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ENGINEERING EVALUATION / FACT SHEET

BACKGROUND INFORMATION

Application No.:	R13-1341J
Plant ID No.:	099-00031
Applicant:	CCI Cyrus River Terminal LLC
Facility Name:	Cyrus River Terminal Facility
Location:	Kenova, Wayne County
SIC Code:	1221 (Bituminous Coal & Lignite - Surface)
NAICS Code:	212111 (Bituminous Coal and Lignite Surface Mining)
Application Type:	Modification
Received Date:	October 17, 2012
Engineer Assigned:	Dan Roberts
Fee Amount:	$2,000
Date Received:	October 17, 2012
Complete Date:	March 26, 2013
Applicant Ad Date:	October 20, 2012
Newspaper:	*Wayne County News*
UTM's:	Easting: 362.6 km Northing: 4240.16 km Zone: 17
Description:	Modification to add a new 85,000 ton capacity coal open stockpile OS-08 and the associated additional haulroad traffic and include eight storage tanks which were installed in 2000.

BACKGROUND

CCI Cyrus River Terminal LLC owns and operates the Cyrus River Terminal Facility near Kenova, WV. The DAQ received application R13-1341I on November 13, 2009 and their current permit R13-1341J was approved May 6, 2010. According to the notes from that permit, the following things were approved in the modification: "This modification is to delete the rotary dump, synfuel plant #1 and synfuel plant #2 along with all related equipment. Due to the enormous amount of equipment deleted and proposed changes in the storage areas, the existing equipment designation and stockpiles have been re-identified for continuous flow and easier understanding. There is no new equipment proposed." According to permit R13-1341J, all of the equipment and stockpiles were modified with this application and are subject to the new NSPS Subpart Y requirements.

CCI Cyrus River Terminal LLC has recently acquired a 40-acre property adjacent to the

existing terminal facility. This modification application seeks authorization of a new coal stockpile area and associated coal handling activities for 5.74 acres of that new property under the West Virginia Department of Environmental Protection Code of State Rules for "Permits for Construction, Modification, Relocation Updates, Temporary Permits, General Permits, and Procedures for Evaluation" (45CSR13).

Additionally, authorization is requested for eight storage tanks at the Cyrus River Terminal Facility. The storage tanks currently exist at the site and store products that are used to fuel and maintain the plant vehicles. These tanks are considered de minimis in accordance with 45CSR13 Table 45-13B Number 58 (storage vessels having less than 10,567-gallon capacity containing petroleum or organic liquids with a vapor pressure of 1.5 psia or less at storage temperature, provided that the emissions from all such organic liquid storage tanks, in the aggregate, are less than 2 tons per year for hazardous air pollutants or volatile organic compounds [VOCs]). As de minimis sources, these tanks are deemed to have insignificant emissions and need not be included in a Potential to Emit (PTE) determination. CCI Cyrus River Terminal LLC understands that the Secretary may require emissions information from de minimis sources for inclusion in a permit review. Therefore, CCI Cyrus River Terminal LLC has included emissions from these tanks with this permit modification application.

Within their initial application, CCI Cyrus River Terminal LLC requested that permit condition 4.2.3, which requires ambient air monitoring and quarterly reporting for particulate matter with diameter equal to or less than 10 microns (PM_{10}), be removed. The applicant stated that the Cyrus River Terminal Facility complied with the requirements of this condition and has monitored PM_{10} concentrations on a weekly basis for the past 4 years, succeeding compliance of the previous owner for at least a year. Additionally, the certified sampling results have been submitted to the Assistant Director of Compliance and Enforcement Division of Air Quality. During this time, the sampling reports have shown that there has been no exceedance of the PM_{10} National Ambient Air Quality Standard (NAAQS). The applicant believed that this constitutes sufficient evidence that the Cyrus River Terminal emissions are an insignificant factor in the total amount of PM_{10} emissions for Wayne County.

The writer researched the data from the results of the PM_{10} monitoring and compared it to the facility's actual throughput during that time span. It was discovered that although the PM_{10} monitoring results were under the NAAQS limit, the facility was only operating at approximately 4% of its actually permitted throughput limits. Additionally, the applicant is proposing to further expand the facility by adding an85,000 ton open stockpile OS-08. Therefore, the DAQ could not agree to removing the PM_{10} monitoring requirements at this time with the information presented. In a response dated March 13, 2013, the applicant agreed with the DAQ's assessment and withdrew the earlier request to remove the PM_{10} monitoring requirements to avoid delaying the processing of this application. However, the applicant "believes that a more detailed comparison of all relevant data will confirm that the facility is not a potential contributor to any measureable off-site PM_{10} impacts" and may "provide a more detailed evaluation of the PM_{10} ambient air monitoring data in support of a similar request at a later date."

DESCRIPTION OF PROCESS

The Cyrus River Terminal Facility is a coal preparation plant that includes coal stockpile areas, bins, conveyor belts, crushers, excavators, screens, trucks, and storage tanks. This facility receives feed for its coal preparation process via 18-wheeled trucks and a barge off-load system. While the trucks off-load directly into the input stockpile areas, the barge off-load system utilizes an excavator and bin to conveyor belt to transfer the materials to the stockpile areas. Similarly, a front-end loading truck is used in conjunction with a bin and conveyor belt to transfer the materials to a crusher and /or screen and subsequently to the output stockpile areas. From these output stockpile areas, coal is loaded to a truck or transferred to a bin and conveyor system to the barge for delivery off-site.

With this permit modification application, CCI Cyrus River Terminal LLC proposes the addition of an 85,000- ton coal stockpile with associated coal handling and haul road activities to be located on a newly acquired adjacent property. Material may be transported by truck via a (paved or unpaved) new access road surrounding this new stockpile (OS-08). Trucks will off-load directly into this new stockpile at a new transfer point (TP-32). Front-end loaders and dozers will be used to move and load the coal onto transport trucks (TP-33).

The purpose for the addition of new open storage pile OS-08 is to provide the facility with operational flexibility. Open storage pile OS-08 will serve as the primary input open storage pile that will feed to all existing unprocessed coal open storage piles, and the existing processing equipment will continue to be fed from the existing unprocessed coal open storage piles.

There are eight liquid fuel storage tanks at the Cyrus River Terminal (TK-001 through TK-007 and TK-010) which were installed in 2000. These above ground tanks are used to store fuel and lubricants for the vehicles on-site. The storage tanks receive material via tank truck and dispense material to facility vehicles via a dispenser. These tanks are all horizontal fixed roof tanks that vent to the atmosphere.

Unprocessed coal will be delivered to the facility by 18-wheel trucks, where it will be dumped into new open storage pile OS-08 @ TP-32 (N). From open storage pile OS-08, an endloader will load the unprocessed coal back into trucks @ TP-33 (N), which will transport it to the various existing unprocessed coal open storage piles at the facility @ TP-01 (UL-MDH). Coal and miscellaneous materials can be delivered directly to the various existing stockpile areas at the facility by 18-wheel trucks @ TP-01 (UL-MDH) and by the barge off-load system. Coal and miscellaneous materials received by the barge will be off-loaded by excavator to bin BS-01 (PW) @ TP-02 (UD-PW) and transferred to the stockpile areas via belt conveyors BC-01 (PE), BC-02 (PE) and BC-03 (PE) @ TP-03 (TC-FE) thru TP-07 (TC-MDH).

Coal to be crushed or screened is fed by front-end loader to BS-02 (PW) @ TP-08 (UD-PW); to belt conveyor BC-04 (PE) @ TP-09 (TC-FW); to crusher CR-01 (FW) @ TP-10 (TC-FE); to belt conveyor BC-05 (PE) @ TP-11 (TC-FW); and to screens SS-01 (FW) and SS-02 (FW) @ TP-12 (TC-FE) and TP-18 (TC-FE). Coal from screen SS-01 can be discharged to belt BC-06 (PE) and carried to stockpile OS-01 via belt conveyor BC-07 (PE) @ TP-13 (TC-FW) thru TP-15 (TC-MDH) or coal from screen SS-01 can be discharged to belt conveyor BC-08 (PE) @ TP-16 (TC-FW) and

carried to OS-01 via belt conveyors BC-10 (PE) thru BC-12 (PE) @ TP-21 (TC-FE) thru TP-23 (TC-MDH). Coal from screen SS-02 (FW) is discharged to belt BC-09 (PE) @ TP-19 (TC-FW) and transferred to belt conveyor BC-10 @ TP-20 (TC-FE) for stockpile delivery.

Coal to be sent out from the facility will be loaded onto truck @ TP-24 (LO-MDH). Coal for the barge loadout is either pushed by the loader or dozer and reclaimed under the pile to BC-13 (FE) @ TP-25 (LO-UC); sent to screen SS-03 (FW) @ TP-26 (TC-FW); to crusher CR-02 (FW) @ TP-27 (TC-FW); or onto belt conveyor BC-14 (PE) @ TP-28 (TC-FW). Screen SS-03 can also transfer directly onto belt BC-14 @ TP-29 (TC-FW). Coal is then transferred from belt conveyor BC-14 to belt conveyor BC-15 (PE) @ TP-30 (TC-FW) for delivery to the barge @ TP-31 (LO-TC).

The miscellaneous materials will be received only by barge and shipped from the facility only by trucks. The miscellaneous materials will only be stored at the facility and will not be processed by any of the crushers or screens.

The facility shall be constructed and operated in accordance with the following equipment and control device information taken from permit applications R13-1341J, R13-1341I, R13-1341H, R13-1341G, R13-1341F, R13-1341E, R13-1341D, R13-1341C, R13-1341B, R13-1341A and R13-1341 and any amendments thereto:

Equip-ment ID No.	A, M, R [1]	Year [2, 3]	Description	Maximum Rated Throughput		Control Equip-ment	Associated Transfer Points		
				TPH	TPY		Location: B -Before A -After	ID. No.	Control Equip-ment
Off-Load Circuit									
OS-01	M	2009	700,000 Ton - Open Coal Storage and Loadout Stockpile receives coal from trucks or barge via BC-03 and loads out to truck or underbin conveyor	----	8,559,000	SW-WS	B B A A	TP-01 TP-07 TP-24 TP-25	UL-MDH TC-MDH LO-MDH LO-UC
OS-03	M	2009	71,000 Ton - Open Coal Storage and Loadout Stockpile receives coal from trucks or barge via BC-03 and loads out to truck or underbin conveyor	----	868,000	SW-WS	B B A A	TP-01 TP-07 TP-24 TP-25	UL-MDH TC-MDH LO-MDH LO-UC
OS-04	M	2009	161,000 Ton - Open Coal Storage and Loadout Stockpile receives coal from trucks or barge via BC-03 and loads out to truck or underbin conveyor	----	1,969,000	SW-WS	B B A A	TP-01 TP-07 TP-24 TP-25	UL-MDH TC-MDH LO-MDH LO-UC
OS-05	M	2009	17,000 Ton - Open Coal Storage and Loadout Stockpile receives coal from trucks or barge via BC-03 and loads out to truck or underbin conveyor	----	208,000	SW-WS	B B A A	TP-01 TP-07 TP-24 TP-25	UL-MDH TC-MDH LO-MDH LO-UC
OS-06	M	2009	32,000 Ton - Open Coal Storage and Loadout Stockpile receives coal from trucks or barge via BC-03 and loads out to truck or underbin conveyor	----	391,000	SW-WS	B B A A	TP-01 TP-07 TP-24 TP-25	UL-MDH TC-MDH LO-MDH LO-UC
OS-07	M	2009	22,000 Ton - Open Coal Storage and Loadout Stockpile receives coal from trucks or barge via BC-03 and loads out to truck or underbin conveyor	----	269,000	SW-WS	B B A A	TP-01 TP-07 TP-24 TP-25	UL-MDH TC-MDH LO-MDH LO-UC
OS-08	A	2013	85,000 Ton - Open Coal Storage and Loadout Stockpile receives coal from trucks and loads out to truck	----	273,870	SW-WS	B A	TP-32 TP-33	UL-MDH LO-MDH
OS-02	M	2009	10,000 Ton - Open Miscellaneous Materials Storage and Loadout Stockpile receives miscellaneous materials from trucks or barge via BC-03 and loads out to truck or underbin conveyor	----	2,000,000	SW-WS	B B A A	TP-24 TP-07 TP-24 TP-25	LO-MDH TC-MDH LO-MDH LO-UC

Equip-ment ID No.	A, M, R [1]	Year [2, 3]	Description	Maximum Rated Throughput		Control Equip-ment	Associated Transfer Points		
				TPH	TPY		Location: B -Before A -After	ID. No.	Control Equip-ment
BS-01	M	2009	50 Ton Collection Bin for barge off-load - Coal/Coke/Stone/Magnetite/Salt/Misc.	1,000	8,760,000	PW	B A	TP-02 TP-03	UD-PW TC-FE
BC-01	M	2009	48"X275' Belt Conveyor for barge off-load - Coal/Coke/Stone/Magnetite/Salt/Misc transfers material from BS-01 to BC-02	1,000	8,760,000	PE	B A	TP-03 TP-04	TC-FE TC-FE
BC-02	M	2009	48"X55' Belt Conveyor for barge off-load - Coal/Coke/Stone/Magnetite/Salt/Misc transfers material from BC-01 to BC-03	1,000	8,760,000	PE	B A	TP-04 TP-05	TC-FE TC-FE
BC-03	M	2009	48"X100' Belt Conveyor for barge off-load - Coal/Coke/Stone/Magnetite/Salt/Misc transfers material from BC-02 to OS-01 thru OS-07	1,000	8,760,000	PE	B A	TP-05 TP-06	TC-FE TC-MDH
Coal Processing Circuit									
BS-02	M	2009	60 Ton Feed Bin for Coal - receives coal from front-end loader and transfers to BC-04	1,000	8,760,000	PW	B A	TP-08 TP-09	UD-PW TC-FW
BC-04	M	2009	Coal Transfer Belt Conveyor receives coal from BS-02 and transfers to crusher CR-01	1,000	8,760,000	PE	B A	TP-09 TP-10	FE PE
CR-01	M	2009	Jeffery Double Roll Crusher - receives coal from BC-04, crushes and discharges onto BC-05	1,000	8,760,000	FW	B A	TP-10 TP-11	PE PE
BC-05	M	2009	Coal Transfer Belt Conveyor receives coal from CR-01 and transfers to screen SS-01	1,000	8,760,000	PE	B A	TP-11 TP-12	PE PE
SS-01	M	2009	Double Deck Screen receives coal from BC-05 and can discharge to belt BC-08 or to BC-06 for transfer to open stockpile storage	500	4,380,000	FW	B A A	TP-18 TP-13 TP-16	TC-FE TC-FW TC-FW
BC-06	M	2009	Coal Transfer Belt Conveyor receives coal from SS-01 and transfers to belt conveyor BC-07	500	4,380,000	PE	B A	TP-13 TP-14	TC-FW TC-FE
BC-07	M	2009	Coal Transfer Belt Conveyor receives coal from BC-06 and transfers to open stockpile storage	500	4,380,000	PE	B A	TP-14 TP-15	TC-FE TC-MDH
BC-08	M	2009	Coal Transfer Belt Conveyor receives coal from SS-01 and transfers to belt conveyor BC-10	500	4,380,000	PE	B A	TP-16 TP-17	TC-FW TC-FE
SS-02	M	2009	Double Deck Screen receives coal from SS-01 and discharges to belt BC-09 for transfer to open stockpile storage	500	4,380,000	FW	B A	TP-18 TP-19	TC-FE TC-FE
BC-09	M	2009	Coal Transfer Belt Conveyor receives coal from SS-02 and transfers to belt conveyor BC-10	500	4,380,000	PE	B A	TP-19 TP-20	TC-FW TC-FE
BC-10	M	2009	Coal Transfer Belt Conveyor receives coal from BC-09 and transfers to belt conveyor BC-11	1,000	8,760,000	PE	B B A	TP-17 TP-20 TP-21	TC-FE TC-FE TC-FE
BC-11	M	2009	Coal Transfer Belt Conveyor receives coal from BC-10 and transfers to belt conveyor BC-12	1,000	8,760,000	PE	B A	TP-21 TP-22	TC-FE TC-FE
BC-12	M	2009	Coal Transfer Belt Conveyor receives coal from BC-11 and transfers to open stockpile storage	1,000	8,760,000	PE	B A	TP-22 TP-23	TC-FE TC-MDH
Loadout Circuit									
BC-13	M	2009	60"X638' Belt Conveyor for barge off-load - Coal/Coke/Stone/Magnetite/Salt/Misc receives material from OS-01 thru OS-07 via front-end loader to two (2) 60"X96" underground feeders and transfers to SS-03 or CR-02 or BC-14	2,500	14,264,000	FE	B A	TP-25 TP-26	LO-UC TC-FW
SS-03	M	2009	Double Deck Screen receives coal or miscellaneous materials from BC-13 and can discharge to belt BC-14 or to CR-02	2,500	14,264,000	FW	B A A	TP-26 TP-27 TP-29	TC-FW TC-FW TC-FW
CR-02	M	2009	Hammermill Crusher - receives coal from SS-03, crushes and discharges onto BC-14	2,500	14,264,000	FW	B A	TP-27 TP-28	TC-FW TC-FW
BC-14	M	2009	60"X43' Belt Conveyor for barge off-load - Coal/Coke/Stone/Magnetite/Salt/Misc receives material from SS-03 or BC-13 or CR-02 and transfers to BC-15	2,500	14,264,000	PE	B B B B A	TP-26 TP-27 TP-28 TP-29 TP-30	TC-FW TC-FW TC-FW TC-FW TC-FW

Equip-ment ID No.	A, M, R [1]	Year [2, 3]	Description	Maximum Rated Throughput		Control Equip-ment [4]	Associated Transfer Points		
				TPH	TPY		Location: B -Before A -After	ID. No.	Control Equip-ment [4]
BC-15	M	2009	60"X125' Belt Conveyor for barge off-load - Coal/Coke/Stone/Magnetite/Salt/Misc receives material from BC-14 and transfers to barge via telescopic chute	2,500	14,264,000	PE	B A	TP-30 TP-31	TC-FW LO-TC

[1] A - Addition; M - Modification; R - Removal (Existing unmodified equipment to be included in the permit R13-1341I is labeled with an M.)

[2] Permit application R13-1341I was received on November 13, 2009. Permit R13-1341I was approved on May 6, 2010.

[3] 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 October 27, 1974 but on or before April 28, 2008 shall not discharge gases which exhibit 20 percent opacity or greater. 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.

[4] Control Device Abbreviations: LO - Loading Out from Stockpiles; UC - Under-pile Conveyor; TC - Transfer and Conveying Transfer Point; FE - Full Enclosure; FW - Full Enclosure with Water Sprays; PE - Partial Enclosure; PW - Partial Enclosure with Water Sprays; WS - Water Sprays; MDH - Minimize Drop Height; and N - None.

Tank ID	**Year Installed**	**Product Service**	**Tank Type [1]**	**Capacity (gallons)**	**Dimensions length x height (ft x ft)**	**Annual Throughput**	
						Turnovers	**Gallons per Year**
TK-001	2000	Diesel	HFR	10,000	27 x 8	10	98,080
TK-002	2000	Hydraulic Oil	HFR	550	6 x 4	1	667
TK-003	2000	Transmission Oil	HFR	550	6 x 4	1.2	667
TK-004	2000	Engine Oil	HFR	550	6 x 4	1.2	667
TK-005	2000	Used Oil	HFR	1,000	11 x 4	2.0	2,000
TK-006	2000	Diesel (Highway)	HFR	1,000	10.67 x 4	9.8	9,810
TK-007	2000	Gasoline (RVP 7)	HFR	1,000	11 x 4	3.2	3,200
TK-010	2000	Diesel (Off-road)	HFR	2,000	12.33 x 5.42	9.8	19,620

[1] HFR denotes a horizontal fixed roof tank.

DESCRIPTION OF FUGITIVE EMISSIONS (from Attachment M in the application)

A combination of a system of timer-controlled fixed Rainbird water sprays and a water truck provides control for particulate matter originating from the storage stockpile areas and haul road activities. Conveyor belts are at least partially enclosed and water sprays are located at various transfer points throughout the facility. An underbody truck wash is located prior to the property exit that prevents tracking of materials onto public roads or highways.

The storage tanks at the facility are fixed-roof horizontal tanks that vent to the atmosphere. Each of the existing tanks have a capacity less than 75 cubic meters (19,813 gallons). Therefore, these storage tanks are all exempt from 40 CFR 60, Subpart Kb. The potential to emit for all eight (8) tanks combined is 11.14 lb/hr and 0.10 TPY for VOCs calculated by the applicant using EPA TANKS 4.0.9d program.

SITE INSPECTION

Andy Grimm of the DAQ's Compliance and Enforcement Section performed a full on-site targeted inspection on August 31, 2011. The facility was given a Status Code 30 - In Compliance.

Directions from Charleston are to take I-64 West and travel 57.3 miles, take Exit 1 for US-52 South toward Kenova/Ceredo and travel 0.2 miles, turn left onto US-52 South/WV-75 South and travel 1.9 miles, turn right onto US-52 South and travel 0.08 miles, turn left onto Big Sandy Road/US-52 South and travel 4.9 miles to the intersection with White's Creek Road (County Route 19) to the left near Cyrus, WV and the facility will be on the right side of the road towards the Big Sandy River and accessed by Cyrus Road/County Route 1/6.

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 increase in emissions calculations were performed by the applicant's consultant and were checked for accuracy and completeness by the writer.

The proposed modifications will result in increases in the potential to discharge controlled emissions from point sources of 349.05 pounds per hour and 23.64 TPY of particulate matter (PM), of which 93.97 pounds per hour and 5.93 TPY will be particulate matter less than 10 microns in diameter (PM_{10}) and 12.22 pounds per hour and 0.98 TPY will be particulate matter less than 2.5 microns in diameter ($PM_{2.5}$). Refer to the following table for a summary of the proposed changes in the potential to discharge controlled emissions of PM, PM_{10} and $PM_{2.5}$:

- Proposed Increase in Emissions - **CCI Cyrus River Terminal LLC R13-1341J**	**Controlled PM Emissions**		**Controlled PM_{10} Emissions**		**Controlled $PM_{2.5}$ Emissions**	
	lb/hour	TPY	lb/hour	TPY	lb/hour	TPY
Fugitive Emissions						
Open Storage Pile Emissions	0.18	0.79	0.08	0.37	0.01	0.05
Unpaved Haulroad Emissions	252.05	10.21	74.40	3.01	7.44	0.31
Paved Haulroad Emissions	94.64	12.37	18.46	2.41	4.61	0.60
Fugitive Emissions Total	346.87	23.37	92.94	5.80	12.06	0.96
Point Source Emissions						
Equipment Emissions	0.00	0.00	0.00	0.00	0.00	0.00
Transfer Point Emissions	2.18	0.28	1.03	0.13	0.16	0.02
Point Source Emissions Total (PTE)	2.18	0.28	1.03	0.13	0.16	0.02
FACILITY EMISSIONS TOTAL	***349.05***	***23.64***	***93.97***	***5.93***	***12.22***	***0.98***

The proposed modification will result in the following new estimated facility-wide potential to discharge controlled PM, PM_{10} and $PM_{2.5}$ emissions:

New Facility-wide Emissions **CCI Cyrus River Terminal LLC R13-1341J**	**Controlled PM Emissions**		**Controlled PM_{10} Emissions**		**Controlled $PM_{2.5}$ Emissions**	
	lb/hour	TPY	lb/hour	TPY	lb/hour	TPY
Fugitive Emissions						
Stockpile Emissions	2.06	9.01	0.96	4.23	0.14	0.63
Unpaved Haulroad Emissions	302.24	230.30	97.99	106.45	9.80	10.65
Paved Haulroad Emissions	262.25	747.37	93.88	333.16	23.47	83.29
Fugitive Emissions Total	*566.55*	*986.68*	*192.83*	*443.85*	*33.41*	*94.57*
Point Source Emissions						
Equipment Emissions	42.00	131.01	19.74	61.58	2.99	9.32
Transfer Point Emissions	10.74	32.00	5.08	15.13	0.77	2.29
Point Source Emissions Total (PTE)	*52.74*	*163.01*	*24.82*	*76.71*	*3.76*	*11.62*
FACILITY EMISSIONS TOTAL	***619.29***	***1,149.68***	***217.65***	***520.56***	***37.17***	***106.19***

REGULATORY APPLICABILITY

NESHAPS and PSD have no applicability to the facility. The proposed modification of a coal preparation 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 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 within application R13-1341J 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 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 PM_{10}). The applicant has submitted an application for a modification permit. The applicant published a Class I legal advertisement in the *Wayne County News* on October 20, 2012 and submitted $1,000 for the application fee and $1,000 for the NSPS fee.

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

This coal preparation plant is subject to 40 CFR 60 Subpart Y because it was constructed and will be modified after October 24, 1974 and processes more than 200 tons of coal per day.

The facility should be in compliance with the following: Section 254(a) (less than 20% opacity for coal processing and conveying equipment, coal storage systems, or coal transfer and loading systems 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 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.

45CSR17 To Prevent and Control Particulate Matter Air Pollution from Materials Handling, Preparation, Storage and Other Sources of Fugitive Particulate Matter

Section 2.4 of 45CSR17 defines materials to include, but is not limited to, "limestone, dolomite, iron ore, slag, coke, coal, sandstone, magnetite, sinter, sand, coal refuse, soda ash, ash, cement or earth." Therefore, at any given time that equipment at the facility is handling any of the permitted miscellaneous materials, that equipment is subject to 45CSR17 during that time. The miscellaneous materials will be received by barge only and shipped from the

facility only by trucks. Therefore, the following equipment may handle miscellaneous materials during the barge off-loading process: bin BS-02; conveyors BC-01, BC-02 and BC-03; and open stockpile OS-02.

Section 3.1. of 45CSR17 states "No person shall cause, suffer, allow or permit fugitive particulate matter to be discharged beyond the boundary lines of the property on which the discharge originates or at any public or residential location, which causes or contributes to statutory air pollution."

Section 3.2. of 45CSR17 states "When a person is found in violation of this rule, the Director may require the person to utilize a system to minimize fugitive particulate matter. This system to minimize fugitive particulate matter may include, but is not limited to, the following:

3.2.a. Use, where practicable, of water or chemicals for control of particulate matter in demolition of existing buildings or structures, construction operations, grading of roads or the clearing of land;

3.2.b. Application of asphalt, water or suitable chemicals on unpaved roads, material stockpiles and other surfaces which can create airborne particulate matter;

3.2.c. Covering of material transport vehicles, or treatment of cargo, to prevent contents from dripping, sifting, leaking or otherwise escaping and becoming airborne, and prompt removal of tracked material from roads or streets; or

3.2.d. Installation and use of hoods, fans and fabric filters to enclose and vent the handling of materials, including adequate containment methods during sandblasting, abrasive cleaning or other similar operations."

45CSR30 Requirements for Operating Permits

In accordance with 45CSR30 Major Source Determination, this coal preparation 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 new potential to emit will be 80.94 TPY for PM_{10} (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 modification of a coal preparation plant will <u>not</u> be subject to the following state and federal rules:

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

The facility is no longer subject to the requirements of 45CSR7 because it does not meet the definition of "Manufacturing Process" found in subsection 45CSR7.2.20. The facility was previously subject to 45CSR7 because it had two synfuel plants which met the definition of "Manufacturing Process." However, Synfuel Plant #1 and Synfuel Plant #2, along with all related equipment, were removed through modification permit R13-1341I approved on May 6, 2010.

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 coal preparation 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 new potential to emit will be 172.02 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 modification is not subject to the requirements set forth within 45CSR14.

45CSR19 Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution Which Cause or Contribute to Nonattainment

This existing facility is located in Wayne County, WV, which was changed to a status of attainment for $PM_{2.5}$ (particulate matter less than 2.5 microns in diameter) in the Federal Register /Vol. 77, No. 249 / Friday, December 28, 2012 /Rules and Regulations on page 76415. Therefore, the existing facility and proposed modification do not trigger Major Non-Attainment NSR Review under 45CSR19.

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

The eight (8) storage tanks installed in 2000 and included for the first time in this application are not be subject to 40 CFR 60 Subpart Kb. Subpart Kb applies to each storage vessel with a capacity greater than or equal to 75 cubic meters (m^3) (19,813 gallons) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification commenced after July 23, 1984. The application indicates that all eight (8) tanks have a capacity less than 37.854 cubic meters (m^3) (10,000 gallons), and therefore are exempt from the General Provisions (part 60, subpart A) and from the provisions of Subpart Kb.

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 PM_{10} (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 Wayne County, WV, which was changed to a status of attainment for $PM_{2.5}$ (particulate matter less than 2.5 microns in diameter) in the Federal Register /Vol. 77, No. 249 / Friday, December 28, 2012 /Rules and Regulations on page 76415. 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, the applicant shall maintain certified daily and monthly records with example forms included as Appendices A and B to Permit R13-1341J. An example form for tracking the amount of water applied through the water truck is included as Appendix C to Permit R13-1341J. 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.

CHANGES TO CURRENT PERMIT R13-1341I

- Modified Section 1.0 Emission Units table to include open storage pile OS-08, added and revised footnotes
- Modified Section 1.0 Emissions Units to add a table and footnotes for the eight (8) tanks installed in 2000
- Modified Section 2.5.1 to include application R13-1341J
- Modified Section 3.5.3 to include the updated address to the US EPA
- Added Section 4.1.2 which references the maximum hourly and annual throughput rates and other criteria outlined in the table in Section 1.0 Emission Units

- Revised Sections for 4.1.3, 4.1.4, 4.1.5, 4.1.6, 4.1.7 and 4.1.8 to add clarity to the requirements
- Added Section 4.1.9 which sets the maximum limit for coal to be trucked from the facility (this was left out previously)
- Added Section 4.1.11 which references 45CSR§5-3.4 (this was left out previously)
- Added Sections 4.1.18 and 4.1.19 for the handling of miscellaneous materials, which are subject to 45CSR17
- Revised Section 4.5.6 to correct a typo within EPA's WebFIRE website address listed
- Revised new Appendix A for clarity in tracking coal throughput
- Created new Appendix B for clarity in tracking miscellaneous materials throughput
- Revised new Appendix C for clarity in tracking water usage in the water truck, stockpile water spray, fixed water sprays and truck wheel wash
- Removed former Appendix C for monthly VE readings because the entire facility was modified after April 28, 2008 and subject to the NSPS Subpart Y language which requires the facility to show compliance with an opacity standard by conducting performance tests, monitor visible emissions or install, operate, and maintain a continuous opacity monitoring system (COMS). The DAQ's Opacity MRR Standardized Language sections did not need to be deleted because the previous permit writer had overlooked them and didn't include the three sections.

RECOMMENDATION TO DIRECTOR

The information contained in this modification 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 CCI Cyrus River Terminal LLC for the modification of their existing Cyrus River Terminal Facility located near Kenova, Wayne County, WV is hereby recommended.

Daniel P. Roberts, Engineer Trainee
NSR Permitting Section

April 5, 2013
Date