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ENGINEERING EVALUATION / FACT SHEET

BACKGROUND INFORMATION

Application No.: R13-1654E
Plant ID No.: 039-00063
Applicant: Kanawha River Terminals, LLC
Facility Name: Quincy Dock Facility
Location: Belle, Kanawha County, WV
SIC Code: 1221 (Bituminous Coal & Lignite - Surface)
Application Type: Modification
Received Date: 4/13/10
Engineer Assigned: Dan Roberts
Fee Amount: \$1,500; \$500
Date Received: 4/15/10; 11/1/10
Complete Date: 10/28/10
Applicant's Ad Date: 4/19/10
Newspaper: *Charleston Daily Mail*
UTM's: Easting: 456.1 km Northing: 4227.9 km Zone: 17
Description: Modification to do the following: construct a new 2,000 TPH and 8,760,000 TPY batch weigh rail loadout system (BS-01, BC-01 and BC-02); construct a new 800 TPH stoker coal crusher and screening system (BS-04, BC-11, CR-02, BC-12, SS-02, BC-13 and BC-14); construct a new coal crushing system (BS-05, BC-15, CR-03, BC-16 and BC-17); downgrade the existing stoker coal plant from 400 TPH to 250 TPH, but increase the annual throughput from 2,000,000 TPY to 2,190,000 TPY; increase hourly and annual throughput rates for the existing equipment at the facility; delete the Synfuel Plant No. 1 (except for BS-04, BC-11, CR-02, BS-05, BC-15 and CR-03); and renumber the equipment, transfer points and open storage piles at the facility.

BACKGROUND

Kanawha River Terminals, LLC (“KRT”) is currently operating their Quincy Dock Facility under modification permit R13-1654D approved on August 31, 2004 for the following: (a) increase the barge unloading rate for coal from 250 ton/hr and 400,000 ton/yr to 400 ton/hr and 800,000 ton/yr; (b) increase the truck loading rate (of coal and/or synfuel) from 500,000 ton/yr to 900,000 ton/yr (no hourly rate restrictions given); (c) decrease the railcar unloading rate (of coal and/or synfuel) from 500,000 ton/yr to 100,000 ton/yr (hourly rate to stay at 1,000 ton/hr); (d) decrease the railcar loading rate (of coal and/or synfuel) from 500,000 ton/yr to 100,000 ton/yr (hourly rate to stay at 1,000 ton/hr).

KRT was also issued permit R13-2536 approved on June 19, 2003 for a second synfuel plant to be permitted at the Quincy Dock Facility. Synfuel Plant #2 is a coal-based "synfuel briquette" plant's with maximum production rates of 500 TPH and 4,380,000 TPY. Synfuel Plant #2 will basically consist of one production line which will include a crusher, mixing screw conveyor and briquetter. In a letter dated October 7, 2010 and received on October 13, 2010, KRT requested to cancel permit R13-2536 because Synfuel Plant #2 was never constructed and will not be constructed. In a letter dated October 15, 2010, the DAQ acknowledged that permit R13-2536 was declared inactive.

KRT applied to modify their existing facility and convert from a Rule 13 individual permit to a General Permit G10-D registration. However, upon review of the current permit and pending application, it was discovered that the facility does not qualify for a General Permit G10-D registration. The General Permit G10-D has already been to notice and approved and does not provide language for the use of the street sweeper with wet suppression or operation of the approved PM₁₀ ambient air monitor. Also, the waivers submitted do not satisfy the general permit siting criteria. In a letter dated October 15, 2010, the DAQ explained this situation. On October 28, 2010, the DAQ received a cover letter requesting the application to be transferred to a Rule 13 individual permit and a check for an additional \$500 to cover the difference between the \$500 application fee for a general permit and \$1,000 application fee for a Rule 13 individual permit. Therefore, the application was transferred to a Rule 13 individual permit and assigned number R13-1654E.

DESCRIPTION OF PROCESS

Coal can be received by the Kanawha River Terminals, LLC’s Quincy Dock Facility via rail, barge, and truck delivery.

Raw or clean coal can be dumped at the proposed rail dump BS-01(FW) @ TP-01(UD-FW) and transferred to stockpile via belt conveyors BC-01(FE) and BC-02(FE) @ TP-02(TC-FE) thru TP-04(TC-MDH). Coal received by barge is transferred to a partially-enclosed top-fed bin BS-02(PW) @ TP-05(UD-MDH) and transferred to open stockpile OS-02(SW-WS) via belt conveyor BC-03(PE) and BC-04(PE) @ TP-06(TC-FE) thru TP-08(TC-MDH).

Coal from various stockpiles can be processed by the 250TPH stoker (small) crushing/screening plant located west of the barge loadout facility. Material is fed by front-end loader @ TP-09(UD-MDH) to top-fed bin BS-03(PW); transferred to a fully-enclosed with water primary Hammermill crusher CR-01(FW) via belt conveyor BC-05(PE) @ TP-10(TC-FE) and TP-11(TC-FE); and the crushed coal can be transferred to stockpile OS-03(SW-WS) via a series of partially-enclosed belt conveyors BC-06(PE) thru BC-08(PE) @ TP-12(TC-FW) thru TP-15(TC-MDH); or to a partially-enclosed with water 250TPH double deck screen SS-01(PW) @ TP-16(TC-PW). The screened material can then be transferred to stockpile OS-04(SW-WS) via two partially-enclosed belt conveyors BC-09(PE) and BC-10(PE) @ TP-17(TC-FW) thru TP-19(TC-MDH).

Coal to be screened (large stoker plant) from open stockpile OS-01(SW-WS) can be transferred by end loader to a top-fed partially enclosed bin BS-04(PW) @ TP-20(UD-MDH); to partially-enclosed belt BC-11(PE) @ TP-21(TC-FE); to an 800TPH primary crusher(FW) @ TP-22(TC-FE); to partially enclosed belt BC-12(PE) @ TP-23(TC-FW); to a partially enclosed w/water 800TPH double deck screen SS-02(PW) @ TP-24(TC-PW); to belt BC-13(PE) @ TP-25(TC-FE); and back to open stockpile OS-01 @ TP-26(TC-MDH).

Coal can also be transferred from OS-01 to a partially enclosed top-fed bin BS-05(PW) @ TP-29(UD-MDH); to belt BC-15(PE) @ TP-30(TC-FE); to a fully enclosed w/water 500TPH crusher CR-03(FW) @ TP-31(TC-FE); to belt BC-16(PE) @ TP-32(TC-FW); to belt BC-17(PE) @ TP-33(TC-FE); and to open stockpile OS-01 @ TP-34(TC-MDH).

Coal can be sent to barge thru the river belt via top-fed bin BS-07(PW) @ TP-39(UD-MDH); to river belt BC-19(PE) @ TP-40(TC-FE) and to the crusher/screening building @ TP-41(TC-FE). Or, coal can be transferred from OS-01 to to-fed bin BS-06(PW) @ TP-36(UD-MDH); to belt BC-18(PE) @ TP-37(TC-FE); to the crusher and screening building @ TP-38(TC-FE). The river fed or direct loadout coal transfers to a fully-enclosed w/water screen SS-03(FW) @ TP-42(TC-FW); to crusher CR-04 or bypass @ TP-43(TC-FW); to loadout transfer belt BC-20(PE) @ TP-44(TC-FE); to loadout belt BC-21(PE) @ TP-45(TC-FE); to barge via hydraulic chute @ TP-46(LO-TC).

At the proposed rail loadout system, the dozer pushed, stockpiled materials will be fed underground to belt conveyor BC-22(PE) @ TP-47(LO-UC); to a 2000TPH double roll crusher CR-05(FW) @ TP-48(TC-FE); to stockpile feed belt BC-23(PE) @ TP-49(TC-FW); to stockpile OS-05(SW-WS) via stacking tube @ TP-50(TC-PE); to loadout belt BC-24(PE) via underground feeders @ TP-50(LO-UC); to rail surge bin BS-08(FE) @ TP-52(TC-FE); to loadout bin BS-09(FE) @ TP-53(TC-FE); to railcar @ TP-54(LR-TC).

Material trucked to facility is unloaded to stockpile area OS-01(SW-WS) @ TP-35(UL-MDH). Material to be trucked from the facility is loaded by front-end loader @ TP-55(LO-MDH).

There are no VOCs or HAPs associated with the Quincy Facility.

The facility shall be modified and operated in accordance with the following equipment and control device information taken from permit applications R13-1654E, R13-1654D, R13-1654C, R13-1654B, R13-1654A and R13-1654 and any amendments thereto:

Equipment ID #	Date of Construction, Reconstruction or Modification ¹	Emission Unit Description	Design Capacity		Control Device(s) ²
			lb/hour	TPY	
Coal Delivery - Trucks, Rail and Barge					
BS-01	C 2010	Rail Dump Bin - 400 tons - receives coal from rail cars and then drops it to BC-01	2,000	8,760,000	FW
BC-01	C 2010	Belt Conveyor - 60" x 100' - receives coal from BS-01 and transfers it to BC-02	2,000	8,760,000	FE
BC-02	C 2010	Belt Conveyor - 60" x 125' - receives coal from BC-01 and transfers it to OS-01	2,000	8,760,000	PE
OS-01	M 2010 C 1999	Coal Open Storage Pile - 350,000 tons / 880,869 ft ² base area - receives coal from trucks (max. of 10,000,000 TPY), BC-02, BC14 and BC-17, stores it and then an endloader transfers it to BS-03, BS-04 or BS-05 to be sized; BS-06 or BS-07 to be shipped by barge; or to trucks for shipment (max. of 2,000,000 TPY) or underground feeders feed it to BC-22	2,000	10,000,000	WS
BS-02	M 2010 C 1999	Top Fed Barge Unloading Bin - 50 tons - receives coal from a clam shell barge loadout and then drops it to BC-03	500	4,380,000	PW
BC-03	M 2010 C 1999	Belt Conveyor - 48" x 125' - receives coal from BS-02 and transfers it to BC-04	500	4,380,000	PE
BC-04	M 2010 C 1999	Belt Conveyor - 48" x 150' - receives coal from BC-03 and transfers it to OS-02	500	4,380,000	PE
OS-02	C 2010	Coal Open Storage Pile - 5,000 tons / 8,869 ft ² base area - receives coal from BC-04, stores it and then an endloader transfers it to BS-07	500 In	4,380,000	WS
Existing 250 TPH Stoker Plant					
BS-03	M 2010 C 1999	Top Fed Endloader Bin - 100 tons - receives coal from OS-01 via an endloader and then feeds it to BC-05	250	2,190,000	PW
BC-05	M 2010 C 1999	Belt Conveyor - 48" x 20' - receives coal from BS-03 and transfers it to CR-01	250	2,190,000	PE
CR-01	M 2010 C 1999	Hammermill Crusher - receives coal from BC-05, crushes it to 4" x 0" and drops it to BC-06	250	2,190,000	FW
BC-06	M 2010 C 1999	Belt Conveyor - 48" x 45' - receives coal from CR-01 and transfers it to SS-01	250	2,190,000	PE
SS-01	M 2010 C 1999	Double Deck 8' x 16' Screen - receives coal from BC-06, screens it and the oversized 2" x 0 coal drops to BC-07 while the undersize -1 3/8" coal drops to BC-09	250	2,190,000	PW
BC-07	M 2010 C 1999	Belt Conveyor - 48" x 14' - receives coal from SS-01 and transfers it to BC-08	250	2,190,000	PE
BC-08	M 2010 C 1999	Belt Conveyor - 48" x 60' - receives coal from BC-07 and transfers it to OS-03	250	2,190,000	PE
OS-03	M 2010 C 1999	Coal Open Storage Pile - 15,000 tons / 28,869 ft ² base area - receives coal from BC-08, stores it and then an endloader transfers it to BS-06	250 In	2,190,000	WS
BC-09	M 2010 C 1999	Belt Conveyor - 48" x 25' - receives coal from SS-01 and transfers it to BC-10	250	2,190,000	PE
BC-10	M 2010 C 1999	Belt Conveyor - 48" x 100' - receives coal from BC-09 and transfers it to OS-04	250	2,190,000	PE
OS-04	M 2010 C 1999	Coal Open Storage Pile - 15,000 tons / 28,869 ft ² base area - receives coal from BC-10, stores it and then an endloader transfers it to BS-06	250 In	2,190,000	WS
Proposed 800 TPH Stoker Plant					
BS-04	M 2010 C 1999	Top Fed Endloader Bin - 100 tons - receives coal from OS-01 via an endloader and then feeds it to BC-11	800	7,008,000	PW
BC-11	M 2010 C 1999	Belt Conveyor - 48" x 75' - receives coal from BS-04 and transfers it to CR-02	800	7,008,000	PE
CR-02	M 2010 C 1999	Hammermill Crusher - receives coal from BC-11, crushes it to 4" x 0" and drops it to BC-12	800	7,008,000	FW
BC-12	C 2010	Belt Conveyor - 48" x 100' - receives coal from CR-02 and transfers it to SS-02	800	7,008,000	PE

Equipment ID #	Date of Construction, Reconstruction or Modification ¹	Emission Unit Description	Design Capacity		Control Device(s) ²
			lb/hour	TPY	
SS-02	C 2010	Double Deck 8' x 20' Screen - receives coal from BC-12, screens it and the oversized 2" x 0 coal drops to BC-13 while the undersize -1 3/8" coal drops to BC-14	800	7,008,000	PW
BC-13	C 2010	Belt Conveyor - 48" x 150' - receives coal from SS-02 and transfers it to OS-01 (see Coal Delivery above)	800	7,008,000	PE
BC-14	C 2010	Belt Conveyor - 48" x 150' - receives coal from SS-02 and transfers it to OS-01 (see Coal Delivery above)	800	7,008,000	PE
Clean Coal Crushing					
BS-05	M 2010 C 1999	Top Fed Endloader Bin - 100 tons - receives coal from OS-01 via an endloader and then feeds it to BC-15	500	7,008,000	PW
BC-15	M 2010 C 1999	Belt Conveyor - 48" x 75' - receives coal from BS-05 and transfers it to CR-03	500	4,380,000	PE
CR-03	M 2010 C 1999	Hammermill Crusher - receives coal from BC-15, crushes it to 4" x 0" and drops it to BC-16	500	4,380,000	FW
BC-16	C 2010	Belt Conveyor - 48" x 75' - receives coal from CR-03 and transfers it to BC-17	500	4,380,000	PE
BC-17	C 2010	Belt Conveyor - 48" x 150' - receives coal from BC-16 and transfers it to OS-01 (see Coal Delivery above)	500	4,380,000	PE
Barge Loadout					
BS-06	M 2010 C 1999	Top Fed Endloader Bin - 200 tons - receives coal from OS-01, OS-03 and OS-04 via an endloader and then feeds it to BC-18	1,800	10,000,000	PW
BC-18	M 2010 C 1999	Belt Conveyor - 60" x 88' - receives coal from BS-06 and transfers it to SS-03	1,800	10,000,000	PE
BS-07	M 2010 C 1999	Top Fed Endloader Bin - 100 tons - receives coal from OS-01 and OS-02 via an endloader and then feeds it to BC-19	1,800	10,000,000	PW
BC-19	M 2010 C 1999	Belt Conveyor - 48" x 650' - receives coal from BS-07 and transfers it to SS-03 or BC-20 via a bypass chute	1,800	10,000,000	PE
SS-03	M 2010 C 1999	Double Deck Screen - receives coal from BC-18 and BC-19, screens it and oversize coal drops to CR-04 and the sized coal drops to BC-20	1,800	10,000,000	FW
CR-04	M 2010 C 1999	Hammermill Crusher - receives oversize coal from SS-03, crushes it to 4" x 0" and drops it to BC-20	1,800	10,000,000	FW
BC-20	M 2010 C 1999	Belt Conveyor - 72" x 25' - receives coal from BC-19 via a bypass chute, SS-03 and CR-04 and transfers it to BC-21	2,500	10,000,000	PE
BC-21	M 2010 C 1999	Belt Conveyor - 72" x 105' - receives coal from BC-20 and transfers it to barge through a hydraulic chute	1,800	10,000,000	PE
Rail Loadout					
BC-22	C 2010	Belt Conveyor - 60" x 350' - receives coal from OS-01 via underground feeders and transfers it to CR-05	2,000	10,000,000	PE
CR-05	C 2010	Hammermill Crusher - receives coal from BC-22, crushes it to 4" x 0" and drops it to BC-23	2,000	10,000,000	FW
BC-23	C 2010	Belt Conveyor - 60" x 400' - receives crushed coal from CR-05 and transfers it to OS-05	2,000	10,000,000	PE
OS-05	C 2010	Coal Open Storage Pile with a Stacking Tube - 25,000 tons / 38,869 ft ² base area - receives coal from BC-23, stores it and then underground feeders feed it to BC-24	2,000 In 3,500 Out	10,000,000	ST, WS
BC-24	C 2010	Belt Conveyor - 72" x 680' - receives coal from OS-05 via underground feeders and transfers it to BS-08 or BS-09	3,500	10,000,000	PE
BS-08	C 2010	Surge Bin - 220 tons - receives coal from BC-24 and then drops it to BS-09	3,500	10,000,000	FE
BS-09	C 2010	Rail Loadout Bin - 420 tons - receives coal from BS-08 and then loads it to rail cars	3,500	10,000,000	FE

¹ In accordance with 40 CFR 60 Subpart Y, 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 FE - Full Enclosure; FW - Full Enclosure with Water Sprays; PE - Partial Enclosure; PW - Partial Enclosure with Water Sprays; WS - Water Sprays; ST - Stacking Tube; and N - None.

DESCRIPTION OF FUGITIVE EMISSIONS

Potential sources of fugitive particulate emissions for this facility include emissions, which are not captured by pollution control equipment and emissions from open stockpiles and vehicular traffic on paved haulroads and unpaved work areas. The haulroads will be controlled by a series of mounted water sprays and on-site water truck. The water truck is sufficiently equipped with pumps and sprays to control the haulroad emissions and will be operated three times a day, more as needed during dry periods. Stockpile and work area emissions are controlled by rainbirds located around the perimeter of the facility and are operated on a time delay. A wheel truck wash is located near the exit of the facility.

The crushers and screens are either fully enclosed or partially enclosed with water, belt conveyors are at least partially enclosed and, with the exception of the belt conveyor transfers to stockpile, all transfer points are fully enclosed.

Various transfer points and belt conveyor discharges to stockpile are equipped with water sprays to be used on an as needed basis, using common sense and good engineering practices.

An additive to prevent freezing will be utilized in the winter months when freezing conditions are present.

SITE INSPECTION

The writer performed an unannounced site inspection beginning at approximately 11:30 am on October 7, 2010. The weather was approximately 70°F and mostly sunny. There were large coal open storage piles in the center of the facility and an endloader was actively working moving coal. The existing small stoker coal plant adjacent to the river was in operation and a barge was being loaded at the time of the inspection. The truck wash was observed in operation.

Directions to the facility from Charleston are to follow I-64 East, take Exit 96 and then take U. S. Route 60 East, and travel to Quincy. At the Quincy Shopping Plaza, turn right at the light beside Shoney's and travel approximately 0.1 miles and turn left. Go under the railroad crossing and the facility is 0.1 miles straight ahead.

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 and were checked for accuracy and completeness by the writer.

The proposed modifications will result in a new potential to discharge controlled emissions from point sources (equipment and transfer points) of 55.05 pounds per hour and 186.48 TPY of particulate matter (PM), of which 25.93 pounds per hour and 87.80 TPY will be particulate matter less than 10 microns in diameter (PM₁₀). The new potential to discharge controlled emissions of fugitive emissions (open storage piles, unpaved and paved haulroads) will be 209.49 pounds per hour and 918.98 TPY of particulate matter (PM), of which 41.40 pounds per hour and 181.62 TPY will be particulate matter less than 10 microns in diameter (PM₁₀). See the following table for modified facility’s new emissions summary:

<i>New Emissions Summary</i> Kanawha River Terminals, LLC Quincy Dock Facility R13-1654E	Controlled PM Emissions		Controlled PM₁₀ Emissions	
	lb/hour	TPY	lb/hour	TPY
Fugitive Emissions				
Open Storage Pile Emissions	1.10	4.84	0.52	2.27
Unpaved Haulroad Emissions	2.32	10.38	0.69	3.06
Paved Haulroad Emissions	206.06	903.77	40.19	176.29
Fugitive Emissions Total	<i>209.49</i>	<i>918.98</i>	<i>41.40</i>	<i>181.62</i>
Point Source Emissions				
Equipment Emissions	36.85	132.56	17.32	62.30
Transfer Point Emissions	18.20	53.92	8.61	25.50
Point Source Emissions Total (PTE)	<i>55.05</i>	<i>186.48</i>	<i>25.93</i>	<i>87.80</i>
FACILITY EMISSIONS TOTAL	264.54	1,105.46	67.32	269.43

REGULATORY APPLICABILITY

NESHAPS and PSD have no applicability to the modified facility. The proposed modification of KRT’s Quincy Dock Facility is subject to the following state and federal rules:

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) 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.

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 involve the construction of one crusher, one screen, three bins, 10 conveyors and two open storage piles and the modification of the rest of the existing four crushers, two screens, five bins and 14 conveyors (increase in throughput), which are defined as affected facilities and subject to 40 CFR 60 NSPS Subpart Y revised on April 28, 2008 and then again on May 27, 2009. On April 13, 2009, the applicant submitted an application for a modification and conversion to a General Permit G10-D registration. The applicant published a Class I legal advertisement in the *Charleston Daily Mail* on April 19, 2010 and submitted \$500 for the General Permit application fee and \$1,000 for the NSPS fee.

Upon review of the current permit, it was discovered that the facility does not qualify for a General Permit G10-D registration. In a letter dated October 15, 2010, the DAQ explained this situation. On October 28, 2010, the DAQ received a cover letter requesting the application to be transferred to a Rule 13 individual permit and a check for an additional \$500 to cover the difference between the \$500 application fee for a general permit and \$1,000 application fee for a Rule 13 individual permit.

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

This existing facility is subject to 40 CFR 60 Subpart Y because it was constructed after October 24, 1974 and will process more than 200 tons of coal per day. The proposed modification includes the addition of one stationary screen and one conveyor, which are defined as affected facilities in 40 CFR 60 Subpart Y. Therefore, the proposed modification 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 system, or coal transfer and loading system processing coal constructed, reconstructed 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.

45CSR30 Requirements for Operating Permits

In accordance with 45CSR30 Major Source Determination, the coal preparation plant and loadout facility will continue to be a non-major source which is subject to 40 CFR 60 Subpart Y. The facility 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 90.07 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 to be defined as a major stationary source. Therefore, the facility will continue to be subject to 45CSR30 and classified as a Title V deferred non-major source.

The proposed modification update of KRT's Quincy Dock Facility 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 and loadout facility is not one of the 100 TPY stationary sources listed sources 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 191.32 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 to be defined as a major stationary source. Therefore, the proposed modifications are not subject to the requirements set forth within 45CSR14.

45CSR19 Requirements for Pre-Construction Review, Determination of Emission Offsets for Proposed New or Modified Stationary Sources of Air Pollutants and Emission Trading for Intrasource Pollutants

This existing facility is located in Kanawha County, WV, which currently has a status of non-attainment for PM_{2.5} (particulate matter less than 2.5 microns in diameter). In accordance with Subsection 2.35.e, this facility is not a listed facility which must include fugitive emissions when determining if it is a major stationary source. This facility is an existing minor source with a potential to emit of less than 100 TPY for all regulated air pollutants (PM₁₀), not including fugitive emissions, and the proposed increase in their potential to emit is less than 100 TPY, not including fugitive emissions. Therefore, the proposed modification does not trigger Major Non-Attainment NSR Review. This facility will continue to be a

minor source.

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 location of this facility and the extent of the proposed modifications. This facility is located in Kanawha County, WV, which currently has a status of non-attainment for PM_{2.5} (particulate matter less than 2.5 microns in diameter). However, in accordance with 45CSR19, this facility will continue to be a minor source.

However, a PM₁₀ ambient air monitoring station will be required to be maintained, operated and samples taken on the national one-in-six day sampling schedule, which is one 24-hour sample every sixth day. Sampling shall be conducted in accordance with Section 4.2.1 of permit R13-1654E.

MONITORING OF OPERATIONS

The coal handling equipment and storage areas should be observed to make sure that the facility is meeting the applicable visible emission standards. In accordance with 40 CFR 60.254(b), all emissions from 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 should be less than 10% opacity. Equipment used in the loading, unloading, and conveying operations of open storage piles are not subject to the maximum 10% opacity limitation.

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.

The haulroads will be controlled by a series of mounted water sprays and on-site water truck. The water truck is sufficiently equipped with pumps and sprays to control the haulroad emissions and will be operated three times a day, more as needed during dry periods. Stockpile and work area emissions are controlled by rainbirds located around the perimeter of the facility and are operated on a time delay. A wheel truck wash is located near the exit of the facility.

The crushers and screens are either fully enclosed or partially enclosed with water, belt conveyors are at least partially enclosed and, with the exception of the belt conveyor transfers to stockpile, all transfer points are fully enclosed.

Various transfer points and belt conveyor discharges to stockpile are equipped with water sprays to be used on an as needed basis, using common sense and good engineering practices.

An additive to prevent freezing will be utilized in the winter months when freezing conditions are present.

The company shall maintain certified daily, monthly and annual records of the amounts of coal throughput at the facility. Example forms are given as Appendices A and B to Permit R13-1654E. Also, the company shall maintain a certified daily and monthly record of the usage and amount of water applied through the wet suppression system, truck washer, water truck and street sweeper. Example forms are given as Appendices C and D to Permit R13-1654E. The Certification of Data Accuracy statement appearing on the reverse side shall be completed within fifteen (15) days of the end of the reporting period. These certified records shall be maintained on site for a period not less than five (5) years and be made available to the Director or his or her duly authorized representative upon request.

CHANGES TO CURRENT PERMIT R13-1654D

- Construct a new 2,000 TPH and 8,760,000 TPY batch weigh rail loadout system (BS-01, BC-01 and BC-02)
- Construct a new 800 TPH stoker coal crusher and screening system (BS-04, BC-11, CR-02, BC-12, SS-02, BC-13 and BC-14)
- Construct a new coal crushing system (BS-05, BC-15, CR-03, BC-16 and BC-17)
- Downgrade the existing stoker coal plant from 400 TPH to 250 TPH, but increase the annual throughput from 2,000,000 TPY to 2,190,000 TPY
- Increase hourly and annual throughput rates for the existing equipment at the facility
- Delete the Synfuel Plant No. 1 (except for BS-04, BC-11, CR-02, BS-05, BC-15 and CR-03)
- Renumber the equipment, transfer points and open storage piles at the facility

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 Kanawha River Terminals, LLC for the modification of their existing Quincy Dock Facility located near Belle, Kanawha County, WV is hereby recommended.

Daniel P. Roberts, Engineer Trainee
NSR Permitting Section

November 10, 2010
Date