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ENGINEERING EVALUATION / FACT SHEET

BACKGROUND INFORMATION

Application No.: R13-2955
Plant ID No.: 777-00117
Applicant: Elk Run Coal Company, Inc. dba Republic Energy
Facility Name: Portable Coal Crusher
Location: Clear Creek, Raleigh County
SIC Codes: 1221 (Bituminous Coal & Lignite - Surface)
NAICS Codes: 212111 (Bituminous Coal and Lignite Surface Mining)
Application Type: Construction
Received Date: June 21, 2012
Engineer Assigned: Dan Roberts
Fee Amount: \$1,000 for application fee, \$1,000 for NSPS fee
Date Received: June 26, 2012, August 7, 2012
Complete Date: April 1, 2013
Applicant Ad Date: June 19, 2012, republished September 24, 2012
Newspaper: *The Register-Herald*
UTM's: Easting: 473.064 km Northing: 4197.734 km Zone: 17
Description: Construction of a 2008 model Olympia/LMC portable coal crusher powered by a 225 hp Caterpillar C7 Tier 3 diesel engine with maximum throughput rates of 480 TPH and 748,800 TPY.

BACKGROUND

Elk Run Coal Company, Inc. dba Republic Energy is a subsidiary of Alpha Natural Resources. The applicant has proposed to operate a Olympia/LMC portable coal crusher equipped with a 225 hp Caterpillar C7 Tier 3 diesel engine at the Horse Creek Surface Mine (S-3015-99), which is also known as the Pax Mine. There is no wet wash coal preparation plant or any other coal preparation equipment located on the bonded area of the surface mine. After the coal is processed through the portable coal crushing plant, it is loaded to trucks and transferred approximately 8-10 miles via paved county roads to a permitted loadout facility in Pax, WV.

This portable coal crushing plant was manufactured in July 2008 and was moved onto the proposed site location on October 22, 2012. According to the applicant, the portable coal crushing plant has not yet been operated at this location. In the future, the applicant plans to possibly move

this portable coal crushing plant to the following facilities to be operated on an as needed basis:

Pioneer Fuel Corporation

Horse Creek Surface Mine S-3015-99 (currently proposed location)
Ewing Fork Surface Mine S-3018-03
MT-5A Surface Mine S-3010-03
MT-5B Surface Mine S-3010-06

Republic Energy, Inc.

Republic #1 Surface Mine S-3025-00
Republic #2 Surface Mine S-3001-01
Republic #3 Surface Mine S-3012-03
Lick Knob #2 Surface Mine S-3007-06

Independence Coal Company

Twilight MTR Surface Mine S-5023-96
Twilight South Surface Mine S-5028-08

Marfork Coal Company

Beetree Surface Mine S-3010-04
Slip Ridge Contour S-3008-09

The applicant has been advised that a relocation permit will be required to be issued before the portable coal crusher can be relocated and operated at any other location other than the currently proposed location at the Horse Creek Surface Mine S-3015-99.

DESCRIPTION OF PROCESS

The Olympia/LMC portable coal crusher equipped with a 225 hp (168kW) Caterpillar C7 Tier 3 diesel engine will be utilized as an on-demand resource to assist in processing the raw coal. The typical process will be as follows:

- Raw coal is transported from the mine face to stockpile OS-1 via loaders over unpaved haulroads
- From open stockpile OS-1, loaders remove coal and transfer it to hopper BS-1 located aboard the portable coal crusher CR-1
- Coal drops from hopper BS-1 to crusher CR-1
- After crushing, the coal is dropped onto the on-board belt conveyor BC-1 which transfers the coal to open stockpile OS-2
- Coal is removed from stockpile OS-2 and transferred to trucks via endloaders
- Trucks transport the coal from the facility via an unpaved haulroad (HR-2)

At the Horse Creek Mine, a maximum usage of 12 hours per day over 5 days per week for 26 weeks of the year is expected and is included in calculations of potential emissions.

The facility shall be constructed and operated in accordance with the following equipment

and control device information taken from permit application R13-2955 and any amendments thereto:

Equip- ment ID #	Date of Construction, Reconstruction or Modification ¹	Date of Manufacture ²	Emission Unit Description	Design Capacity		Control Device ³
				TPH	TPY	
Portable Raw Coal Crusher						
OS-1	C 2012	N/A	Raw Coal Open Storage Pile - 12,000 ton capacity - 4,500 ft ² base area - receives raw coal from an endloader, stores it and then an endloader transfers it to BS-1	480	748,800	WS
BS-1	C 2012	July 2008	Dump Hopper - 14 ton capacity - receives raw coal from OS-1 via an endloader and then feeds it into CR-1	480	748,800	N
CR-1	C 2012	July 2008	Double Roll Crusher - LMC-21004-OLY - receives raw coal from BS-1, crushes it from +10" x 0 to 5" x 0 and then drops the crushed coal to BC-1	480	748,800	N
BC-1	C 2012	July 2008	Raw Coal Belt Conveyor - receives crushed raw coal from CR-1 and transfers it to OS-2	480	748,800	N
OS-2	C 2012	N/A	Crushed Raw Coal Open Storage Pile - 12,000 ton capacity - 4,500 ft ² base area - receives crushed raw coal from BC-1, stores it and then an endloader transfers it to trucks	480	748,800	WS
Engine for the Portable Raw Coal Crusher						
Engine	C 2012	July 2008	Caterpillar C7 Tier 3 diesel engine - 225 bhp/2,200 rpm - Rich Burn Four Stroke (RB4S) - Rich Burn & Non-Selective Catalytic Reduction (NSCR) - #2 Fuel Oil - Maximum Fuel Throughputs are 1.66 ft ³ /hr and 2.59 MMft ³ /yr - Maximum Operation is 1,560 hrs/yr - Subject to NSPS Subpart III	N/A	N/A	N/A
Tanks						
T-01	C 2012	July 2008	100 Gallon Horizontal Onboard Reserve Tank - #2 Fuel Oil (Diesel) - Maximum Annual Throughput of 19,344 gallons per year	N/A	N/A	N/A
Haulroads						
Endloader	C 2012	N/A	Endloader Traffic - 0.08 miles round trip - Maximum of 48 trips per hour and 74,880 trips per year - 65 ton mean vehicle weight - 10 ton load weight - Water truck sprays the road with water	480	748,800	WS
Tractor Trailer	C 2012	N/A	Tractor Trailer Traffic - 1.32 miles round trip - Maximum of 24 trips per hour and 37,440 trips per year - 20 ton load weight - Water truck sprays the roads with water	480	748,800	WS

¹ In accordance with 40 CFR 60 Subpart Y, construction is defined as "fabrication, erection or installation of a facility." 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. For open storage piles constructed, reconstructed, or modified after May 27, 2009, the permittee shall prepare and operate in accordance with a fugitive coal dust emissions control plan that is appropriate for site conditions.

- ² The Olympia/LMC portable coal crusher equipped with a 225 hp Caterpillar C7 Tier 3 diesel engine and associated hopper and conveyor were manufactured in July 2008.
- ³ Control Device Abbreviations: FE - Full Enclosure; PE - Partial Enclosure; PW - Partial Enclosure with Water Sprays; WS - Water Sprays; CS - Water Spray with Chemical Suppressant; and N - None.

SITE INSPECTION

A site inspection was not performed at this time. The proposed location is in a remote area on an active surface mine. Once the facility is issued a permit to construct, the facility will be inspected by the DAQ's Compliance and Enforcement Section on a set schedule.

Directions to the Horse Creek Surface Mine from Charleston are to take I-77 South/I-64 East and travel 39.9 miles, take Exit 54 and then turn west onto County Route 23/2 (Coal River Mountain Road) and travel approximately 1.5 miles, turn right (north) onto Toney's Fork and travel approximately 1 mile to the mine entrance road, turn right onto Spruce Fork Road and proceed 0.15 miles to the guard shack.

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 Fifth Edition "Compilation of Air Pollution Emission Factors", Volume 1. 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. The calculations were performed by the applicant's consultant using the DAQ's Coal Preparation Plant General Permit G10-D Emission Calculation Spreadsheet for PM and PM₁₀ emissions and EPA WebFIRE/AP-42 Section 3.3.1 for NO_x, CO, SO_x and HAP emissions. These calculations were checked for accuracy and completeness by the writer and were verified by duplicating the calculations by using the DAQ's Coal Preparation Plant General Permit G10-D Emission Calculation Spreadsheet AP-42 Section 3.3 Gasoline and Diesel Industrial Engines. A copy of these calculations has been attached.

The proposed construction will result in the potential to discharge controlled emissions from point sources of 189.33 pounds per hour and 147.71 TPY of particulate matter (PM), of which 57.97 pounds per hour and 45.23 TPY will be particulate matter less than 10 microns in diameter (PM₁₀). Refer to the following table for a summary of the proposed changes in the potential to discharge controlled emissions of PM and PM₁₀:

- Proposed Emissions - Elk Run Coal Company, Inc. dba Republic Energy R13-2955	Controlled PM Emissions		Controlled PM ₁₀ Emissions	
	lb/hour	TPY	lb/hour	TPY
Fugitive Emissions				
Open Storage Pile Emissions	0.01	0.03	0.00	0.02
Unpaved Haulroad Emissions	177.64	138.56	52.43	40.90
Paved Haulroad Emissions	0.00	0.00	0.00	0.00
<i>Fugitive Emissions Total</i>	177.65	138.59	52.44	40.91
Point Source Emissions				
Equipment Emissions	9.60	7.49	4.51	3.52
Transfer Point Emissions	2.00	1.56	0.95	0.74
Diesel Engine Emissions	0.07	0.06	0.07	0.06
<i>Point Source Emissions Total (PTE)</i>	11.67	9.11	5.53	4.32
FACILITY EMISSIONS TOTAL				
	189.33	147.71	57.97	45.23

Emissions from the proposed operation of the Olympia/LMC portable coal crusher equipped with a 225 hp (168 kW) Caterpillar C7 Tier 3 diesel engine were determined using emission rates calculated using manufacturer's data and emission factors from AP-42 Fifth Edition, Section 3.3. Refer to the following tables for the proposed maximum permitted emission rates which are based a maximum diesel fuel use of 12.4 gallons per hour; 1,560 hours of operation per year; and diesel characteristics of 19,000 Btu/lb and 7.1 lb/gal:

Pollutant	Source of Emission Factor	Emission Factor	Emission Factor Rating	Hourly Emissions (lb/hour)	Annual Emissions (TPY)
NO _x + HC ¹	40 CFR 89.112	4.0 g/kW-hr	N/A	1.481	1.156
CO ¹	40 CFR 89.112	3.5 g/kW-hr	N/A	1.296	1.011
SO _x ¹	WebFIRE/AP-42	0.0397 lb/gal	N/A	0.492	0.384
PM/PM ₁₀ ¹	40 CFR 89.112	0.2 g/kW-hr	N/A	0.074	0.058
TOC ²	AP-42	0.00247 lb/hp-hr	D	0.556	0.433

¹ Pollutant and emission factors from Attachment N - Supporting Emissions Calculations of application R13-2955, which were obtained from 40 CFR 1039.102 based on the Caterpillar C7 engine specifications at maximum horsepower.

² Pollutant, emission factor and rating was obtained by the writer from AP-42 Fifth Edition, Section 3.3, Table 3.3-1 for diesel fuel.

HAPs	Source of Emission Factor	Emission Factor (lb/MMBtu) ¹	Emission Factor Rating	Hourly Emissions (lb/hour)	Annual Emissions (TPY)
Benzene ¹	WebFIRE/AP-42	9.33E-04	E	0.00159	0.00124
Toluene ¹	WebFIRE/AP-42	4.09E-04	E	0.000695	0.000542
Xylenes ¹	WebFIRE/AP-42	2.85E-04	E	0.000484	0.000378
1,3-Butadiene ¹	WebFIRE/AP-42	3.91E-05	E	0.0000664	0.0000518
Formaldehyde ¹	WebFIRE/AP-42	1.18E-03	E	0.00201	0.00156
Acetaldehyde ²	AP-42	7.67E-04	E	0.0013	0.001001
Acrolein ¹	WebFIRE/AP-42	9.25E-05	E	0.000155	0.000121
Naphthalene ¹	WebFIRE/AP-42	8.48E-05	E	0.000144	0.000112
Total HAPS				0.006	0.005

¹ Taken from Attachment N - Supporting Emissions Calculations of application R13-2955.

² Pollutant emission factor and rating was obtained by the writer from AP-42 Fifth Edition, Section 3.3, Table 3.3-2.

REGULATORY APPLICABILITY

NESHAPS and PSD have no applicability to the facility. The proposed construction of a portable coal crushing plant will be subject to the following state and federal rules:

45CSR5 To Prevent and Control Air Pollution from the Operation of Coal Preparation Plants and Coal Handling Operations

The facility will be 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) 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 within application R13-2955 and any amendments thereto are in operation.

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 construction is subject to the requirements of 45CSR13 because it will result 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) and will involve the construction of equipment subject to NSPS Subpart Y and Subpart III. The applicant has submitted an application for a construction permit. The applicant published a Class I legal advertisement in *The Register-Herald* on June 26, 2012 and submitted \$1,000 for the application fee on June 26, 2012 and \$1,000 for the NSPS fee on August 7, 2012. The applicant published a revised Class I legal advertisement in *The Register-Herald* on September 24, 2012.

45CSR16 Standards of Performance for New Stationary Sources

40 CFR 60 Subpart Y: Standards of Performance for Coal Preparation and Processing Plants

This portable coal crushing plant is subject to 40 CFR 60 Subpart Y because it will be constructed and operated after October 24, 1974 and processes more than 200 tons of coal per day. The proposed construction includes the construction of one (1) dump bin, one (1) crusher, one (1) belt conveyor, and two (2) open storage piles, which are defined as affected facilities in 40 CFR 60 Subpart Y. Therefore, the proposed construction 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 Section 254(b) (less than 10% opacity for coal processing and conveying equipment, coal storage systems, or coal transfer and loading systems processing coal constructed, re-constructed or modified after April 28, 2008) when the particulate matter control methods and devices proposed are in operation.

The owner or operator of an open storage pile, which includes the equipment used in the loading, unloading, and conveying operations of the affected facility, constructed, reconstructed, or modified after May 27, 2009, must prepare and operate in accordance with a submitted fugitive coal dust emissions control plan that is appropriate for the site conditions. The fugitive coal dust emissions control plan must identify and describe the control measures the owner or operator will use to minimize fugitive coal dust emissions from each open storage pile. The plan must be submitted to the Director prior to startup of the new, reconstructed or modified open storage pile.

45CSR16 Standards of Performance for New Stationary Sources

40 CFR 60 Subpart III: Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

The provisions of Subpart III are applicable to owners and operators of stationary compression ignition (CI) internal combustion engines (ICE) which are manufactured after April 1, 2006, are not fire pump engines and commence construction after July 11, 2005. For the purposes of Subpart III, the date that construction commences is the date the engine is ordered by the owner or operator.

The portable crushing unit was built in July 2008 by Olympia/LMC portable coal crusher equipped with a 225 hp Caterpillar C7 Tier 3 diesel engine and maximum fuel usage of 12.4 gallons of diesel fuel per hour. In accordance with § 60.4200 (2), this engine is subject to Subpart III because it was manufactured after April 1, 2006 and commenced construction after July 11, 2005.

In accordance with § 60.4207(b), “Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel.”

40 CFR 89 Control of Emissions From New and In-use Nonroad Compression-Ignition Engines

This part applies to all compression-ignition nonroad engines except those specified in paragraph (b) of this section. This means that the engines for which this part applies include but are not limited to compression-ignition engines exempted from the requirements of 40 CFR Part 92 by 40 CFR 92.907 or 40 CFR Part 94 by 40 CFR 94.907. This part applies as specified in 40 CFR part 60 subpart III, to compression-ignition engines subject to the standards of 40 CFR part 60, subpart III.

In 40 CFR 89 Section 112, exhaust emission from nonroad engines to which this subpart is applicable shall not exceed the applicable exhaust emission standards contained in Table 1, as follows: for $130 \geq kW \leq 225$ Tier 3 (2006 model year and later), the applicable emission standards are NMHC+NO_x - 4.0 g/kW-hr; CO - 3.5 g/kW-hr; and PM - 0.20 g/kW-hr. The applicant used these values as the maximum permitted emission rates for the pollutants to be emitted from the 2008 Caterpillar C7 diesel engine.

45CSR30 Requirements for Operating Permits

In accordance with 45CSR30 Major Source Determination, this portable coal crushing plant is not listed in 45CSR30 subsection 2.26.b as one of the categories of stationary sources which must include fugitive emissions (open storage piles constructed or modified on or before May 27, 2009 and haulroads) 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 will be 4.34 TPY for PM₁₀ (open storage piles constructed or modified after May 27, 2009 and point sources combined), which is less than the 45CSR30 threshold of 100 TPY of a regulated air pollutant used to define a major stationary source. Therefore, the facility will be subject to 45CSR30 and remain classified as a Title V deferred non-major source.

The proposed construction of a portable coal crushing plant will not be 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, this portable coal crushing plant is not one of the 100 TPY stationary sources listed under the definition of "Major Stationary Source" in subsection 2.43.a. Therefore, it must have the potential to emit 250 TPY or more of any regulated pollutant to meet the definition of a major source in subsection 2.43.b. At the end of subsection 2.4.3, this facility is not listed in Table 1 - Source Categories Which Must Include Fugitive Emissions. So, fugitive emissions (from open storage piles constructed or modified on or before May 27, 2009 and haulroads) are not included when determining major stationary source applicability. The facility's potential to emit will be 9.14 TPY for PM (open storage piles constructed or modified after May 27, 2009 and point sources combined), which is less than the 45CSR14 threshold of 250 TPY for a regulated air pollutant used to define a major stationary source. Therefore, the proposed construction is not subject to the requirements set forth within 45CSR14.

40 CFR 63 Subpart ZZZZ: National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Unless otherwise stated, WVDEP DAQ did not determine whether the registrant is subject to an area source air toxics standard requiring Generally Achievable Control Technology (GACT) promulgated after January 1, 2007 pursuant to 40 CFR 63, including the area source air toxics provisions of 40 CFR 63, Subpart ZZZZ.

TOXICITY OF NON-CRITERIA REGULATED POLLUTANTS

Other than particulate matter, the only non criteria regulated pollutants that are addressed by this permit application are the relatively small amount (less than 9.9 pounds per year) of Hazardous Air Pollutants that are the normal byproduct of diesel combustion.

Acetaldehyde:

Acetaldehyde is mainly used as an intermediate in the synthesis of other chemicals. It is ubiquitous in the environment and may be formed in the body from the breakdown of ethanol. Acute (short-term) exposure to acetaldehyde results in effects including irritation of the eyes, skin, and respiratory tract. Symptoms of chronic (long-term) intoxication of acetaldehyde resemble those of alcoholism. Acetaldehyde is considered a probable human carcinogen (Group B2) based on inadequate human cancer studies and animal studies that have shown nasal tumors in rats and laryngeal tumors in hamsters.

Acrolein:

Acrolein is primarily used as an intermediate in the synthesis of acrylic acid and as a biocide. It may be formed from the breakdown of certain pollutants in outdoor air or from the burning of organic matter including tobacco, or fuels such as gasoline or oil. It is toxic to humans following inhalation, oral or dermal exposures. Acute (short-term) inhalation exposure may result in upper respiratory tract irritation and congestion. No information is available on its reproductive, developmental, or carcinogenic effects in humans, and the existing animal cancer data are considered inadequate to make a determination that acrolein is carcinogenic to humans.

Benzene:

Benzene is found in the air from emissions from burning coal and oil, gasoline service stations, and motor vehicle exhaust. 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.

Formaldehyde:

Formaldehyde is used mainly to produce resins used in particle board products and as an

intermediate in the synthesis of other chemicals. Exposure to formaldehyde may occur by breathing contaminated indoor air, tobacco smoke, or ambient urban air. 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).

Naphthalene:

Naphthalene is used in the production of phthalic anhydride; it is also used in mothballs. Acute (short-term) exposure of humans to naphthalene by inhalation, ingestion, and dermal contact is associated with hemolytic anemia, damage to the liver, and neurological damage. Cataracts have also been reported in workers acutely exposed to naphthalene by inhalation and ingestion. Chronic (long-term) exposure of workers and rodents to naphthalene has been reported to cause cataracts and damage to the retina. Hemolytic anemia has been reported in infants born to mothers who "sniffed" and ingested naphthalene (as mothballs) during pregnancy. Available data are inadequate to establish a causal relationship between exposure to naphthalene and cancer in humans. EPA has classified naphthalene as a Group C, possible human carcinogen.

Toluene:

The acute toxicity of toluene is low. Toluene may cause eye, skin, and respiratory tract irritation. Short-term exposure to high concentrations of toluene (e.g., 600 ppm) may produce fatigue, dizziness, headaches, loss of coordination, nausea, and stupor; 10,000 ppm may cause death from respiratory failure. Ingestion of toluene may cause nausea and vomiting and central nervous system depression. Contact of liquid toluene with the eyes causes temporary irritation. Toluene is a skin irritant and may cause redness and pain when trapped beneath clothing or shoes; prolonged or repeated contact with toluene may result in dry and cracked skin. Because of its odor and irritant effects, toluene is regarded as having good warning properties. The chronic effects of exposure to toluene are much less severe than those of benzene. No carcinogenic effects were reported in animal studies. Equivocal results were obtained in studies to determine developmental effects in animals. Toluene was not observed to be mutagenic in standard studies.

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

Air dispersion modeling was not performed due to the nature and extent of the construction proposed. This facility will be located in Raleigh County, WV, which is currently in attainment for PM (particulate matter) and PM₁₀ (particulate matter less than 10 microns in diameter). This facility is not a major source as defined by 45CSR14, therefore, an air quality impact analysis is not required.

MONITORING OF OPERATIONS

For the purposes of determining compliance with maximum throughput limits and diesel fuel usage, the applicant shall maintain certified daily and monthly records. An example form is included as Appendix A to Permit R13-2955. An example form for tracking the amount of water applied through the water truck is included as Appendix B to Permit R13-2955. 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 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.

The owner or operator of an open storage pile, which includes the equipment used in the loading, unloading, and conveying operations of the affected facility, constructed, reconstructed, or modified after May 27, 2009, must prepare and operate in accordance with a submitted fugitive coal dust emissions control plan that is appropriate for the site conditions. The fugitive coal dust emissions control plan must identify and describe the control measures the owner or operator will use to minimize fugitive coal dust emissions from each open storage pile. The plan must be submitted to the Director prior to startup of the new, reconstructed or modified open storage pile.

RECOMMENDATION TO DIRECTOR

The information contained in this construction 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 issuing of a permit to Elk Run Coal Company, Inc. dba Republic Energy for the construction of their Portable Coal Crusher to be located near Clear Creek, Raleigh County, WV is hereby recommended.

Daniel P. Roberts, Engineer Trainee
NSR Permitting Section

April 3, 2013

Fact Sheet R13-2955
Elk Run Coal Company, Inc. dba Republic Energy
Portable Coal Crusher

Date