



west virginia department of environmental protection

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ENGINEERING EVALUATION / FACT SHEET

BACKGROUND INFORMATION

Application No.: G10-D078G
Plant ID No.: 005-00010
Applicant: Black Castle Mining Company, Inc.
Facility Name: Admiral Processing Plant
Location: Peytona, Boone County, WV
SIC Codes: 1221 (Bituminous Coal & Lignite - Surface)
1222 (Bituminous Coal & Lignite - Underground)
NAICS Codes: 212111 (Bituminous Coal and Lignite Surface Mining)
212112 (Bituminous Coal Underground Mining)
Application Type: Modification
Received Date: April 15, 2016
Engineer Assigned: Dan Roberts
Fee Amount: \$1,500
Date Received: April 15, 2016
Applicant's Ad Date: April 27, 2016
Newspaper: *Coal Valley News*
Complete Date: May 9, 2016
UTM Coordinates: Easting: 439.3473 km Northing: 4219.0478 km NAD83 Zone 17N
Lat/Lon Coordinates: Latitude: 37.271437 Longitude: -81.662311 NAD83
Description: Modification to add a raw coal bypass conveyor BC-22 rated for 300 TPH and 2,628,000 TPY.

BACKGROUND

Black Castle Mining Company, Inc. owns and operates the existing Admiral Processing Plant under current permit G10-D078F, which was approved on May 13, 2015. Black Castle Mining Company, Inc. is a subsidiary of Alpha Natural Resources.

The Admiral Processing Plant was formerly owned and operated by Jacks Branch Coal Company, which is also a subsidiary of Alpha Natural Resources. On April 24, 2015, the

appropriate paper work was submitted to the DAQ regarding the sale of the facility from Jacks Branch Coal Company to Black Castle Mining Company, Inc. In a letter dated May 11, 2015, the DAQ acknowledged the transfer and converted all of the associated files to be listed under Black Castle Mining Company, Inc.

DESCRIPTION OF PROCESS

This modification proposes to add raw coal bypass conveyor BC-22, which will enable raw coal to avoid open storage in stockpiles OS-02 and OS-03.

Direct Ship or Raw Clean Coal is delivered to truck dump bins BS-01(PW), BS-02(PW) and BS-03(PW) @ TP-01(UD-PW), TP-03(UD-PW), and TP-05(UD-PW); transferred to belt conveyor BC-01(FE) @ TP-02(TC-FE), TP-04(TC-FE) and TP-06(TC-FE); for delivery to the scalping screen SS-01(FW) @ TP-07(TC-FE) and crusher CR-01(FW) @ TP-08(TC-FW). The crusher will transfer material to overland belt conveyor BC-02(PE) @ TP-09(TC-FW) which by-passes the prep plant and discharges to stockpile OS-01(SW-WS) @ TP-10(TC-PE). A stacking tube controls load-in to the stockpile.

Raw coal can be dumped into existing truck dump bin BS-01(PW) @ TP-01(UD-PW), which can transfer it onto belt conveyor BC-01(FE) @ TP-02(TC-FE) or onto new belt conveyor BC-21(FE) @ TP-51(TC-FE). New belt conveyor BC-21 will transfer the raw coal to existing belt conveyor BC-07(FE) @ TP-52(TC-FE), which is part of the raw coal transfer and conveying system that feeds the wet wash circuit in the preparation plant. Also, the maximum hourly and annual throughput rates for BS-01 will be increased.

Raw coal will be trucked to a partially-enclosed with water sprays truck dump bin BS-06(PW) @ TP-48(UD-PW); be fed into raw coal pick breaker CR-04(FE) @ TP-49(TC-FE); and then have the option to discharge to partially enclosed belt conveyor BC-20(PE) @ TP-50(TC-FE) and be transferred to existing raw coal belt conveyor BC-03(NC) @ TP-53(TC-FE) or be transferred to a new proposed belt BC-22(PE) @ TP-54(TC-FE) and then to existing belt BC-07 @ TP-55(TC-FE).

Deep mine raw coal will transfer inside the mine onto raw coal belt conveyor BC-03(NC) @ TP-11(TP-FE); to belt conveyor BC-04(PE) @ TP-12(TC-PE); to stockpile OS-02(SW-WS) @ TP-13(TC-PE). Belt BC-04 will also transfer to belt conveyor BC-05(PE) @ TP-14(TC-FE) for delivery to stockpile OS-03(SW-WS) @ TP-15(TC-PE). Stacking tubes control load-in to the stockpiles. Coal will reclaim under-pile to belt conveyor BC-06(PE) @ TP-16(LO-UC) and TP-17(LO-UC); transfer to belt conveyor BC-07(PE) @ TP-18(TC-FE); to crusher CR-02(FW) @ TP-19(TC-FE); to plant feed belt BC-08(PE) @ TP-20(TC-FW); and into the plant at TP-21(TC-FW).

Clean coal is transferred inside the plant by crusher CR-03(FW) @ TP-22(TC-FW) leave the plant on belt conveyor BC-09(PE) @ TP-23(TC-FW). Belt conveyor BC-09 transfers clean met coal to belt conveyor BC-10(PE) @ TP-24(TC-FE) for delivery to stockpile OS-04(SW-WS) @ TP-25(TC-PE). Stacking tube controls load-in to the stockpile. Belt conveyor BC-09 also transfers plant clean coal to belt conveyor BC-11(PE) @ TP-26(TC-FE) for delivery via stacking tube to stockpile OS-06(SW-WS) @ TP-27(TC-PE). Belt conveyor BC-11 also transfers coal to reversing belt BC-12(PE) @ TP-28(TC-FE) for delivery to open stockpile OS-05(SW-WS) @ TP-29(TC-MDH) and

to open stockpile OS-07(SW-WS) @ TP-30(TC-MDH).

Clean coal stockpiles OS-01, OS-04, OS-05, OS-06 and OS-07 will reclaim to loadout belt conveyor BC-13(PE) @ TP-31(LO-UC, TP-32(LO-UC), TP-33(LO-UC), TP-34(LO-UC), and TP-35(LO-UC) for delivery to the loadout surge bin BS-04(FE) @ TP-36(TC-FE); loadout weigh bin BS-05(FE) @ TP-37(TC-FE); and to railcar via telescopic chute @ TP-38(LR-TC). In 2015, a fixed chute will be installed on the loadout weigh bin BS-05(FE) and it will load clean coal directly to trucks @ TP-47(LO-MDH). The amount of clean coal being trucked from the facility will also be increased from 57 TPH and 500,000 TPY to 228 TPH and 2,000,000 TPY.

Refuse is transferred to the disposal area by a series of belt conveyors designated BC-14(PE) thru BC-19(NC) @ TP-39(TC-FE) thru TP-45(TC-MDH).

For operational flexibility, raw coal can be received by truck @ TP-46(UL-MDH) and clean coal can be sent out by truck @ TP-47(LO-MDH).

The facility shall be constructed and operated in accordance with the following equipment and control device information taken from registration application G10-D078G and any amendments thereto:

| Equipment ID No. | Date of Construction, Reconstruction or Modification ¹ | G10-D Applicable Sections ² | Description | Maximum Capacity | | Control Device ³ | Associated Transfer Points | | |
|---|---|--|--|-----------------------|-----------|-----------------------------|--------------------------------|----------------------------------|----------------------------------|
| | | | | TPH | TPY | | Location: B - Before A - After | ID. No. | Control Device ³ |
| Direct Ship / Clean Coal Circuit | | | | | | | | | |
| BS-01 | M 2013 M 2008 | 5 and 8 | Truck Dump/Raw Coal Bin - 150 ton capacity - three sided roofed enclosure w/water sprays, raw coal loaded in through the top, transfers to belt BC-01 or belt BC-21 | 1,000 | 8,760,000 | PW | B A A | TP-01 TP-02 TP-51 | UD-PW TC-FE TC-FE |
| BC-21 | C 2013 | 5 and 8 | Belt Conveyor - receives raw coal from BS-01 and transfers it to BC-07 (see Deep Mine Raw Coal Circuit below) | 1,000 | 8,760,000 | PE | B A | TP-51 TP-52 | TC-FE TC-FE |
| BS-02 | M 2008 | 5 and 7 | Truck Dump Bin - three sided roofed enclosure w/water sprays, raw coal loaded in through the top, transfers to belt BC-01 | 500 | 2,920,000 | PW | B A | TP-03 TP-04 | UD-PW TC-FE |
| BS-03 | M 2008 | 5 and 7 | Truck Dump Bin - three sided roofed enclosure w/water sprays, raw coal loaded in through the top, transfers to belt BC-01 | 500 | 2,920,000 | PW | B A | TP-05 TP-06 | UD-PW TC-FE |
| BC-01 | M 2008 | 5 and 7 | Belt Conveyor - collects raw coal from BS-01, BS-02, BS-03 for transfer to scalping building | 1,000 | 8,760,000 | FE | B B B A | TP-02 TP-04 TP-06 TP-07 | TC-FE TC-FE TC-FE TC-FE |
| SS-01 | M 2008 | 5 and 7 | Scalping Screen - receives raw trucked coal from bins BS-01, BS-02 and BS-03 then transfers into crusher CR-01 | 1,000 | 8,760,000 | FW | B A | TP-07 TP-08 | TC-FE TC-FW |
| CR-01 | M 2008 | 5 and 7 | Crusher - (Scalping Building, +8X0/2X0, 5% moisture content), sized coal transferred to overland conveyor BC-02 | 1,000 | 8,760,000 | FW | B A | TP-08 TP-09 | TC-FW TC-FW |
| BC-02 | M 2008 | 5 and 7 | Overland Belt Conveyor - collects raw coal from crusher then transfers to stockpile OS-01 | 1,000 | 8,760,000 | PE | B A | TP-09 TP-10 | TC-FW TC-PE |
| OS-01 | M 2013 M 2008 | 5 and 8 | Direct Ship Clean Coal Stockpile - maximum 75,000 ton capacity, 108,869 ft ² and 75' height - receives direct ship clean coal from overland conveyor BC-02 via a stacking tube. Coal is reclaimed underpile onto belt BC-13 | 1,000 in 4,500 out | 8,760,000 | SW-WS | B A | TP-10 TP-31 | TC-PE LO-UC |
| Trucked Raw Coal Circuit | | | | | | | | | |

| Equipment ID No. | Date of Construction, Reconstruction or Modification ¹ | G10-D Applicable Sections ² | Description | Maximum Capacity | | Control Device ³ | Associated Transfer Points | | |
|-----------------------------------|---|--|--|------------------------|-----------|-----------------------------|--------------------------------|----------------------------------|----------------------------------|
| | | | | TPH | TPY | | Location: B - Before A - After | ID. No. | Control Device ³ |
| BS-06 | C 2013 | 5 and 8 | Truck Dump Bin - 100 ton capacity - partially enclosed w/ water sprays - raw coal dumped by trucks in through the top and then it drops to breaker CR-04 | 300 | 2,628,000 | PW | B A | TP-48 TP-49 | UD-PW TC-FE |
| CR-04 | C 2014 | 5 and 8 | Breaker - receives raw coal from BS-06, crushes it and then it drops onto BC-20 or BC-22 | 300 | 2,628,000 | FE | B A A | TP-49 TP-50 TP-54 | TC-FW TC-FE TC-FE |
| BC-20 | C 2013 | 5 and 8 | Belt Conveyor - receives raw coal from CR-04 and transfers it to belt conveyor BC-03 (see Deep Mine Raw Coal Circuit below) | 300 | 2,628,000 | PE | B A | TP-50 TP-53 | TC-FE TC-FE |
| BC-22 | C 2016 | 5 and 8 | Belt Conveyor - receives raw coal from CR-04 and transfers it to belt conveyor BC-07 (see Deep Mine Raw Coal Circuit below) | 300 | 2,628,000 | PE | B A | TP-54 TP-55 | TC-FE TC-FE |
| Deep Mine Raw Coal Circuit | | | | | | | | | |
| BC-03 | M 2008 | 5 and 7 | Belt Conveyor - collects raw coal from Deep Mine and belt conveyor BC-20 for transfer to belt BC-04 | 1,000 | 8,760,000 | N | B A | TP-11 TP-12 | TC-FE TC-PE |
| BC-04 | M 2008 | 5 and 7 | Belt Conveyor - receives raw coal from belt BC-03 and transfers to raw coal stockpile OS-02 or to belt BC-05 | 1,000 | 8,760,000 | PE | B A A | TP-12 TP-13 TP-14 | TC-PE TC-PE TC-FE |
| OS-02 | M 2013 M 2008 | 5 and 8 | Raw Coal Stockpile - maximum 75,000 ton capacity, 108,869 ft ² and 75' height - receives raw coal from belt BC-04. Raw coal is reclaimed underpile by belt BC-06 | 1,000 | 4,380,000 | SW-WS | B A | TP-14 TP-16 | TC-FE LO-UC |
| BC-05 | M 2008 | 5 and 7 | Belt Conveyor - receives raw coal from belt BC-04 and transfers to raw coal stockpile OS-03 | 1,000 | 4,380,000 | PE | B A | TP-14 TP-15 | TC-FE TC-PE |
| OS-03 | M 2013 M 2008 | 5 and 8 | Raw Coal Stockpile - maximum 50,000 ton capacity, 88,869 ft ² and 75' height - receives raw coal from belt BC-05. Raw coal is reclaimed underpile by belt BC-06 | 1,000 | 4,380,000 | SW-WS | B A | TP-15 TP-17 | TC-PE LO-UC |
| BC-06 | M 2008 | 5 and 7 | Underpile Reclaim Conveyor - receives raw coal underpile from raw coal stockpiles OS-02 and OS-03 then transfers to belt BC-07 | 1,000 | 8,760,000 | PE | B B A | TP-16 TP-17 TP-18 | LO-UC LO-UC TC-FE |
| BC-07 | M 2008 | 5 and 7 | Belt Conveyor - receives raw coal from belt BC-06 and belt BC-21 and belt BC-22 and transfers to crusher CR-02 | 1,000 | 8,760,000 | PE | B B B A | TP-18 TP-52 TP-55 TP-19 | TC-FE TC-FE TC-FE TC-FE |
| CR-02 | M 2008 | 5 and 7 | Double Roll Crusher - receives raw coal from belt BC-07, crushes, then transfers to belt BC-08 | 1,000 | 8,760,000 | FW | B A | TP-19 TP-20 | TC-FE TC-FW |
| BC-08 | M 2008 | 5 and 7 | Plant Feed Belt Conveyor - receives crushed raw coal from crusher CR-02 and transfers to the preparation plant | 1,000 | 8,760,000 | PE | B A | TP-20 TP-22 | TC-FW TC-FW |
| Clean Coal Circuit | | | | | | | | | |
| CR-03 | M 2008 | 5 and 7 | Clean Coal Transfer Crusher - receives clean coal from the wet wash circuit, crushes it and transfers it onto exiting belt conveyor BC-09 | 750 | 6,570,000 | FW | B A | TP-22 TP-23 | TC-FW TC-FW |
| BC-09 | M 2008 | 5 and 7 | Belt Conveyor - collects clean coal from crusher CR-03 for transfer to belt BC-10 or belt BC-11 | 750 | 6,570,000 | PE | B A A | TP-23 TP-24 TP-26 | TC-FW TC-FE TC-FE |
| BC-10 | M 2008 | 5 and 7 | Stacking Belt Conveyor - receives clean met coal from belt BC-09 and transfers to stockpile OS-04 via stacking tube | 750 | 1,642,500 | PE | B A | TP-24 TP-25 | TC-FE TC-PE |
| BC-11 | M 2008 | 5 and 7 | Stacking Belt Conveyor - receives clean met coal from belt BC-09 and transfers to stockpile OS-06 via stacking tube or to reversing conveyor BC-12 | 750 | 4,927,500 | PE | B A | TP-26 TP-27 | TC-FE TC-PE |
| BC-12 | M 2008 | 5 and 7 | Reversing Conveyor - receives clean met coal from belt BC-11 then transfers to either clean coal stockpile OS-05 or to clean coal stockpile OS-07 | 750 | 3,285,000 | PE | B A A | TP-28 TP-29 TP-30 | TC-FE TC-MDH TC-MDH |
| OS-04 | M 2013 M 2008 | 5 and 8 | Clean Met Coal Stockpile - maximum 50,000 ton capacity, 88,869 ft ² and 75' height - receives clean coal via Stacking Tube from stacking belt BC-10, coal is reclaimed underpile via belt BC-13 | 750 in 4,500 out | 1,642,500 | SW-WS | B A | TP-25 TP-32 | TC-PE LO-UC |

| Equipment ID No. | Date of Construction, Reconstruction or Modification ¹ | G10-D Applicable Sections ² | Description | Maximum Capacity | | Control Device ³ | Associated Transfer Points | | |
|-----------------------|---|--|--|------------------------|------------|-----------------------------|-----------------------------------|--|--|
| | | | | TPH | TPY | | Location: B - Before A - After | ID. No. | Control Device ³ |
| OS-06 | M 2013 M 2008 | 5 and 8 | Clean Met Coal Stockpile - maximum 50,000 ton capacity, 88,869 ft ² and 75' height - receives clean coal via Stacking Tube from stacking belt BC-11, coal is reclaimed underpile via belt BC-13 | 750 in 4,500 out | 1,642,500 | SW-WS | B A | TP-27 TP-34 | TC-PE LO-UC |
| OS-05 | M 2013 M 2008 | 5 and 8 | Clean Met Coal Stockpile - maximum 50,000 ton capacity, 88,869 ft ² and 75' height - receives clean coal via reversing belt BC-12, coal is reclaimed underpile via belt BC-13 | 750 in 4,500 out | 1,642,500 | SW-WS | B A | TP-29 TP-33 | TC-MDH LO-UC |
| OS-07 | M 2013 M 2008 | 5 and 8 | Clean Met Coal Stockpile - maximum 50,000 ton capacity, 88,869 ft ² and 75' height - receives clean coal via reversing belt BC-12, coal is reclaimed underpile via belt BC-13 | 750 in 4,500 out | 1,642,500 | SW-WS | B A | TP-30 TP-35 | TC-MDH LO-UC |
| BC-13 | M 2008 | 5 and 7 | Reclaim Conveyor - receives clean coal underpile from stockpiles OS-01, OS-4, OS-05, OS-06 and OS-07 for delivery to the loadout surge bin BS-04; loadout weigh bin BS-05 and to railcar via telescopic chute. | 4,500 | 15,330,000 | PE | B B B B A | TP-31 TP-32 TP-33 TP-34 TP-35 TP-36 | LO-UC LO-UC LO-UC LO-UC LO-UC TC-FE |
| BS-04 | M 2008 | 5 and 7 | Surge Bin - 400 ton capacity - receives raw coal from conveyor BC-13 and feeds it into weigh bin BS-05 | 4,500 | 15,330,000 | PW | B A | TP-36 TP-37 | TC-FE TC-FE |
| BS-05 | M 2008 | 5 and 7 | Weigh Bin - 240 ton capacity - receives raw coal from surge bin BS-04 and loads it into railcars or it passes through a chute into trucks for shipment (maximum throughput through chute is 228 TPH and 2,000,000 TPY) | 4,500 | 15,330,000 | PW | B A A | TP-37 TP-38 TP-47 | TC-FE LR-TC LO-MDH |
| Refuse Circuit | | | | | | | | | |
| BC-14 | M 2008 | 5 and 7 | Refuse Conveyor - receives refuse from the preparation plant and transfers to refuse conveyor BC-15 | 500 | 4,380,000 | PE | B A | TP-39 TP-40 | TC-FE TC-PE |
| BC-15 | M 2008 | 5 and 7 | Refuse Conveyor - receives refuse from refuse conveyor BC-14 and transfers to refuse conveyor BC-16 | 500 | 4,380,000 | PE | B A | TP-40 TP-41 | TC-PE TC-PE |
| BC-16 | M 2008 | 5 and 7 | Refuse Conveyor - receives refuse from refuse conveyor BC-15 and transfers to refuse conveyor BC-17 | 500 | 4,380,000 | PE | B A | TP-41 TP-42 | TC-PE TC-PE |
| BC-17 | M 2008 | 5 and 7 | Refuse Conveyor - receives refuse from refuse conveyor BC-16 and transfers to refuse conveyor BC-18 | 500 | 4,380,000 | PE | B A | TP-42 TP-43 | TC-PE TC-PE |
| BC-18 | C 2012 | 5 and 8 | Refuse Conveyor - receives refuse from refuse conveyor BC-17 and transfers to refuse conveyor BC-19 | 500 | 4,380,000 | N | B A | TP-43 TP-44 | TC-PE TC-MDH |
| BC-19 | C 2012 | 5 and 8 | Refuse Conveyor - receives refuse from refuse conveyor BC-18 and transfers to disposal area | 500 | 4,380,000 | N | B A | TP-44 TP-45 | TC-MDH 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. 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; TC - Telescopic Chute; MDH - Minimize Drop Height and NC - No Control.

DESCRIPTION OF FUGITIVE EMISSIONS

Potential sources of fugitive particulate matter emissions for this facility include emissions that 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.

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

SITE INSPECTION

Fred Teel of the DAQ's Compliance and Enforcement Section performed a targeted full on-site inspection on April 4, 2013. Mr. Teel noted the following: "The facility is currently not in operation, and it is not known if or when it will resume operations." The facility was found to be in compliance at the time of the inspection and was given a status code of 30 - In Compliance.

The writer deemed that a site inspection was not necessary at this time due to the recent compliance inspection and the minimal amount of proposed changes at an existing facility. The existing facility will continue to be inspected by the DAQ's Compliance and Enforcement Section on a routine basis.

Directions from Charleston, WV are to take I-77 south to WV Route 94. At the intersection of WV Route 94 and WV Route 3, turn right (west) toward Peytona/Madison. The facility is located approximately 4 miles past Peytona.

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 an increase in the potential to discharge controlled particulate matter emissions of 0.12 pounds per hour (lb/hour) and 0.53 tons per year (TPY) of particulate matter (PM), of which 0.06 lb/hour and 0.25 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:

| - Increase in Emissions - Black Castle Mining Company, Inc. Admiral Processing Plant | Controlled PM Emissions | | Controlled PM₁₀ 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 |
| <i>Fugitive Emissions Total</i> | <i>0.00</i> | <i>0.00</i> | <i>0.00</i> | <i>0.00</i> |
| Point Source Emissions | | | | |
| Equipment Emissions | 0.00 | 0.00 | 0.00 | 0.00 |
| Transfer Point Emissions | 0.12 | 0.53 | 0.06 | 0.25 |
| <i>Point Source Emissions Total (PTE)</i> | <i>0.12</i> | <i>0.53</i> | <i>0.06</i> | <i>0.25</i> |
| INCREASE IN EMISSIONS | 0.12 | 0.53 | 0.06 | 0.25 |

The proposed modification will result in a new facility-wide potential to discharge controlled particulate matter emissions of 235.90 lb/hour and 1,008.04 TPY of particulate matter (PM), of which 73.56 lb/hour and 310.25 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 - Black Castle Mining Company, Inc. Admiral Processing Plant | Controlled PM Emissions | | Controlled PM₁₀ Emissions | |
|---|------------------------------------|-----------------|---|---------------|
| | lb/hour | TPY | lb/hour | TPY |
| Fugitive Emissions | | | | |
| Open Storage Pile Emissions | 0.83 | 3.64 | 0.39 | 1.71 |
| Unpaved Haulroad Emissions | 206.37 | 903.96 | 59.64 | 261.25 |
| Paved Haulroad Emissions | 0.00 | 0.00 | 0.00 | 0.00 |
| <i>Fugitive Emissions Total</i> | <i>207.20</i> | <i>907.61</i> | <i>60.03</i> | <i>262.96</i> |
| Point Source Emissions | | | | |
| Equipment Emissions | 16.70 | 73.15 | 7.85 | 34.38 |
| Transfer Point Emissions | 12.12 | 27.82 | 5.73 | 13.16 |
| <i>Point Source Emissions Total (PTE)</i> | <i>28.82</i> | <i>100.96</i> | <i>13.58</i> | <i>47.54</i> |
| EMISSIONS TOTAL | 236.02 | 1,008.57 | 73.61 | 310.50 |

REGULATORY APPLICABILITY

NESHAPS and PSD have no applicability to the modified facility. The modification of Black Castle Mining Company, Inc.'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 emissions and involve the construction of one belt conveyor, 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 to a general permit registration. The applicant published a Class I legal advertisement in the *Coal Valley News* on April 27, 2016 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 involves the construction of one pick breaker, 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 constructed, re-constructed or modified on or before April 28, 2008) Section 254(b) (less than 10% opacity for coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, 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 49.25 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 Black Castle Mining Company, Inc.'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 104.60 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 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 Boone County, WV, which is currently in attainment for PM (particulate matter) and PM₁₀ (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.

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 twenty 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 Black Castle Mining Company, Inc. for the modification of their existing wet wash coal preparation plant and railcar loadout located near Peytona, Boone County, WV is hereby recommended.



Daniel P. Roberts, Engineer Trainee
NSR Permitting Section

May 24, 2016
Date

Increase in Emissions

4/2/16
OPR

G10 Emission Calculation Spreadsheet - Revised 3/27/12

EMISSIONS SUMMARY

Name of applicant: Black Castle Mining Comp

Name of plant: Admiral Proc - G10-D078G

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

| Uncontrolled PM | | Controlled PM | |
|-----------------|-----|---------------|-----|
| lb/hr | TPY | lb/hr | TPY |

| FUGITIVE EMISSIONS | | | | |
|------------------------------------|-------------|-------------|-------------|-------------|
| <i>Open Storage Pile Emissions</i> | 0.00 | 0.00 | 0.00 | 0.00 |
| <i>Unpaved Haulroad Emissions</i> | 0.00 | 0.00 | 0.00 | 0.00 |
| <i>Paved Haulroad Emissions</i> | 0.00 | 0.00 | 0.00 | 0.00 |
| Fugitive Emissions Total | 0.00 | 0.00 | 0.00 | 0.00 |

| POINT SOURCE EMISSIONS | | | | |
|--------------------------------------|-------------|-------------|-------------|-------------|
| <i>Equipment Emissions</i> | 0.00 | 0.00 | 0.00 | 0.00 |
| <i>Transfer Point Emissions</i> | 0.61 | 2.67 | 0.12 | 0.53 |
| Point Source Emissions Total* | 0.61 | 2.67 | 0.12 | 0.53 |

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

| | | | | |
|---------------------------------|-------------|-------------|-------------|-------------|
| Facility Emissions Total | 0.61 | 2.67 | 0.12 | 0.53 |
|---------------------------------|-------------|-------------|-------------|-------------|

***Facility Potential to Emit (PTE) (Baseline Emissions) = 0.53**
(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 | | | | |
|-----------------------------------|-------------|-------------|-------------|-------------|
| <i>Stockpile Emissions</i> | 0.00 | 0.00 | 0.00 | 0.00 |
| <i>Unpaved Haulroad Emissions</i> | 0.00 | 0.00 | 0.00 | 0.00 |
| <i>Paved Haulroad Emissions</i> | 0.00 | 0.00 | 0.00 | 0.00 |
| Fugitive Emissions Total | 0.00 | 0.00 | 0.00 | 0.00 |

| POINT SOURCE EMISSIONS | | | | |
|--------------------------------------|-------------|-------------|-------------|-------------|
| <i>Equipment Emissions</i> | 0.00 | 0.00 | 0.00 | 0.00 |
| <i>Transfer Point Emissions</i> | 0.29 | 1.26 | 0.06 | 0.25 |
| Point Source Emissions Total* | 0.29 | 1.26 | 0.06 | 0.25 |

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

| | | | | |
|---------------------------------|-------------|-------------|-------------|-------------|
| Facility Emissions Total | 0.29 | 1.26 | 0.06 | 0.25 |
|---------------------------------|-------------|-------------|-------------|-------------|

