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ENGINEERING EVALUATION / FACT SHEET

BACKGROUND INFORMATION

Application No.: G10-D017D **After-the-Fact**
Plant ID No.: 039-00480
Applicant: Emerald Processing, Limited Liability Company
Facility Name: South Hollow Preparation Plant
Location: Winifrede, Kanawha County, WV
SIC Code: 1222 (Bituminous Coal & Lignite - Underground)
NAICS Code: 212112 (Bituminous Coal Underground Mining)
Application Type: Class II Administrative Update
Received Date: July 25, 2014
Engineer Assigned: Dan Roberts
Fee Amount: \$1,500
Date Received: July 29, 2014
Complete Date: September XX, 2014
Applicant's Ad Date: July 9, 2014
Newspaper: *The Daily Mail*
UTM Coordinates: Easting: 451.08332 km Northing: 4223.30021 km Zone: 17
Lat/Lon Coordinates: Latitude 38.156264 Longitude -81.558339 NAD83
Description: **After-the-Fact** Class II administrative update to do the following: add belt conveyors BC-23A and BC-26A and their associated transfer points TP-50 and TP-46A, which were constructed in August of 2013; add transfer points TP-06A and TP-06B located within the prep plant building; and update the following control devices: transfer point TP-3 from FE to PW; belt conveyor BC-10A from FE to PE; transfer point TP-21 from FE to PE; belt conveyors BC-25 and BS-26 from NC to PE; transfer points TP-48 and TP-49 from NC to PE. Also, this permit will correct typo for belt conveyor BC-01 from FE to PE. With the revised application received on November 9, 2014, the applicant revised most of the throughputs for the existing equipment to eliminate discrepancies where some equipment listed their maximum rated capacity and some equipment listed their maximum design configuration capacity.

BACKGROUND

Emerald Processing, Limited Liability Company owns and operates the existing South Hollow Preparation Plant under current general permit registration G10-D017C, which was approved on November 19, 2010.

Kanawha Eagle Coal, Limited Liability Company holds the Article 3 permit. Emerald Processing, Limited Liability Company is the approved operator.

Bethany Wolfe of Alliance Consulting, Inc. prepared and submitted the application. The changes proposed within this application include the addition of two (2) refuse conveyor belts BC-23A and BC-26A and their associated transfer points TP-50 and TP-46A, respectively. Within the plant, transfer points TP-06A and TP-06B have been added as these points are located prior to the wet wash process. In addition, the applicant has updated some control devices. Water sprays have been added at transfer point TP-3. Belt BC-10A is partially enclosed (PE) as well as its associated transfer point TP-21 (TC-PE). Belts BC-25 and BC-26 are now partially enclosed as well as their associated transfer points TP-48 and TP-49 (TC-PE).

In response to the DAQ's incomplete letters dated August 29, 2014 and September 5, 2014, the application was revised to clarify the throughputs at the facility. It was determined that some sections of the approved permit were showing maximum capacity for each piece of equipment, while other areas were listing the maximum capacity as designed in this plant set-up. Both have now been listed in the Affected Source Sheets, but now only the maximum the entire system can run is listed on the Flow Diagram and Plot Plan. This change in the maximum capacity resulted in a reduction in the annual throughput. The annual throughput is now more accurately depicted at 7,000,000 tons and the calculations were revised accordingly, which resulted in a decrease in emissions.

DESCRIPTION OF PROCESS

Raw Coal

Raw coal will be delivered by truck from area mines on approximately 3 miles of unpaved haulroad to bins BS-01(PE) and BS-02(PE) @ TP-03(UD-PW); which transfer coal to the plant via belt conveyors BC-02(PE) and BC-03(PE) @ TP-04 thru TP-06; by slope belt BC-01(PE) to the plant @ TP-02(TC-FE); or by a series of belt conveyors BC-04(PE) thru BC-09(PE) from an adjacent deep mine, which discharge via stacking tubes to stockpiles OS-01(SW-WS) and OS-02(SW-WS) @ TP-12(TC-PE) and TP-15(TC-FE).

Raw coal received from BC-01 and BC-03 to the plant may be crushed and screened inside the plant and discharged to the raw coal silos BS-03(FE) and BS-04(FE) via BC-10(PE) @ TP-20(TC-PE) and TP-22(TC-FE). Raw coal movement from belt BC-10(PE) is then controlled by a flop gate allowing it to be placed directly into bin BS-03 (FE) @ TP-21 (TC-PE) or transfer onto belt BC-10A(PE) which feeds to bin BS-04(FE) @ TP-21 (TC-FE). Bin BS-03 (FE) discharges to belt BC-13 @ TP-22 (LO-UC/FE). Bin BS-04 (FE) discharges to belt BC-13 (PE) @ TP-23 (LO-

UC/FE). Raw coal from OS-01, OS-02, BS-03 and BS-04 discharge underpile to belt conveyors BC-11, BC-12 and BC-13 (PE) which transfers it to the preparation plant for processing at TP-24(TC-FE).

Plant Processing

The raw coal from Belt BC-01 enters the screen S-1 @ TP-02 (TC-FE). Screen S-1 feeds crushers CR-1 (TP-06A, CS-FE) and CR-3 (TP-06B, CS-FW). From CR-3, material is either placed on belt BC-19 or continues in the screen/wet wash process at S-2.

Raw coal from Belt BC-03 may enter screen S-1 or screen S-2 (wet process). From screen S-2 material passes through screens S-3 through S-9 as necessary.

Raw coal from Belt BC13 may enter the plant process @ TP-24 (TC-24).

All screens and crushers are fully enclosed within the Prep Plant building. Crusher CR-3 is fully enclosed with the material passing through water sprays. In addition, it is also important to note that this is a wet process, with some of the screens having material with a 50% moisture content.

Material exits the plant by belt conveyors BC-14, BC-15, BC-19 and by the fully enclosed pipe (from the thickener tank).

Clean Stoker Coal

Clean stoker coal transfers from the plant @ TP-25(TC-FE) to belt conveyor BC-14(PE) to bin BS-05(FE) @ TP-26(TC-FE), where it can be loaded to truck or railcar via fixed chute @ TP-27(LO-PE) or TP-28(LO-PE).

Clean Coal

Clean coal is also transferred from the plant to the clean coal silo BS-06(FE) @ TP-30(TC-FE) and/or a 10,000 ton coal silo BS-09(FE) @ TP-33(TC-FE). BS-09 will transfer under-bin(LO-UC/FE) to belt conveyor BC-17(FE) @ TP-34(LO-UC) and onto belt conveyor BC-18(PE) @ TP-35(TC-PE); bin BS-06 will transfer under-bin directly to belt conveyor BC-18(PE) @ TP-31(LO-UC/FE); along BC-18, a sampling system will periodically grab an insignificant amount of material; BC-18 transfers to the fully enclosed bin BS-07 @ TP-36(TC-PE); BS-07 discharges via fixed height chute @ TP-37 (LR-TC) to railcar or to truck @ TP-27 (LO-PE) for final delivery.

Refuse

The refuse system begins @ TP-38 (TC-FE) as refuse material exits the plant via belt BC-19 (PE). At the end of belt BC-19 (PE), material flow is controlled by a flop gate which allows material to be sent directly to bin BS-08(FE) to be loaded out by truck @ TP-40 (NC) or be transferred to belt BC-20 (PE) @ TP-42 (TC-FE). From belt BC-20 (PE), refuse material transfers to belt BC-21(PE) @ TP-43 (TC-FE), and from Belt BC-21 (PE) to belt BC-22 (PE) @ TP-44 TC-FE). Material on belt BC-22 is either transferred onto belt BC-27 (PE) for loadout to truck @ TP-41 (NC), or

transferred to belt BC-23 (PE) @ TP-45 (TC-FE). From belt BC-23 (PE) material moves to belt BC-23A (PE) @ TP-46 (TC-FE) and then on to belt BC-24 @ TP-46A (TC-FE). Refuse material is transferred to the trucks @ TP-47 (NC).

Refuse from the thickener tank at the plant is transported by fully enclosed pipe to the Filter Press Building. Belt BC-25(PE) transfers material to belt BC-26(PE) at TP-48 (PE). Belt BC-26(PE) transfers the material to BC-26A (NC) at TP-49 (NC). Belt BC-26A(NC) transfers the material to be loaded out by truck or railcar at TP-50(NC).

Other Notes:

No VOC's or HAP's are associated with this permit.

NC indicates that no DEP approved control device is being utilized.

The facility shall be modified and operated in accordance with the following equipment and control device information taken from registration applications G10-D017D, G10-D017C, G10-C017B, G10-B017A and G10-B017 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 Equipment ³	Associated Transfer Points		
				TPH	TPY		Location: B -Before A -After	ID No.	Control Equipment ³
Deep Mine #1 Raw Coal Circuit									
BC-01	C 1999	5 and 6	Slope Conveyor (48"x200') - receives raw coal from Deep Mine #1 and transfers it to S-1 (see Preparation Plant Circuit below) within the wet wash preparation plant	800	2,000,000	PE	B A	TP-01 TP-02	TC-FE TC-FE
Deep Mine #2 Overland Raw Coal Circuit (Future)									
BC-04	Not Yet Constructed *	5 and 8	Belt Conveyor (48"x200') - receives raw coal from Deep Mine #2 and transfers it to BC-05 (* Permitted in 2003, but has not yet been constructed as of 2014)	1,200	2,000,000	PE	B A	TP-07 TP-08	TC-FE TC-FE
BC-05	Not Yet Constructed *	5 and 8	Belt Conveyor (48"x200') - receives raw coal from BC-04 and transfers it to BC-06 (* Permitted in 2003, but not yet constructed as of 2014)	1,200	2,000,000	PE	B A	TP-08 TP-09	TC-FE TC-FE
BC-06	Not Yet Constructed *	5 and 8	Belt Conveyor (48"x200') - receives raw coal from BC-05 and transfers it to BC-07 (see Deep Mine #2 Trucked Raw Coal Circuit below) (* Permitted in 2003, but has not yet been constructed as of 2014)	1,200	2,000,000	PE	B A	TP-09 TP-10	TC-FE TC-FE
Deep Mine #2 Trucked Raw Coal Circuit									
BS-01	M 2014 C 1999	5 and 8	Truck Dump Bin - 160 tons capacity - receives raw coal from Deep Mine #2 and discharges it onto BC-07	750	3,000,000	PE	B A	TP-03 TP-04	UD- PW LO-UC/FE
BS-02	M 2014 C 1999	5 and 8	Truck Dump Bin - 160 tons capacity - receives raw coal from Deep Mine #2 and discharges it onto BC-02	750	3,000,000	PE	B A	TP-03 TP-04	UD-PW LO-UC/FE
BC-02	C 1999	5 and 6	Belt Conveyor (42"x100') - receives raw coal from BS-02 and transfers it to BC-03	750	3,000,000	PE	B A	TP-04 TP-05	LO-UC/FE TC-FE
BC-03	C 1999	5 and 6	Belt Conveyor (42"x250') - receives raw coal from BC-02 and transfers it to S-1 or S-2 (see Preparation Plant Circuit below) within the wet wash preparation plant	750	3,000,000	PE	B	TP-05 TP-06	TC-FE TC-FE
BC-07	C 2003	5 and 6	Belt Conveyor (48"x500') - receives raw coal from BS-01 and BC-06 (see Deep Mine #2 Overland Raw Coal Circuit below) and transfers it to BC-08	1,200	5,000,000	PE	B B A	TP-04 TP-10 TP-11	LO-UC/FE TC-FE TC-FE
BC-08	C 2003	5 and 6	Belt Conveyor (48"x215') - receives raw coal from BC-07 and transfers it onto OS-01 or BC-09 via a flop gate	1,200	5,000,000	PE	B A A	TP-11 TP-12 TP-14	TC-FE TC-PE TC-FE

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				TPH	TPY		Location: B -Before A -After	ID No.	Control Equipment ³
OS-01	M 2014 C 1999	5 and 8	Raw Coal Open Stockpile - maximum 10,000 tons capacity, 28,869 ft2 base area and 75' height - receives raw coal from BC-08 via stacking tube, stores it and then it is transferred onto BC-13 (see below) by dozer pushing to the feeder at the wall	1,200 in 800 out	5,000,000	SW-WS	B A	TP-12 TP-13	TC-PE LO-UC/FE
BC-09	Not Yet Constructed *	5 and 8	Belt Conveyor (48"x215') - receives raw coal from BC-08 via a flop gate and transfers it to OS-02 (* Permitted in 2003, but has not yet been constructed as of 2014)	1,200	5,000,000	PE	B A	TP-14 TP-15	TC-FE TC-FE
OS-02	Not Yet Constructed *	5 and 8	Raw Coal Open Stockpile - maximum 10,000 tons capacity, 28,869 ft2 base area and 75' height - receives raw coal from BC-09 via a stacking tube, stores it and then it is transferred onto BC-11 by two underground feeders (* Permitted in 2003, but has not yet been constructed as of 2014)	1,200 in 800 out	5,000,000	SW-WS	B A	TP-15 TP-16	TC-FE LO-UC/FE
BC-11	Not Yet Constructed *	5 and 8	Transfer Conveyor (48"x115') - receives raw coal via underground feeders from OS-02 and transfers it to BC-12 (* Permitted in 2003, but has not yet been constructed as of 2014)	800	5,000,000	FE	B A	TP-16 TP-17	LO-UC/FE TC-FE
BC-12	Not Yet Constructed *	5 and 8	Feed Conveyor (48"x260') - receives raw coal from BC-11 and transfers it to BC-13 (see below) (* Permitted in 2003, but has not yet been constructed as of 2014)	800	5,000,000	FE	B A	TP-17 TP-18	TC-FE TC-FE
BC-10	C 1999	5 and 6	Belt Conveyor (48"x665') - receives crushed and screened raw coal from the preparation plant and transfers it to BS-03 or BC-10A thru a flop gate	800	7,000,000	PE	B A	TP-19 TP-20	FE TC-PE
BS-03	M 2014 C 1999	5 and 8	Raw Coal Silo #1 - maximum 7,500 tons capacity - receives crushed and screened coal from BC-10, stores it and then it is discharged onto BC-13 by a bottom feeder	800	7,000,000	FE	B A	TP-20 TP-22	TC-PE LO-UC/FE
BC-10A	C 1999 *	5 and 6	Belt Conveyor - receives crushed and screened coal from BC-10 via a flop gate and transfers it to BC-13 (* Constructed in 1999, but not permitted until 2010)	800	7,000,000	PE	B A	TP-20 TP-21	TC-PE TC-PE
BS-04	M 2014 C 1999	5 and 8	Raw Coal Silo #2 - maximum 7,500 tons capacity - receives crushed and screened coal from BC-10A, stores it and then it is discharged onto BC-13 by a bottom feeder	800	7,000,000	FE	B A	TP-21 TP-23	TC-PE LO-UC/FE
BC-13	C 1999	5 and 6	Plant Feed Conveyor (48"x700') - receives raw coal from feeders for OS-01, BC-12, BS-03 and BS-04 and transfers it to the wet wash preparation plant	800	7,000,000	PE	B B B A	TP-13 TP-18 TP-22 TP-23 TP-24	LO-UC/FE TC-FE LO-UC/FE LO-UC/FE TC-FE
Preparation Plant Circuit									
S-1	C 1999	5 and 6	Conweld Single Deck Screen - receives raw coal from BC-01 and BC-03, sizes it and then the oversize refuse drops into CR-1 while the screened raw coal drops into CR-3	400	7,000,000	CS-FE	B B A A	TP-02 TP-06 TP-06A TP-06B	TC-FE TC-FE CS-FE CS-FW
CR-1	C 2000	5 and 6	Jeffrey 445 Hammermill Crusher - receives oversize refuse (>5x>5) from S-1, crushes it and then drops it directly onto BC-19 (See Refuse Circuit below)	400	7,000,000	CS-FE	B A	TP-06A TP-38	CS-FE TC-FE
CR-3	C 2003	5 and 6	MMD Double Roll Crusher - receives screened coal from S-1, crushes it (4"x2") and then drops it directly onto S-2 while the oversize refuse drops directly onto BC-19 (see Refuse Circuit below)	400	7,000,000	CS-FE	B A A	TP-06B N/A TP-38	CS-FW WW TC-FE
S-2	C 2003	5 and 6	Tabor Double Deck Screen - receives raw coal from BC-03 and CR-3 classifies it (4"x0) and then drops it directly into S-3 or onto one of three exiting conveyors BC-14 (stoker coal), BC-15 (clean coal) or BC-19 (refuse)	400	7,000,000	WW-FE	B A A A A	TP-06 N/A TP-25 TP-29 TP-38	TC-FE WW TC-FE TC-FE TC-FE
S-3	M 2014 C 2000	5 and 8	Conweld Single Deck Screen - receives raw coal from S-2, sizes it (+1mm x -1mm) and then drops it directly into S-4 if needed or onto one of three exiting conveyors BC-14 (stoker coal), BC-15 (clean coal) or BC-19 (refuse)	400	7,000,000	WW-FE	B A A A A	N/A N/A TP-25 TP-29 TP-38	WW WW TC-FE TC-FE TC-FE
S-4	M 2014 C 2000	5 and 8	Conweld Single Deck Screen - receives raw coal from S-3, sizes it (+1mm x -1mm) and then drops it directly onto S-5 if needed or onto one of three exiting conveyors BC-14 (stoker coal), BC-15 (clean coal) or BC-19 (refuse)	400	7,000,000	WW-FE	B A A A A	N/A N/A TP-25 TP-29 TP-38	WW WW TC-FE TC-FE TC-FE

Equipment ID No.	Date of Construction, Reconstruction or Modification ¹	G10-D Applicable Sections ²	Emission Unit Description	Maximum Permitted Throughput		Control Equipment ³	Associated Transfer Points		
				TPH	TPY		Location: B - Before A - After	ID No.	Control Equipment ³
S-5	M 2014 C 2000	5 and 8	Tabor Triple Deck Screen - receives raw coal from S-4, sizes it (3"x0) and then drops it directly onto S-6 if needed or onto one of three exiting conveyors BC-14 (stoker coal), BC-15 (clean coal) or BC-19 (refuse)	400	7,000,000	WW-FE	B A A A	N/A N/A TP-25 TP-29 TP-38	WW WW TC-FE TC-FE TC-FE
S-6	M 2014 C 2000	5 and 8	Tabor Triple Deck Screen - receives raw coal from S-5, sizes it (3"x0) and then drops it directly onto S-7 if needed or onto one of three exiting conveyors BC-14 (stoker coal), BC-15 (clean coal) or BC-19 (refuse)	400	7,000,000	WW-FE	B A A A	N/A N/A TP-25 TP-29 TP-38	WW WW TC-FE TC-FE TC-FE
S-7	M 2014 C 2000	5 and 8	Tabor Double Deck Screen - receives raw coal from S-6, sizes it (5"x3/4mm) and then drops it directly onto S-8 if needed or onto one of three exiting conveyors BC-14 (stoker coal), BC-15 (clean coal) or BC-19 (refuse)	400	7,000,000	WW-FE	B A A A	N/A N/A TP-25 TP-29 TP-38	WW WW TC-FE TC-FE TC-FE
S-8	M 2014 C 2000	5 and 8	Tabor Single Deck Screen - receives raw coal from S-7, sizes it (1/2"x0.33mm) and then drops it directly onto S-9 if needed or onto one of three exiting conveyors BC-14 (stoker coal), BC-15 (clean coal) or BC-19 (refuse)	400	7,000,000	WW-FE	B A A A	N/A N/A TP-25 TP-29 TP-38	WW WW TC-FE TC-FE TC-FE
S-9	M 2014 C 2000	5 and 8	Tabor Single Deck Screen - receives raw coal from screen S-8, sizes it (1mm x 0) and then drops it onto one of three exiting conveyors BC-14 (stoker coal), BC-15 (clean coal) or BC-19 (refuse)	400	7,000,000	WW-FE	B A A A	N/A N/A TP-25 TP-29 TP-38	WW WW TC-FE TC-FE TC-FE
Stoker Coal Circuit									
BC-14	C 1999	5 and 6	Belt Conveyor (36"x100') - receives stoker coal from the wet wash circuit and transfers it to BS-05	300	400,000	PE	B A	TP-25 TP-26	TC-FE TC-FE
BS-05	C 1999	5 and 6	Stoker Bin - maximum 160 tons capacity - receives stoker coal from BC-14, stores it and then discharges it into truck or railcar	300	400,000	FE	B A A	TP-26 TP-27 TP-28	TC-FE LO-PE LO-PE
Clean Coal Circuit									
BC-15	C 1999	5 and 6	Clean Coal Silo Feed Conveyor (42"x550') - receives clean coal from wet wash circuit and transfers it to BS-06 or BC-16 via a flop gate	800	2,750,000	PE	B A A	TP-29 TP-30 TP-32	TC-FE TC-FE TC-FE
BS-06	C 1999	5 and 6	Clean Coal Silo - maximum 7,500 tons capacity - receives clean coal from BC-15, stores it and then discharges it onto BC-18 through a feeder	800 in 4,000 out	2,750,000	FE	B A	TP-30 TP-31	TC-FE LO-UC/FE
BC-16	C 1999	5 and 6	Belt Conveyor (48"x209') - receives clean coal from BC-15 and transfers it to BS-09	800	2,750,000	PE	B A	TP-32 TP-33	TC-FE TC-FE
BS-09	C 1999	5 and 6	Clean Coal Silo - maximum 10,000 tons capacity - receives clean coal from BC-16, stores it and then discharges it onto BC-17	800 in 4,000 out	2,750,000	FE	B A	TP-33 TP-34	TC-FE LO-UC/FE
BC-17	C 1999	5 and 6	Belt Conveyor (60"x160') - receives clean coal from BS-09 and transfers it to BC-18	4,000	2,750,000	PE	B A	TP-34 TP-35	LO-UC/FE TC-FE
BC-18	C 1999	5 and 6	Loadout Conveyor (60"x260') - receives clean coal from BS-06 and BC-17 then transfers it to BS-07	4,000	2,750,000	PE	B B A	TP-31 TP-35 TP-36	LO-UC/FE TC-FE TC-FE
BS-07	C 1999	5 and 6	Clean Coal Flood Loadout Bin - maximum 200 tons capacity - receives clean coal from BC-18 and then discharges into railcar or truck	4,000	2,750,000	FE	B A	TP-36 TP-37	TC-FE LR-TC
Refuse Circuit									
BC-19	C 1999	5 and 6	Refuse Conveyor (36"x100') - receives refuse from the wet wash circuit, CR-1 and CR-3 and discharges into BS-08 or onto BC-20 via a flop gate	800	3,500,000	PE	B A A	TP-38 TP-39 TP-42	TC-FE TC-FE TC-FE
BS-08	C 1999	5 and 6	Plant Refuse Bin - maximum 150 tons capacity - receives refuse from BC-19 (Emergency Use - 1% of Total Tonnage)	800	3,500,000	FE	B A	TP-39 TP-40	TC-FE NC
BC-20	C 1999	5 and 6	Refuse Conveyor (36"x650') - receives refuse from BC-19 and transfers it to BC-21	800	3,500,000	PE	B A	TP-42 TP-43	TC-FE TC-FE
BC-21	C 1999	5 and 6	Refuse Conveyor (36"x1000') - receives refuse from BC-20 and transfers it to BC-22	800	3,500,000	PE	B A	TP-43 TP-44	TC-FE TC-FE
BC-22	C 1999	5 and 6	Refuse Conveyor (36"x1000') - receives refuse from BC-21 and transfers it to BC-27 or BC-23	800	3,500,000	PE	B A A	TP-44 TP-41 TP-45	TC-FE NC TC-FE

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				TPH	TPY		Location: B - Before A - After	ID No.	Control Equipment ³
BC-27	C 1999	5 and 6	Refuse Conveyor (36"x90') - receives refuse from BC-22 and transfers it to refuse stockpile or truck in the event of an emergency or belt failure	800	3,500,000	PE	B A	TP-44 TP-41	TC-FE NC
BC-23	C 2005 *	5 and 6	Refuse Conveyor (36"x850') - receives refuse from BC-22 and transfers it to BC-23A (* Constructed in 2005, but not permitted until 2010)	800	3,500,000	PE	B A	TP-45 TP-46	TC-FE TC-FE
BC-23A	C 2013 *	5 and 8	Refuse Conveyor (36"x850') - receives refuse from BC-23 and transfers it to BC-24 (* Constructed in August 2013, but not permitted until 2014)	800	3,500,000	PE	B A	TP-46 TP-46A	TC-FE TC-FE
BC-24	C 2005 *	5 and 6	Refuse Conveyor (36"x100') - receives refuse from BC-23A and transfers it to the refuse stockpile or truck (* Constructed in 2005, but not permitted until 2010)	800	3,500,000	PE	B A	TP-46A TP-47	TC-FE NC
BC-25	C 2005 *	5 and 6	Filter Press Belt Conveyor (36"x100') - receives thickener from a pipe from the wet wash circuit and transfers the material to BC-26 (* Constructed in 2005, but not permitted until 2010)	300	350,000	PE	B A	NA TP-48	NA TC-PE
BC-26	C 2005 *	5 and 6	Belt Conveyor (36"x65') - receives thickener and material from BC-25 and transfers it to BC-26A (* Constructed in 2005, but not permitted until 2010)	300	350,000	PE	B A	TP-48 TP-49	TC-PE TC-PE
BC-26A	C 2013 *	5 and 8	Belt Conveyor (36"x65') - receives thickener and material from BC-26 and transfers it to the refuse stockpile or truck (* Constructed in 2013, but not permitted until 2014)	300	350,000	NC	B A	TP-49 TP-50	TC-PE NC

- 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; WW - Wet Wash Circuit; TC - Telescopic Chute; UC - Under-pile Conveyor; MDH - Minimize Drop Height; and NC - No Control.
- ⁴ Equipment was permitted in 2003, however, has not been constructed as of this permit modification

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 unpaved haulroads and work areas. The haulroads, stockpiles, and work areas will be controlled by water truck in accordance with the compliance section of the General Permit. The water truck will be operated three times daily, and more frequently as needed in dry periods.

An additive to prevent freezing will be utilized in the winter months when freezing conditions are present. New course limestone gravel base material will be added to unpaved haulroads as needed.

SITE INSPECTION

On December 4, 2013, Fred Teel of the DAQ's Compliance and Enforcement Section

Fact Sheet G10-D017D
Emerald Processing, Limited Liability Company
South Hollow Preparation Plant

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.

Directions from Charleston, WV are to take Rt. 61 to Fields Creek (Winifrede Hollow Road), turn right onto Winifrede Road, go straight, plant located approximately 5 miles from the Post Office at the end of the road.

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 modification will result in a new facility-wide potential to discharge controlled particulate matter emissions of 217.06 pounds per hour (PPH) and 961.98 tons per year (TPY) of particulate matter (PM), of which 67.06 PPH and 298.54 TPY will be particulate matter less than 10 microns in diameter (PM₁₀). Refer to the following table for a complete summary of the proposed facility's potential to discharge:

- New Facility-wide Emissions - Emerald Processing, Limited Liability Company South Hollow Preparation Plant	Controlled PM Emissions		Controlled PM₁₀ Emissions	
	lb/hour	TPY	lb/hour	TPY
Fugitive Emissions				
Open Storage Pile Emissions	0.09	0.40	0.04	0.19
Unpaved Haulroad Emissions	193.36	848.93	55.88	245.35
Paved Haulroad Emissions	0.00	0.00	0.00	0.00
<i>Fugitive Emissions Total</i>	<i>193.46</i>	<i>849.34</i>	<i>55.93</i>	<i>245.54</i>
Point Source Emissions				
Equipment Emissions	10.40	91.00	4.98	42.77
Transfer Point Emissions	13.20	21.64	6.24	10.24
<i>Point Source Emissions Total (PTE)</i>	<i>23.60</i>	<i>112.64</i>	<i>11.13</i>	<i>53.01</i>
FACILITY-WIDE EMISSIONS	217.06	961.98	67.06	298.54

REGULATORY APPLICABILITY

NESHAPS and PSD have no applicability to the modified facility. The modification of

Emerald Processing, Limited Liability Company'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 result in an increase in the potential to discharge less than six pounds per hour and ten tons per year for a regulated pollutant (PM and PM₁₀), involve the construction of two belt conveyors and involve the modification of various pieces of existing equipment and stockpiles, which are defined as affected facilities and subject to 40 CFR 60 NSPS Subpart Y revised on April 28, 2008 and then again on May 27, 2009. The applicant has submitted an application for a Class II administrative update. The applicant published a Class I legal advertisement in *The Daily Mail* on July 9, 2014 and submitted \$300 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 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 two belt conveyors and the modification of various pieces of existing equipment and stockpiles, which are defined as affected facilities in 40 CFR 60 Subpart Y. Therefore, the proposed modification is subject to 45CSR16, which incorporates by reference 40 CFR 60 Subpart Y - Standards of Performance for Coal Preparation Plants. The facility should be in compliance with Section 254(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, the facility is not listed in 45CSR30 subsection 2.26.b as one of the categories of stationary sources which must include fugitive emissions (open storage piles constructed or modified on or before May 27, 2009 and haulroads) when determining whether it is a major stationary source for the purposes of § 302(j) of the Clean Air Act. The facility's potential to emit will be 53.20 TPY for PM₁₀ (open storage piles constructed or modified after May 27, 2009 and point sources combined), which is less than the 45CSR30 threshold of 100 TPY of a regulated air pollutant used to define a major stationary source. Therefore, the facility 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 Emerald Processing, Limited Liability Company's 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, the facility is not one of the 100 TPY stationary sources listed under the definition of "Major Stationary Source" in subsection 2.43.a. Therefore, it must have the potential to emit 250 TPY or more of any regulated pollutant to meet the definition of a major source in subsection 2.43.b. At the end of subsection 2.4.3, this facility is not listed in Table 1 - Source Categories Which Must Include Fugitive Emissions. So, fugitive emissions (from open storage piles constructed or modified on or before May 27, 2009 and haulroads) are not included when determining major stationary source applicability. The facility's potential to emit will be 113.04 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.

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 PM₁₀ (particulate matter less than 10 microns in diameter), which are non-toxic pollutants.

AIR QUALITY IMPACT ANALYSIS

Air dispersion modeling was not performed due to the size and location of this facility and the extent of the proposed modification. This facility is located in Kanawha County, WV, which is currently designated a PM_{2.5} nonattainment area (for both the annual and the 2006 24-hr standards), but is in attainment for all other regulated pollutants. This modified facility will remain a minor source as defined by 45CSR14 and 45CSR19, 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 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 application for a Class II administrative update 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

Fact Sheet G10-D017D
Emerald Processing, Limited Liability Company
South Hollow Preparation Plant

G10-D registration to Emerald Processing, Limited Liability Company for the modification of their existing wet wash coal preparation plant and railcar loadout located near Winifrede, Kanawha County, WV is hereby recommended.



Daniel P. Roberts, Engineer Trainee
NSR Permitting Section

April 2, 2015

Date