-14. Railcars at the loadout may also be filled via a front endloader. Conveyor C-14 transfers the clean coal to a stacking tube at open stockpile OS2. The clean coal in open stockpile OS2 is reclaimed using a front endloader and is placed into the feeder hopper. From the feeder hopper, the clean coal passes onto conveyor C-7, which transfers it onto conveyor C-8. Conveyor C-8 transports the clean coal back onto conveyor C-13A. Conveyor C-13A transfers to conveyor C-13B, which feeds rail car loadout bin B1.

### *Refuse System*

The refuse from raw coal screen SC1 drops onto conveyor C-3, which transfers it to conveyor C-17. The refuse from rotary breaker RB1 drops directly onto conveyor C-17. Conveyor C-17 transfers the refuse to conveyor C-2. Conveyor C-2 transfers the refuse to 175 ton bin B7, where it is mixed with refuse from the wet wash process. The wet wash process transfers the coarse refuse onto conveyor C-18. Conveyor C-18 transfers the coarse refuse back to conveyor C-2, which transfers it to bin B7. The wet wash process transfers the fine refuse directly into bin B7. Refuse from bin B7 drops onto conveyor C-10 and then onto conveyor C-22 or conveyor C-23. Conveyor C-22 transfers refuse to into either bin B2 or onto conveyor C-15. Conveyor C-15 transfers the refuse to bin B5 or to a chute that sends it directly to the ground at the refuse embankment. The refuse from bin B2 is transferred to truck and hauled to the refuse embankment using unpaved haulroad UPHR2. This haulroad is 0.5 miles round trip and fugitive emissions are controlled by water truck (WS). Refuse from bin B5 is transferred either or directly to the ground through a chute or to truck and hauled to the refuse embankment using unpaved haulroad UPHR3. Fugitive emissions from unpaved haulroad UPHR3 are controlled using a water truck (WS). As an alternative, conveyor C-10 can transfer refuse to new conveyor C-23, which deposits refuse directly onto the refuse area using a sock to control fugitive emissions.

The refuse that is removed by SC2 and stored in open stockpile OS5 is transferred to truck by a front endloader and hauled to the refuse embankment using unpaved haulroad UPHR6. Unpaved haulroad UPHR6 is 6 miles round trip and the fugitive emissions are controlled by water truck (WS).

*Lime System*

As a result of a DEP groundwater inspection, the facility has added a lime handling operation for treatment of its refuse to maintain proper pH levels in the runoff. This operation consists of lime from open stockpile OS4 loaded by front endloader into bin B8. Bin B8 transfers the lime onto conveyor C-19. Conveyor C-19 transfers the lime onto conveyor C-17, where it is mixed with the refuse.

The facility shall be constructed and operated in accordance with the following equipment and control device information taken from permit applications R13-2104F, R13-2104D, R13-2104C, R13-2104B, R13-2104A and R13-2104 and any amendments thereto:

Equipment ID No. <sup>1</sup>	Date of Construction, Reconstruction or Modification <sup>2</sup>	Description	Maximum Capacity		Control Equipment <sup>3</sup>	Associated Transfer Points		
			TPH	TPY x 10 <sup>6</sup>		Location: B -Before A - After	ID No.	Control Equipment <sup>3</sup>
<b>RAW COAL</b>								
OS1	Grand-fathered	Raw Coal Stockpile - 30,000 ton capacity / 100,000 ft <sup>2</sup> area	700	4.3	MC	B A	T38 T39	MC MC
B3 (23S)	M 2004	Truck Dumping and Under Railcar Unloading Bin - 50 ton capacity	500	4.3	PE	A	T3	FE
B4 (24S)	M 2004	Truck Dumping and Under Railcar Unloading Bin - 50 ton capacity	500	4.3	PE	A	T4	FE
C-1 (1S)	1976	Truck Dump / Railcar Unloading Reclaim Conveyor	800	4.3	PE	B A	T3/T4 T5	FE,FE FE/FE
SC1 (21S)	1976	Vibrating Raw Coal Scalping Screen	800	4.3	FE/FE	B A	T5 T6/T7	FE/FE FE/FE,FE
RB1 (19S)	Grand-fathered	Rotary Breaker	600		FE	B A A	T6 T20A T8	FE/FE FE FE
C-3	1996 <sup>4</sup>	Rotary Breaker Bypass Conveyor	500	4.3	PE	B A	T6 T43	FE FE
C-4 (3S)	Grand-fathered	Raw Coal Collection Conveyor	800	4.3	PE	B B B A	T6 T7 T8 T9	FE/FE FE FE FE
C-5 (5S)	Grand-fathered	Silo Feed Conveyor	800	4.3	PE	B A	T9 T10	FE PE
B6 (26S)	Grand-fathered	Raw Coal Silo - 5,000 ton capacity	800	4.3	FE	B A	T10 T11	PE PE
C-6 (6S)	1997	Silo Recovery Conveyor	1,000	4.3	PE	B A	T11 T12	PE PE
C-9 (9S)	1997	Plant Feed Conveyor	1,000	4.3	PE	B B A	T12 T17 T19	PE FE FE, FE
OS2 (34S)	Grand-fathered	Raw/Clean Coal Stockpile - 30,000 ton capacity / 100,000 ft <sup>2</sup> area	700	4.3	MC	B B A	T35 T37 T13	PE MC MC
Underground Feeder	1976	Underground Feeder	700	4.3	PE	B A	T13 T14	MC FE
C-7 (7S)	1976	Stockpile Reclaim Conveyor	700	4.3	PE	B A	T14 T15	FE PE
SC2 (22S)	C 2010	Vibrating Single Deck Screen	700	4.3	FE, WS	B A A	T15 T16 T17	PE FE FE
C-21 (20S)	C 2010	Belt Conveyor - Oversize Screen Reject	700	0.005	MC	B A	T16 T18	FE MC

Equipment ID No. <sup>1</sup>	Date of Construction, Reconstruction or Modification <sup>2</sup>	Description	Maximum Capacity		Control Equipment <sup>3</sup>	Associated Transfer Points		
			TPH	TPY x 10 <sup>6</sup>		Location: B - Before A - After	ID No.	Control Equipment <sup>3</sup>
OS5 (45S)	C 2010	Open Stockpile - Oversize Screen Reject - 500 ton storage capacity - maximum base area of 2,544 ft <sup>2</sup> and height of 10 feet	700	0.005	MC	B A	T18 T53	MC MC
<b>CLEAN COAL</b>								
C-12 (15S)	1997	Thermal Dryer Feed Conveyor	550	3.01	PE	B A	T29 T30	FE, FE FE
C-13A (16S)	1997	Clean Coal Loadout Conveyor	700	3.01	PE	B B B B A	T28 T30 T31 T32 T36A T36	FE, FE FE FE FE FE PE
C-13B (17S)	1997	Clean Coal Railcar Loadout Conveyor	700	3.01	PE	B A	T36 T33	PE FE
B1 (30S)	<i>Grand-fathered</i>	<i>Clean Coal Bin</i>	<i>700</i>	<i>3.01</i>	<i>FE</i>	<i>B A</i>	<i>T33 T34</i>	<i>FE PE</i>
C-14 (18S)	1996 <sup>4</sup>	Clean Coal Stacking Conveyor	700	3.01	PE	B A	T33 T35	FE PE
C-8	1996 <sup>4</sup>	Clean Coal Recycle Conveyor	700	3.01	PE	B A	T15 T36A	PE PE
<b>LIME</b>								
Truck Dump	1999	Truck dump to OS4	25	0.219	MC	A	T47	MC
OS4	1999	Open Stockpile	25	0.219	MC	B A	T47 T48	MC MC
B8	1999	Endloader to lime bin	25	0.219	PE	B A	T48 T49	MC PE
C-19	1999	Lime Conveyor	25	0.219	PE	B A	T49 T50	PE FE
<b>REFUSE</b>								
C-3 (2S)	<i>Grand-fathered</i>	<i>Rotary Breaker By-pass Conveyor</i>	<i>500</i>		<i>PE</i>	<i>B A</i>	<i>T6 T43</i>	<i>FE/FE FE</i>
C-17 (4S)	<i>Grand-fathered</i>	<i>Reject Material Conveyor</i>	<i>500</i>		<i>PE</i>	<i>B B A</i>	<i>T20A T43 T21</i>	<i>FE FE PE</i>
C-18 <sup>5</sup>	1997	Refuse Recycle Conveyor	500	1.85	PE	B A	T52 T45	FE PE
C-2	<i>Grand-fathered 1968</i>	<i>Refuse Conveyor</i>	<i>500</i>		<i>PE</i>	<i>B B A</i>	<i>T21 T45 T22</i>	<i>PE PE FE/FE</i>
OS3	1996 <sup>4</sup>	Emergency Refuse Storage Stockpile (200 sq. ft. / 400 ton)	500	0.1	MC	B	T22	MC
B7	1997	Plant Refuse Bin (175 ton)	500	1.85	FE	B B A	T22 T23 T44	FE/FE FE FE/FE
C-10	1997	Refuse Conveyor (Changed length in 2012 in order to incorporate a new configuration with C-23 and C-22)	500	1.85	PE	B A	T44 T26	FE, FE FE
C-23 (42S)	C 2012	Refuse Conveyor	500	1.85	PE	B A	T54 T55	PE PE
C-22 (41S)	C 2012	Refuse Conveyor	500	1.85	PE	B A	T54 T26	PE FE
B2	1997	Refuse Bin No. 1 (200 tons)	500	1.85	FE	B A	T26 T27	FE PE
C-15	1997	Refuse Conveyor No. 2	500	1.85	PE	B A	T26 T40	FE FE
B5	1997	Refuse Bin No. 2 (200 tons)	500	1.85	FE	B A A	T40 T41 T46	FE PE MC

Equipment ID No. <sup>1</sup>	Date of Construction, Reconstruction or Modification <sup>2</sup>	Description	Maximum Capacity		Control Equipment <sup>3</sup>	Associated Transfer Points		
			TPH	TPY x 10 <sup>6</sup>		Location: B -Before A - After	ID No.	Control Equipment <sup>3</sup>
PVD1	1999	Paved road from to facility	25	0.219	WS	A	T47	MC

<sup>1</sup> The alpha-numeric numbers in parentheses represent emission point ID numbers.

<sup>2</sup> In accordance with 40 CFR 60 Subpart Y: all emissions from thermal dryers constructed, re-constructed or modified on or before April 28, 2008 shall be less than 20% opacity; coal processing and conveying equipment, coal storage systems, and coal transfer and loading systems constructed, reconstructed, or modified on or before April 28, 2008 shall not discharge gases which exhibit 20 percent opacity or greater; and coal processing and conveying equipment, coal storage systems, and coal transfer and loading systems constructed, reconstructed, or modified after April 28, 2008 shall not discharge gases which exhibit 10 percent opacity or greater.

<sup>3</sup> Control equipment abbreviations: FE - Full Enclosure; PE - Partial Enclosure; WS - Water Spray; MC - Moisture Control; and N - None.

<sup>4</sup> This equipment was previously covered under a Permit Determination Form submitted on April 12, 1996.

## SITE INSPECTION

On October 2, 2012, Andy Grimm of the DAQ's Compliance and Enforcement Section - performed a full on site targeted inspection. Mr. Grimm's contact at the time of the inspection was Cody Estep and his phone number was (606) 281-8731. Mr. Grimm found the facility to be in compliance at the time of the inspection and gave it a status code of 30: In Compliance.

Directions from Charleston, WV, are to take Interstate I-77 South to the State Route 16 Exit in Beckley; take State Route 16 South to State Route 54; take State Route 54 South to State Route 97; take State Route 97 to Pineville; from Pineville, take State Route 97 West approximately 5 miles to Plant on the left.

## ESTIMATE OF EMISSIONS BY REVIEWING ENGINEER

Fugitive emission calculations for continuous and batch drop operations, transfer points, crushing and screening, storage piles, and paved and unpaved haulroads are based on AP-42 "Compilation of Air Pollution Emission Factors." Control efficiencies were applied based on "Calculation of Particulate Matter Emission - Coal Preparation Plants and Material Handling Operations." The emission factors for crushing/breaking and screening operations were obtained from the Air Pollution Engineering Manual - Air & Waste Management Association - June 1992. Emissions calculations were performed by the applicant's consultant using the DAQ's General Permit G10-C Emission Calculation Spreadsheet and were checked for accuracy by the writer.

The proposed modification of a wet wash coal preparation plant with a thermal dryer will result in an increase in the potential to discharge controlled particulate matter emissions from point sources (equipment and transfer points) of 18.54 pounds per hour (PPH) and 22.85 tons per year (TPY) of particulate matter (PM), of which 6.48 PPH and 10.60 TPY will be particulate matter less than 10 microns in diameter (PM<sub>10</sub>) and 0.97 PPH and 1.59 TPY will be particulate matter less than 2.5 microns in diameter (PM<sub>2.5</sub>). Refer to the following table for a complete summary of the proposed increase in the facility's PM and PM<sub>10</sub> emissions:

- Increase in Emissions Summary - Kepler Processing Company, LLC R13-2104F	Controlled PM Emissions		Controlled PM <sub>10</sub> Emissions		Controlled PM <sub>2.5</sub> Emissions	
	lb/hour	TPY	lb/hour	TPY	lb/hour	TPY
<b>Fugitive Emissions</b>						
Open storage pile Emissions	0.02	0.10	0.01	0.05	0.00	0.01
Unpaved Haulroad Emissions	0.00	0.00	0.00	0.00	0.00	0.00
Paved Haulroad Emissions	10.48	0.66	2.69	0.17	0.40	0.03
<b>Fugitive Emissions Total</b>	<i>10.50</i>	<i>0.76</i>	<i>2.70</i>	<i>0.22</i>	<i>0.40</i>	<i>0.04</i>
<b>Point Source Emissions</b>						
Equipment Emissions	7.00	21.50	3.29	10.11	0.49	1.52
Transfer Point Emissions	1.03	0.59	0.49	0.28	0.07	0.04
<b>Point Source Emissions Total (PTE)</b>	<i>8.03</i>	<i>22.09</i>	<i>3.78</i>	<i>10.39</i>	<i>0.56</i>	<i>1.56</i>
<b>FACILITY EMISSIONS TOTAL</b>						
	<b>18.54</b>	<b>22.85</b>	<b>6.48</b>	<b>10.60</b>	<b>0.97</b>	<b>1.59</b>

## REGULATORY APPLICABILITY

NESHAPS have no applicability to the proposed modification of Kepler Processing Company, LLC's existing wet wash coal preparation plant with a thermal dryer. The proposed modification is subject to the following state and federal rules:

*45CSR4: To Prevent and Control the Discharge of Air Pollutants Into the Open Air Which Causes or Contributes to an Objectionable Odor or Odors*

The facility is subject to the requirements of 45CSR4 and shall not allow the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.

*45CSR5 To Prevent and Control Air Pollution from the Operation of Coal Preparation Plants, Coal Handling Operations and Coal Refuse Disposal Areas*

The facility is subject to the requirements of 45CSR5 because it meets the definition of "Coal Preparation Plant" found in subsection 45CSR5.2.4. The facility should be in compliance with Section 3 (less than 20% opacity), Section 4 (thermal dryer and stack requirements) and Section 6 (fugitive dust control system and dust control of the premises and access roads) when the particulate matter control methods and devices proposed are in operation.

*45CSR10 To Prevent and Control Air Pollution From the Emission of Sulfur Oxides*

The existing facility is subject to all applicable requirements under 45CSR10, since the use of the thermal dryer subjects the facility to §45-10-4, Standards for Manufacturing source operations.

*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 the potential to discharge controlled emissions greater than six (6) pounds per hour and ten (10) tons per year of a regulated air pollutant (PM and PM<sub>10</sub>) and is subject to a substantive requirement. The applicant published a Class I legal advertisement in the *Independent Herald* on April 25, 2012 and submitted \$1,000 for the application fee and \$1,000 for the NSPS fee on February 23, 2010 as part of application R13-2104E, which was withdrawn on December 29, 2011.

*45CSR16 Standards of Performance for New Stationary Sources*  
*40 CFR 60 Subpart Y: Standards of Performance for Coal Preparation Plants*

The wet wash coal preparation plant with a thermal dryer is subject to 40 CFR 60 Subpart Y because it was constructed after October 24, 1974 and processes more than 200 tons of coal per day. The proposed modification will include the installation of one new screen (SC2) and three (3) new belt conveyors (C-21, C-22 and C-23), which are defined as affected facilities in 40 CFR 60 Subpart Y. Therefore, the coal processing equipment is subject to 45CSR16, which incorporates by reference 40 CFR 60 Subpart Y - Standards of Performance for Coal Preparation Plants. The facility should be in compliance with the following: Section 252(a) (less than 20% opacity for thermal dryers constructed, re-constructed or modified on or before April 28, 2008); Section 254(a) (less than 20% opacity for coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, re-constructed or modified on or before April 28, 2008); and Section 254(b) (less than 10% opacity for coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, re-constructed or modified after April 28, 2008) when the particulate matter control methods and devices proposed are in operation.

*45CSR30 Requirements for Operating Permits*

In accordance with 45CSR30 Major Source Determination, the wet wash coal preparation plant with a thermal dryer will continue to be a major source. The facility is listed in 45CSR30 subsection 2.26.b as one of the categories of stationary sources which must include fugitive emissions when determining whether it is a major stationary source for the purposes of § 302(j) of the Clean Air Act. The facility's potential to emit for PM<sub>10</sub>, VOC, SO<sub>2</sub>, NO<sub>x</sub> and CO will be greater than the 45CSR30 threshold of 100 TPY for a regulated air pollutant to be defined as a major stationary source. Therefore, the facility will continue to be subject to 45CSR30 and remain classified as a Title V major source.

Changes authorized by this permit must also be incorporated into the facility's Title V operating permit. Commencement of the operations authorized by this permit shall be determined by the appropriate timing limitations associated with Title V permit revisions per

45CSR30.

The proposed modification of Kepler Processing Company, LLC's wet wash coal preparation plant with a thermal dryer is 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 wet wash coal preparation plant with a thermal dryer is one of the 100 TPY stationary sources listed sources under the definition of "Major Stationary Source" in subsection 2.43.a. At the end of subsection 2.4.3, this facility is listed in Table 1 - Source Categories Which Must Include Fugitive Emissions. Therefore, fugitive emissions (from open storage piles and haulroads) are included when determining major stationary source applicability. The facility's potential to emit for PM<sub>10</sub>, VOC, SO<sub>2</sub>, NO<sub>x</sub> and CO will be greater than the 45CSR14 threshold of 100 TPY for a regulated air pollutant to be defined as a major stationary source. Therefore, the modified wet wash coal preparation plant with a thermal dryer will remain a major source under 45CSR14.

In accordance with Section 2.75, the definition of "significant emission increase" is defined in Section 2.74 as equal to or greater than 25 TPY for PM, 15 TPY for PM<sub>10</sub> and 10 TPY for PM<sub>2.5</sub>. The proposed increases within this modification application are 22.85 TPY for PM, 10.60 TPY for PM<sub>10</sub> and 1.59 TPY for PM<sub>2.5</sub>, which are less than the trigger levels for a significant increase as defined in 45CSR14.

#### TOXICITY OF NON-CRITERIA REGULATED POLLUTANTS

A toxicity analysis was not performed because the increases in pollutants being emitted from this facility are in PM (particulate matter) and PM<sub>10</sub> (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 extent of the proposed modifications. This is a minor modification (as defined in 45CSR14) to an existing major source. This facility is located in Wyoming County, WV, which currently has a status of attainment for O<sub>3</sub> (ozone), PM<sub>10</sub> (particulate matter less than 10 microns in diameter), PM<sub>2.5</sub> (particulate matter less than 2.5 microns in diameter), SO<sub>2</sub> (sulfur dioxide) and CO (carbon monoxide).

## MONITORING OF OPERATIONS

For the purposes of determining compliance with maximum throughput limits, the applicant shall maintain certified daily and monthly records and example forms are included as Attachments A and B to Permit R13-2104F. An example form for tracking the amount of water applied by the water truck is included as Attachment C to Permit R13-2104F. An example form for tracking the weekly visible emission checks is included as Attachment D to Permit R13-2104F. The Certification Of Data Accuracy statement shall be completed within fifteen (15) days of the end of the reporting period. These records shall be maintained on-site for at least five (5) years and be made available to the Director of the Division of Air Quality or his or her duly authorized representative upon request.

The processing, storage areas and thermal dryer should be observed to make sure that the facility is meeting the visible emission standards of 45CSR5 and 40 CFR 60, Subpart Y. Visible emissions from a thermal dryer constructed, re-constructed or modified on or before April 28, 2008 shall not exceed 20 percent (20%) opacity as stated in 40 CFR 60.252(a). Visible emissions from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, re-constructed or modified before on or April 28, 2008 shall not exceed 20 percent (20%) opacity as stated in 40 CFR 60.254(a). Visible emissions from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, re-constructed or modified after April 28, 2008 shall not exceed 10 percent (10%) opacity as stated in 40 CFR 60.254(b).

## CHANGES TO CURRENT PERMIT R13-2104D

- Update permit into the new permit boilerplate format
- Replace bar grate screen SC2 and hammermill crusher HMCR1 with new vibrating screen SC2, conveyor C-21 and open storage pile OS6
- Add new refuse conveyors C-22 and C-23
- Correct the calculations in permit R13-2104D condition B.5 to calculate the controlled SO<sub>2</sub> emissions to account for the wet scrubber as opposed to the uncontrolled SO<sub>2</sub> emissions

## RECOMMENDATION TO DIRECTOR

The information contained in this permit modification 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 Kepler Processing Company, LLC to modify their existing wet wash coal preparation plant with a thermal dryer located on the left adjacent to State Route 97 approximately 3 miles west of Pineville, Wyoming County, WV, is hereby recommended.

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Daniel P. Roberts, Engineer Trainee  
NSR Permitting Section

June 7, 2013  
Date