west virginia department of environmental protection

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ENGINEERING EVALUATION / FACT SHEET

BACKGROUND INFORMATION

Application No.:	G10-D162		
Plant ID No.:	081-00268		
Applicant:	Tams Management, Inc.		
Facility Name:	East Gulf Preparation Plant		
Location:	Ury, Raleigh County, WV		
SIC Codes:	1221 (Bituminous Coal & Lignite - Surface)		
NAICS Codes:	212111 (Bituminous Coal and Lignite Surface Mining)		
Application Type:	Construction		
Received Date:	April 22, 2016		
Engineer Assigned:	Dan Roberts		
Fee Amount:	$1,500		
Date Received:	April 22, 2016		
Applicant's Ad Date:	April 26, 2016		
Newspaper:	*The Register-Herald*		
Complete Date:	May 9, 2016		
UTM's:	Easting: 476.43296 km	Northing: 4168.927.26 km	NAD83 Zone 17N
Lat/Lon Coordinates:	Latitude: 37.667222	Longitude: -81.267222	NAD83
Description:	Application to construct a 300 TPH and 2,628,000 TPY wet wash coal preparation plant including one crusher, five belt conveyors, two truck loadout bins and two open storage piles.		

BACKGROUND

On April 28, 2016, the writer checked the WorkForce West Virginia website and called and spoke with Selena and found that Tams Management, Inc. is in default for over $10,000 from the 4th quarter of 2015. On April 29, 2016, the writer emailed the applicant and notified them that the permit could not be issued until this was resolved.

On May 11, 2016, the writer called WorkForce West Virginia and again spoke with Selena and found that Tams Management, Inc. was still in default for the 4th quarter of 2015 and now also

in default for the 1st quarter of 2016. She stated that they have turned in their reports, but have not paid what they owe.

On May 24, 2016, the writer called WorkForce West Virginia again and found that Tams Management, Inc. was still in default for the 4th quarter of 2015 and the 1st quarter of 2016. The writer then emailed the applicant and notified them that the permit could not be issued until this was resolved.

On July 12, 2016, the writer called WorkForce West Virginia and spoke with Kathy and found that Tams Management, Inc. was now in compliance. She stated that they had worked out an agreement and are in compliance at this time. She also stated that they could issue a letter of compliance if they requested one.

DESCRIPTION OF PROCESS

Raw coal will be delivered by truck to open stockpile OS-01(SW-WS) @ TP-01(UL-MDH); pushed to feeder-breaker CR-01(FE) @ TP-02(TC-FE); onto belt BC-01(PE) @ TP-03(TC-FE); and into the plant at TP-04(TC-FW).

Clean coal will transfer to belt conveyor BC-02(PE) @ TP-05(TC-FW); to belt conveyor BC-03(PE) @ TP-06(TC-FE): to open stockpile OS-02(SW-WS) @ TP-07(TC-MDH); and to truck for delivery @ TP-08(LO-MDH). Belt conveyor BC-02 can also transfer to BC-04(PE) @ TP-09(TC-FE); to clean coal bin BS-01(FE) @ TP-10(TC-FE); and to truck for delivery via fixed chute @ TP-11 @ (LO-FC).

Refuse will transfer from the preparation plant to refuse conveyor BC-05(PE) @ TP-12(TC-FW); to refuse bin BS-02(FE) @ TP-13(TC-FE); to truck via fixed chute @ TP-14(LO-FC); and to the disposal area @ TP-15(UL-MDH).

The facility shall be constructed and operated in accordance with the following equipment and control device information taken from registration application G10-D162 and any amendments thereto:

Equipment ID No.	Date of Construction, Reconstruction or Modification [1]	G10-D Applicable Sections [2]	Emission Unit Description	Maximum Permitted Throughput		Control Device [3]	Associated Transfer Points		
				TPH	TPY		Location: B -Before A -After	ID No.	Control Device [3]
Raw Coal Circuit									
OS-01	C 2016	5 and 8	Raw Coal Open Storage Pile - maximum 50,000 tons capacity, 108,869 ft² base area and 65' height - receives raw coal from trucks, stores it and then a dozer or endloader pushes it into the feeder for CR-01	300	2,628,000	WS	B A	TP-01 TP-02	UL-MDH LO-MDH
CR-01	C 2016	5 and 8	Breaker - receives raw coal from OS-01, crushes it to 4" x 0 and drops it onto BC-01	300	2,628,000	FE	B A	TP-02 TP-03	LO-MDH TC-FE

Equip-ment ID No.	Date of Construction, Reconstruction or Modification [1]	G10-D Applicable Sections [2]	Emission Unit Description	Maximum Permitted Throughput		Control Device [3]	Associated Transfer Points		
				TPH	TPY		Location: B -Before A -After	ID No.	Control Device [3]
BC-01	C 2016	5 and 8	Raw Coal Belt Conveyor - receives crushed raw coal from BC-01 and transfers it to the wet wash preparation plant	300	2,628,000	PE	B A	TP-03 TP-04	TC-FE TC-FW
Clean Coal Circuit									
BC-02	C 2016	5 and 8	Clean Coal Belt Conveyor - receives clean coal from the wet wash preparation plant and transfers it to BC-03 or BC-04	200	1,752,000	PE	B A	TP-05 TP-06	TC-FW TC-FE
BC-03	C 2016	5 and 8	Clean Coal Radial Stacking Belt Conveyor - receives crushed raw coal from BC-02 and transfers it to OS-02	200	1,752,000	PE	B A	TP-06 TP-07	TC-FE TC-MDH
OS-02	C 2016	5 and 8	Sized Raw Coal Open Storage Pile - maximum 50,000 tons capacity, 108,869 ft^2 base area and 65' height - receives crushed raw coal from BC-03, stores it and then a front-end loader transfers it to trucks for shipment.	200	1,752,000	WS	B A	TP-07 TP-08	TC-MDH LO-MDH
BC-04	C 2016	5 and 8	Clean Coal Belt Conveyor - receives crushed raw coal from BC-02 and transfers it to BS-01	200	1,752,000	PE	B A	TP-09 TP-10	TC-FE TC-FE
BS-01	C 2016	5 and 8	Clean Coal Truck Loadout Bin - 90 tons capacity - receives crushed raw coal from BC-04 and then loads it to trucks through a fixed chute for shipment	200	1,752,000	FE	B A	TP-10 TP-11	TC-FE LO-MDH
Refuse Circuit									
BC-05	C 2016	5 and 8	Belt Conveyor - receives refuse from the wet wash preparation plant and transfers it to BS-02	200	1,752,000	PE	B A	TP-12 TP-13	TC-FW TC-FE
BS-02	C 2016	5 and 8	Refuse Truck Loadout Bin - 150 tons capacity - receives refuse from BC-05 and then loads it to trucks through a fixed chute for transport and dumping to the refuse disposal area	200	1,752,000	FE	B A A	TP-13 TP-14 TP-15	TC-FE LO-MDH UL-MDH

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 All registered affected facilities under Class II General Permit G10-D are subject to Sections 1.0, 1.1, 2.0, 3.0 and 4.0.

3 Control Device Abbreviations: 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 NC - No Control.

DESCRIPTION OF FUGITIVE EMISSIONS (taken directly from the application)

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 and unpaved haulroads and work areas. The haulroads and work areas will be controlled by water truck in accordance with section E.6.c.i. of the General Permit.

The water truck is equipped with pumps sufficient to maintain stockpiles, haulroads and work areas. The water truck will be operated three times daily and more as needed during dry periods.

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

SITE INSPECTION

A site inspection was not performed at this time due to the location proposed and the size and scope of the proposed facility. However, after construction is completed, the facility will be inspected by the DAQ's Compliance and Enforcement Section on a regular schedule.

Directions to the facility from Charleston are to take US-119 S and travel 52.8 miles, take the WV-73 ramp towards WV-10/Raleigh and travel 0.3 miles, turn left onto WV-73 and travel 2.3 miles, turn left onto Old Highway 119 and travel 0.6 miles, stay straight to go onto WV-10/Raleigh Blvd. And continue to follow WV-10 and travel 8.9 miles, turn left to stay on WV-10 and travel 5.2 miles, make a U-turn at State Route 80 onto WV-10 and travel approximately 0.9 miles, take the first right onto Bridge Street and travel 0.2 miles, turn left onto Main Street/County Highway-16 and travel 1.8 miles, turn left onto Buffalo Creek Road/County Highway-16 and travel 1.2 miles, turn right onto Right Fork of Buffalo Creek Road/County Highway-16/1 and travel 0.8 miles and turn off to the right onto the old railroad bed spur to the guard shack. The wet wash coal preparation plant is 2.9 miles further past 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 G10-C Excel Emission Calculation Spreadsheet and were checked for accuracy and completeness by the writer.

The proposed construction will result in the potential to discharge controlled particulate matter emissions of 63.52 pounds per hour (PPH) and 280.88 tons per year (TPY) of particulate matter (PM), of which 18.87 PPH and 83.43 TPY will be particulate matter less than 10 microns in diameter (PM_{10}). Refer to the following table for a complete summary of the proposed raw wet wash coal preparation plant's potential to discharge:

- Proposed Emissions - **Tams Management, Inc. East Gulf Prep Plant - G10-D162**	**Controlled PM Emissions**		**Controlled PM_{10} Emissions**	
	lb/hour	TPY	lb/hour	TPY
Fugitive Emissions				
Open Storage Pile Emissions	0.28	1.22	0.13	0.57
Unpaved Haulroad Emissions	60.69	268.50	17.54	77.60
Paved Haulroad Emissions	0.00	0.00	0.00	0.00
Fugitive Emissions Total	*60.97*	*269.72*	*17.67*	*78.17*
Point Source Emissions				
Equipment Emissions	1.20	5.26	0.56	2.47
Transfer Point Emissions	1.35	5.91	0.64	2.79
Point Source Emissions Total (PTE)	*2.55*	*11.16*	*1.20*	*5.26*
FACILITY EMISSIONS TOTAL	**63.52**	**280.88**	**18.87**	**83.43**

REGULATORY APPLICABILITY

NESHAPS and PSD have no applicability to the proposed wet wash coal preparation plant. The construction of Tams Management, Inc.'s proposed wet wash coal preparation plant 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 proposed wet wash coal preparation plant 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 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 construction of the proposed wet wash coal preparation plant is subject to the requirements of 45CSR13 because it will result in a potential to discharge greater than six pounds per hour and ten tons per year of regulated air pollutant (PM and PM_{10}) and involve the construction of one crusher, five belt conveyors, two truck loadout bins and two open storage piles, which are defined as affected facilities and subject to 40 CFR 60 NSPS Subpart Y. The applicant has submitted an application for a construction registration. The applicant published a Class I legal advertisement in *The Register-Herald* on April 26, 2015 and submitted $500 for the General Permit 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 proposed wet wash coal preparation plant will be subject to 40 CFR 60 Subpart Y because it will be constructed after October 24, 1974 and will process more than 200 tons of coal per day. The proposed construction will include one crusher, five belt conveyors, two truck loadout bins and two 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 system, or coal transfer and loading system processing coal which was 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.

45CSR30 *Requirements for Operating Permits*

In accordance with 45CSR30 Major Source Determination, the proposed wet wash 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 proposed wet wash coal preparation plant's potential to emit will be 5.83 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 proposed wet wash coal preparation plant will be a nonmajor source subject to 45CSR30. The proposed wet wash coal preparation plant will not subject to the permitting requirements of 45CSR30 and will be classified as a deferred source.

The proposed construction of Tams Management, Inc.'s raw coal screening facility is <u>not</u> 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 proposed wet wash 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 proposed wet wash coal preparation plant's potential to emit will be 12.38 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 wet wash coal preparation plant and existing wet wash coal preparation plant are not subject to the requirements set forth within 45CSR14.

TOXICITY OF NON-CRITERIA REGULATED POLLUTANTS

A toxicity analysis was not performed because the primary pollutants that will be 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 construction. This wet wash coal preparation plant will be located in Raleigh County, WV, which is currently in attainment for PM (particulate matter) and PM_{10} (particulate matter less than 10 microns in diameter). This proposed wet wash coal preparation plant will be a minor source as defined by 45CSR14, therefore, an air quality impact analysis is not required.

GENERAL PERMIT ELIGIBILITY

The proposed construction of this facility meets the applicability criteria (Section 2.3), siting criteria (Section 3.1) and limitations and standards (Section 5.1) as specified in General Permit G10-D.

All registered facilities under Class II General Permit G10-D are subject to Sections 1.0, 1.1, 2.0, 3.0 and 4.0.

MONITORING OF OPERATIONS

The coal processing and conveying equipment and storage areas should be observed to make sure that the facility is meeting the applicable visible emission standards of 40 CFR 60, Subpart Y. Visible emissions from any coal processing and conveying equipment, coal storage system, or coal

transfer and loading system processing coal constructed, re-constructed or modified after April 28, 2008 shall not exceed 10 percent (10%) opacity as stated in 40 CFR 60.254(b). 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.

RECOMMENDATION TO DIRECTOR

The information contained in this general permit registration 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. No comments were received during the comment period. Therefore, the granting of a General Permit G10-D registration to Tams Management, Inc. for the construction of their proposed wet wash coal preparation plant to be located near Ury, Raleigh County, WV is hereby recommended.

Daniel P. Roberts, Engineer Trainee
NSR Permitting Section

July 12, 2016
Date