



global environmental solutions

Wells Preparation Plant

Plant ID No. 005-00016

Wharton, West Virginia

General Permit Modification Application

SLR Ref: 116.01024.00012

March 2015

General Permit Modification Application
Wells Preparation Plant, Plant ID No. 005-00016
Wharton, West Virginia

Prepared for:

Eastern Associated Coal, LLC
P.O. Box 1001
Scott Depot, West Virginia 25560

This document has been prepared by SLR International Corporation. The material and data in this permit application were prepared under the supervision and direction of the undersigned.



Lori Smith
Senior Engineer



Nathaniel Lanham
West Virginia Operations Manager

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Note:

Attachment C is not included since this application does not affect previously permitted fugitive sources.
Attachment H is not included since there are no baghouse air pollution control devices at this facility.

APPLICATION FOR PERMIT

General Permit Modification Application

Wells Preparation Plant, Plant ID No. 005-00016
Wharton, West Virginia

Eastern Associated Coal, LLC
P.O. Box 1001
Scott Depot, West Virginia

March 2015



WEST VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 DIVISION OF AIR QUALITY
 601 57th Street, SE
 Charleston, WV 25304
 Phone: (304) 926-0475 • www.dep.wv.gov/daq

APPLICATION FOR GENERAL PERMIT REGISTRATION
 CONSTRUCT, MODIFY, RELOCATE OR ADMINISTRATIVELY UPDATE
 A STATIONARY SOURCE OF AIR POLLUTANTS

CONSTRUCTION MODIFICATION RELOCATION CLASS I ADMINISTRATIVE UPDATE
 CLASS II ADMINISTRATIVE UPDATE

CHECK WHICH TYPE OF GENERAL PERMIT REGISTRATION YOU ARE APPLYING FOR:

- | | |
|---|--|
| <input checked="" type="checkbox"/> G10-D – Coal Preparation and Handling <input type="checkbox"/> G20-B – Hot Mix Asphalt <input type="checkbox"/> G30-D – Natural Gas Compressor Stations <input type="checkbox"/> G33-A – Spark Ignition Internal Combustion Engines <input type="checkbox"/> G35-A – Natural Gas Compressor Stations (Flare/Glycol Dehydration Unit) | <input type="checkbox"/> G40-C – Nonmetallic Minerals Processing <input type="checkbox"/> G50-B – Concrete Batch <input type="checkbox"/> G60-C – Class II Emergency Generator <input type="checkbox"/> G65-C – Class I Emergency Generator <input type="checkbox"/> G70-A – Class II Oil and Natural Gas Production Facility |
|---|--|

SECTION I. GENERAL INFORMATION

| | | | |
|--|--|--|--|
| 1. Name of applicant (as registered with the WV Secretary of State's Office): EASTERN ASSOCIATED COAL, LLC | | 2. Federal Employer ID No. (FEIN): 25-1125516 | |
| 3. Applicant's mailing address: PO BOX 1001 SCOTT DEPOT WV 25560 | | 4. Applicant's physical address: STATE ROUTE 85 WHARTON WV 25208 | |
| 5. If applicant is a subsidiary corporation, please provide the name of parent corporation: PATRIOT COAL CORPORATION | | | |
| 6. WV BUSINESS REGISTRATION. Is the applicant a resident of the State of West Virginia? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO – IF YES , provide a copy of the Certificate of Incorporation/ Organization / Limited Partnership (one page) including any name change amendments or other Business Registration Certificate as Attachment A . – IF NO , provide a copy of the Certificate of Authority / Authority of LLC / Registration (one page) including any name change amendments or other Business Certificate as Attachment A . | | | |

SECTION II. FACILITY INFORMATION

| | | | |
|--|---|-----|---|
| 7. Type of plant or facility (stationary source) to be constructed, modified, relocated or administratively updated (e.g., coal preparation plant, primary crusher, etc.): COAL PREPARATION PLANT | 8a. Standard Industrial Classification Classification (SIC) code: 1221 & 1222 | AND | 8b. North American Industry System (NAICS) code: 212111 & 212112 |
| 9. DAQ Plant ID No. (for existing facilities only): <u>005-00016</u> | 10. List all current 45CSR13 and other General Permit numbers associated with this process (for existing facilities only): G10-C031E | | |

A: PRIMARY OPERATING SITE INFORMATION

| | | |
|--|--|--|
| 11A. Facility name of primary operating site: WELLS PREPARATION PLANT _____ _____ | 12A. Address of primary operating site: Mailing: <u>PO BOX 29 WHARTON WV 25208</u> Physical: <u>SR-85 WHARTON WV 25208</u> _____ | |
| 13A. Does the applicant own, lease, have an option to buy, or otherwise have control of the proposed site? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO – IF YES , please explain: <u>THE APPLICANT LEASES THE PROPERTY.</u> _____ – IF NO , YOU ARE NOT ELIGIBLE FOR A PERMIT FOR THIS SOURCE. | | |
| 14A. – For Modifications or Administrative Updates at an existing facility, please provide directions to the present location of the facility from the nearest state road; – For Construction or Relocation permits, please provide directions to the proposed new site location from the nearest state road. Include a MAP as Attachment F . <u>LOCATED 0.5 MILES SOUTH OF WHARTON ON STATE ROUTE 85 BETWEEN BIM AND POND CO</u> _____ _____ | | |
| 15A. Nearest city or town: WHARTON | 16A. County: BOONE | 17A. UTM Coordinates: Northing (KM): <u>4,195.5</u> Easting (KM): <u>440.4</u> Zone: <u>17</u> |
| 18A. Briefly describe the proposed new operation or change (s) to the facility: See Attachment B | | 19A. Latitude & Longitude Coordinates (NAD83, Decimal Degrees to 5 digits): Latitude: <u>37.91861</u> Longitude: <u>81.68083</u> |

B: 1ST ALTERNATE OPERATING SITE INFORMATION (only available for G20, G40, & G50 General Permits)

| | | |
|--|---|--|
| 11B. Name of 1 st alternate operating site: _____ _____ | 12B. Address of 1 st alternate operating site: Mailing: _____ Physical: _____ _____ | |
| 13B. Does the applicant own, lease, have an option to buy, or otherwise have control of the proposed site? <input type="checkbox"/> YES <input type="checkbox"/> NO – IF YES , please explain: _____ _____ – IF NO , YOU ARE NOT ELIGIBLE FOR A PERMIT FOR THIS SOURCE. | | |

| | | |
|---|--------------|--|
| 14B. – For Modifications or Administrative Updates at an existing facility, please provide directions to the present location of the facility from the nearest state road; – For Construction or Relocation permits, please provide directions to the proposed new site location from the nearest state road. Include a MAP as Attachment F . <hr/> <hr/> <hr/> | | |
| 15B. Nearest city or town: | 16B. County: | 17B. UTM Coordinates: Northing (KM): _____ Easting (KM): _____ Zone: _____ |
| 18B. Briefly describe the proposed new operation or change (s) to the facility: | | 19B. Latitude & Longitude Coordinates (NAD83, Decimal Degrees to 5 digits): Latitude: _____ Longitude: _____ |

C: 2ND ALTERNATE OPERATING SITE INFORMATION (only available for G20, G40, & G50 General Permits):

| | | |
|---|---|--|
| 11C. Name of 2 nd alternate operating site: _____ | 12C. Address of 2 nd alternate operating site: Mailing: _____ Physical: _____ | |
| 13C. Does the applicant own, lease, have an option to buy, or otherwise have control of the proposed site? <input type="checkbox"/> YES <input type="checkbox"/> NO – IF YES , please explain: _____ _____ – IF NO , YOU ARE NOT ELIGIBLE FOR A PERMIT FOR THIS SOURCE. | | |
| 14C. – For Modifications or Administrative Updates at an existing facility, please provide directions to the present location of the facility from the nearest state road; – For Construction or Relocation permits, please provide directions to the proposed new site location from the nearest state road. Include a MAP as Attachment F . <hr/> <hr/> <hr/> | | |
| 15C. Nearest city or town: | 16C. County: | 17C. UTM Coordinates: Northing (KM): _____ Easting (KM): _____ Zone: _____ |
| 18C. Briefly describe the proposed new operation or change (s) to the facility: | | 19C. Latitude & Longitude Coordinates (NAD83, Decimal Degrees to 5 digits): Latitude: _____ Longitude: _____ |

| | |
|--|--|
| <p>20. Provide the date of anticipated installation or change:</p> <p>____/____/____</p> <p><input type="checkbox"/> If this is an After-The-Fact permit application, provide the date upon which the proposed change did happen: :</p> <p><u>AFTER-THE-FACT</u></p> | <p>21. Date of anticipated Start-up if registration is granted:</p> <p><u>AFTER-THE-FACT</u></p> |
| <p>22. Provide maximum projected Operating Schedule of activity/activities outlined in this application if other than 8760 hours/year. (Note: anything other than 24/7/52 may result in a restriction to the facility's operation).</p> <p>Hours per day <u>24</u> Days per week <u>7</u> Weeks per year <u>52</u> Percentage of operation <u>100</u></p> | |

SECTION III. ATTACHMENTS AND SUPPORTING DOCUMENTS

| |
|--|
| <p>23. Include a check payable to WVDEP – Division of Air Quality with the appropriate application fee (per 45CSR22 and 45CSR13).</p> |
| <p>24. Include a Table of Contents as the first page of your application package.</p> |
| <p>All of the required forms and additional information can be found under the Permitting Section (General Permits) of DAQ's website, or requested by phone.</p> |
| <p>25. Please check all attachments included with this permit application. Please refer to the appropriate reference document for an explanation of the attachments listed below.</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> ATTACHMENT A : CURRENT BUSINESS CERTIFICATE <input checked="" type="checkbox"/> ATTACHMENT B: PROCESS DESCRIPTION <input type="checkbox"/> ATTACHMENT C: DESCRIPTION OF FUGITIVE EMISSIONS <input checked="" type="checkbox"/> ATTACHMENT D: PROCESS FLOW DIAGRAM <input checked="" type="checkbox"/> ATTACHMENT E: PLOT PLAN <input checked="" type="checkbox"/> ATTACHMENT F: AREA MAP <input checked="" type="checkbox"/> ATTACHMENT G: EQUIPMENT DATA SHEETS AND REGISTRATION SECTION APPLICABILITY FORM <input type="checkbox"/> ATTACHMENT H: AIR POLLUTION CONTROL DEVICE SHEETS <input checked="" type="checkbox"/> ATTACHMENT I: EMISSIONS CALCULATIONS <input checked="" type="checkbox"/> ATTACHMENT J: CLASS I LEGAL ADVERTISEMENT <input checked="" type="checkbox"/> ATTACHMENT K: ELECTRONIC SUBMITTAL <input checked="" type="checkbox"/> ATTACHMENT L: GENERAL PERMIT REGISTRATION APPLICATION FEE <input type="checkbox"/> ATTACHMENT M: SITING CRITERIA WAIVER <input checked="" type="checkbox"/> ATTACHMENT N: MATERIAL SAFETY DATA SHEETS (MSDS) <input checked="" type="checkbox"/> ATTACHMENT O: EMISSIONS SUMMARY SHEETS <input type="checkbox"/> OTHER SUPPORTING DOCUMENTATION NOT DESCRIBED ABOVE (Equipment Drawings, Aggregation Discussion, etc.) <p>Please mail an original and two copies of the complete General Permit Registration Application with the signature(s) to the DAQ Permitting Section, at the address shown on the front page of this application. Please DO NOT fax permit applications. For questions regarding applications or West Virginia Air Pollution Rules and Regulations, please refer to the website shown on the front page of the application or call the phone number also provided on the front page of the application.</p> |

SECTION IV. CERTIFICATION OF INFORMATION

This General Permit Registration Application shall be signed below by a Responsible Official. A Responsible Official is a President, Vice President, Secretary, Treasurer, General Partner, General Manager, a member of a Board of Directors, or Owner, depending on business structure. A business may certify an Authorized Representative who shall have authority to bind the Corporation, Partnership, Limited Liability Company, Association, Joint Venture or Sole Proprietorship. Required records of daily throughput, hours of operation and maintenance, general correspondence, Emission Inventory, Certified Emission Statement, compliance certifications and all required notifications must be signed by a Responsible Official or an Authorized Representative. If a business wishes to certify an Authorized Representative, the official agreement below shall be checked off and the appropriate names and signatures entered. Any administratively incomplete or improperly signed or unsigned Registration Application will be returned to the applicant.

FOR A CORPORATION (domestic or foreign)

I certify that I am a President, Vice President, Secretary, Treasurer or in charge of a principal business function of the corporation

FOR A PARTNERSHIP

I certify that I am a General Partner

FOR A LIMITED LIABILITY COMPANY

I certify that I am a General Partner or General Manager

FOR AN ASSOCIATION

I certify that I am the President or a member of the Board of Directors

FOR A JOINT VENTURE

I certify that I am the President, General Partner or General Manager

FOR A SOLE PROPRIETORSHIP

I certify that I am the Owner and Proprietor

I hereby certify that (please print or type) Gregory A. Ross is an Authorized Representative and in that capacity shall represent the interest of the business (e.g., Corporation, Partnership, Limited Liability Company, Association Joint Venture or Sole Proprietorship) and may obligate and legally bind the business. If the business changes its Authorized Representative, a Responsible Official shall notify the Director of the Office of Air Quality immediately, and/or,

I hereby certify that all information contained in this General Permit Registration Application and any supporting documents appended hereto is, to the best of my knowledge, true, accurate and complete, and that all reasonable efforts have been made to provide the most comprehensive information possible

Signature Gregory A. Ross Date 2/13/15
(please use blue ink) Responsible Official

Name & Title GREGORY A. ROSS, ATTORNEY-IN-FACT
(please print or type)

Signature _____ Date _____
(please use blue ink) Authorized Representative (if applicable)

Applicant's Name EASTERN ASSOCIATED COAL, LLC

Phone & Fax 304-369-8349 304-720-8212
Phone Fax

Email gross@patriotcoal.com

ATTACHMENT A

BUSINESS CERTIFICATE

General Permit Modification Application

Wells Preparation Plant, Plant ID No. 005-00016
Wharton, West Virginia

Eastern Associated Coal, LLC
P.O. Box 1001
Scott Depot, West Virginia

March 2015

**WEST VIRGINIA
STATE TAX DEPARTMENT
BUSINESS REGISTRATION
CERTIFICATE**

ISSUED TO:
**EASTERN ASSOCIATED COAL LLC
PO BOX 29
WHARTON, WV 25208-0029**

BUSINESS REGISTRATION ACCOUNT NUMBER: **1022-9061**

This certificate is issued on: **06/23/2011**

*This certificate is issued by
the West Virginia State Tax Commissioner
in accordance with Chapter 11, Article 12, of the West Virginia Code*

*The person or organization identified on this certificate is registered
to conduct business in the State of West Virginia at the location above.*

This certificate is not transferrable and must be displayed at the location for which issued.

This certificate shall be permanent until cessation of the business for which the certificate of registration was granted or until it is suspended, revoked or cancelled by the Tax Commissioner.

Change in name or change of location shall be considered a cessation of the business and a new certificate shall be required.

TRAVELING/STREET VENDORS: Must carry a copy of this certificate in every vehicle operated by them.
CONTRACTORS, DRILLING OPERATORS, TIMBER/LOGGING OPERATIONS: Must have a copy of this certificate displayed at every job site within West Virginia.

ATTACHMENT B

PROCESS DESCRIPTION

General Permit Modification Application

Wells Preparation Plant, Plant ID No. 005-00016
Wharton, West Virginia

Eastern Associated Coal, LLC
P.O. Box 1001
Scott Depot, West Virginia

March 2015

Wells Preparation Plant

Introduction

This update documents the removal/addition of equipment. The modified process description below summarizes the changes. However, the information from the approved Class General Permit: G10-D031E has been updated and included as well.

Modified Process Description

All processes remain the same as permitted under G10-C031C except the following:

- A. The current permit equipment table states that Black Stallion Overland Belt conveyor (BC43) receives raw coal from Rivers Edge and transfers it to belt conveyor (BC37) via transfer point (T73) the visual inspection found that the raw is transferred to belt conveyor BC38 not BC37.
- B. Belt conveyor (BC37) was found to receive raw coal from the Black Stallion Mine not belt conveyor (BC43) and transfers it to belt Conveyor (BC38) via transfer point (T66).
- C. Raw coal belt conveyor (BC7) was found to receive raw coal from belt conveyor (BC42) only. Belt conveyor (BC3) is no longer in service. Raw coal is then transferred to belt conveyor (BC8) via transfer point (T3).
- D. Raw coal belt conveyor (BC4) transfers to belt conveyor (BC8A) via transfer point (T3A).
- E. Raw coal conveyor (BC8) was found to no longer receive raw coal from belt conveyor (BC4). Belt conveyor (BC8) receives raw coal from belt conveyor (BC7) and transfers it via transfer point (T7) to raw coal bin (BS5).
- F. Raw coal bin (BS5) receives raw coal from belt conveyor (BC8) stores it then transfers it to belt conveyor (BC14) via transfer point (T12) or through chute to open stock pile (OS4) via transfer point (T9).
- G. Belt conveyor (BC13) was found to be no longer in service.
- H. Raw coal bin (BS4) receives raw coal from belt conveyor (BC8A) and/or belt conveyor (BC11), stores it then transfers it to belt conveyor (BC14) via transfer point (T13) or through chute to open stock pile (OS4) via transfer point (T9).
- I. Belt conveyors (BC9, BC10, BC12, BC35, and BC36) were not found on site during the inspection.
- J. Remove raw coal open stockpile (OS-7), raw coal bin (BS7), crusher (CR4) and belt conveyor (BC22). All related to the Cook Mountain Upper Area.

- K. Remove belt conveyor (BC1), crusher (CR5), raw coal bin (BS1) and belt conveyor (BC2). All related to the Dakota Mine.
- L. Remove the never constructed crusher (CR3) associated with the Cook Mountain Lower Area.
- M. BC19 receives clean coal from the wet wash preparation plant and transfers it to BC20 via transfer points (T20D through T20I).
- N. BC29 receives refuse from the preparation plant and transfers it to BC30 via transfer points (T20B and T20C).

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.

The following sections of Class II General Permit G10-D apply to the registrant:

- Section 5 Coal Preparation and Processing Plants and Coal Handling Operations
- Section 6 Standards of Performance for Coal Preparation and Processing Plants that Commenced Construction, Reconstruction or Modification after October 27, 1974, and on or before April 27, 2008 (40CFR60 Subpart Y)
- Section 7 Standards of Performance for Coal Preparation and Processing Plants that Commenced Construction, Reconstruction or Modification after April 28, 2008, and on or before May 27, 2009 (40CFR60 Subpart Y)
- Section 8 Standards of Performance for Coal Preparation and Processing Plants that Commenced Construction, Reconstruction or Modification after May 27, 2009 (40CFR60 Subpart Y)
- Section 9 Reciprocating Internal Combustion Engines (R.I.C.E.)
- Section 10 Tanks
- Section 11 Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40CFR60 Subpart III)
- Section 12 Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (40CFR60 Subpart JJJ)

Emission Units

| Equipment ID # | Date of Construction, Reconstruction or Modification ¹ | G10-D Applicable Sections ² | Emission Unit Description | Design Capacity | | Control Device ³ |
|---|---|--|--|-----------------|------------|-----------------------------|
| | | | | TPH | TPY | |
| Dakota Mine (To be Removed) | | | | | | |
| BC1 | <i>Not in Use</i> C-1978 | 5 and 6 | Dakota Mine Raw Coal Conveyor - 48" wide - 800 feet per minute ("FPM") belt speed - transfers raw coal from the mine to CR5 | 2,500 | 10,500,000 | PE |
| CR5 | <i>Not in Use</i> C-1998 | 5 and 6 | Double Roll Crusher - receives raw coal from BC1 and transfers it to BS1 | 2,500 | 10,500,000 | FE |
| BS1 | <i>Not in Use</i> --- | 5 and 6 | Raw Coal Bin - 500-ton capacity - receives crushed raw coal from CR5, stores it and then and transfers it to BC2 | ----- | 10,500,000 | FE |
| BC2 | <i>Not in Use</i> C-1998 | 5 and 6 | Dakota Mine Transfer Conveyor - 48" wide - 800 FPM belt speed - receives crushed raw coal from BS1 and transfers it to BC7 | 2,500 | 10,500,000 | PE |
| Rivers Edge Campbell Creek No. 10 (CC10) | | | | | | |
| BC43 | C - 2006 | 5 and 6 | Raw Coal Overland Conveyor (#377) - 48" wide - 700 FPM belt speed - receives raw coal from Rivers Edge CC10 and transfers it to BC37 BC38 (see Black Stallion Mine below) | 2,250 | 10,050,000 | PE |
| Black Stallion Mine | | | | | | |
| BC37 | C - 2004 | 5 and 6 | Black Stallion Mine Conveyor (#361) - 60" wide - 800 FPM belt speed - receives raw coal from the mine and BC43 and transfers it to BC38 | 3,500 | 10,500,000 | PE |
| BC38 | C - 2004 | 5 and 6 | Raw Coal Conveyor (#362) - 60" wide - 800 FPM belt speed - receives raw coal from BC37 and transfers it to OS5 | 3,500 | 10,500,000 | PE |
| OS5 | ----- | 5 and 6 | Lower Area Clean/Raw Coal Open Storage Pile w/ Stacking Tube -105,000 ton capacity - receives raw coal from BC38 or trucks via HR3, stores it and then an endloader loads it to trucks or it drops to BC39 | ----- | 10,500,000 | N |
| BC39 | C - 2004 | 5 and 6 | Raw Coal Reclaim Conveyor (#363) - 48" wide - 700 FPM belt speed - receives raw coal from OS5 and transfers it to BC40 | 2,000 | 10,500,000 | PE |

| Equip-ment ID # | Date of Construction, Reconstruction or Modification ¹ | G10-D Applicable Sections ² | Emission Unit Description | Design Capacity | | Control Device ³ |
|--|---|--|---|------------------|-----------------------|-----------------------------|
| | | | | TPH | TPY | |
| BC40 | C - 2004 | 5 and 6 | Raw Coal Conveyor (#364) - 48" wide - 700 FPM belt speed - receives raw coal from BC39 and transfers it to BC41 | 2,000 | 10,500,000 | PE |
| BC41 | C - 2004 | 5 and 6 | Raw Coal Conveyor (#364) - 48" wide - 700 FPM belt speed - receives raw coal from BC40 and transfers it to BC42 | 2,000 | 10,500,000 | PE |
| BC42 | C - 2006 | 5 and 6 | Raw Coal Overland Conveyor (#364) - 48" wide - 700 FPM belt speed - receives raw coal from BC41 and transfers it to BC7 (see Lightfoot Mines below) | 2,000 | 10,500,000 | PE |
| Lightfoot Mines No. 1, No. 2, and No. 3 | | | | | | |
| BC3 | Not in Use C-1978 | 5 and 6 | Lightfoot No. 1 Mine Belt Conveyor - 48" wide - 800 FPM belt speed - receives raw coal from the mine and transfers it to BC7 | 2,500 | 10,500,000 | PE |
| BC10 | C-1978 | 5 and 6 | Raw Coal Conveyor - 48" wide - 800 FPM belt speed - receives raw coal from BC3 and BC4 and transfers it to BS4 or BC11 | 2,500 | 10,500,000 | PE |
| BC7 | C - 1978 | 5 and 6 | Raw Coal Conveyor (#205) - 48" wide - 800 FPM belt speed - receives raw coal from BC3 and BC42 and transfers it to BC8 | 2,500 | 10,500,000 | PE |
| BC4 | C - 1978 | 5 and 6 | Lightfoot No. 2 Mine Belt Conveyor - 48" wide - 800 FPM belt speed - receives raw coal from the mine and transfers it to BC8A | 2,500 | 10,500,000 | PE |
| BC8 | C - 1978 | 5 and 6 | Raw Coal Conveyor - 48" wide - 800 FPM belt speed - receives raw coal from BC4 and BS7 BC7 and transfers it to BS5 or BC13 | 2,500 | 10,500,000 | PE |
| BC8A | ----- | 5 and 6 | Raw Coal Conveyor - 48" wide - 800 FPM belt speed - receives raw coal from BC4 and transfers it to BS4 | 2,500 | 10,500,000 | PE |
| BS5 | ----- | 5 and 6 | Raw Coal Silo - 6,000 ton capacity - receives raw coal from BC8 and BC13, stores it and then drops it to BC14 (see Raw Coal to Preparation Plant below) or through a chute to OS4 | ----- | 10,500,000 | FE |
| BC13 | Not in Use C-1978 | 5 and 6 | Silo Transfer Conveyor - 48" wide - 800 FPM belt speed - receives raw coal from BC8 and transfers it to BS4 or from BC12 and transfers it to BS5 | 2,500 | 10,500,000 | PE |
| BS4 | ----- | 5 and 6 | Raw Coal Silo - 6,000 ton capacity - receives raw coal from BC13 and BC12 BC8A or BC11, stores it and then drops it to BC14 (see Raw Coal to Preparation Plant below) or through a chute to OS4 | ----- | 10,500,000 | FE |
| OS4 | ----- | 5 and 6 | Raw Coal Silo Overflow Open Storage Pile - 15,000 ton capacity - receives raw coal from BS4 and BS5, stores it and an endloader moves it to BS6 | ----- | 210,000 | N |
| BS6 | ----- | 5 and 6 | Endloader Feed Bin - 4 ton capacity - receives raw coal from and endloader and drops it to BC14 (see Raw Coal to Preparation Plant below) | ----- | 210,000 | PE, WS |
| BC9 | Not in Use C-1978 | 5 and 6 | Lightfoot No. 3 Mine Conveyor - 68" wide - 800 FPM belt speed - receives raw coal from the mine and transfers it to BC35 | 4,600 | 10,500,000 | PE |
| BC35 | C-2001 | 5 and 6 | Raw Coal Conveyor - 68" wide - 700 FPM belt speed - receives raw coal from BC9 and transfers it to BC36 | 4,600 | 10,500,000 | PE |
| BC36 | C-2001 | 5 and 6 | Raw Coal Transfer Conveyor - 68" wide - 700 FPM belt speed - receives raw coal from BC35 and transfers it to BS4 or BC11 | 4,600 | 10,500,000 | PE |
| BC11 | C - 1978 | 5 and 6 | Silo Transfer Conveyor - 48" wide - 800 FPM belt speed - receives raw coal from BC10 and BC36 BC6 and transfers it to BS3 BS4 | 2,500 | 10,500,000 | PE FE |
| CC11 Mine and Foreign Coal Hopper | | | | | | |
| BC5 | C - 1978 | 5 and 6 | CC11 Mine Raw Coal Conveyor - 48" wide - 800 FPM belt speed - receives raw coal from the mine and transfers it to BS2 | 2,500 | 10,500,000 | PE |
| BS2 | C - 1978 | 5 and 6 | Foreign Coal Dump Hopper - 50 ton capacity - receives raw coal from BC5 and trucks and drops it to BC6 | ----- | 10,500,000 | PE, WS |
| BC6 | C - 1978 | 5 and 6 | Raw Coal Conveyor - 48" wide - 800 FPM belt speed - receives raw coal from BS2 and transfers it to BS3 or BC12 or BC11 | 2,500 | 10,500,000 | PE |
| BS3 | ----- | 5 and 6 | Raw Coal Silo - 5,000 ton capacity - receives raw coal from BC6, stores it and then drops it to BC14 (see Raw Coal to Preparation Plant below) | ----- | 10,500,000 | FE |
| BC12 | C-1978 | 5 and 6 | Silo Transfer Conveyor - 48" wide - 800 FPM belt speed - receives raw coal from BC6 and transfers it to BS4 | 2,500 | 10,500,000 | PE |
| Raw Coal to Preparation Plant | | | | | | |
| BC14 | C - 1978 | 5 and 6 | Breaker/Screen Feed Conveyor - 48" wide - 700 FPM belt speed - receives raw coal from BS-3, BS-4, BS-5 and BS6 and transfers it to S1 or CR1 | 2,000 | 10,500,000 | PE |
| S1 | C - 2000 | 5 and 6 | Double Deck Banana Scalping Screen - receives raw coal from BC14, sizes it and drops the fines to BC15, sized product to BC16 and oversize to CR1) | 2,000 | 10,500,000 | FE |
| BC15 | C - 2000 | 5 and 6 | Under Screen Conveyor - 60" wide - 300 FPM belt speed - receives fine raw coal from S1 and transfers it to BC16 or BC18 | 1,000 | 7,000,000 | PE |

| Equipment ID # | Date of Construction, Reconstruction or Modification ¹ | G10-D Applicable Sections ² | Emission Unit Description | Design Capacity | | Control Device ³ |
|---|---|--|---|-----------------|------------|-----------------------------|
| | | | | TPH | TPY | |
| BC18 | C - 2000 | 5 and 6 | Prep Plant Bypass Conveyor - 36" wide - 600 FPM belt speed - receives fine raw coal from BC15 and transfers it to BC19 (see Clean Coal Storage and Loadout below) | 1,000 | 7,000,000 | PE |
| CR1 | C - 1990 | 5 and 6 | Rotary Breaker - receives oversize raw coal from S1, crushes it and drops crushed coal to BC16 and refuse to BC28 (see Refuse Circuit below) | 1,500 | 10,500,000 | FE |
| BC16 | C - 2000 | 5 and 6 | Sized Product Conveyor - 48" wide - 500 FPM belt speed - receives sized raw coal from CR1 and S1 and transfers it to BC17 | 1,400 | 10,500,000 | PE |
| BC17 | C - 2000 | 5 and 6 | Main Prep Plant Feed Conveyor - 48" wide - 500 FPM belt speed - receives sized raw coal from BC16 and transfers it to the wet wash preparation plant | 1,400 | 10,500,000 | PE |
| Cook Mountain Upper Area (To be Removed) | | | | | | |
| OS7 | Not Constructed | To be determined | Cook Mountain Upper Open Storage Pile - 10,000 ton capacity - receives direct ship coal from trucks, stores it and then an endloader transfers it to BS7 | ----- | 315,000 | N |
| BS7 | Not Constructed | To be determined | Cook Mountain Upper Raw Coal Bin - 50 ton capacity - receives direct ship coal from trucks and endloaders and drops it to CR4 | ----- | 2,000,000 | PE, WS |
| CR4 | Not Constructed | To be determined | Pick Breaker - receives direct ship coal from BS7, crushes it and then drops it to BC22 | 1,500 | 2,000,000 | FE |
| BC22 | Not Constructed | To be determined | Cook Mountain Upper Transfer Belt Conveyor - 48" wide - 600 FPM belt speed - receives crushed direct ship coal from CR4 and transfers it to BS8 or BS9 (see Cook Mountain Lower Area below) | 1,500 | 2,000,000 | PE |
| Cook Mountain Lower Area | | | | | | |
| OS8 | ----- | 5 and 6 | Cook Mountain Lower Open Storage Pile - 5,500 ton capacity - receives direct ship coal from trucks, stores it and then an endloader transfers it to BS8 | ----- | 315,000 | N |
| BS8 | ----- | 5 and 6 | Cook Mountain Lower Raw Coal Bin - 100 ton capacity - receives direct ship coal from trucks, endloaders and BC22 and drops it to CR2 | ----- | 2,000,000 | PE, WS |
| CR2 | 2000 | 5 and 6 | Hammermill Crusher w/ Vibrating Feeder - receives direct ship coal from BS8, crushes it and then drops it to BC23 | 1,500 | 2,000,000 | FE |
| BS9 | ----- | 5 and 6 | Cook Mountain Lower Raw Coal Bin - 100 ton capacity - receives direct ship coal from trucks, endloaders and BC22 and drops it to CR3 CR2 | ----- | 2,000,000 | PE, WS |
| CR3 | Not Constructed | To be determined | Hammermill Crusher w/ Vibrating Feeder - receives direct ship coal from BS8, crushes it and then drops it to BC23 | 1,500 | 2,000,000 | FE |
| BC23 | 1970 | 5 and 6 | Cook Mountain Lower Transfer Belt Conveyor - 48" wide - 600 FPM belt speed - receives crushed direct ship coal from BS8 and BS9 and transfers it to BS10 or BS11 (see Clean Coal Storage and Loadout below) | 1,500 | 2,000,000 | PE |
| Clean Coal Storage and Loadout | | | | | | |
| BC19 | C 1978 | 5 and 6 | Clean Coal Output Belt Conveyor - 42" wide - 700 FPM belt speed - receives clean coal from the wet wash preparation plant and transfers it to BC20 | 1,550 | 6,000,000 | PE |
| BC20 | C 1978 | 5 and 6 | Clean Coal Belt Conveyor - 42" wide - 700 FPM belt speed - receives clean coal from BC19 and transfers it to BS10 or BC21 | 1,550 | 6,000,000 | PE |
| BS10 | ----- | 5 and 6 | Clean Coal Silo - 5,000 ton capacity - receives clean coal from BC20 and direct ship coal from BC23, stores it and then drops it to BC26 | ----- | 6,000,000 | FE |
| BC21 | C 1978 | 5 and 6 | Clean Coal Belt Conveyor - 42" wide - 700 FPM belt speed - receives clean coal from BC20 and transfers it to BS11 or BC24 | 1,550 | 6,000,000 | PE |
| BS11 | ----- | 5 and 6 | Clean Coal Silo - 5,000 ton capacity - receives clean coal from BC21 and direct ship coal from BC23, stores it and then drops it to BC26 | ----- | 6,000,000 | FE |
| BC26 | C 1978 | 5 and 6 | Under Clean Coal Silos Conveyor - 42" wide - 700 FPM belt speed - receives clean and direct ship coal from BS10 and BS11 and transfers it to BC26A | 2,000 | 6,000,000 | FE |
| BC26A | C 1978 | 5 and 6 | Clean Coal Conveyor - 42" wide - 700 FPM belt speed - receives clean and direct ship coal from BC26 and transfers it to BC27 (see below) | 2,000 | 6,000,000 | PE |
| BC24 | C 1978 | 5 and 6 | Clean Coal Conveyor - 42" wide - 700 FPM belt speed - receives clean coal from BC21 and transfers it to OS1 or BC25 | 1,550 | 6,000,000 | PE |
| OS1 | ----- | 5 and 6 | Clean Coal Open Storage Pile w/ Stacking Tube - 75,000 ton capacity - receives clean coal from BC24, stores it and then it drops to BC27 | ----- | 6,000,000 | N |
| BC25 | C 1978 | 5 and 6 | Clean Coal Belt Conveyor - 42" wide - 700 FPM belt speed - receives clean coal from BC24 and transfers it to OS2 | 850 | 6,000,000 | PE |
| OS2 | ----- | 5 and 6 | Clean Coal Open Storage Pile w/ Stacking Tube - 75,000 ton capacity - receives clean coal from BC25, stores it and then it drops to BC27 | ----- | 6,000,000 | N |

| Equip-ment ID # | Date of Construction, Reconstruction or Modification ¹ | G10-D Applicable Sections ² | Emission Unit Description | Design Capacity | | Control Device ³ |
|-----------------------------------|---|--|---|-----------------|-----------|-----------------------------|
| | | | | TPH | TPY | |
| BC27 | C 1990 | 5 and 6 | Railroad Loadout Conveyor - 42" wide - 800 FPM belt speed - receives clean and direct ship coal from OS1, OS2 and BC26A and transfers it to BS12 | 4,000 | 6,000,000 | FE |
| BS12 | ----- | 5 and 6 | Train Loadout Bin - 200 ton capacity - receives clean and direct ship coal from BC27 and then loads it to railcars | ----- | 6,000,000 | FE |
| Portable Screening Unit | | | | | | |
| H-1 | C July 2009 | 5 and 8 | Portable Hopper - receives clean coal from OS1 via an endloader and drops it to PS-1 | 500 | 500,000 | PE, WS |
| PS-1 | C July 2009 | 5 and 8 | Portable Single Deck Screen - receives clean coal from H-1, sizes it and the -2" fine coal drops to BC-1P while the +2" oversize coal drops to BC-2P | 500 | 500,000 | PE, WS |
| BC-1P | C July 2009 | 5 and 8 | Portable Belt Conveyor - receives -2" fine coal from PS-1 and transfers it to OS2 | 500 | 500,000 | N |
| BC-2P | C July 2009 | 5 and 8 | Portable Belt Conveyor - receives +2" oversize coal from PS-1 and transfers it to OS1 | 500 | 500,000 | N |
| Miscellaneous Open Storage | | | | | | |
| OS6 | ----- | 5 and 6 | Upper Open Storage Pile for Raw or Clean Coal Storage - 40,000 ton capacity - receives raw or clean coal from trucks, stores it and then an endloader loads it back onto trucks | ----- | 315,000 | N |
| Refuse Circuit | | | | | | |
| BC28 | C 1978 | 5 and 6 | CR1 Reject Conveyor - receives oversize refuse from CR1 and transfers it to BC30) | 750 | 5,300,000 | PE |
| BC29 | C 1978 | 5 and 6 | Preparation Plant Reject Conveyor -receives refuse from the preparation plant and transfers it to BC30 | 750 | 5,300,000 | PE |
| BC30 | C 1978 | 5 and 6 | Refuse Transfer Conveyor - receives refuse from BC28 and BC29 and transfers it to BS13 or BC31 | 750 | 5,300,000 | PE |
| BS13 | ----- | 5 and 6 | Refuse Bin - 300 ton capacity - receives refuse from BC30 and then loads it to trucks | ----- | 5,300,000 | FE |
| BC31 | C 1978 | 5 and 6 | Refuse Transfer Conveyor [Underground] - receives refuse from BC30 and transfers it to BS14 or BC32 | 750 | 5,300,000 | PE |
| BC32 | C 1978 | 5 and 6 | Refuse Transfer Conveyor - receives refuse from BC31 and transfers it to BS14 or BC33 | 750 | 5,300,000 | PE |
| BS14 | ----- | 5 and 6 | Refuse Bin - 1,000 ton capacity - receives refuse from BC32 and then loads it to trucks | ----- | 5,300,000 | FE |
| BC33 | C 1978 | 5 and 6 | Refuse Transfer Conveyor - receives refuse from BC32 and transfers it to BS15 or BC34 | 750 | 5,300,000 | PE |
| BS15 | ----- | 5 and 6 | Refuse Bin - 500 ton capacity - receives refuse from BC33 and then loads it to trucks | ----- | 5,300,000 | FE |
| BC34 | C 1990 | 5 and 6 | Refuse Transfer Conveyor - receives refuse from BC33 and transfers it to OS3 | 750 | 5,300,000 | PE |
| OS3 | ----- | 5 and 6 | Refuse Open Storage Pile - 10,000 ton capacity - receives refuse from BC34, stores it and then an endloader loads it to trucks | ----- | 210,000 | N |

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.

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; PE - Partial Enclosure; WS - Water Sprays; and N - None.

Emission Limitations

| Facility-wide Emissions Summary Eastern Associated Coal, LLC Wells Preparation Plant | Maximum Controlled PM Emissions | | Maximum Controlled PM ₁₀ Emissions | |
|--|---------------------------------|--------------|---|---------------|
| | lb/hour | TPY | lb/hour | TPY |
| Fugitive Emissions | | | | |
| Open Storage Pile Emissions | 0.8 1.10 | 3.48 4.82 | 0.37 0.52 | 1.64 2.27 |
| Unpaved Haulroad Emissions | 130.01 0.00 | 400.89 659.0 | 58.5 0.00 | 180.40 132.32 |

ATTACHMENT D

PROCESS FLOW DIAGRAM

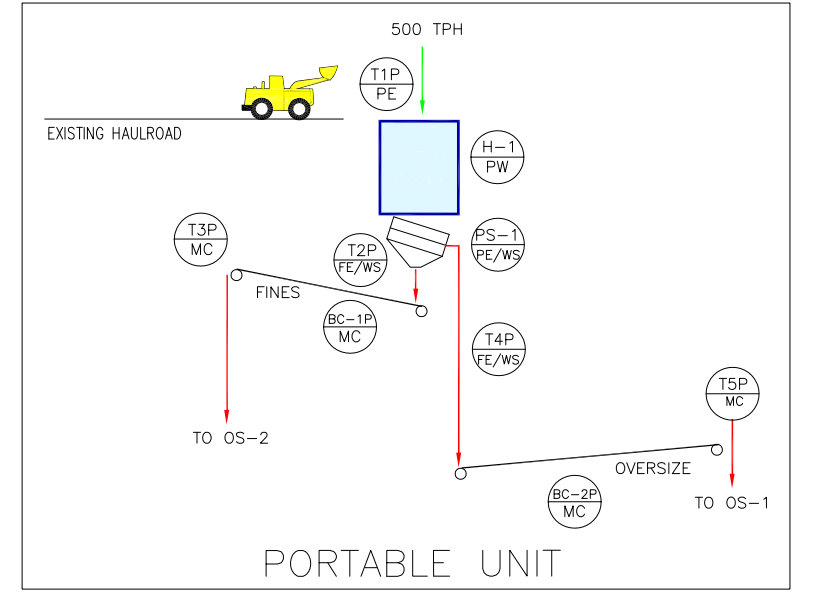
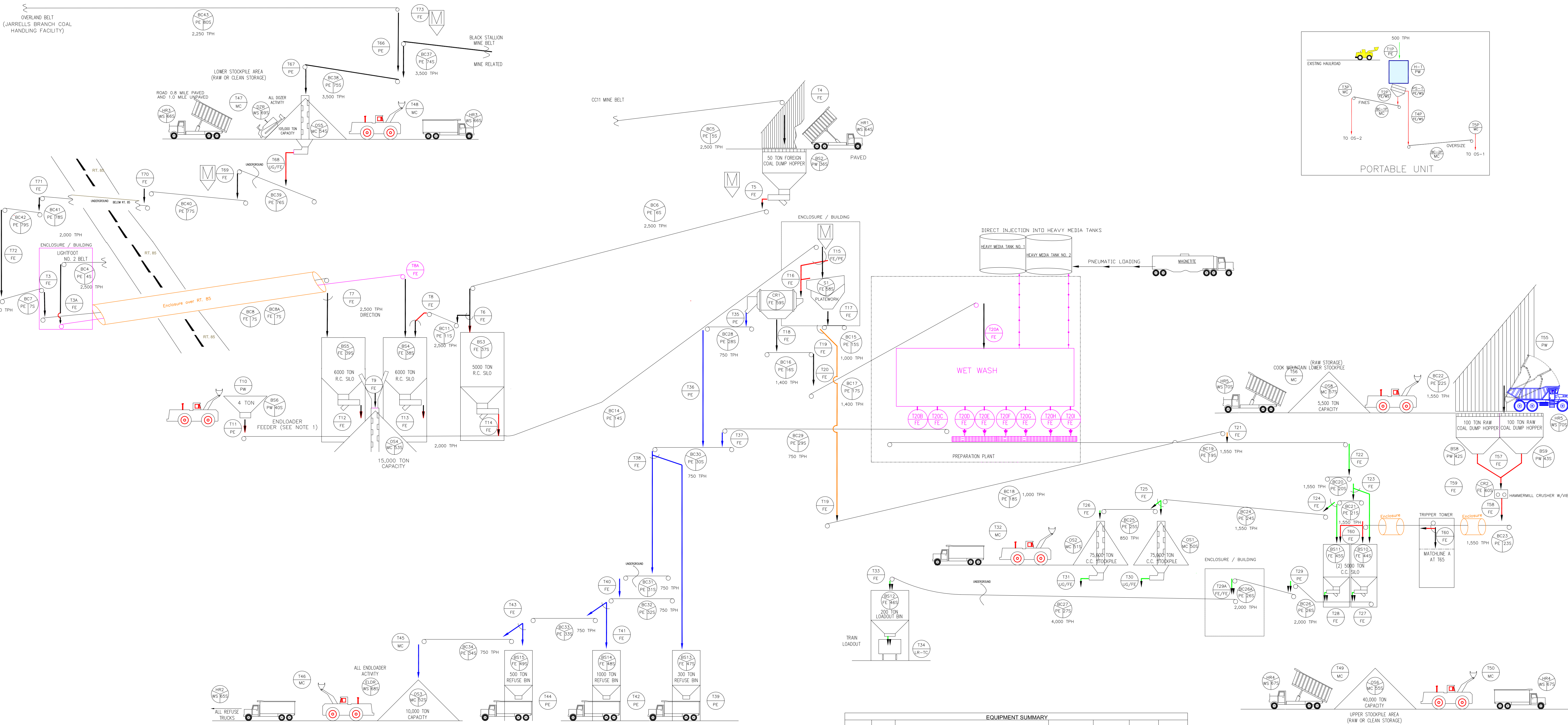
General Permit Modification Application

Wells Preparation Plant, Plant ID No. 005-00016
Wharton, West Virginia

Eastern Associated Coal, LLC
P.O. Box 1001
Scott Depot, West Virginia

March 2015

OVERLAND BELT
(JARRELLS BRANCH COAL
HANDLING FACILITY)



LEGEND

- NEW OR MODIFIED EQUIPMENT
- RAW COAL
- CLEAN COAL
- REFUSE
- SIZED COAL
- T23 FE TRANSFER POINT CONTROL DEVICE
- OS1 N 399 SOURCE I.D. NUMBER
- T CONTROL DEVICE
- TRANSFER POINT
- BS STORAGE BIN
- FE FULL ENCLOSURE
- PE PARTIAL ENCLOSURE
- MC MOISTURE CONTENT
- BC CONVEYOR BELT
- PW TRUCK DUMP INTO A PARTIAL ENCLOSURE WITH WATER SPRAYS
- HR HAULROAD VEHICULAR TRAFFIC
- MD MINIMIZE DROP
- WS WATER SPRAYS
- CR1 CRUSHER
- SC1 SCREEN
- OS1 OPEN STOCKPILE

| STORAGE SUMMARY | | | | |
|-----------------|-------|--|-----------------|---------|
| SOURCE ID | A.S.N | DESCRIPTION | CAPACITY (TONS) | CONTROL |
| 36S | BS2 | RAW COAL BIN - FOREIGN/CC11 | 50 | PW |
| 37S | BS3 | RAW COAL SILO | 5,000 | FE |
| 38S | BS4 | RAW COAL SILO | 6,000 | FE |
| 39S | BS5 | RAW COAL SILO | 6,000 | FE |
| 40S | BS6 | ENDLOADER FEEDER TO BC13 | 4 | PW |
| 42S | B88 | RAW COAL BIN - COOK MOUNTAIN LOWER | 100 | PW |
| 43S | B99 | RAW COAL BIN - COOK MOUNTAIN LOWER | 100 | PW |
| 44S | BS10 | CLEAN COAL SILO | 5,000 | FE |
| 45S | BS11 | CLEAN COAL SILO | 5,000 | FE |
| 46S | BS12 | TRAIN LOADOUT BIN | 200 | FE |
| 47S | BS13 | REFUSE BIN | 300 | FE |
| 48S | BS14 | REFUSE BIN | 1,000 | FE |
| 49S | BS15 | REFUSE BIN | 500 | FE |
| 50S | OS1 | CLEAN COAL OPEN STOCKPILE (53,000 FT ²) | 75,000 | N |
| 51S | OS2 | CLEAN COAL OPEN STOCKPILE (53,000 FT ²) | 75,000 | N |
| 52S | OS3 | REFUSE OPEN STOCKPILE (10,000 FT ²) | 10,000 | N |
| 53S | OS4 | RAW COAL SILO OVERFLOW STOCKPILE (12,000 FT ²) | 15,000 | N |
| 54S | OS5 | LOWER AREA CLEAN/RAW COAL STOCKPILE (110,000 FT ²) | 105,000 | N |
| 55S | OS6 | UPPER AREA CLEAN/RAW COAL STOCKPILE (54,000 FT ²) | 40,000 | N |
| 57S | OS8 | COOK MOUNTAIN LOWER STOCKPILE (1,370 FT ²) | 5,500 | N |

| HAULROAD SUMMARY | | | | |
|------------------|-------|------------------------------|--------------------------|---------|
| SOURCE ID | A.S.N | DESCRIPTION | LENGTH (MILES ROUNDTRIP) | CONTROL |
| 64S | HR1 | FOREIGN COAL PAVED HAULROAD | 0.4 | HR-WS |
| 65S | HR2 | REFUSE HAULROAD | 1.0 | HR-WS |
| 66S** | HR3 | LOWER AREA PAVED HAULROAD | 0.8 | HR-WS |
| 66S** | HR3 | LOWER AREA HAULROAD | 1.0 | HR-WS |
| 67S** | HR4 | UPPER AREA PAVED HAULROAD | 0.8 | HR-WS |
| 67S** | HR4 | UPPER AREA HAULROAD | 1.0 | HR-WS |
| 68S* | ELDR | ALL ENDLOADER TRAFFIC | 1.0 | HR-WS |
| 69S* | DZR | ALL DOZER ACTIVITY | 1.0 | HR-WS |
| 70S | HR5 | COOK MOUNTAIN LOWER HAULROAD | 6.82 | HR-WS |
| 71S | HR6 | COOK MOUNTAIN UPPER HAULROAD | 7.58 | HR-WS |

* Estimate that endloader/dozer travels 1 mph per every operational hour.
 ** Portion of road to paved and portion of road is unpaved.

NOTES:
 1 - DUMP BIN BS6 IS ENCLOSED ON 4-SIDES AND CAN BE TOP FED FROM ALL SIDES AND IS EQUIPPED WITH EFFECTIVE WATER SPRAYS.
 2 - DUMP BINS (BS2, BS7, BS8, BS9) ARE EQUIPPED WITH A 3-SIDED ROOFED ENCLOSURES WITH EFFECTIVE WATER SPRAYS

| PORTABLE UNIT SUMMARY | | | | |
|-----------------------|-------|--|----------------|---------|
| SOURCE ID | A.S.N | DESCRIPTION | CAPACITY (TPH) | CONTROL |
| 81S | PS-1 | PORTABLE SCREEN | 500 | PE/WS |
| 82S | H-1 | PORTABLE HOPPER | 500 | PW |
| 83S | BC-1P | PORTABLE BELT CONVEYOR | 500 | MC |
| 84S | BC-2P | PORTABLE BELT CONVEYOR | 500 | MC |
| 85S | T1P | ENDLOADER TRANSFER TO HOPPER (H-1) | 500 | FE/WS |
| 86S | T2P | SCREEN TRANSFER TO BELT CONVEYOR (BC-1P) (FINES) | 500 | FE/WS |
| 88S | T3P | FINES TRANSFER FROM BC-1P TO STOCKPILE (OS-2) | 500 | MC |
| 89S | T4P | REJECT FROM SCREEN (PS-1) TO (BC-2P) (OVERSIZE) | 500 | FE/WS |
| 90S | T5P | TRANSFER FROM (BC-2P) TO STOCKPILE (OS-1) | 500 | MC |

| EQUIPMENT SUMMARY | | | | | | |
|-------------------|-------|--|---------------------|------------------|----------------|---------|
| SOURCE ID | A.S.N | DESCRIPTION | BELT WIDTH (INCHES) | BELT SPEED (FPM) | CAPACITY (TPH) | CONTROL |
| 4S | BC4 | RAW COAL - LIGHTFOOT NO. 2 MINE BELT | 48 | 800 | 2,500 | PE |
| 5S | BC5 | RAW COAL - CC11 MINE BELT (to BS2) | 48 | 800 | 2,500 | PE |
| 6S | BC6 | RAW COAL CONVEYOR (CC11/Foreign Coal) | 48 | 800 | 2,500 | PE |
| 7S | BC7 | RAW COAL CONVEYOR (#205) | 48 | 800 | 2,500 | FE |
| 8S | BC8 | RAW COAL CONVEYOR (to BS5 or BC13) | 48 | 800 | 2,500 | FE |
| 8AS | BC8A | RAW COAL CONVEYOR (to BS4) | 48 | 800 | 2,500 | PE |
| 11S | BC11 | SILLO TRANSFER CONVEYOR (to BS3) | 48 | 800 | 2,500 | PE |
| 14S | BC14 | BREAKER / SCREEN FEED CONVEYOR | 48 | 700 | 2,000 | PE |
| 15S | BC15 | UNDER SCREEN CONVEYOR (fine raw coal) | 60 | 300 | 1,000 | PE |
| 16S | BC16 | SIZED PRODUCT CONVEYOR (to BC17) | 48 | 500 | 1,400 | PE |
| 17S | BC17 | MAIN PLANT FEED CONVEYOR | 48 | 500 | 1,400 | PE |
| 18S | BC18 | BYPASS CONVEYOR (fine raw coal to BC19) | 42 | 800 | 2,500 | PE |
| 19S | BC19 | PLANT CLEAN COAL OUTPUT CONVEYOR | 42 | 700 | 1,550 | PE |
| 20S | BC20 | CLEAN COAL CONVEYOR (to BC21 or BS10) | 42 | 700 | 1,550 | PE |
| 21S | BC21 | CLEAN COAL CONVEYOR (to BS11 or BC24) | 42 | 700 | 1,550 | PE |
| 23S | BC23 | COOK MOUNTAIN LOWER TRANSFER CONVEYOR | 48 | 600 | 1,500 | PE |
| 24S | BC24 | CLEAN COAL CONVEYOR (to OS1 or BC25) | 42 | 700 | 1,550 | PE |
| 25S | BC25 | CLEAN COAL CONVEYOR (to OS2) | 42 | 700 | 850 | PE |
| 26S | BC26 | UNDER CLEAN COAL SILOS CONVEYOR (to BC27) | 42 | 700 | 2,000 | FE |
| 27S | BC27 | R.R. LOADOUT CONVEYOR (to BS12) | 42 | 800 | 4,000 | FE |
| 28S | BC28 | CR1 REJECT CONVEYOR | 36 | 700 | 750 | PE |
| 28S | BC29 | PLANT REJECT CONVEYOR (to RC3) | 36 | 700 | 750 | PE |
| 30S | BC30 | REFUSE TRANSFER CONVEYOR (to BC31 or BS13) | 36 | 700 | 750 | PE |
| 31S | BC31 | REFUSE TRANSFER CONVEYOR (to BC32) | 36 | 700 | 750 | PE |
| 32S | BC32 | REFUSE TRANSFER CONVEYOR (to BC33 or BS14) | 36 | 700 | 750 | PE |
| 33S | BC33 | REFUSE TRANSFER CONVEYOR (to BC34 or BS15) | 36 | 700 | 750 | PE |
| 34S | BC34 | REFUSE TRANSFER CONVEYOR (to OS3) | 36 | 700 | 750 | PE |
| 74S | BC37 | BLACK STALLION MINE BELT (#361) | 60 | 800 | 3,500 | PE |
| 75S | BC38 | RAW COAL CONVEYOR (#362) | 60 | 800 | 3,500 | PE |
| 76S | BC39 | RAW COAL RECLAIM CONVEYOR (#363) | 48 | 700 | 2,000 | PE |
| 77S | BC40 | RAW COAL CONVEYOR (#364) | 48 | 700 | 2,000 | PE |
| 78S | BC41 | RAW COAL CONVEYOR (#365) | 48 | 700 | 2,000 | PE |
| 79S | BC42 | RAW COAL OVERLAND CONVEYOR (#366) | 48 | 700 | 2,000 | PE |
| 80S | BC43 | RAW COAL OVERLAND CONVEYOR (#377) | 48 | 700 | 2,250 | PE |

This drawing was produced with computer aided drafting technology and is supported by electronic drawing files. Do not revise this drawing via manual drafting methods.

WELLS PREPARATION PLANT
 PROCESS FLOW DIAGRAM
 BOONE COUNTY, WEST VIRGINIA
 PLANT ID. 005-00016

EASTERN ASSOCIATED COAL, LLC
 SCOTT DEPOT, WEST VIRGINIA

| | |
|---------------|---------------------------------|
| SCALE: N.T.S. | DRAWING NUMBER: 116.01024.00012 |
| DRAWN: EAS | APPROVED: NLL |
| CHECKED: NLL | DATE: 02-06-2015 |



ATTACHMENT E

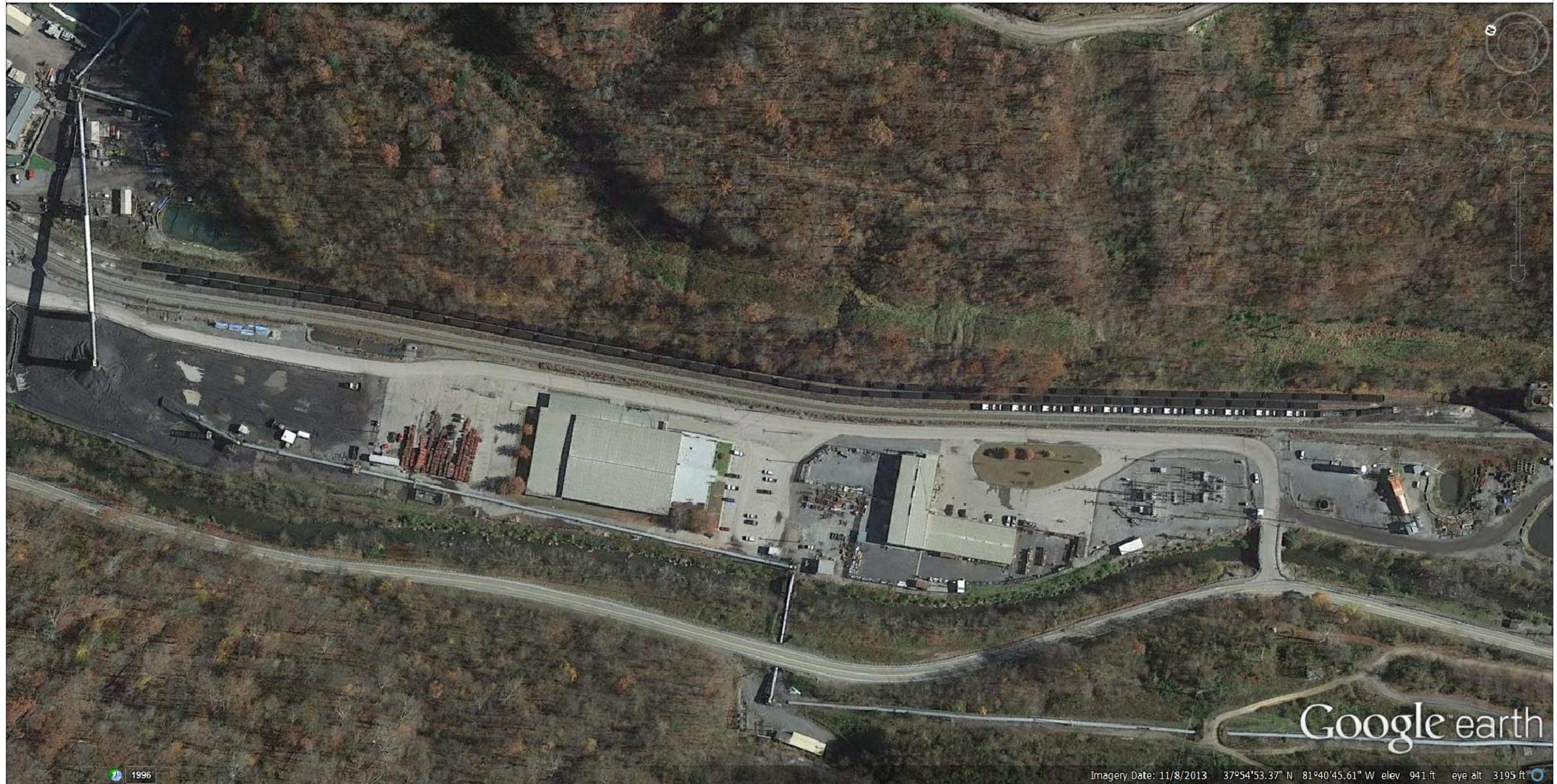
PLOT PLAN

General Permit Modification Application

Wells Preparation Plant, Plant ID No. 005-00016
Wharton, West Virginia

Eastern Associated Coal, LLC
P.O. Box 1001
Scott Depot, West Virginia

March 2015



1996

Imagery Date: 11/8/2013 37°54'53.37" N 81°40'45.61" W elev 941 ft eye alt 3195 ft

This drawing was produced with computer aided drafting technology and is supported by electronic drawing files. Do not revise this drawing via manual drafting methods.

WELLS PREPARATION PLANT
 AERIAL IMAGE
 BOONE COUNTY, WEST VIRGINIA
 PLANT ID. 005-00016

EASTERN ASSOCIATED COAL, LLC
 SCOTT DEPOT, WEST VIRGINIA

| | |
|---------------|------------------------|
| SCALE: N.T.S. | DRAWING NUMBER: 1 of 2 |
| DRAWN: EAS | APPROVED: NULL |
| CHECKED: NULL | DATE: 02-06-2015 |





Google earth

Imagery Date: 11/8/2013 37°54'29.62" N 81°40'39.30" W elev 973 ft eye alt 3373 ft

This drawing was produced with computer aided drafting technology and is supported by electronic drawing files. Do not revise this drawing via manual drafting methods.

WELLS PREPARATION PLANT
AERIAL IMAGE
BOONE COUNTY, WEST VIRGINIA
PLANT ID. 005-00016

EASTERN ASSOCIATED COAL, LLC
SCOTT DEPOT, WEST VIRGINIA

| | | | |
|----------|--------|----------------|------------|
| SCALE: | N.T.S. | DRAWING NUMBER | |
| DRAWN: | EAS | APPROVED: | NLL |
| CHECKED: | NLL | DATE: | 02-06-2015 |
| | | | 2 of 2 |



ATTACHMENT F

AREA MAP

General Permit Modification Application

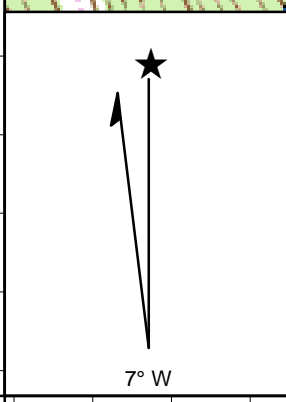
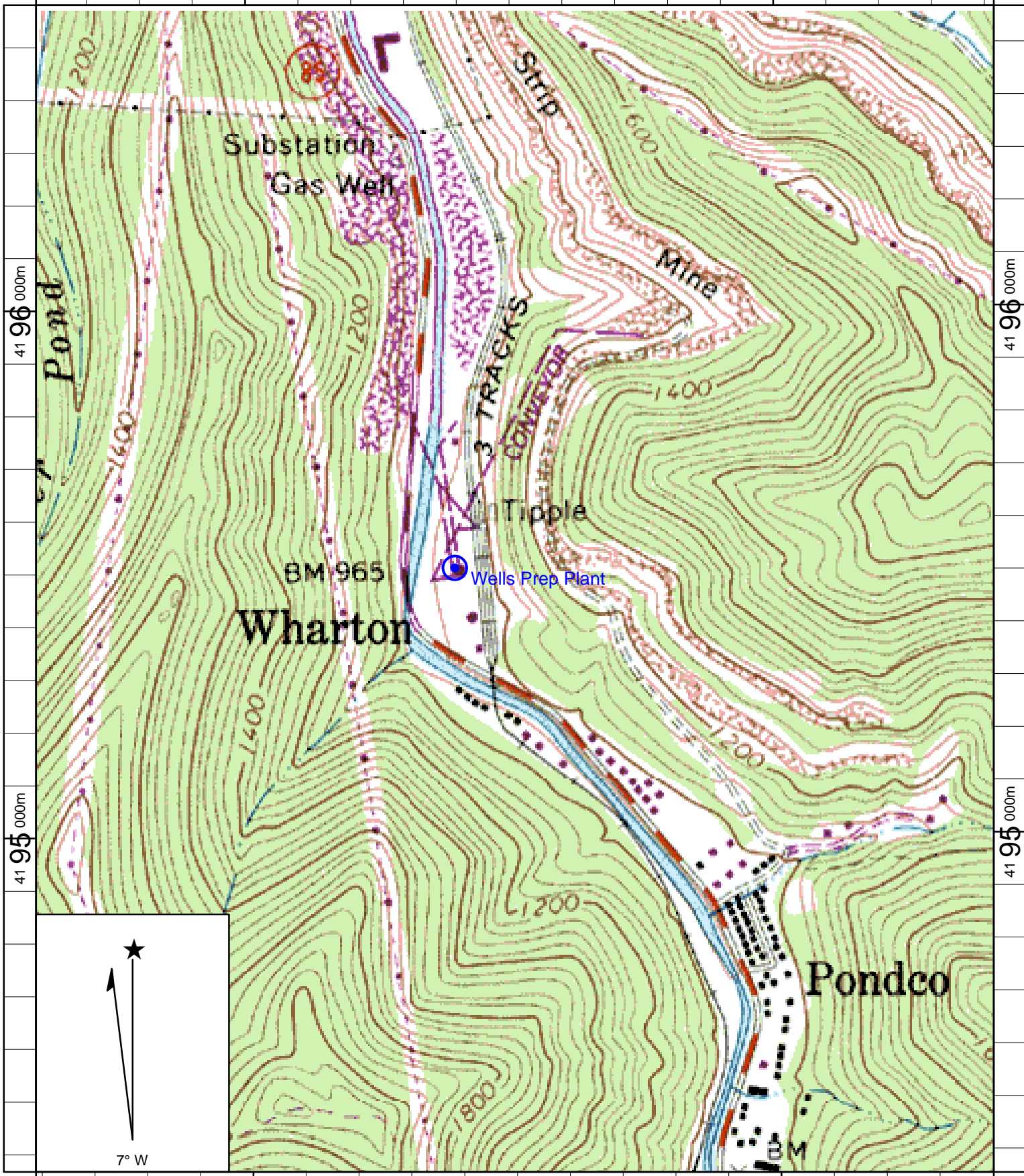
Wells Preparation Plant, Plant ID No. 005-00016
Wharton, West Virginia

Eastern Associated Coal, LLC
P.O. Box 1001
Scott Depot, West Virginia

March 2015

17 4 40 000m

17 4 41 000m



Name: WHARTON
 Date: 12/20/2005
 Scale: 1 inch equals 800 feet

Location: 17 440502 E 4195467 N
 Caption: Wells Preparation Plant
 Area Map

ATTACHMENT G

AFFECTED SOURCE SHEETS

General Permit Modification Application

Wells Preparation Plant, Plant ID No. 005-00016
Wharton, West Virginia

Eastern Associated Coal, LLC
P.O. Box 1001
Scott Depot, West Virginia

March 2015

CONVEYING AFFECTED SOURCE SHEET

| Source Identification Number ¹ | Date of Construction, Reconstruction, or Modification (Month/Year) ² | Type of Material Handled ³ | Size of Material Handled ⁴ | Maximum Material Transfer Rate ⁵ | | Average Moisture Content (%) ⁶ | Control Device ⁷ |
|---|---|---------------------------------------|---------------------------------------|---|------------|---|-----------------------------|
| | | | | tons/hour | tons/year | | |
| BC43 | C - 2006 | RC | | 2,250 | 10,500,000 | | PE |
| BC38 | C - 2004 | RC | | 3,500 | 10,500,000 | | PE |
| BC37 | C - 2004 | RC | | 3,500 | 10,500,000 | | PE |
| BC42 | C - 2006 | RC | | 2,000 | 10,500,000 | | PE |
| BC7 | C - 1978 | RC | | 2,500 | 10,500,000 | | FE |
| BC8 | C - 1978 | RC | | 2,500 | 10,500,000 | | FE |
| BC8A | | RC | | 2,500 | 10,500,000 | | FE |
| BC14 | C - 1978 | RC | | 2,000 | 10,500,000 | | PE |
| | | | | | | | |
| | | | | | | | |
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| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

- Enter the appropriate Source Identification Number for each conveyor using the following codes. For example, multiple belt conveyors should be designated BC-1, BC-2, BC-3 etc. Transfer points are considered emission points, not sources, and should not be included in the *Conveying Affected Source Sheet*. Transfer Point Identification Numbers shall be assigned in the *Emission Calculation Sheet*.

| | | | | | |
|----|------------------|----|-----------------|----|--------------------|
| BC | Belt Conveyor | BE | Bucket Elevator | DL | Drag-link Conveyor |
| PS | Pneumatic System | SC | Screw Conveyor | VC | Vibrating Conveyor |
| OT | Other | | | | |
- Enter the date that each crusher and screen was constructed, reconstructed, or modified.
- Enter the type of material being handled - Raw Coal (RC) Sized Coal (SC) Clean Coal (CC) Refuse (R) Other (O)
- Enter the nominal size of the material being conveyed (e.g. clean coal - ¾" x 0). If more than one material is handled by the listed conveyor, list each material and enter the appropriate data for each material.
- Enter the maximum material transfer rate for each conveyor in tons per hour and tons per year.
- Enter the average percent moisture content of the conveyed material.
- Enter the control device for the conveyor. PE - Partial Enclosure (example 3/4 hoop), FE - Full Enclosure, N - None

ATTACHMENT I

EMISSIONS CALCULATIONS

General Permit Modification Application

Wells Preparation Plant, Plant ID No. 005-00016
Wharton, West Virginia

Eastern Associated Coal, LLC
P.O. Box 1001
Scott Depot, West Virginia

March 2015

WELLS PREPARTION PLANT

| | |
|---|------------|
| PERMIT G10-D031D POTENTIAL TO EMIT | |
| CONTROLLED PM POINT SOURCE EMISSIONS | 201.11 TPY |
| CONTROLLED PM-10 POINT SOURCE EMISSIONS | 94.72 TPY |

| | |
|---|-------|
| ADDITIONS (CLEAN COAL CONVEYER) | |
| CONTROLLED PM POINT SOURCE EMISSIONS | 0 TPY |
| CONTROLLED PM-10 POINT SOURCE EMISSIONS | 0 TPY |

| | |
|---|------------|
| NEW POTENTIAL TO EMIT | |
| CONTROLLED PM POINT SOURCE EMISSIONS | 199.69 TPY |
| CONTROLLED PM-10 POINT SOURCE EMISSIONS | 94.05 TPY |

| | |
|--|---------|
| TRIGGERS FOR RULE 13 AND TITLE V PERMITS | |
| PM-10 POINT SOURCE EMISSIONS | 100 TPY |

RESULT
THIS FACILITY CAN REMAIN UNDER THE GENERAL PERMIT AS A MINOR SOURCE.

ATTACHMENT J

CLASS I LEGAL ADVERTISEMENT

General Permit Modification Application

Wells Preparation Plant, Plant ID No. 005-00016
Wharton, West Virginia

Eastern Associated Coal, LLC
P.O. Box 1001
Scott Depot, West Virginia

March 2015

EXAMPLE LEGAL ADVERTISEMENT

Publication of a proper Class I legal advertisement is a requirement of the application process. In the event the applicant's legal advertisement fails to follow the requirements of 45CSR 13 (45-13-8) or the requirements of Chapter 59, Article 3, of the West Virginia Code, the application will be considered incomplete and no further review of the application will occur.

The applicant, utilizing the format for the Class I legal advertisement appearing below, shall cause such legal advertisement to appear a minimum of one (1) day in the newspaper most commonly read in the area where the facility exists or will be constructed. The notice must be published no earlier than five (5) working days of receipt by this office of your application. The original affidavit of publication must be received by this office no later than the last day of the public comment period.

The advertisement shall contain, at a minimum, the name of the applicant, the type and location of the source, the type and amount of air pollutants that will be discharged, the nature of the permit being sought, the proposed start-up date for the source and a contact telephone number for more information.

The location of the source should be as specific as possible starting with: 1.) the street address of the source; 2.) the nearest street or road; 3.) the nearest town or unincorporated area, 4.) the county, and 5.) latitude and longitude coordinates.

Types and amounts of pollutants discharged must include all regulated pollutants (PM, PM₁₀, VOC, SO₂, Xylene, etc.) and their potential to emit or the permit level being sought in units of tons per year (including fugitive emissions).

In the event the 30th day is a Saturday, Sunday, or legal holiday, the comment period will be extended until 5:00 p.m. on the following regularly scheduled business day.

AIR QUALITY PERMIT NOTICE Notice of Application

Notice is given that Eastern Associated Coal, LLC has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a Modification Permit for a Coal Preparation Plant located on State Route 85, Wharton, in Boone County, West Virginia. The latitude and longitude coordinates are: 37.91861 and 81.68083, respectively.

The applicant estimates the (decreased, if modification application) potential to discharge the following Regulated Air Pollutants will be:

Particulate Matter (PM) -1.42 tons/year
Particulate Matter under 10 microns (PM-10) -0.67 tons/year.

Startup of operation is After-the-Fact. Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE, Charleston, WV 25304, for at least 30 calendar days from the date of publication of this notice.

Any questions regarding this permit application should be directed to the DAQ at (304) 926-0499, extension 1227, during normal business hours.

Dated this the (Day) day of (Month), 2015.

By: Eastern Associated Coal, LLC
Gregory A. Ross
Attorney-in-Fact
PO Box 1001
Scott Depot, WV 25560

ATTACHMENT K

ELECTRONIC SUBMITTAL DISKETTE

General Permit Modification Application

Wells Preparation Plant, Plant ID No. 005-00016
Wharton, West Virginia

Eastern Associated Coal, LLC
P.O. Box 1001
Scott Depot, West Virginia

March 2015

ATTACHMENT L

GENERAL PERMIT REGISTRATION APPLICATION FEE

General Permit Modification Application

Wells Preparation Plant, Plant ID No. 005-00016
Wharton, West Virginia

Eastern Associated Coal, LLC
P.O. Box 1001
Scott Depot, West Virginia

March 2015

GENERAL PERMIT APPLICATION FEE AND TIME TABLE

G10-C - Class II Coal Preparation and Handling

| | Application Fee | NSPS Fee | Total Fee | Total Days* |
|------------------------|-----------------|-------------|-------------|-------------|
| Construction | \$ 500.00 | \$ 1,000.00 | \$ 1,500.00 | 45 |
| Modification | \$ 500.00 | \$ 1,000.00 | \$ 1,500.00 | 45 |
| Relocation | \$ 500.00 | \$ 1,000.00 | \$ 1,500.00 | 45 |
| Class I Admin. Update | NA | NA | NA | 45 |
| Class II Admin. Update | \$ 300.00 | \$ 1,000.00 | \$ 1,300.00 | 45 |

G20-B - Class II Hot Mix Asphalt

| | Application Fee | NSPS Fee | Total Fee | Total Days* |
|------------------------|-----------------|-------------|-------------|-------------|
| Construction | \$ 500.00 | \$ 1,000.00 | \$ 1,500.00 | 45 |
| Modification | \$ 500.00 | \$ 1,000.00 | \$ 1,500.00 | 45 |
| Relocation | \$ 500.00 | \$ 1,000.00 | \$ 1,500.00 | 45 |
| Class I Admin. Update | NA | NA | NA | 45 |
| Class II Admin. Update | \$ 300.00 | \$ 1,000.00 | \$ 1,300.00 | 45 |

G30-A - Class II Natural Gas Compressor

| | Application Fee | NSPS Fee | Total Fee | Total Days* |
|------------------------|-----------------|-------------|-------------|-------------|
| Construction | \$ 500.00 | \$ 1,000.00 | \$ 1,500.00 | 45 |
| Modification | \$ 500.00 | \$ 1,000.00 | \$ 1,500.00 | 45 |
| Relocation | \$ 500.00 | \$ 1,000.00 | \$ 1,500.00 | 45 |
| Class I Admin. Update | NA | NA | NA | 45 |
| Class II Admin. Update | \$ 300.00 | \$ 1,000.00 | \$ 1,300.00 | 45 |

G-33A - Class I Natral Gas Compressor ≥ 25HP and ≤ 500 HP

| | Application Fee | NSPS Fee | Total Fee | Total Days* |
|------------------------|-----------------|----------|-----------|-------------|
| Construction | \$ 250.00 | NA | \$ 250.00 | 45 |
| Modification | \$ 250.00 | NA | \$ 250.00 | 45 |
| Relocation | \$ 250.00 | NA | \$ 250.00 | 45 |
| Class I Admin. Update | NA | NA | NA | 45 |
| Class II Admin. Update | \$ 300.00 | NA | \$ 300.00 | 45 |

G-35A - Class II Natural Gas Compressor Station W/ Glycol Dehydration Unit, Flares, and Other Specified Control Devices

| | Application Fee | NSPS Fee | Total Fee | Total Days* |
|------------------------|-----------------|-------------|-------------|-------------|
| Construction | \$ 500.00 | \$ 1,000.00 | \$ 1,500.00 | 45 |
| Modification | \$ 500.00 | \$ 1,000.00 | \$ 1,500.00 | 45 |
| Relocation | \$ 500.00 | \$ 1,000.00 | \$ 1,500.00 | 45 |
| Class I Admin. Update | NA | NA | NA | 45 |
| Class II Admin. Update | \$ 300.00 | \$ 1,000.00 | \$ 1,300.00 | 45 |

G40-B - Class II Nonmetallic Minerals Processing

| | Application Fee | NSPS Fee | Total Fee | Total Days* |
|------------------------|-----------------|-------------|-------------|-------------|
| Construction | \$ 500.00 | \$ 1,000.00 | \$ 1,500.00 | 45 |
| Modification | \$ 500.00 | \$ 1,000.00 | \$ 1,500.00 | 45 |
| Relocation | \$ 500.00 | \$ 1,000.00 | \$ 1,500.00 | 45 |
| Class I Admin. Update | NA | NA | NA | 45 |
| Class II Admin. Update | \$ 300.00 | \$ 1,000.00 | \$ 1,300.00 | 45 |

G50-B - Class II Concrete Batch

| | Application Fee | NSPS Fee | Total Fee | Total Days* |
|------------------------|-----------------|-------------|-------------|-------------|
| Construction | \$ 500.00 | \$ 1,000.00 | \$ 1,500.00 | 45 |
| Modification | \$ 500.00 | \$ 1,000.00 | \$ 1,500.00 | 45 |
| Relocation | \$ 500.00 | \$ 1,000.00 | \$ 1,500.00 | 45 |
| Class I Admin. Update | NA | NA | NA | 45 |
| Class II Admin. Update | \$ 300.00 | \$ 1,000.00 | \$ 1,300.00 | 45 |

G60-A - Class II Emergency Generator

| | Application Fee | NSPS Fee | Total Fee | Total Days* |
|------------------------|-----------------|-------------|-------------|-------------|
| Construction | \$ 500.00 | \$ 1,000.00 | \$ 1,500.00 | 45 |
| Modification | \$ 500.00 | \$ 1,000.00 | \$ 1,500.00 | 45 |
| Relocation | \$ 500.00 | \$ 1,000.00 | \$ 1,500.00 | 45 |
| Class I Admin. Update | NA | NA | NA | 45 |
| Class II Admin. Update | \$ 300.00 | \$ 1,000.00 | \$ 1,300.00 | 45 |

G65-A -Class I Emergency Generator

| | Application Fee | NSPS Fee | Total Fee | Total Days* |
|------------------------|-----------------|----------|-----------|-------------|
| Construction | \$ 250.00 | NA | \$ 250.00 | 45 |
| Modification | \$ 250.00 | NA | \$ 250.00 | 45 |
| Relocation | \$ 250.00 | NA | \$ 250.00 | 45 |
| Class I Admin. Update | NA | NA | NA | 45 |
| Class II Admin. Update | \$ 300.00 | NA | \$ 300.00 | 45 |

G70-A - Class II Natural Gas Production Pad

| | Application Fee | NSPS Fee | NESHAP Fee | Total Fee | Total Days* |
|------------------------|-----------------|-------------|-------------|-------------|-------------|
| Construction | \$ 500.00 | \$ 1,000.00 | \$ 2,500.00 | \$ 4,000.00 | 45 |
| Modification | \$ 500.00 | \$ 1,000.00 | \$ 2,500.00 | \$ 4,000.00 | 45 |
| Class I Admin. Update | NA | NA | NA | NA | 45 |
| Class II Admin. Update | \$ 300.00 | \$ 1,000.00 | \$ 2,500.00 | \$ 3,800.00 | 45 |

* Maximum days after receipt of complete application.

THE FACE OF THIS DOCUMENT CHANGES COLOR GRADUALLY AND EVENLY FROM DARK TO LIGHT AND HAS MICROPRINTING

EASTERN ASSOCIATED COAL, LLC

0535895

PNC Bank N.A.
Jeanette, PA

001
60 - 162 / 433

Pay ONE THOUSAND FIVE HUNDRED DOLLARS AND NO CENTS****

| Date |
|----------|
| 02/11/15 |

| Amount |
|------------------|
| \$*****1,500.00* |

VOID 90 days after date of check

To The Order Of WV DEPT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR QUALITY
601 57TH STREET EAST
CHARLESTON, WV 25304



Authorized Signature

Authorized Signature

⑈0535895⑈ ⑆043301627⑆ ⑆028860744⑈

THE REVERSE SIDE OF THIS DOCUMENT HAS AN ARTIFICIAL WATERMARK

ATTACHMENT N

MATERIAL SAFETY DATA SHEETS (MSDS)

General Permit Modification Application

Wells Preparation Plant, Plant ID No. 005-00016
Wharton, West Virginia

Eastern Associated Coal, LLC
P.O. Box 1001
Scott Depot, West Virginia

March 2015



PUT OUR ENERGY TO WORK FOR YOU.

Two International Drive, Suite 200, Portsmouth, NH 03801
 Tel (603) 431-1000 FAX (603) 430-7290
 An Axel Johnson, Inc. Company

MATERIAL SAFETY DATA SHEET

**BITUMINOUS
 COAL**

Content Last Revised 1/94; 10/12/00;
 07/26/02; 06/05
 4 pages.

| SECTION 1 - MATERIAL IDENTIFICATION | | 24 HOUR EMERGENCY INFORMATION | |
|-------------------------------------|--|----------------------------------|--|
| PRODUCT / CHEMICAL NAME: | BITUMINOUS COAL | Sprague: | 603-431-1000 |
| | | Chemtrec: | 800-424-9300 |
| PRODUCT / CHEMICAL SYNONYMS: | WASHED COAL, CLEAN COAL, SOFT COAL | HMIS / NFPA HAZARD RATING | <p>← FIRE REACTIVITY ← OTHER HEALTH</p> |
| CHEMICAL FAMILY / FORMULA: | ALIPHATIC AND AROMATIC HYDROCARBONS / VARIABLE | 4=EXTREME | |
| MATERIAL USE OR OCCURRENCE: | - | 3=SERIOUS | |
| | | 2=MODERATE | |
| | | 1=SLIGHT | |
| | | 0=MINIMAL | |

| SECTION 2 – INGREDIENTS & RECOMMENDED OCCUPATIONAL EXPOSURE LIMITS | | | |
|--|-------------------------|--|---|
| COMPOSITION | % WEIGHT AS RECEIVED | OSHA PEL | ACGIH TLV |
| MOISTURE | (Typical) 1.0 – 10.0 | None established. | None established. |
| ASH | 4.0-20.0 | 15 mg/M ³ as nuisance dust less than 1% quartz | 10 mg/M ³ as nuisance dust less than 1% quartz |
| TOTAL SULFUR | 0.5-2.2 | 5.0 ppm as SO ₂ | 2.00 ppm as SO ₂ |
| FIXED CARBON | 50.0-72.0 | None established | None established |
| VOLATILE MATTER* INCLUDING ELEMENTAL AND COMPOUNDS OF: | 17.0-37.0 | | |
| HYDROGEN | 4.8-5.3 | None established | None established |
| NITROGEN | 1.2-1.6 | None established | None established |
| CHLORINE | .08-.19 | 1.0 ppm | 1.0 ppm |
| COAL DUST | | 2.4 mg/ M ³ respirable fraction, < 5% SiO ₂ 10 mg/ M ³ > 5% SiO ₂ % SiO ₂₊₂ | 2 mg/M ³ respirable fraction, < 5% SiO ₂ 10 mg/ M ³ > 5% SiO ₂ % SiO ₂₊₂ |

| SECTION 3 - PHYSICAL DATA | | | |
|--|------------|---------------------------------|-------------|
| IGNITION TEMPERATURE: | 260°-365°F | % VOLATILITY BY VOLUME: | Negligible |
| MELTING POINT: | 750° F | VAPOR DENSITY (AIR = 1): | N/A |
| AVERAGE SPECIFIC GRAVITY (H₂O = 1): | 1.43 | SOLUBILITY IN WATER: | Non-soluble |
| HETEROGENOUS - CARBONACEOUS | | | |
| APPEARANCE & ODOR: Irregular, rectangular-shaped chunks or particles, dense, grayish-black to black color with slight, minimal dank odor. | | | |

SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: When exposed to flame of temperatures in excess of 260° F.

EXTINGUISHING MEDIUM: Foam, carbon dioxide, dry chemical, halon, and water fog.

SPECIAL FIRE FIGHTING PROCEDURES: Use washdown and spread out method.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Susceptible to spontaneous combustion. Highly combustible and/or explosive when in dust or powder form.

SECTION 5 - HEALTH DATA

TOXICOLOGICAL TEST DATA: Coal may liberate various polycyclic aromatic hydrocarbons (PAH's) upon thermal decomposition. There is no clear evidence that coal is carcinogenic to man or experimental animals because of their polycyclic aromatic hydrocarbon content. However, there is evidence that these PAH's may play an active role in the generation of lung cancer seen in cigarette smokers or tar-roofing workers.

Coal may release small quantities of methane gas over a period of time. Progression of tuberculosis is greatly increased in pneumoconiosis but susceptibility is apparently not increased.

| ACUTE HEALTH EFFECTS | | CHRONIC HEALTH EFFECTS |
|-----------------------------|--|---|
| INHALATION | The principal health hazard associated with coal occurs during its mining and transport. Coal workers' pneumoconiosis (CWP) can occur in miners after as little as 15 years of excessive inhalation of respirable coalmine dust. Respirable quartz particles and free silica may be co-implicated. Coal dust is deposited in the lungs where its site of action is the lung parenchyma, lymph nodes and hila. The severity of the disease is directly related to the amount of coal dust in the lungs. In the simple stages, the disease is detectable by x-ray as round, irregular "macules" of 1-5 mm. This stage typically does not change lung function or shorten life. | The chronic stage of CWP, however, involves massive pulmonary fibrosis that does impair pulmonary function and shorten life. Chronic Bronchitis (lung inflammation, coughing attacks, difficult breathing, etc.) and emphysema can result from excessive coal dust inhalation. Rheumatoid arthritis can be exacerbated by pneumonias leading to rapidly developing lung damage (Caplan's Syndrome). |
| INGESTION | May cause irritation. | No data available |
| SKIN CONTACT | May cause irritation. | No data available. |
| EYE CONTACT | Irritation of the eye. | No data available |

FIRST AID



PROCEDURES

First aid procedures generally don't apply to this product. Maintain exposure to coal dust according to applicable regulatory standards.

**MATERIAL SAFETY DATA SHEET****BITUMINOUS
COAL**Content Last Revised 1/94: 10/12/00: 07/26/02;
06/05 4 pages**SECTION 6 - REACTIVITY DATA**

| | |
|--|--|
| STABILITY: | Stable if properly stored to inhibit oxidation. |
| HAZARDOUS POLYMERIZATION: | Hazardous polymerization has not been known to occur under normal temperatures and pressures. However, coal dust may react slowly with oxygen at room temperature. Heat accelerates the process, which could lead to spontaneous ignition in piles of coal dust. |
| CONDITIONS TO AVOID: | <ol style="list-style-type: none">1. Allowing coal to stand in water.2. Storing coal on loose or porous ground.3. Piling coal around upright steel or wooden posts, crane supports, underground drains, steam or hot water lines or areas where there is refuse such as wood, straw, growing vegetation or other organic material.4. Storage in closed hampers, bins, receptacles, etc. without positive ventilation. |
| INCOMPATIBLES: | |
| TYPICAL DECOMPOSITION PRODUCTS: | May liberate hydrogen, methane, carbon monoxide, oxides of sulfur and hydrogen, coal tar pitch volatiles upon thermal decomposition. |

SECTION 7 - SPECIAL PROTECTION

| | |
|--|---|
| RESPIRATORY PROTECTION: | Use with adequate ventilation. |
| VENTILATION | LOCAL EXHAUST: MSHA/NIOSH approved dust respirator. Appropriate respirator depends upon type and magnitude of exposure. |
| | MECHANICAL (General): Recommended for use in enclosed or semi-enclosed work areas. |
| EYE PROTECTION: | Splash goggles or shields with safety glasses |
| PROTECTIVE GLOVES: | Neoprene, PVC |
| OTHER PROTECTIVE CLOTHING OR EQUIPMENT: | Employee must wear appropriate impervious clothing and equipment to prevent repeated or prolonged skin contact with this substance. |

SECTION 8 - SPECIAL PRECAUTIONS

| | |
|---|---|
| PRECAUTIONS FOR SAFE HANDLING & STORAGE: | Do not permit accumulation of dust or spillage. See also conditions to avoid, above. |
| SPILL AND LEAK PROCEDURES: | Cleanup by excavation, vacuum collection or washdown. |
| WASTE DISPOSAL METHOD: | <ol style="list-style-type: none">1. Incinerate in combustion device or system.2. Dispose in approved, regulated landfill. |

SECTION 9 - DOT HAZARDOUS MATERIAL INFORMATION

| | | |
|---|----------------------------------|-------------------------------|
| PROPER SHIPPING NAME: BITUMINOUS COAL | REQUIRED PLACARDING: NONE | |
| HAZARD CLASS: Non-Hazardous | PACKING GROUP (P.G.): III | N.A./U.N. NUMBER: NONE |



MATERIAL SAFETY DATA SHEET

**BITUMINOUS
COAL**

Content Last Revised 1/94: 10/12/00: 07/26/02;
06/05 4 pages

SECTION 10 - EPA SARA TITLE III INFORMATION

| | | | |
|---|-------------------|----------------------|----------------------|
| SECTION 311/312 | ACUTE: N/A | CHRONIC: N/A | |
| HAZARD CLASSIFICATION: Non-Hazardous | FIRE: N/A | PRESSURE: N/A | REACTIVE: N/A |

SECTION 11 – REMARKS

This material contains fused polycyclic hydrocarbons. The OSHA interpretation of coal tar pitch volatiles (Section 1910, 1002) is as follows: "Coal tar pitch volatiles include the fused polycyclic hydrocarbons which volatilize from the distillation residues of coal, petroleum, wood, and other organic matter." The OSHA PEL and ACGIH TLV for coal tar pitch volatiles is 0.2 mg/M³ (basis one soluble fraction).

SECTION 12 - ADDITIONAL REGULATORY DATA

| REPORTABLE COMPONENTS: FEDERAL EPA | % | SARA RQ | CERCLA RQ | RCRA NO. |
|---|----------|----------------|------------------|-----------------|
| BITUMINOUS COAL | 100 | ----- | ----- | ----- |

NOTE: OSHA Regulations 29 CFR 1910.1200 (Hazard Communication) do not consider coal as a "hazardous material" and a Material Safety Data Sheet (MSDS) is not required. The information contained herein is based on data available at this time and is believed to be accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Since information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar, no responsibility is assumed for the results of its use. The person receiving this information shall make his own determination of the suitability of the material for his particular purpose.

ATTACHMENT O

EMISSIONS SUMMARY SHEETS

General Permit Modification Application

Wells Preparation Plant, Plant ID No. 005-00016
Wharton, West Virginia

Eastern Associated Coal, LLC
P.O. Box 1001
Scott Depot, West Virginia

March 2015

EMISSIONS SUMMARY

Name of applicant: Eastern Associated Coal LLC
 Name of plant: Wells Preparation Plant

Particulate Matter or PM (for CES Fee Determination)

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

| FUGITIVE EMISSIONS | | | | |
|-----------------------------------|-------------|-----------------|-------------|---------------|
| <i>Stockpile Emissions</i> | 1.10 | 4.82 | 1.10 | 4.82 |
| <i>Unpaved Haulroad Emissions</i> | 0.00 | 1,426.76 | 0.00 | 356.69 |
| <i>Paved Haulroad Emissions</i> | 0.00 | 1,745.47 | 0.00 | 436.37 |
| Fugitive Emissions Total | 1.10 | 3,177.05 | 1.10 | 797.88 |

| POINT SOURCE EMISSIONS | | | | |
|-------------------------------------|--------------|---------------|--------------|---------------|
| <i>Equipment Emissions</i> | 0.00 | 675.00 | 0.00 | 135.00 |
| <i>Transfer Point Emissions</i> | 78.72 | 198.94 | 25.88 | 64.69 |
| Point Source Emissions Total | 78.72 | 873.94 | 25.88 | 199.69 |

| | | | | |
|---------------------------------|--------------|-----------------|--------------|---------------|
| Facility Emissions Total | 79.82 | 4,050.99 | 26.98 | 997.57 |
|---------------------------------|--------------|-----------------|--------------|---------------|

Particulate Matter under 10 microns, or PM-10 (for CES Fee Determination)

| Uncontrolled PM-10 | | Controlled PM-10 | |
|--------------------|-----|------------------|-----|
| lb/hr | TPY | lb/hr | TPY |

| FUGITIVE EMISSIONS | | | | |
|-----------------------------------|-------------|---------------|-------------|---------------|
| <i>Stockpile Emissions</i> | 0.52 | 2.27 | 0.52 | 2.27 |
| <i>Unpaved Haulroad Emissions</i> | 0.00 | 421.12 | 0.00 | 105.28 |
| <i>Paved Haulroad Emissions</i> | 0.00 | 299.54 | 0.00 | 74.89 |
| Fugitive Emissions Total | 0.52 | 722.93 | 0.52 | 182.43 |

| POINT SOURCE EMISSIONS | | | | |
|-------------------------------------|--------------|---------------|--------------|--------------|
| <i>Equipment Emissions</i> | 0.00 | 317.25 | 0.00 | 63.45 |
| <i>Transfer Point Emissions</i> | 37.23 | 94.09 | 12.24 | 30.60 |
| Point Source Emissions Total | 37.23 | 411.34 | 12.24 | 94.05 |

| | | | | |
|---------------------------------|--------------|-----------------|--------------|---------------|
| Facility Emissions Total | 37.75 | 1,134.28 | 12.76 | 276.48 |
|---------------------------------|--------------|-----------------|--------------|---------------|

| | | | | |
|---------------------------------|--------------|-----------------|--------------|---------------|
| Facility Emissions Total | 37.75 | 1,134.28 | 12.76 | 276.48 |
|---------------------------------|--------------|-----------------|--------------|---------------|

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

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

| Transfer Point ID No. | Transfer Point Description Include ID Numbers of all conveyors, crushers, screens, stockpiles, etc. involved | Material Moisture Content % | MAXIMUM Throughput | | Control Device ID Number | Control Efficiency % | Permitted Maximum Throughput | |
|-----------------------|---|-----------------------------|--------------------|------------|--------------------------|----------------------|------------------------------|-----|
| | | | TPH | TPY | | | TPH | TPY |
| T3 | Raw Coal - BC42 TO BC7 | 5 | 2,500 | 10,500,000 | PE | 50 | | |
| T4 | Raw Coal - BS2 Input (CC11/TD) | 5 | 2,500 | 10,500,000 | PW | 80 | | |
| T5 | Raw Coal - BS2 TO BC6 | 5 | 2,500 | 10,500,000 | FE | 80 | | |
| T6 | Raw Coal - To BS3 or BC12 | 5 | 2,500 | 10,500,000 | FE | 80 | | |
| T7 | Raw Coal - To BS4 or BC13 RAW COAL (BC8) TO RAW COAL SILO (BS5) | 5 | 2,500 | 10,500,000 | FE | 80 | | |
| T8 | Raw Coal - BC11 TO BS4 | 5 | 2,500 | 10,500,000 | FE | 80 | | |
| T9 | Raw Coal - Silo overflow to OS4 | 5 | 2,000 | 210,000 | MD | 0 | | |
| T10 | Raw Coal - Endloader to BS6 | 5 | --- | 210,000 | PW | 80 | | |
| T11 | Raw Coal - BS6 to BC14 | 5 | 2,000 | 210,000 | PE | 50 | | |
| T12 | Raw Coal - BS5 to BC14 | 5 | --- | 10,500,000 | FE | 80 | | |
| T13 | Raw Coal - BS4 to BC14 | 5 | --- | --- | FE | 80 | | |
| T14 | Raw Coal - BS3 to BC14 | 5 | --- | 10,500,000 | FE | 80 | | |
| T15 | Raw Coal - BC14 to S1 | 5 | 2,000 | 10,500,000 | FE | 80 | | |
| T16 | Raw Coal - CR1 Input | 5 | 2,000 | 10,500,000 | FE | 80 | | |
| T17 | Raw Coal - Fine raw coal to BC15 | 5 | 1,000 | 7,000,000 | FE | 80 | | |
| T18 | Raw Coal - CR1 to BC16 | 5 | 1,400 | 10,500,000 | FE | 80 | | |
| T19 | Raw Coal - BC16 or BC18 | 5 | 1,000 | 7,000,000 | FE | 80 | | |
| T20 | Raw Coal - BC16 to BC17 | 5 | 1,400 | 10,500,000 | FE | 80 | | |
| T21 | Raw Coal - BC18 to BC19 (fines) | 5 | 1,550 | 6,000,000 | FE | 80 | | |
| T22 | Clean Coal/Sized - BC19 to BC20 | 6 | 1,550 | 7,360,532 | FE | 80 | | |
| T23 | Clean Coal/Sized - BS10 or BC21 | 6 | 1,550 | 7,360,532 | FE | 80 | | |
| T24 | Clean Coal/Sized - BS11 or BC24 | 6 | 1,550 | 7,360,532 | FE | 80 | | |
| T25 | Clean Coal/Sized - BC25 or OS1 | 6 | 850 | 6,000,000 | PE | 50 | | |
| T26 | Clean Coal/Sized - BC25 to OS2 | 6 | 850 | 6,000,000 | PE | 50 | | |
| T27 | Sized Coal - BS10 to BC26 | 5 | --- | 6,000,000 | FE | 80 | | |
| T28 | Sized Coal - BS11 to BC26 (Cook Mtn.) | 5 | --- | --- | FE | 80 | | |
| T29 | Sized Coal - BC26 to BC26A | 5 | 2,000 | 6,000,000 | PE | 50 | | |
| T30 | Clean Coal/Sized - OS1 to BC27 | 6 | --- | --- | FE | 80 | | |
| T31 | Clean Coal/Sized - OS2 to BC27 | 6 | 2,000 | 6,000,000 | FE | 80 | | |
| T32 | Clean Coal/Sized - Endloader | 6 | --- | 0 | MC | 0 | | |
| T33 | Clean Coal/Sized - BC27 to BS12 | 6 | 4,000 | 6,000,000 | FE | 80 | | |
| T34 | Clean Coal/Sized - BS12 to RR | 6 | --- | 6,000,000 | TC | 75 | | |
| T35 | Refuse - CR1 to BC28 | 5 | 750 | 5,300,000 | PE | 50 | | |
| T36 | Refuse - BC28 to BC30 | 5 | 750 | 5,300,000 | PE | 50 | | |
| T37 | Refuse - BC29 to BC30 | 5 | --- | --- | FE | 80 | | |
| T38 | Refuse - BS13 or BC31 | 5 | 750 | 5,300,000 | FE | 80 | | |
| T39 | Refuse - BS13 to truck loadout | 5 | --- | 5,300,000 | PE | 50 | | |
| T40 | Refuse - BC31 to BC32 | 5 | 750 | 5,300,000 | FE | 80 | | |
| T41 | Refuse - BC33 or BS14 | 5 | 750 | 5,300,000 | FE | 80 | | |
| T42 | Refuse - BS14 to truck loadout | 5 | --- | 5,300,000 | PE | 50 | | |
| T43 | Refuse - BC34 or BS15 | 5 | 750 | 5,300,000 | FE | 80 | | |
| T44 | Refuse - BS15 to truck loadout | 5 | --- | 5,300,000 | PE | 50 | | |
| T45 | Refuse - BC34 to OS3 | 5 | 750 | 5,300,000 | MC | 0 | | |
| T46 | Refuse - Endloader to truck loadout | 5 | --- | 210,000 | MC | 0 | | |
| T47 | Raw/Clean Coal - Truck to OS5 | 6 | --- | 10,500,000 | MC | 0 | | |
| T48 | Raw/Clean Coal - OS5 truck loadout | 6 | --- | 10,500,000 | MC | 0 | | |
| T49 | Raw/Clean Coal - Truck to OS6 | 6 | --- | 315,000 | MC | 0 | | |
| T50 | Raw/Clean Coal - OS6 truck loadout | 6 | --- | 315,000 | MC | 0 | | |
| T55 | Raw Coal - BS8/BS9 Input | 5 | --- | 2,000,000 | PW | 80 | | |
| T56 | Raw Coal - Truck to OS8 | 5 | --- | 315,000 | MC | 0 | | |
| T57 | Raw Coal - CR2 Input | 5 | --- | 2,000,000 | FE | 80 | | |
| T58 | Raw Coal - BC23 | 5 | 1,500 | 2,000,000 | FE | 80 | | |
| T59 | Raw Coal - BC23 Input | 5 | 1,500 | 2,000,000 | FE | 80 | | |
| T60 | Raw Coal - BS10/BS11 Input or BC36 | 5 | 1,500 | 2,000,000 | FE | 80 | | |
| T66 | BC37 TO BC38 | 5 | 3,500 | 10,500,000 | PE | 50 | | |
| T67 | BC38 TO OS5 | 5 | 3,500 | 10,500,000 | PE | 50 | | |
| T68 | OS5 TO BC39 | 5 | --- | 10,500,000 | FE | 80 | | |
| T69 | BC39 TO BC40 | 5 | 2,000 | 10,500,000 | FE | 80 | | |
| T70 | BC40 TO BC41 | 5 | 2,000 | 10,500,000 | FE | 80 | | |
| T71 | BC41 TO BC42 | 5 | 2,000 | 10,500,000 | FE | 80 | | |
| T72 | BC42 to BC7 | 5 | 2,000 | 10,500,000 | FE | 80 | | |
| T73 | BC43 to BC38 (from Rivers Edge) | 5 | 2,250 | 10,050,000 | PE | 50 | | |
| T1P | ENDLOADER TO HOPPER (H-1) | 5 | 500 | 500,000 | PE | 50 | | |
| T2P | HOPPER (H-1) TO CONVEYOR (BC-1P) | 5 | 500 | 375,000 | FE/WS | 90 | | |
| T3P | CONVEYOR (BC-1P) TO STOCKPILE OS-2 | 5 | 500 | 375,000 | MC | 0 | | |
| T4P | HOPPER (H-1) TO CONVEYOR (BC-2P) | 5 | 500 | 125,000 | FE/WS | 90 | | |
| T5P | CONVEYOR (BC-2P) TO STOCKPILE OS-1 | 5 | 500 | 125,000 | MC | 0 | | |
| T3A | CONVEYOR (BC4) TO CONVEYOR (BC8A) | 5 | 2,500 | 10,500,000 | PE | 50 | | |
| T8A | CONVEYOR (BC8A) TO RAW COAL SILO BIN (BS4) | 5 | 2,500 | 10,500,000 | FE | 80 | | |
| T29A | BC26A TO BC27 | 5 | 2,000 | 6,000,000 | PE | 50 | | |
| T20A | BC17 TO THE WET WASH PREPARATION PLANT | 5 | 1,400 | 10,500,000 | PE | 50 | | |
| T20B | REFUSE FROM THE PREPARATION PLANT TO BC30 | 5 | --- | 5,300,000 | PE | 50 | | |
| T20C | REFUSE FROM THE PREPARATION PLANT TO BC30 | 5 | --- | --- | PE | 50 | | |
| T20D | CLEAN COAL FROM PREPARATION PLANT TO BC19 | 5 | --- | 6,000,000 | PE | 50 | | |
| T20E | CLEAN COAL FROM PREPARATION PLANT TO BC19 | 5 | --- | --- | PE | 50 | | |
| T20F | CLEAN COAL FROM PREPARATION PLANT TO BC19 | 5 | --- | --- | PE | 50 | | |
| T20G | CLEAN COAL FROM PREPARATION PLANT TO BC19 | 5 | --- | --- | PE | 50 | | |
| T20H | CLEAN COAL FROM PREPARATION PLANT TO BC19 | 5 | --- | --- | PE | 50 | | |
| T20I | CLEAN COAL FROM PREPARATION PLANT TO BC19 | 5 | --- | --- | PE | 50 | | |

*Assumed 100% of raw coal passed from the screen to the crusher CR1.

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 % |
|---------------|------------------------|----------------------------|-------------------------------|--------------------------|----------------------|
| OS-1 | Clean Coal | 3 | 53,000 | MC | 0 |
| OS-2 | Clean Coal | 3 | 53,000 | MC | 0 |
| OS-3 | Refuse | 1 | 10,000 | MC | 0 |
| OS-4 | Raw Coal | 3 | 12,000 | MC | 0 |
| OS-5 | Raw Coal (110,000 ft2) | 3 | 110,000 | MC | 0 |
| OS-6 | Raw/Clean (54,000 ft2) | 3 | 54,000 | MC | 0 |
| OS-8 | Raw Coal | 3 | 1,370 | MC | 0 |

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

| | | |
|-----|---|-----|
| s = | silt content of road surface material (%) | 5.1 |
| p = | number of days per year with precipitation >0.01 inch | 157 |

| Item Number | Description | Mean Vehicle Weight(tons) | Miles per Trip | Trips Per Hour | MAXIMUM Trips Per Year | Control Device ID Number | Control Efficiency % |
|-------------|---|---------------------------|----------------|----------------|------------------------|--------------------------|----------------------|
| 1 | Refuse Haulroad - HR2 (UKES) | 107.5 | 1 | 1 | 124,706 | RWMW | 75 |
| 2 | Black Stallion Stockpile Haulroad - HR3 | 52.5 | 1 | 1 | 0 | RWMW | 75 |
| 3 | Upper Stockpile Haulroad - HR4 | 52.5 | 1 | 1 | 0 | RWMW | 75 |
| 4 | Dozer/Endloader Traffic | 150 | 1 | 1 | 6,936 | RWMW | 75 |
| 5 | Raw Coal Haulroad - HR5 Upper Cook Mtn. | 52.5 | 6.82 | 1 | 0 | RWMW | 75 |
| 6 | Raw Coal Haulroad - HR6 Lower Cook Mtn. | 52.5 | 7.58 | 1 | 18,077 | RWMW | 75 |
| 7 | | | | | | | |
| 8 | | | | | | | |

*Assumes endloaders & dozers travel a maximum of 1 mile for every hour the facility is operated.

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

| | | |
|------|---|-----|
| sL = | road surface silt loading, (g/m ²) | 70 |
| P = | number of days per year with precipitation >0.01 inch | 157 |

| Item Number | Description | Mean Vehicle Weight(tons) | Miles per Trip | Trips Per Hour | ACTUAL Trips Per Year | Control Device ID Number | Control Efficiency % |
|-------------|---|---------------------------|----------------|----------------|-----------------------|--------------------------|----------------------|
| 1 | Foreign Coal Haulroad - HR1 | 52.5 | 0.4 | 1 | 161,538 | RWMW | 75 |
| 2 | Black Stallion Stockpile Haulroad - HR3 | 52.5 | 0.8 | 1 | 0 | RWMW | 75 |
| 3 | Upper Stockpile Haulroad - HR4 | 52.5 | 0.8 | 1 | 0 | RWMW | 75 |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |

1. Emissions From CRUSHING AND SCREENING

1a. Primary Crushing

| Primary Crusher ID Number | PM | | | | PM-10 | | | |
|---------------------------------|--------------|---------------|-------------|--------------|--------------|--------------|-------------|--------------|
| | Uncontrolled | | Controlled | | Uncontrolled | | Controlled | |
| | lb/hr | TPY | lb/hr | TPY | lb/hr | TPY | lb/hr | TPY |
| CR1 | 0.00 | 105.00 | 0.00 | 21.00 | 0.00 | 49.35 | 0.00 | 9.87 |
| CR2 | 0.00 | 20.00 | 0.00 | 4.00 | 0.00 | 9.40 | 0.00 | 1.88 |
| TOTAL | 0.00 | 125.00 | 0.00 | 25.00 | 0.00 | 58.75 | 0.00 | 11.75 |

1b. Secondary and Tertiary Crushing

| Secondary & Tertiary Crusher ID | PM | | | | PM-10 | | | |
|---------------------------------------|--------------|-------------|-------------|-------------|--------------|-------------|-------------|-------------|
| | Uncontrolled | | Controlled | | Uncontrolled | | Controlled | |
| | lb/hr | TPY | lb/hr | TPY | lb/hr | TPY | lb/hr | TPY |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| TOTAL | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

1c. Screening

| Screen ID Number | PM | | | | PM-10 | | | |
|---------------------|--------------|---------------|-------------|---------------|--------------|---------------|-------------|--------------|
| | Uncontrolled | | Controlled | | Uncontrolled | | Controlled | |
| | lb/hr | TPY | lb/hr | TPY | lb/hr | TPY | lb/hr | TPY |
| S1 | 0.00 | 525.00 | 0.00 | 105.00 | 0.00 | 246.75 | 0.00 | 49.35 |
| PS-1 | 0.00 | 25.00 | 0.00 | 5.00 | 0.00 | 11.75 | 0.00 | 2.35 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| TOTAL | 0.00 | 550.00 | 0.00 | 110.00 | 0.00 | 258.50 | 0.00 | 51.70 |

| Crushing and Screening | PM | | | | PM-10 | | | |
|------------------------------|--------------|---------------|-------------|---------------|--------------|---------------|-------------|--------------|
| | Uncontrolled | | Controlled | | Uncontrolled | | Controlled | |
| | lb/hr | TPY | lb/hr | TPY | lb/hr | TPY | lb/hr | TPY |
| TOTAL | 0.00 | 675.00 | 0.00 | 135.00 | 0.00 | 317.25 | 0.00 | 63.45 |

EMISSION FACTORS

source: Air Pollution Engineering Manual and References
 (lb/ton of material throughput)

| PM | lb/ton |
|--------------------------|--------|
| Primary Crushing | 0.02 |
| Tertiary Crushing | 0.06 |
| Non-Vibrating Screening* | 0.0010 |
| Vibrating Screening | 0.10 |

| PM-10 | lb/ton |
|-------------------------|--------|
| Primary Crushing | 0.0094 |
| Tertiary Crushing | 0.028 |
| Non-Vibrating Screening | 0.0005 |
| Vibrating Screening | 0.047 |

*Per DAQ guidance, the emission factor that is applied towards non-vibrating screens is the same as the transfer point emission factor.

2. Emissions From TRANSFER POINTS

| Transfer Point ID No. | PM | | | | PM-10 | | | |
|-----------------------|--------------|------|------------|------|--------------|------|------------|------|
| | Uncontrolled | | Controlled | | Uncontrolled | | Controlled | |
| | lb/hr | TPY | lb/hr | TPY | lb/hr | TPY | lb/hr | TPY |
| T3 | 2.54 | 5.34 | 1.27 | 2.67 | 1.20 | 2.52 | 0.60 | 1.26 |
| T4 | 2.54 | 5.34 | 0.51 | 1.07 | 1.20 | 2.52 | 0.24 | 0.50 |
| T5 | 2.54 | 5.34 | 0.51 | 1.07 | 1.20 | 2.52 | 0.24 | 0.50 |
| T6 | 2.54 | 5.34 | 0.51 | 1.07 | 1.20 | 2.52 | 0.24 | 0.50 |
| T7 | 2.54 | 5.34 | 0.51 | 1.07 | 1.20 | 2.52 | 0.24 | 0.50 |
| T8 | 2.54 | 5.34 | 0.51 | 1.07 | 1.20 | 2.52 | 0.24 | 0.50 |
| T9 | 2.03 | 0.11 | 2.03 | 0.11 | 0.96 | 0.05 | 0.96 | 0.05 |
| T10 | 0.00 | 0.11 | 0.00 | 0.02 | 0.00 | 0.05 | 0.00 | 0.01 |
| T11 | 2.03 | 0.11 | 1.02 | 0.05 | 0.96 | 0.05 | 0.48 | 0.03 |
| T12 | 0.00 | 5.34 | 0.00 | 1.07 | 0.00 | 2.52 | 0.00 | 0.50 |
| T13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| T14 | 0.00 | 5.34 | 0.00 | 1.07 | 0.00 | 2.52 | 0.00 | 0.50 |
| T15 | 2.03 | 5.34 | 0.41 | 1.07 | 0.96 | 2.52 | 0.19 | 0.50 |
| T16 | 2.03 | 5.34 | 0.41 | 1.07 | 0.96 | 2.52 | 0.19 | 0.50 |
| T17 | 1.02 | 3.56 | 0.20 | 0.71 | 0.48 | 1.68 | 0.10 | 0.34 |
| T18 | 1.42 | 5.34 | 0.28 | 1.07 | 0.67 | 2.52 | 0.13 | 0.50 |
| T19 | 1.02 | 3.56 | 0.20 | 0.71 | 0.48 | 1.68 | 0.10 | 0.34 |
| T20 | 1.42 | 5.34 | 0.28 | 1.07 | 0.67 | 2.52 | 0.13 | 0.50 |
| T21 | 1.58 | 3.05 | 0.32 | 0.61 | 0.75 | 1.44 | 0.15 | 0.29 |
| T22 | 1.22 | 2.90 | 0.24 | 0.58 | 0.58 | 1.37 | 0.12 | 0.27 |
| T23 | 1.22 | 2.90 | 0.24 | 0.58 | 0.58 | 1.37 | 0.12 | 0.27 |
| T24 | 1.22 | 2.90 | 0.24 | 0.58 | 0.58 | 1.37 | 0.12 | 0.27 |
| T25 | 0.67 | 2.36 | 0.33 | 1.18 | 0.32 | 1.12 | 0.16 | 0.56 |
| T26 | 0.67 | 2.36 | 0.33 | 1.18 | 0.32 | 1.12 | 0.16 | 0.56 |
| T27 | 0.00 | 3.05 | 0.00 | 0.61 | 0.00 | 1.44 | 0.00 | 0.29 |
| T28 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| T29 | 2.03 | 3.05 | 1.02 | 1.53 | 0.96 | 1.44 | 0.48 | 0.72 |
| T30 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| T31 | 1.58 | 2.36 | 0.32 | 0.47 | 0.75 | 1.12 | 0.15 | 0.22 |
| T32 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| T33 | 3.15 | 2.36 | 0.63 | 0.47 | 1.49 | 1.12 | 0.30 | 0.22 |
| T34 | 0.00 | 2.36 | 0.00 | 0.59 | 0.00 | 1.12 | 0.00 | 0.28 |
| T35 | 0.76 | 2.69 | 0.38 | 1.35 | 0.36 | 1.27 | 0.18 | 0.64 |
| T36 | 0.76 | 2.69 | 0.38 | 1.35 | 0.36 | 1.27 | 0.18 | 0.64 |
| T37 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| T38 | 0.76 | 2.69 | 0.15 | 0.54 | 0.36 | 1.27 | 0.07 | 0.25 |
| T39 | 0.00 | 2.69 | 0.00 | 1.35 | 0.00 | 1.27 | 0.00 | 0.64 |
| T40 | 0.76 | 2.69 | 0.15 | 0.54 | 0.36 | 1.27 | 0.07 | 0.25 |
| T41 | 0.76 | 2.69 | 0.15 | 0.54 | 0.36 | 1.27 | 0.07 | 0.25 |
| T42 | 0.00 | 2.69 | 0.00 | 1.35 | 0.00 | 1.27 | 0.00 | 0.64 |
| T43 | 0.76 | 2.69 | 0.15 | 0.54 | 0.36 | 1.27 | 0.07 | 0.25 |
| T44 | 0.00 | 2.69 | 0.00 | 1.35 | 0.00 | 1.27 | 0.00 | 0.64 |
| T45 | 0.76 | 2.69 | 0.76 | 2.69 | 0.36 | 1.27 | 0.36 | 1.27 |
| T46 | 0.00 | 0.11 | 0.00 | 0.11 | 0.00 | 0.05 | 0.00 | 0.05 |
| T47 | 0.00 | 4.14 | 0.00 | 4.14 | 0.00 | 1.96 | 0.00 | 1.96 |
| T48 | 0.00 | 4.14 | 0.00 | 4.14 | 0.00 | 1.96 | 0.00 | 1.96 |
| T49 | 0.00 | 0.12 | 0.00 | 0.12 | 0.00 | 0.06 | 0.00 | 0.06 |
| T50 | 0.00 | 0.12 | 0.00 | 0.12 | 0.00 | 0.06 | 0.00 | 0.06 |
| T55 | 0.00 | 1.02 | 0.00 | 0.20 | 0.00 | 0.48 | 0.00 | 0.10 |
| T56 | 0.00 | 0.16 | 0.00 | 0.16 | 0.00 | 0.08 | 0.00 | 0.08 |
| T57 | 0.00 | 1.02 | 0.00 | 0.20 | 0.00 | 0.48 | 0.00 | 0.10 |

2. Emissions From TRANSFER POINTS (continued)

| Transfer Point ID No. | PM | | | | PM-10 | | | |
|-----------------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | Uncontrolled | | Controlled | | Uncontrolled | | Controlled | |
| | lb/hr | TPY | lb/hr | TPY | lb/hr | TPY | lb/hr | TPY |
| T58 | 1.53 | 1.02 | 0.31 | 0.20 | 0.72 | 0.48 | 0.14 | 0.10 |
| T59 | 1.53 | 1.02 | 0.31 | 0.20 | 0.72 | 0.48 | 0.14 | 0.10 |
| T60 | 1.53 | 1.02 | 0.31 | 0.20 | 0.72 | 0.48 | 0.14 | 0.10 |
| T66 | 3.56 | 5.34 | 1.78 | 2.67 | 1.68 | 2.52 | 0.84 | 1.26 |
| T67 | 3.56 | 5.34 | 1.78 | 2.67 | 1.68 | 2.52 | 0.84 | 1.26 |
| T68 | 0.00 | 5.34 | 0.00 | 1.07 | 0.00 | 2.52 | 0.00 | 0.50 |
| T69 | 2.03 | 5.34 | 0.41 | 1.07 | 0.96 | 2.52 | 0.19 | 0.50 |
| T70 | 2.03 | 5.34 | 0.41 | 1.07 | 0.96 | 2.52 | 0.19 | 0.50 |
| T71 | 2.03 | 5.34 | 0.41 | 1.07 | 0.96 | 2.52 | 0.19 | 0.50 |
| T72 | 2.03 | 5.34 | 0.41 | 1.07 | 0.96 | 2.52 | 0.19 | 0.50 |
| T73 | 2.29 | 5.11 | 1.14 | 2.55 | 1.08 | 2.42 | 0.54 | 1.21 |
| T1P | 0.51 | 0.25 | 0.25 | 0.13 | 0.24 | 0.12 | 0.12 | 0.06 |
| T2P | 0.51 | 0.19 | 0.05 | 0.02 | 0.24 | 0.09 | 0.02 | 0.01 |
| T3P | 0.51 | 0.19 | 0.51 | 0.19 | 0.24 | 0.09 | 0.24 | 0.09 |
| T4P | 0.51 | 0.06 | 0.05 | 0.01 | 0.24 | 0.03 | 0.02 | 0.00 |
| T5P | 0.51 | 0.06 | 0.51 | 0.06 | 0.24 | 0.03 | 0.24 | 0.03 |
| T3A | 2.54 | 5.34 | 1.27 | 2.67 | 1.20 | 2.52 | 0.60 | 1.26 |
| T8A | 2.54 | 5.34 | 0.51 | 1.07 | 1.20 | 2.52 | 0.24 | 0.50 |
| T29A | 2.03 | 3.05 | 1.02 | 1.53 | 0.96 | 1.44 | 0.48 | 0.72 |
| T20A | 1.42 | 5.34 | 0.71 | 2.67 | 0.67 | 2.52 | 0.34 | 1.26 |
| T20B | 0.00 | 2.69 | 0.00 | 1.35 | 0.00 | 1.27 | 0.00 | 0.64 |
| T20C | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| T20D | 0.00 | 3.05 | 0.00 | 1.53 | 0.00 | 1.44 | 0.00 | 0.72 |
| T20E | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| T20F | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| T20G | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| T20H | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| T20I | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| TOTAL | 78.72 | 198.94 | 25.88 | 64.69 | 37.23 | 94.09 | 12.24 | 30.60 |

Source:

AP-42 Fifth Edition

13.2.4 Aggregate Handling and Storage Piles

Emissions From Batch Drop

$$E = k \cdot (0.0032) \cdot [(U/5)^{1.3}] / [(M/2)^{1.4}] = \text{pounds/ton}$$

Where:

| | | PM | PM-10 |
|-----|--|------|-------|
| k = | Particle Size Multiplier (dimensionless) | 0.74 | 0.35 |
| U = | Mean Wind Speed (mph) | | |
| M = | Material Moisture Content (%) | | |

Assumptions:

k - Particle size multiplier

For PM (< or equal to 30um) k = 0.74

For PM-10 (< or equal to 10um) k = 0.35

For PM $E(M) = 0.003667 \cdot [1 / ((M/2)^{1.4})] = \text{pounds/ton}$

For PM-10 $E(M) = 0.001735 \cdot [1 / ((M/2)^{1.4})] = \text{pounds/ton}$

For lb/hr $[\text{lb/ton}] \cdot [\text{ton/hr}] = [\text{lb/hr}]$

For Tons/year $[\text{lb/ton}] \cdot [\text{ton/yr}] \cdot [\text{ton}/2000\text{lb}] = [\text{ton/yr}]$

3. Emissions From WIND EROSION OF STOCKPILES

| Stockpile ID No. | PM | | | | PM-10 | | | |
|------------------|--------------|------|------------|------|--------------|------|------------|------|
| | Uncontrolled | | Controlled | | Uncontrolled | | Controlled | |
| | lb/hr | TPY | lb/hr | TPY | lb/hr | TPY | lb/hr | TPY |
| OS-1 | 0.20 | 0.89 | 0.20 | 0.89 | 0.10 | 0.42 | 0.10 | 0.42 |
| OS-2 | 0.20 | 0.89 | 0.20 | 0.89 | 0.10 | 0.42 | 0.10 | 0.42 |
| OS-3 | 0.01 | 0.06 | 0.01 | 0.06 | 0.01 | 0.03 | 0.01 | 0.03 |
| OS-4 | 0.05 | 0.20 | 0.05 | 0.20 | 0.02 | 0.09 | 0.02 | 0.09 |
| OS-5 | 0.42 | 1.85 | 0.42 | 1.85 | 0.20 | 0.87 | 0.20 | 0.87 |
| OS-6 | 0.21 | 0.91 | 0.21 | 0.91 | 0.10 | 0.43 | 0.10 | 0.43 |
| OS-8 | 0.01 | 0.02 | 0.01 | 0.02 | 0.00 | 0.01 | 0.00 | 0.01 |
| TOTALS | 1.10 | 4.82 | 1.10 | 4.82 | 0.52 | 2.27 | 0.52 | 2.27 |

T16

Air Pollution Engineering Manual

Storage Pile Wind Erosion (Active Storage)

$$E = 1.7 * [s/1.5] * [(365-p)/235] * [f/15] = (\text{lb/day/acre})$$

Where:

| | |
|-----|--|
| s = | silt content of material |
| p = | number of days with >0.01 inch of precipitation per year |
| f = | percentage of time that the unobstructed wind speed exceeds 12 mph at the mean pile height |

For PM $E(s) = 1.337494 * s = \text{lb/day/acre}$

For PM-10* $E(s) = 0.628622 * s = \text{lb/day/acre}$

For lb/hr $[\text{lb/day/acre}] * [\text{day}/24\text{hr}] * [\text{base area of pile (acres)}] = \text{lb/hr}$

For Ton/yr $[\text{lb/day/acre}] * [365\text{day/yr}] * [\text{Ton}/2000\text{lb}] * [\text{base area of pile (acres)}] = \text{Ton/yr}$

*Assumes PM-10 is 47% of the total PM.

4. Emissions From UNPAVED HAULROADS

| Item No. | PM | | | | PM-10 | | | |
|----------|--------------|---------|------------|--------|--------------|--------|------------|--------|
| | Uncontrolled | | Controlled | | Uncontrolled | | Controlled | |
| | lb/hr | TPY | lb/hr | TPY | lb/hr | TPY | lb/hr | TPY |
| 1 | 0.00 | 767.05 | 0.00 | 191.76 | 0.00 | 226.40 | 0.00 | 56.60 |
| 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4 | 0.00 | 49.56 | 0.00 | 12.39 | 0.00 | 14.63 | 0.00 | 3.66 |
| 5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6 | 0.00 | 610.14 | 0.00 | 152.54 | 0.00 | 180.09 | 0.00 | 45.02 |
| 7 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| TOTALS | 0.00 | 1426.76 | 0.00 | 356.69 | 0.00 | 421.12 | 0.00 | 105.28 |

Source:

AP-42 12/03 Edition

13.2.2 Unpaved Roads - updated 12/2003

Emission Estimate For Unpaved Haulroads at Industrial Sites (equation 1a)

$$E = [(k*(s/12)^a * (W/3)^b) * [(365-p)/365]] = \text{lb / Vehicle Mile Traveled (VMT)}$$

Where:

| | | PM | PM-10 |
|-----|---|------|-------|
| k = | particle size multiplier | 4.90 | 1.50 |
| a = | empirical constant | 0.7 | 0.9 |
| b = | empirical constant | 0.45 | 0.45 |
| p = | number of days with at least 0.01 inches of precipitation | 157 | |
| s = | silt content of road surface material (%) | 10 | * |
| W = | Mean vehicle weight (tons) | | |

*based on stone quarrying and processing plant road because no factors are listed for coal preparation plants.

5. Emissions From INDUSTRIAL PAVED HAULROADS

| Item No. | PM | | | | PM-10 | | | |
|----------|--------------|---------|------------|--------|--------------|--------|------------|-------|
| | Uncontrolled | | Controlled | | Uncontrolled | | Controlled | |
| | lb/hr | TPY | lb/hr | TPY | lb/hr | TPY | lb/hr | TPY |
| 1 | 0.00 | 1745.47 | 0.00 | 436.37 | 0.00 | 299.54 | 0.00 | 74.89 |
| 2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| TOTALS | 0.00 | 1745.47 | 0.00 | 436.37 | 0.00 | 299.54 | 0.00 | 74.89 |

Source:

AP-42 12/03 Edition

13.2.1 PAVED ROADS

Emission Estimate For Paved Haulroads

$$E = k * [sL/2]^{0.65} * [W/3]^{1.5} * [1 - (P / (4*N))] = \text{lb / Vehicle Mile Traveled (VMT)}$$

Where:

| | | PM | PM-10 |
|------|---|-------|-------|
| k = | particle size multiplier | 0.082 | 0.016 |
| sL = | road surface silt loading, (g/m ²) | 70 | * |
| P = | number of days per year with precipitation >0.01 inch | 157 | |
| N = | number of days in averaging period | 365 | |
| W = | average vehicle weight, (ton) | | |

*based on sand and gravel processing because no factors are listed for coal preparation plants.