west virginia department of environmental protection

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ENGINEERING EVALUATION / FACT SHEET

BACKGROUND INFORMATION

Application No.:	G10-D099F		
Plant ID No.:	045-00018		
Applicant:	Bandmill Coal Corporation		
Facility Name:	Rum Creek Preparation Plant		
Location:	Stollings, Logan County, WV		
SIC Code:	1221 (Bituminous Coal & Lignite - Surface) 1222 (Bituminous Coal & Lignite - Underground)		
NAICS Code:	212111 (Bituminous Coal and Lignite Surface Mining) 212112 (Bituminous Coal Underground Mining)		
Application Type:	Modification		
Received Date:	November 16, 2015		
Engineer Assigned:	Dan Roberts		
Fee Amount:	$1,500		
Date Received:	November 17, 2015		
Applicant's Ad Date:	October 21, 2015		
Newspaper:	*Logan Banner*		
Complete Date:	January 4, 2016		
UTM Coordinates:	Easting: 420.2 km	Northing: 4185.4 km	NAD83 Zone 17N
Lat/Lon Coordinates:	Latitude: 37.812510	Longitude: -81.906599	NAD83
Description:	Modification to add a raw coal screen with maximum throughput rates of 1,300 TPH and 11,388,000 TPY. The control devices for crushers CR-01 and CR-02 were changed from FE to FW because that is what is used in the emission calculations spreadsheet.		

BACKGROUND

Bandmill Coal Corporation owns and operates the existing Rum Creek Preparation Plant under current general permit registration G10-D099D, which was approved on October 18, 2011. Bandmill Coal Corporation is a subsidiary of Alpha Natural Resources.

This application was submitted in October, but was returned to the consultant, Donna Toler of P & A Engineers and Consultants, Inc. because a couple of pages were missing. Ms. Toler stated that it took a couple weeks for the returned application to get back to her office and that she inserted the missing pages and had it hand delivered back to the DAQ's office the next day. This explains why the applicant's legal ad was published on October 21, 2015 and the original affidavit of publication was received on October 30, 2015.

DESCRIPTION OF PROCESS

The Bandmill Preparation Plant Facility is located on Rum Creek, near Dehue, Logan County, WV and processes coal received from local surface and deep mines via belt conveyors and/or through truck dump facilities. The existing and proposed NSPS equipment is listed at the maximum operating rate.

Raw coal from underground is sent from BC-07(PE) @ TP-01(TC-FE) to BC-01(PE) @ TP-02(TC-PE) for storage in the Alma Deep Mine Stockpile. Stored coal is then transferred back by belt conveyor BC-02(PE) @ TP-03(TC-FE) to new raw coal screen SS-03(FW) @ TP-04(TC-FW). Screened raw coal then drops into a fully-enclosed double roll crusher CR-01(FE) @ TP-05(TC-FW), which discharges to belt conveyor BC-03(PE) @ TP-61(TC-FW). Belt conveyor BC-03 will transfer raw coal to the plant @ TP-06(TC-WW). Rock refuse rejected from screen SS-03 (FW) and crusher CR-01 (FE) will drop onto belt conveyor BC-28(NC) @ TP-56(TC-FE), belt conveyor BC-29(NC) @ TP-57(TC-PE), belt conveyor BC-30(NC) @ TP-58(TC-PE), belt conveyor BC-31(NC) @ TP-59(TC-PE) and then onto existing refuse conveyor BC-20(PE) @ TP-60(TC-PE).

Belt conveyor BC-03 will transfer inside the plant to two separate raw coal screens SS-01(FW) and Screen SS-02(FW) @ TP-51(TC-FW) and TP-52(TC-FW) which discharge directly to the wet wash process. Belt BC-08 transfers to the direct ship crusher CR-03(FW) inside the plant @ TP-54(TC-FW) and then to belt conveyor BC-09 @ TP-55(TC-FW) inside the plant. After the wet wash process, oversize clean coal is processed by clean coal crusher CR-04(FW) inside the plant before being transferred to clean coal belt BC-10.

Raw coal will also be transferred ROM to belt conveyor BC-04(PE) @ TP-07(TC-FE) and to open stockpile OS-01(SW-WS) @ TP-08(TC-MDH). Stockpile OS-01 will transfer underpile to belt conveyor BC-05(PE) @ TP-09(LO-UC) and then to the plant feed belt BC-07(PE) @ TP-10(TC-FE). Raw coal will also transfer ROM to belt conveyor BC-06(PE) @ TP-11(TC-FE) and onto the plant feed conveyor BC-07 @ TP-12(TC-FE) which will transfer to the plant @ TP-13(TC-WW). Please note that even though belt conveyors BC-05, BC-06 and BC-07 are rated for 1000TPH, we are limiting the throughput on these belt conveyors.

Direct ship clean coal delivered by truck on paved haulroads to the partially-enclosed w/water Bandmill Truck Dump BS-01(PW) @ TP-14(UD-PW) will transfer through a fully-enclosed feeder-breaker CR-02(FE) @ TP-15(TC-FE) before transferring onto belt conveyor BC-08(PE) @ TP-16(TC-FE). Belt conveyor BC-08 will transfer inside the plant to belt conveyor BC-09(PE) @ TP-17(TC-FE), which will feed the direct ship stockpile OS-02(SW-WS) @ TP-18(TC-PE). Some direct ship coal will be processed inside the plant through direct ship crusher CR-03(FW) @

TP-53(TC-FW) and transfer to belt conveyor BC-09 @ TP-54(TC-FW).

A certain percentage of the clean coal will be processed through a DR clean coal crusher CR-04(FW) @ TP-55(TC-FW) before it exits the plant on belt conveyor BC-10 @ TP-19(TC-FW). Clean coal from the preparation plant will transfer to the clean coal stockpiles OS-03(SW-WS) and OS-04(SW-WS) via a series of partially-enclosed belt conveyors BC-10(PE) thru BC-13(PE) @ TP-19(TC-FW) thru TP-24(TC-PE). This clean coal will be reclaimed to belt conveyor BC-14(FE) @ TP-25(LO-UC) thru TP-27(LO-UC) for transfer to the loadout belt BC-15(PE) @ TP-28(TC-FE).

Stoker coal will transfer from the plant to the stoker silos, BS-04(FE), BS-05(FE), and BS-06(FE) via belt conveyors BC-16(PE) thru BC-18(PE) @ TP-29(TC-WW) and TP-34(TC-FE). Stoker will be reclaimed underpile by belt conveyor BC-19(FE) @ TP-35(LO-UC) thru TP-37(LO-UC) and also transfer to the loadout belt BC-15 @ TP-38(TC-FE). Belt conveyor BC-15 will transfer clean coal to the rail loadout via the loadout bin BS-02(FE) @ TP-39(TC-FE) and surge bin BS-03(FE) @ TP-40(TC-FE). The transfer to railcar takes place @ TP-41(LR-TC).

Refuse is transferred from the plant to the disposal area via a series of controlled and uncontrolled belt conveyors BC-20(PE) thru BC-27(NC) @ TP-42(TC-WW) thru TP-50(TC-MDH).

MODIFICATION APRIL 2015:

This modification addresses the addition of four rock belts BC-28(NC), BC-29(NC), BC-30(NC) and BC-31(FE) that will run from the primary crusher building and intersect back to refuse belt conveyor BC-20. The refuse or rock will bypass crusher CR-01 and transfer out accordingly at TP-56(TC-FE), TP-57(TC-PE), TP-58(TC-PE),TP-59(TC-PE) and TP-60(TC-PE).

MODIFICATION OCTOBER 2015

With the addition of raw coal screen SS-03, material will transfer from belt conveyor BC-02 to SS-03 @ TP-04(TC-FW) and the screen will transfer sized raw coal to crusher CR-01 @ TP-05(TC-FW); crusher CR-01 will transfer to belt conveyor BC-03 @ TP-61(TC-FW).

Please note that the belt conveyor BC-13, stockpile OS-04, belt conveyor BC-18 and silo BS-06 have not yet been constructed.

The facility shall be modified and operated in accordance with the following equipment and control device information taken from registration application G10-D099F 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 - Alma Stockpile Area									
BC-02	M 2010 C 2009	5 and 8	48" Alma Reclaim Conveyor - receives raw coal from the Alma Stockpile Area and transfers it to SS-03	1,300	11,388,000	PE	B A	TP-03 TP-04	TC-FE TC-FW

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]
SS-03	C 2015	5 and 8	Double Deck Screen - receives raw coal from BC-02, classifies it and then sized raw coal drops into CR-01and rock refuse drops onto BC-28 (see Rock Refuse Circuit below)	1,300	11,388,000	FW	B A	TP-04 TP-05 TP-56	TC-FW TC-FW TC-FE
CR-01	C 2009	5 and 8	Raw Coal Sizer - receives sized raw coal from SS-03, crushes it to 4"x 0 and then drops it onto BC-03 and the rock refuse onto BC-28 (see Rock Refuse Circuit below)	1,300	11,388,000	FW	B A A	TP-05 TP-61 TP-56	TC-FW TC-FW TC-FE
BC-03	M 2010 C 2009	5 and 8	48" Belt Conveyor - receives crushed raw coal from CR-01 and transfers it to the prep plant	1,300	11,388,000	PE	B A	TP-61 TP-06	TC-FW TC-WW
Raw Coal Circuit - Hernshaw Deep Mine and Other Underground Mine									
BC-04	M 2010 C 2004	5 and 8	48" Hernshaw ROM Conveyor - receives raw coal from the Hernshaw mine and transfers it to OS-01	600	5,256,000	PE	B A	TP-07 TP-08	TC-FE TC-MDH
OS-01	M 2010 C 2004	5 and 8	Hernshaw Raw Coal Stockpile - maximum 20,000 tons capacity, 38,869 ft^2 base area and 65' height - receives raw coal from BC-04, stores it, and then underpile reclaim feeders feed it onto BC-05	----	5,265,000	SW-WS	B A	TP-08 TP-09	TC-MDH LO-UC
BC-05	M 2010 C 2004	5 and 8	48" Hernshaw Raw Coal Transfer Conveyor - reclaims raw coal from OS-01 and transfers it to BC-07	1,000	5,256,000	PE	B A	TP-09 TP-10	LO-UC TC-FE
BC-06	M 2011 M 2010 C 2009	5 and 8	48" ROM Conveyor - receives raw coal from underground mine and transfers it to BC-07	1,000	5,500,000	PE	B A	TP-11 TP-12	TC-FE TC-FE
BC-07	C 2009	5 and 8	48" Plant Feed Conveyor - receives raw coal from BC-05 and BC-06 and transfers it to BC-01 at the prep plant	1,000	8,760,000	PE	B B A	TP-10 TP-12 TP-13	TC-FE TC-FE TC-WW
BC-01	M 2010 C 2009	5 and 8	48" Alma Stockpile Feed Conveyor - receives raw coal from BC-07 at the prep plant and transfers it to the Alma Stockpile Area	1,000	8,760,000	PE	B A	TP-01 TP-02	TC-FE TC-WW
Direct Ship Circuit Bandmill Truck Dump									
BS-01	M 2010 C 2004	5 and 8	Truck Dump Bin - 100 tons capacity - receives trucked direct ship coal and transfers it to CR-02	----	5,694,000	PW	B A	TP-14 TP-15	UD-PW TC-FE
CR-02	C 2009	5 and 8	Stamler Feeder-Breaker - receives direct ship coal from BS-01, crushes to 2x0 and then drops it onto BC-08	650	5,694,000	FW	B A	TP-15 TP-16	TC-FE TC-FE
BC-08	M 2010 C 2009	5 and 8	48" Belt Conveyor - receives direct ship crushed coal from CR-02 and transfers it to CR-03 or BC-09	650	5,694,000	PE	B A A	TP-16 TP-53 TP-17	TC-FE TC-FW TC-FE
CR-03	C 2011	5 and 8	Single Roll Direct Ship Crusher - receives some direct ship coal from BC-08, crushes it and then drops it onto BC-09	400	3,504,000	FW	B A	TP- 53 TP-54	TC-FW TC-FW
BC-09	M 2010 C 2009	5 and 8	48" Belt Conveyor - receives crushed direct ship coal from BC-08 and CR-03 and transfers it to OS-02	650	5,694,000	PE	B B A	TP-17 TP-54 TP-18	TC-FE TC-FW TC-PE
OS-02	C 2009	5 and 8	Direct Ship Coal Stockpile - maximum 25,000 tons capacity, 38,869 ft^2 base area and 75' height - receives crushed direct ship coal from BC-09, stores it and then underpile reclaim feeders feed it onto BC-14 (see Railcar Loadout Circuit below)	----	5,694,000	SW-WS	B A	TP-18 TP-27	TC-PE LO-UC
Bandmill Prep Plant - Raw Coal Processing									
SS-01	C 2011	5 and 8	Double Deck Screen - receives raw coal from BC-03 (see Raw Coal Circuit - Alma Deep Mine above), classifies it and then sized coal discharges directly to the wet wash system	650	5,694,000	FW	B A	TP-51 N/A	TC-FW TC-WW

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]
SS-02	C 2011	5 and 8	Double Deck Screen - receives raw coal from BC-03 (see Raw Coal Circuit - Alma Deep Mine above), classifies it and then sized coal discharges directly to the wet wash system	650	5,694,000	FW	B A	TP-52 N/A	TC-FW TC-WW
Bandmill Prep Plant - Clean Coal									
CR-04	C 2011	5 and 8	Double Roll Crusher - receives a certain percentage of the clean coal from the wet wash system, crushes it and then drops it onto BC-10	100	876,000	FW	B A	TP-55 TP-19	TC-FW TC-WW
BC-10	M 2010 C 2009	5 and 8	48" Clean Coal Transfer Belt - receives clean coal from CR-04 and the wet wash system and transfers it to BC-11	680	5,956,000	PE	B A	TP-19 TP-20	TC-WW TC-FE
BC-11	M 2010 C 2009	5 and 8	48" Clean Coal Transfer Belt - receives clean coal from BC-10 and transfers it to BC-12	680	5,956,000	PE	B A	TP-20 TP-21	TC-FE TC-FE
BC-12	M 2010 C 2009	5 and 8	48" Clean Coal Stacking Tube Feed Belt - receives clean coal from BC-11 and transfers it to OS-03 or BC-13	680	5,956,000	PE	B A A	TP-21 TP-22 TP-23	TC-FE TC-PE TC-FE
OS-03	C 2009	5 and 8	Clean Coal Stockpile - maximum 25,000 tons capacity, 38,869 ft^2 base area and 75' height - receives clean coal from belt BC-12, stores it and then underground feeders feed it onto BC-14 (see Railcar Loadout Circuit below)	----	5,956,000	SW-WS	B A	TP-22 TP-26	TC-PE LO-UC
BC-13	Not Yet Constructed *	5 and 8	48" Clean Coal Stacking Tube Feed Belt - receives clean coal from BC-12 and transfers it to OS-04 (* Permitted in 2010, but not yet constructed as of 2015)	680	5,956,000	PE	B A	TP-23 TP-24	TC-FE TC-PE
OS-04	Not Yet Constructed *	5 and 8	Clean Coal Stockpile - maximum 25,000 tons capacity, 38,869 ft^2 base area and 75' height - receives clean coal from belt BC-13, stores it and then underground feeders feed it onto BC-14 (see Railcar Loadout Circuit below) (* Permitted in 2010, but not yet constructed as of 2015)	----	5,956,000	SW-WS	B A	TP-24 TP-25	TC-PE LO-UC
Bandmill Prep Plant - Clean Stoker Coal									
BC-16	C 2009	5 and 8	36" Clean Stoker Coal Transfer Conveyor - receives clean stoker coal from the wet wash system and transfers it to BC-17	250	2,190,000	PE	B A	TP-39 TP-30	TC-WW TC-PE
BC-17	C 2009	5 and 8	36" Clean Stoker Coal Transfer Conveyor - receives clean stoker coal from BC-16 and transfers it to BS-04 or BC-18	250	2,190,000	PE	B A A	TP-30 TP-31 TP-32	TC-PE TC-FE TC-FE
BS-04	C 2004	5 and 6	Clean Stoker Coal Silo - 1,500 tons capacity - receives clean stoker coal from BC-17, stores it and then discharges it onto BC-19	----	2,190,000	FE	B A	TP-31 TP-37	TC-FE LO-UC
BC-18	Not Yet Constructed *	5 and 8	36" Clean Stoker Coal Conveyor - receives clean stoker coal from BC-17 transfers it to BS-05 and BS-06 (* Permitted in 2004, but not yet constructed as of 2015)	250	2,190,000	PE	B A A	TP-32 TP-33 TP-34	TC-FE TC-FE TC-FE
BS-05	C 2004	5 and 6	Clean Stoker Coal Silo - 2,500 tons capacity - receives clean stoker coal from BC-18, stores it and then discharges it onto BC-19	----	2,190,000	FE	B A	TP-33 TP-36	TC-FE LO-UC
BS-06	Not Yet Constructed *	5 and 8	Clean Stoker Coal Silo - 5,000 tons capacity - receives clean stoker coal from BC-18, stores it and then discharges it onto BC-19 (* Permitted in 2004, but not yet constructed as of 2015)	----	2,190,000	FE	B A	TP-34 TP-35	TC-FE LO-UC
BC-19	C 2009	5 and 8	60" Clean Stoker Coal Reclaim Conveyor - reclaims clean stoker coal from BS-04, BS-05 and BS-06 and transfers it to BC-15	1,500	2,190,000	FE	B B B A	TP-37 TP-36 TP-35 TP-38	LO-UC LO-UC LO-UC TC-FE
Rail Car Loadout Circuit									

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-14	C 2009	5 and 8	72" Clean Coal Stockpile Reclaim Conveyor - receives direct ship coal from OS-02 and clean coal from OS-03 and OS-04 and transfers it to BC-15	3,500	10,950,000	FE	B B B A	TP-27 TP-26 TP-25 TP-28	LO-UC LO-UC LO-UC TC-FE
BC-15	C 2009	5 and 8	72" Clean Coal Loadout Conveyor - receives direct ship and clean coal from BC-14 and BC-19 and transfers it to BS-02	3,500	10,950,000	PE	B B A	TP-28 TP-38 TP-39	TC-FE TC-FE TC-FE
BS-02	C 2009	5 and 8	Loadout Bin - 420 tons capacity - receives direct ship and clean coal from belt BC-15 and then discharges it into BS-03	----	10,950,000	FE	B A	TP-39 TP-40	TC-FE TC-FE
BS-03	C 2009	5 and 8	Surge Bin - 120 tons capacity - receives direct ship and clean coal from BS-02 and transfers it to railcar through a telescopic chute	----	10,950,000	FE	B A	TP-40 TP-41	TC-FE LR-TC
Rock Refuse Circuit - from Crusher CR-01									
BC-28	C 2015	5 and 8	42" Rock Refuse Belt Conveyor - receives rock refuse from SS-01 and CR-01 and transfers it to BC-29	200	1,752,000	N	B A	TP-56 TP-57	TC-FE TC-PE
BC-29	C 2015	5 and 8	42" Rock Refuse Belt Conveyor - receives rock refuse from BC-28 and transfers it to BC-30	200	1,752,000	N	B A	TP-57 TP-58	TC-PE TC-PE
BC-30	C 2015	5 and 8	42" Rock Refuse Belt Conveyor - receives rock refuse from BC-29 and transfers it to BC-31	200	1,752,000	N	B A	TP-58 TP-59	TC-PE TC-PE
BC-31	C 2015	5 and 8	42" Rock Refuse Belt Conveyor - receives rock refuse from BC-31 and transfers it to BC-20 (see Bandmill Prep Plant - Refuse Circuit below)	200	1,752,000	FE	B A	TP-59 TP-60	TC-PE TC-PE
Bandmill Prep Plant - Refuse Circuit									
BC-20	C 2004	5 and 6	42" Plant Refuse Belt Conveyor - receives refuse from the wet wash system and BC-31 and transfers it to BC-21	650	5,694,000	PE	B B A	TP-42 TP-60 TP-43	TC-WW TC-PE TC-FE
BC-21	C 2004	5 and 6	42" Refuse Transfer Belt Conveyor - receives refuse from BC-20 and transfers it to BC-22	650	5,694,000	PE	B A	TP-43 TP-44	TC-FE TC-FE
BC-22	C 2004	5 and 6	42" Refuse Transfer Belt Conveyor - receives refuse from BC-21 and transfers it to BC-23	650	5,694,000	PE	B A	TP-44 TP-45	TC-FE TC-PE
BC-23	C 2004	5 and 6	42" Refuse Transfer Belt Conveyor - receives refuse from BC-22 and transfers it to BC-24	650	5,694,000	N	B A	TP-45 TP-46	TC-PE TC-PE
BC-24	C 2004	5 and 6	42" Refuse Transfer Belt Conveyor - receives refuse from BC-23 and transfers it to BC-25	650	5,694,000	N	B A	TP-46 TP-47	TC-PE TC-PE
BC-25	C 2004	5 and 6	42" Refuse Transfer Belt Conveyor - receives refuse from BC-24 and transfers it to BC-26	650	5,694,000	N	B A	TP-47 TP-48	TC-PE TC-PE
BC-26	C 2004	5 and 6	42" Refuse Transfer Belt Conveyor - receives refuse from BC-25 and transfers it to BC-27	650	5,694,000	N	B A	TP-48 TP-49	TC-PE TC-PE
BC-27	C 2004	5 and 6	42" Refuse Transfer Belt Conveyor - receives refuse from BC-26 and transfers it to the refuse disposal area	650	5,694,000	N	B A	TP-49 TP-50	TC-PE TC-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 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.

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; TC - Telescopic Chute; UC - Under-pile Conveyor; MDH - Minimize Drop Height; N - No Control; and NA - Not Applicable.

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 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 haulroads and work areas. The water truck will be operated three times daily, and more as needed in dry periods.

The stacking tubes will be equipped with a time-delay water spray system to control fugitive emissions from wind erosion of the stockpiles.

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

SITE INSPECTION

On November 21, 2013, Fred Teel of the DAQ's Compliance and Enforcement Section performed a full on-site targeted inspection of the facility. Mr. Teel did not find any violations at the time of the inspection and the facility was given a status code of 30 - In Compliance.

On December 15, 2015, the writer, Fred Teel and Jesse Adkins drove past the facility and observed it in operation. No violations were observed at that time.

Directions from Charleston, WV are to take US119 South to Logan, take Route 10 toward Man, take County Route 14 at Rum Creek intersection and travel two miles and the facility will be on the right adjacent to the highway.

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 writer performed the increase in emissions calculations using the DAQ's G10-C Excel Emission Calculation Spreadsheet and a copy has been attached.

The proposed modification will result in an increase in the facility's potential to discharge

controlled particulate matter emissions of 12.90 pounds per hour (PPH) and 56.49 tons per year (TPY) of particulate matter (PM), of which 6.06 PPH and 26.55 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 facility's potential to discharge:

- Increase in Emissions - **Bandmill Coal Corporation G10-D099F**	**Controlled PM Emissions**		**Controlled PM_{10} Emissions**	
	lb/hour	TPY	lb/hour	TPY
Fugitive Emissions				
Open Storage Pile Emissions	0.00	0.00	0.00	0.00
Unpaved Haulroad Emissions	0.00	0.00	0.00	0.00
Paved Haulroad Emissions	0.00	0.00	0.00	0.00
Fugitive Emissions Total	*0.00*	*0.00*	*0.00*	*0.00*
Point Source Emissions				
Equipment Emissions	13.00	56.94	6.11	26.76
Transfer Point Emissions	-0.10	-0.45	-0.05	-0.21
Point Source Emissions Total (PTE)	*12.90*	*56.49*	*6.06*	*26.55*
INCREASE IN EMISSIONS	**12.90**	**56.49**	**6.06**	**26.55**

The proposed modification will result in a new facility-wide potential to discharge controlled particulate matter emissions of 86.95 PPH and 367.02 TPY of PM, of which 28.13 PPH and 116.65 TPY will be PM_{10}. Refer to the following table for a complete summary of the proposed facility's potential to discharge:

- New Facility-wide Emissions - **Bandmill Coal Corporation G10-D099F**	**Controlled PM Emissions**		**Controlled PM_{10} Emissions**	
	lb/hour	TPY	lb/hour	TPY
Fugitive Emissions				
Open Storage Pile Emissions	0.21	0.93	0.10	0.44
Unpaved Haulroad Emissions	0.00	0.00	0.00	0.00
Paved Haulroad Emissions	46.43	203.41	9.06	39.67
Fugitive Emissions Total	*46.64*	*204.34*	*9.15*	*40.11*
Point Source Emissions				
Equipment Emissions	30.90	135.34	14.52	63.61
Transfer Point Emissions	9.41	27.34	4.45	12.93
Point Source Emissions Total (PTE)	*40.31*	*162.68*	*18.98*	*76.54*
BANDMILL EMISSIONS TOTAL	**86.95**	**367.02**	**28.13**	**116.65**

Bandmill Coal Corporation (G10-D099F), Highland Mining Company (G10-D119B) and Aracoma Coal Company's (R13-2364C) facilities meet the definition of "Building, Structure, Facility, or Installation" in 45CSR14.2.10 and "Major Source" in 45CSR30.2.26 and shall continue

to be considered as one facility for determining applicability to 45CSR14 (PSD) and 45CSR30 (Title V). Therefore, Bandmill Coal Corporation (G10-D099F), Highland Mining Company (G10-D119B) and Aracoma Coal Company's (R13-2364C) facilities emissions shall be combined when determining applicability to 45CSR14 (PSD) and 45CSR30 (Title V).

Highland Mining Company's existing truck dump and coal processing facility permitted under G10-C119B issued on March 28, 2014 has an estimated potential to discharge controlled emissions of 99.32 PPH and 435.04 TPY of PM, of which 30.64 PPH and 134.21 TPY are PM_{10}. Also, Highland Mining Company's existing facility has an estimated potential to emit (point source emissions only) of 31.71 TPY of PM, of which 14.94 TPY are PM_{10}. Refer to the following table for a summary of Highland Mining Company's emissions:

- Emissions Summary - **Highland Mining Company G10-D119B**	**Controlled PM Emissions**		**Controlled PM_{10} Emissions**	
	lb/hour	TPY	lb/hour	TPY
Fugitive Emissions				
Stockpile Emissions	0.30	1.32	0.14	0.62
Unpaved Haulroad Emissions	91.78	402.00	27.09	118.65
Paved Haulroad Emissions	0.00	0.00	0.00	0.00
Fugitive Emissions Total	*92.08*	*403.32*	*27.23*	*119.28*
Point Source Emissions				
Equipment Emissions	4.80	21.02	2.26	9.88
Transfer Point Emissions	2.44	10.69	1.15	5.06
Point Source Emissions Total (PTE)	*7.24*	*31.71*	*3.41*	*14.94*
HIGHLAND EMISSIONS TOTAL	**99.32**	**435.04**	**30.64**	**134.21**

Aracoma's existing conveying system from the Alma and Chilton deep mines permitted under R13-2364C approved on December 1, 2005 has an estimated potential to discharge controlled emissions of 46.30 PPH and 31.90 TPY of PM, of which 13.63 PPH and 12.04 TPY are PM_{10}. Also, Aracoma's existing facility has an estimated potential to emit (point source emissions only) of 16.53 TPY of PM, of which 7.82 TPY are PM_{10}. Refer to the following table for a summary of Aracoma Coal Company's emissions:

- Emissions Summary - **Aracoma Coal Company R13-2364C**	**Controlled PM Emissions**		**Controlled PM_{10} Emissions**	
	lb/hour	TPY	lb/hour	TPY
Fugitive Emissions				
Stockpile Emissions	0.98	4.30	0.46	2.02
Unpaved Haulroad Emissions	30.12	11.06	5.98	2.20
Paved Haulroad Emissions	0.00	0.00	0.00	0.00
Fugitive Emissions Total	*31.11*	*15.37*	*6.44*	*4.22*
Point Source Emissions				
Equipment Emissions	0.00	0.00	0.00	0.00
Transfer Point Emissions	15.20	16.53	7.19	7.82
Point Source Emissions Total (PTE)	*15.20*	*16.53*	*7.19*	*7.82*
ARACOMA EMISSIONS TOTAL	**46.30**	**31.90**	**13.63**	**12.04**

Bandmill Coal Corporation (G10-D099F), Highland Mining Company (G10-D119B) and Aracoma Coal Company (R13-2364C) will have a combined estimated potential to discharge controlled emissions of 834.40 TPY of PM (particulate matter), of which 263.13 TPY are PM_{10}. The facilities will have a combined estimated potential to emit (point source emissions only) of 211.37 TPY of PM, of which 99.52 TPY are PM_{10}. Refer to the following table for a summary of Bandmill Coal Corporation (G10-D099E), Highland Mining Company (G10-D119B) and Aracoma Coal Company's (R13-2364C) combined emissions:

- Combined Emissions Summary - **Bandmill Coal Corporation (G10-D099F), Highland Mining Company (G10-D119B) and Aracoma Coal Company (R13-2364C)**	**Controlled PM Emissions**		**Controlled PM_{10} Emissions**	
	lb/hour	TPY	lb/hour	TPY
Fugitive Emissions				
Stockpile Emissions	1.49	6.55	0.70	3.08
Unpaved Haulroad Emissions	121.90	413.06	33.07	120.85
Paved Haulroad Emissions	46.43	203.34	9.15	40.11
Fugitive Emissions Total	*169.83*	*623.03*	*42.82*	*163.61*
Point Source Emissions				
Equipment Emissions	35.70	156.36	16.78	73.49
Transfer Point Emissions	27.25	56.01	12.84	26.03
Point Source Emissions Total (PTE)	*62.95*	*211.37*	*29.62*	*99.52*
COMBINED EMISSIONS TOTAL	**232.78**	**834.40**	**72.44**	**263.13**

REGULATORY APPLICABILITY

NESHAPS and PSD have no applicability to the modified facility. The modification of Bandmill Coal Corporation's existing wet wash coal preparation plant and railcar loadout 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 screen, which is defined as an affected facility and subject to 40 CFR 60 NSPS Subpart Y. The applicant has submitted an application for a modification registration. The applicant published a Class I legal advertisement in *Logan Banner* on October 21, 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 facility is subject to 40 CFR 60 Subpart Y because it was constructed and modified after October 24, 1974 and processes more than 200 tons of coal per day. The proposed modification includes the construction of one screen, which is defined as an affected facility 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(a) (less than 20% 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 on or before April 28, 2008) and Section 254(b) (less than 10% opacity for coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal 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, Bandmill Coal Corporation, Highland Mining Company and Aracoma Coal Company's facilities are not listed in 45CSR30 subsection 2.26.b as one of the categories of stationary sources which must include fugitive emissions when determining whether it is a major stationary source for the purposes of § 302(j) of the Clean Air Act. The facility's potential to emit will be 99.52 TPY for PM_{10}, 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 remains a nonmajor source subject to 45CSR30. The facility is not subject to the permitting requirements of 45CSR30 and is classified as a deferred source.

The proposed modification of Bandmill Coal Corporation's existing wet wash coal preparation plant and railcar loadout 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, Bandmill Coal Corporation, Highland Mining Company and Aracoma Coal Company's facilities are not one of the 100 TPY stationary sources listed under the definition of "Major Stationary Source" in subsection 2.43.a. Therefore, the combined facilities 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, these facilities are not listed in Table 1 - Source Categories Which Must Include Fugitive Emissions. So, fugitive emissions are not included when determining major stationary source applicability. Highland Mining Company, Bandmill Coal Corporation and Aracoma Coal Company's combined potential to emit will be 211.37 TPY for PM, 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.

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 modification. This facility is located in Logan County, WV, which is currently in attainment for PM (particulate matter) and PM_{10} (particulate matter less than 10 microns in diameter). This modified facility will remain a minor source as defined by 45CSR14, therefore, an air quality impact analysis is not required.

GENERAL PERMIT ELIGIBILITY

The proposed modification 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 on or before April 28, 2008 shall not exceed 20 percent (20%) opacity as stated in 40 CFR 60.254(a). Visible emissions from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, re-constructed or modified after April 28, 2008 shall not exceed 10 percent (10%) opacity as stated in 40 CFR 60.254(b). 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 Bandmill Coal Corporation for the modification of their existing wet wash coal preparation plant and railcar loadout located near Stollings, Logan County, WV is hereby recommended.

Daniel P. Roberts, Engineer Trainee
NSR Permitting Section

January 7, 2015
Date

Increase in Emissions

1/5/16 DPR

EMISSIONS SUMMARY

Name of applicant: Bandmill Coal Corp
Name of plant: Rum Creek G10-D099F

Particulate Matter or PM (for 45CSR14 Major Source Determination)

	Uncontrolled PM		Controlled PM	
	lb/hr	TPY	lb/hr	TPY
FUGITIVE EMISSIONS				
Stockpile Emissions	0.00	0.00	0.00	0.00
Unpaved Haulroad Emissions	0.00	0.00	0.00	0.00
Paved Haulroad Emissions	0.00	0.00	0.00	0.00
Fugitive Emissions Total	**0.00**	**0.00**	**0.00**	**0.00**
POINT SOURCE EMISSIONS				
Equipment Emissions	130.00	569.40	13.00	56.94
Transfer Point Emissions	1.02	4.49	(0.10)	(0.45)
Point Source Emissions Total*	**131.02**	**573.89**	**12.90**	**56.49**
Facility Emissions Total	**131.02**	**573.89**	**12.90**	**56.49**

*Note: Point Source Total Controlled PM TPY emissions is used for 45CSR14 Major Source determination (see below)

***Facility Potential to Emit (PTE) (Baseline Emissions) = 56.49**

(Based on Point Source Total controlled PM TPY emissions from above) **ENTER ON LINE 26 OF APPLICATION**

Particulate Matter under 10 microns, or PM-10 (for 45CSR30 Major Source Determination)

	Uncontrolled PM-10		Controlled PM-10	
	lb/hr	TPY	lb/hr	TPY
FUGITIVE EMISSIONS				
Stockpile Emissions	0.00	0.00	0.00	0.00
Unpaved Haulroad Emissions	0.00	0.00	0.00	0.00
Paved Haulroad Emissions	0.00	0.00	0.00	0.00
Fugitive Emissions Total	**0.00**	**0.00**	**0.00**	**0.00**
POINT SOURCE EMISSIONS				
Equipment Emissions	61.10	267.62	6.11	26.76
Transfer Point Emissions	0.48	2.12	(0.05)	(0.21)
Point Source Emissions Total*	**61.58**	**269.74**	**6.06**	**26.55**
Facility Emissions Total	**61.58**	**269.74**	**6.06**	**26.55**

*Note: Point Source Total Controlled PM-10 TPY emissions is used for 45CSR30 Major Source determination

INPUTS

Include all information for each emission source and transfer point as listed in the permit application.

Name of applicant: Bandmill Coal Corp
Name of plant: Rum Creek G10-D099F
Nov-15

1. CRUSHING AND SCREENING (including all primary and secondary crushers and screens)

1a. PRIMARY CRUSHING

Primary Crusher ID Number	Description	Maximum Material Processing Capacity TPH	Maximum Material Processing Capacity TPY	Control Device ID Number	Control Efficiency %

1b. SECONDARY AND TERTIARY CRUSHING

Secondary & Tertiary Crusher ID	Description	Maximum Material Processing Capacity TPH	Maximum Material Processing Capacity TPY	Control Device ID Number	Control Efficiency %

1c. SCREENING

Secondary & Tertiary Crusher ID	Description	Maximum Material Processing Capacity TPH	Maximum Material Processing Capacity TPY	Control Device ID Number	Control Efficiency %
	NEW RAW COAL SCREEEN				
SS-03	Raw Coal Screen	1,300	11,388,000	FW	90

2. TRANSFER POINTS (including all conveyor transfer points, equipment transfer points etc.)

		PM	PM-10
k =	Particle Size Multiplier (dimensionless)	0.74	0.35
U =	Mean Wind Speed (mph)	7	

Transfer Point ID No.	Transfer Point Description Include ID Numbers of all conveyors, crushers, screens, stockpiles, etc. involved	Material Moisture Content %	Maximum Transfer Rate TPH	Maximum Transfer Rate TPY	Control Device ID Number	Control Efficiency %
	OLD TRANSFER POINTS					
TP-04	BC-02 to CR-01	6	(1,300)	(11,388,000)	TC-FE	80
TP-05	CR-01 to BC-03	6	(1,300)	(11,388,000)	TC-FE	80
	MODIFIED TRANSFER POINTS					
TP-04	BC-02 to SS-03	6	1,300	11,388,000	TC-FW	90
TP-05	SS-03 to CR-01	6	1,300	11,388,000	TC-FW	90
	NEW TRANFER POINTS					
TP-61	CR-01 to BC-03	6	1,300	11,388,000	TC-FW	90

3. WIND EROSION OF STOCKPILES *(including all stockpiles of raw coal, clean coal, coal refuse, etc.)*

p =	number of days per year with precipitation >0.01 inch	157
f =	percentage of time that the unobstructed wind speed exceeds 12 mph at the mean pile height	20

Source ID No.	Stockpile Description	Silt Content of Material %	Stockpile base area Max. sqft	Control Device ID Number	Control Efficiency %

4. UNPAVED HAULROADS *(including all equipment traffic involved in process, haul trucks, endloaders, etc.)*

s =	silt content of road surface material (%)	9
p =	number of days per year with precipitation >0.01 inch	157
M_{dry} =	surface material moisture content (%) - dry conditions	0.2

Item Number	Description	Number of wheels	Mean Vehicle Weight(tons)	Mean Vehicle Speed (mph)	Miles per Trip	Maximum Trips Per Hour	Maximum Trips Per Year	Control Device ID Number	Control Efficiency %
1									
2									
3									
4									
5									
6									
7									
8									

5. INDUSTRIAL PAVED HAULROADS *(including all equipment traffic involved in process, haul trucks, endloaders, etc.)*

sL =	road surface silt loading, (g/ft^2)	1
P =	number of days per year with precipitation >0.01 inch	157

Item Number	Description	Mean Vehicle Weight (tons)	Miles per Trip	Maximum Trips Per Hour	Maximum Trips Per Year	Control Device ID Number	Control Efficiency %
1							
2							
3							
4							
5							
6							
7							
8							