



Greg Nair
Manager Surface Mine Planning
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August 10, 2016

Ms. Jennifer Rice, Permitting
WV Department of Environmental Protection
Division of Air Quality
601 57th Street, SE
Charleston, West Virginia 25304

Re: Wolf Run Mining Company
Sentinel Preparation Plant
Permit Application R13-0119D
Plant ID No. 001-00005

Dear Ms. Rice:

I am submitting one original copy and two CD's for a modification permit for the Philippi facility. The legal advertisement is set to publish on August 17, 2016. I have enclosed the filing fee in the form of a cashier's check number 202268.

If you should need any additional information or if you have any questions please feel free to contact me at the numbers listed above.

Sincerely,

A handwritten signature in blue ink, appearing to read "Greg Nair", with a stylized flourish extending upwards and to the right.

Greg Nair
Manager Surface Mine Planning

Arch Coal, Inc.
Eastern Operations
100 Tygart Drive,
Grafton, West Virginia 26354
www.archcoal.com

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AUGUST 2016 MODIFICATION
R13-0119D

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SECTION I – III

GENERAL APPLICANT INFORMATION



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

**APPLICATION FOR NSR PERMIT
 AND
 TITLE V PERMIT REVISION
 (OPTIONAL)**

PLEASE CHECK ALL THAT APPLY TO NSR (45CSR13) (IF KNOWN):

- CONSTRUCTION MODIFICATION RELOCATION
 CLASS I ADMINISTRATIVE UPDATE TEMPORARY
 CLASS II ADMINISTRATIVE UPDATE AFTER-THE-FACT

PLEASE CHECK TYPE OF 45CSR30 (TITLE V) REVISION (IF ANY):

- ADMINISTRATIVE AMENDMENT MINOR MODIFICATION
 SIGNIFICANT MODIFICATION

IF ANY BOX ABOVE IS CHECKED, INCLUDE TITLE V REVISION INFORMATION AS ATTACHMENT S TO THIS APPLICATION

FOR TITLE V FACILITIES ONLY: Please refer to "Title V Revision Guidance" in order to determine your Title V Revision options (Appendix A, "Title V Permit Revision Flowchart") and ability to operate with the changes requested in this Permit Application.

Section I. General

1. Name of applicant (as registered with the WV Secretary of State's Office):
Wolf Run Mining Company

2. Federal Employer ID No. (FEIN):
550699931

3. Name of facility (if different from above):
Sentinel

4. The applicant is the:
 OWNER OPERATOR BOTH

5A. Applicant's mailing address:
**100 Tygart Drive
 Grafton, West Virginia 26354**

5B. Facility's present physical address:
**21550 Barbour County Highway
 Philippi, West Virginia 26416**

6. **West Virginia Business Registration.** Is the applicant a resident of the State of West Virginia? YES 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 L.L.C./Registration** (one page) including any name change amendments or other Business Certificate as **Attachment A**.

7. If applicant is a subsidiary corporation, please provide the name of parent corporation: **Arch Coal, Inc.**

8. Does the applicant own, lease, have an option to buy or otherwise have control of the *proposed site*? YES NO

- If YES, please explain: **Owner and Operator**
 – If NO, you are not eligible for a permit for this source.

9. Type of plant or facility (stationary source) to be **constructed, modified, relocated, administratively updated or temporarily permitted** (e.g., coal preparation plant, primary crusher, etc.): **Coal Preparation Plant**

10. North American Industry Classification System (NAICS) code for the facility:
212111

11A. DAQ Plant ID No. (for existing facilities only):
0 0 1 - 0 0 0 5

11B. List all current 45CSR13 and 45CSR30 (Title V) permit numbers associated with this process (for existing facilities only):
R13-0119C

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

<p>12A.</p> <ul style="list-style-type: none"> – For Modifications, Administrative Updates or Temporary permits at an existing facility, please provide directions to the <i>present location</i> of the facility from the nearest state road; – For Construction or Relocation permits, please provide directions to the <i>proposed new site location</i> from the nearest state road. Include a MAP as Attachment B. <p>200 Yards North of State Route No. 76 at tis intersection with State Route 119</p>		
12.B. New site address (if applicable):	12C. Nearest city or town: Philippi	12D. County: Barbour
12.E. UTM Northing (KM): 4339.2	12F. UTM Easting (KM): 581.2	12G. UTM Zone: 17 NAD 27
13. Briefly describe the proposed change(s) at the facility:		
14A. Provide the date of anticipated installation or change: 11/21/2016		14B. Date of anticipated Start-Up if a permit is granted:
– If this is an After-The-Fact permit application, provide the date upon which the proposed change did happen: / /		/ /
14C. Provide a Schedule of the planned Installation of/Change to and Start-Up of each of the units proposed in this permit application as Attachment C (if more than one unit is involved).		
15. Provide maximum projected Operating Schedule of activity/activities outlined in this application: Hours Per Day 24 Days Per Week 7 Weeks Per Year 52		
16. Is demolition or physical renovation at an existing facility involved? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
17. Risk Management Plans. If this facility is subject to 112(r) of the 1990 CAAA, or will become subject due to proposed changes (for applicability help see www.epa.gov/ceppo), submit your Risk Management Plan (RMP) to U. S. EPA Region III.		
18. Regulatory Discussion. List all Federal and State air pollution control regulations that you believe are applicable to the proposed process (<i>if known</i>). A list of possible applicable requirements is also included in Attachment S of this application (Title V Permit Revision Information). Discuss applicability and proposed demonstration(s) of compliance (<i>if known</i>). Provide this information as Attachment D .		
Section II. Additional attachments and supporting documents.		
19. Include a check payable to WVDEP – Division of Air Quality with the appropriate application fee (per 45CSR22 and 45CSR13).		
20. Include a Table of Contents as the first page of your application package.		
21. Provide a Plot Plan , e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is or is to be located as Attachment E (Refer to Plot Plan Guidance).		
– Indicate the location of the nearest occupied structure (e.g. church, school, business, residence).		
22. Provide a Detailed Process Flow Diagram(s) showing each proposed or modified emissions unit, emission point and control device as Attachment F .		
23. Provide a Process Description as Attachment G .		
– Also describe and quantify to the extent possible all changes made to the facility since the last permit review (if applicable).		
All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.		

24. Provide **Material Safety Data Sheets (MSDS)** for all materials processed, used or produced as **Attachment H**.
 – For chemical processes, provide a MSDS for each compound emitted to the air.

25. Fill out the **Emission Units Table** and provide it as **Attachment I**.

26. Fill out the **Emission Points Data Summary Sheet (Table 1 and Table 2)** and provide it as **Attachment J**.

27. Fill out the **Fugitive Emissions Data Summary Sheet** and provide it as **Attachment K**.

28. Check all applicable **Emissions Unit Data Sheets** listed below:

<input type="checkbox"/> Bulk Liquid Transfer Operations	<input type="checkbox"/> Haul Road Emissions	<input type="checkbox"/> Quarry
<input type="checkbox"/> Chemical Processes	<input type="checkbox"/> Hot Mix Asphalt Plant	<input checked="" type="checkbox"/> Solid Materials Sizing, Handling and Storage Facilities
<input type="checkbox"/> Concrete Batch Plant	<input type="checkbox"/> Incinerator	<input type="checkbox"/> Storage Tanks
<input type="checkbox"/> Grey Iron and Steel Foundry	<input type="checkbox"/> Indirect Heat Exchanger	
<input type="checkbox"/> General Emission Unit, specify		

Fill out and provide the **Emissions Unit Data Sheet(s)** as **Attachment L**.

29. Check all applicable **Air Pollution Control Device Sheets** listed below:

<input type="checkbox"/> Absorption Systems	<input type="checkbox"/> Baghouse	<input type="checkbox"/> Flare
<input type="checkbox"/> Adsorption Systems	<input type="checkbox"/> Condenser	<input type="checkbox"/> Mechanical Collector
<input type="checkbox"/> Afterburner	<input type="checkbox"/> Electrostatic Precipitator	<input type="checkbox"/> Wet Collecting System
<input type="checkbox"/> Other Collectors, specify		

Fill out and provide the **Air Pollution Control Device Sheet(s)** as **Attachment M**.

30. Provide all **Supporting Emissions Calculations** as **Attachment N**, or attach the calculations directly to the forms listed in Items 28 through 31.

31. **Monitoring, Recordkeeping, Reporting and Testing Plans.** Attach proposed monitoring, recordkeeping, reporting and testing plans in order to demonstrate compliance with the proposed emissions limits and operating parameters in this permit application. Provide this information as **Attachment O**.

➤ Please be aware that all permits must be practically enforceable whether or not the applicant chooses to propose such measures. Additionally, the DAQ may not be able to accept all measures proposed by the applicant. If none of these plans are proposed by the applicant, DAQ will develop such plans and include them in the permit.

32. **Public Notice.** At the time that the application is submitted, place a **Class I Legal Advertisement** in a newspaper of general circulation in the area where the source is or will be located (See 45CSR§13-8.3 through 45CSR§13-8.5 and **Example Legal Advertisement** for details). Please submit the **Affidavit of Publication** as **Attachment P** immediately upon receipt.

33. **Business Confidentiality Claims.** Does this application include confidential information (per 45CSR31)?

YES NO

➤ If YES, identify each segment of information on each page that is submitted as confidential and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's "**Precautionary Notice – Claims of Confidentiality**" guidance found in the **General Instructions** as **Attachment Q**.

Section III. Certification of Information

34. **Authority/Delegation of Authority.** Only required when someone other than the responsible official signs the application. Check applicable **Authority Form** below:

<input type="checkbox"/> Authority of Corporation or Other Business Entity	<input type="checkbox"/> Authority of Partnership
<input type="checkbox"/> Authority of Governmental Agency	<input type="checkbox"/> Authority of Limited Partnership

Submit completed and signed **Authority Form** as **Attachment R**.

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

35A. **Certification of Information.** To certify this permit application, a Responsible Official (per 45CSR§13-2.22 and 45CSR§30-2.28) or Authorized Representative shall check the appropriate box and sign below.

Certification of Truth, Accuracy, and Completeness

I, the undersigned Responsible Official / Authorized Representative, hereby certify that all information contained in this application and any supporting documents appended hereto, is true, accurate, and complete based on information and belief after reasonable inquiry I further agree to assume responsibility for the construction, modification and/or relocation and operation of the stationary source described herein in accordance with this application and any amendments thereto, as well as the Department of Environmental Protection, Division of Air Quality permit issued in accordance with this application, along with all applicable rules and regulations of the West Virginia Division of Air Quality and W.Va. Code § 22-5-1 et seq. (State Air Pollution Control Act). If the business or agency changes its Responsible Official or Authorized Representative, the Director of the Division of Air Quality will be notified in writing within 30 days of the official change.

Compliance Certification

Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.

SIGNATURE  DATE: 8/10/16
(Please use blue ink) (Please use blue ink)

35B. Printed name of signee: Greg Nair		35C. Title: Power of Attorney
35D. E-mail: gnair@archcoal.com	36E. Phone: (304) 265-9778	36F. FAX: (304) 265-2564
36A. Printed name of contact person (if different from above):		36B. Title:
36C. E-mail:	36D. Phone:	36E. FAX:

PLEASE CHECK ALL APPLICABLE ATTACHMENTS INCLUDED WITH THIS PERMIT APPLICATION:

- | | |
|--|---|
| <input checked="" type="checkbox"/> Attachment A: Business Certificate | <input checked="" type="checkbox"/> Attachment K: Fugitive Emissions Data Summary Sheet |
| <input checked="" type="checkbox"/> Attachment B: Map(s) | <input checked="" type="checkbox"/> Attachment L: Emissions Unit Data Sheet(s) |
| <input checked="" type="checkbox"/> Attachment C: Installation and Start Up Schedule | <input type="checkbox"/> Attachment M: Air Pollution Control Device Sheet(s) |
| <input type="checkbox"/> Attachment D: Regulatory Discussion | <input checked="" type="checkbox"/> Attachment N: Supporting Emissions Calculations |
| <input checked="" type="checkbox"/> Attachment E: Plot Plan | <input type="checkbox"/> Attachment O: Monitoring/Recordkeeping/Reporting/Testing Plans |
| <input checked="" type="checkbox"/> Attachment F: Detailed Process Flow Diagram(s) | <input checked="" type="checkbox"/> Attachment P: Public Notice |
| <input checked="" type="checkbox"/> Attachment G: Process Description | <input type="checkbox"/> Attachment Q: Business Confidential Claims |
| <input type="checkbox"/> Attachment H: Material Safety Data Sheets (MSDS) | <input type="checkbox"/> Attachment R: Authority Forms |
| <input type="checkbox"/> Attachment I: Emission Units Table | <input type="checkbox"/> Attachment S: Title V Permit Revision Information |
| <input checked="" type="checkbox"/> Attachment J: Emission Points Data Summary Sheet | <input checked="" type="checkbox"/> Application Fee |

Please mail an original and three (3) copies of the complete permit application with the signature(s) to the DAQ, Permitting Section, at the address listed on the first page of this application. Please DO NOT fax permit applications.

FOR AGENCY USE ONLY – IF THIS IS A TITLE V SOURCE:

- Forward 1 copy of the application to the Title V Permitting Group and:
- For Title V Administrative Amendments:
 - NSR permit writer should notify Title V permit writer of draft permit,
- For Title V Minor Modifications:
 - Title V permit writer should send appropriate notification to EPA and affected states within 5 days of receipt,
 - NSR permit writer should notify Title V permit writer of draft permit.
- For Title V Significant Modifications processed in parallel with NSR Permit revision:
 - NSR permit writer should notify a Title V permit writer of draft permit,
 - Public notice should reference both 45CSR13 and Title V permits,
 - EPA has 45 day review period of a draft permit.

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

POWER OF ATTORNEY

**WOLF RUN MINING COMPANY
TO
GREG NAIR**

Dated: January 1, 2016

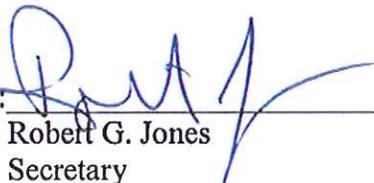
Expires: December 31, 2016

KNOW ALL MEN BY THESE PRESENTS: That Wolf Run Mining Company ("Company"), a corporation organized and existing under the laws of the State of West Virginia, acting by and through Robert G. Jones, its duly authorized Secretary, has and does hereby appoint Greg Nair its true and lawful Attorney-in-Fact with power and authority, for and on behalf, and in the name of the Company, during the period herein specified, and subject to the restrictions and limitations set forth in this Power, to execute, acknowledge and deliver in the ordinary and regular course of the Company's business, applications for mining, environmental, safety, and health permits, permit transfers, or permit bond releases or bond adjustments, amendments, supplements or modifications to such permits, certificates or other instruments directly related to such amendments, supplements or modifications, monthly production reports, air quality, water quality or other environmental reports, quarterly discharge monitoring reports and any other like or similar reports required to be filed with any local, state or federal governmental agency.

The Attorney herein appointed shall be authorized to act pursuant to this Power from the date hereof only so long as such Attorney shall remain an employee of Arch Coal, Inc. or any subsidiary thereof, or until December 31, 2016, or until such earlier time as this instrument has been revoked, annulled, rescinded or set aside by an instrument of revocation filed with the Secretary of the Company, whichever first occurs.

IN WITNESS WHEREOF, the Company has caused this Power of Attorney to be executed on its behalf, and its seal to be hereunto affixed as of the day and year first above written, by the undersigned, Robert G. Jones, duly authorized Secretary of the Company.

WOLF RUN MINING COMPANY

By: 
Robert G. Jones
Secretary

STATE OF MISSOURI)
) ss
COU TY OF ST. LOUIS)

On this 16th day of December, 2015, before me, the undersigned notary public, personally appeared Robert G. Jones, known to me to be the person whose name is subscribed to the within instrument and acknowledged that he executed the same for the purposes therein contained.

IN WIT ESS WHEREOF, I hereunto set my hand and official seal.



Notary Public

My Commission Expires: December 1, 2017

PEGGY FELDMANN Notary Public - Notary Seal State of Missouri Commissioned for St. Louis County My Commission Expires: December 01, 2017 Commission Number: F13552693

ATTACHMENT A

BUSINESS CERTIFICATE

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

**ISSUED TO:
WOLF RUN MINING COMPANY
99 EDMISTON WAY
BUCKHANNON, WV 26201-8916**

BUSINESS REGISTRATION ACCOUNT NUMBER: 1041-1270

This certificate is issued on: 06/27/2011

*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.**

STATE OF WEST VIRGINIA
State Tax Department
P. O. Box 2666
Charleston, WV 25324-2666



Joe Manchin III, Governor

Virgil T. Helton, Tax Commissioner

WOLF RUN MINING COMPANY
300 CORPORATE CENTRE DR
SCOTT DEPOT WV 25560

Letter ID: L0591505408
Issued: 07/31/2007

RE: BUSINESS REGISTRATION CERTIFICATE

To Whom It May Concern:

The West Virginia State Tax Department would like to thank you for registering your business. Enclosed is your Business Registration Certificate. Please review the certificate and display it prominently at your business location.

To ensure prompt service, always refer to the appropriate account number listed below when contacting the department.

We are currently undergoing conversion to a new computer system. The taxes listed may not be all the taxes for which you are responsible.

TAX	FILING FREQUENCY	ACCOUNT NUMBER
Direct Pay	Monthly	1041-1271
Withholding Tax	Monthly	1041-1273
Business Registration	Every Two Years	1041-1270

Tax returns (even for taxes not listed above) will be mailed prior to the due dates. Your account number for taxes not listed will be printed on the returns you receive. Should the nature of your business activity or business ownership change, your liability for these and other taxes will change accordingly.

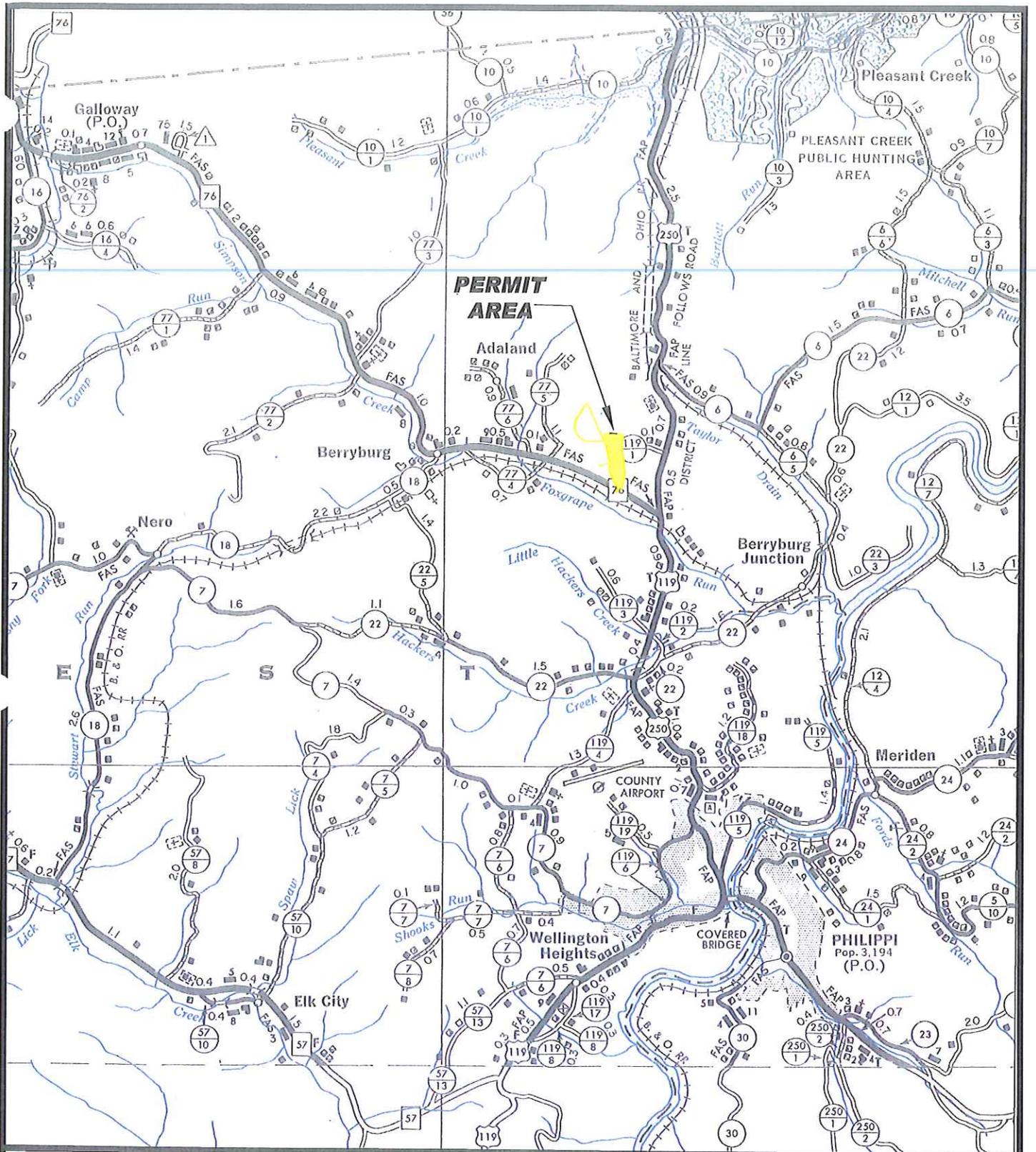
To learn more about these taxes and the services offered by the West Virginia State Tax Department, log on to our web site at www.state.wv.us/taxdiv.

Enclosure

01/007 v.53

ATTACHMENT B

AREA MAP



**PERMIT
AREA**

WOLF RUN MINING COMPANY

PROJECT: SENTINEL PREP PLANT

PERMIT No. U-15-83
R13-119

ATTACHMENT B

SCALE: 1" = 5280'

CREATED: SEPTEMBER 2011

REVISED: .

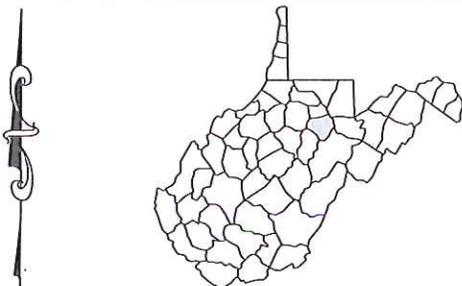
MFN: 00-33302

CREATED BY: RS

REVISED BY: .

PREPARED BY:
SURVEYOR AND ASSOCIATES, INC.
KINGWOOD, WEST VIRGINIA

BARBOUR COUNTY - WEST VIRGINIA
PLEASANT DISTRICT
PHILIPPI, WV
U.S.G.S. QUADRANGLE



ATTACHMENT C

INSTALLATION AND START UP SCHEDULE

ATTACHMENT C

INSTALLATION AND START-UP SCHEDULE

The additional equipment to be installed is planned to begin installation on or around November 22, 2016.

ATTACHMENT D

REGULATORY DISCUSSION

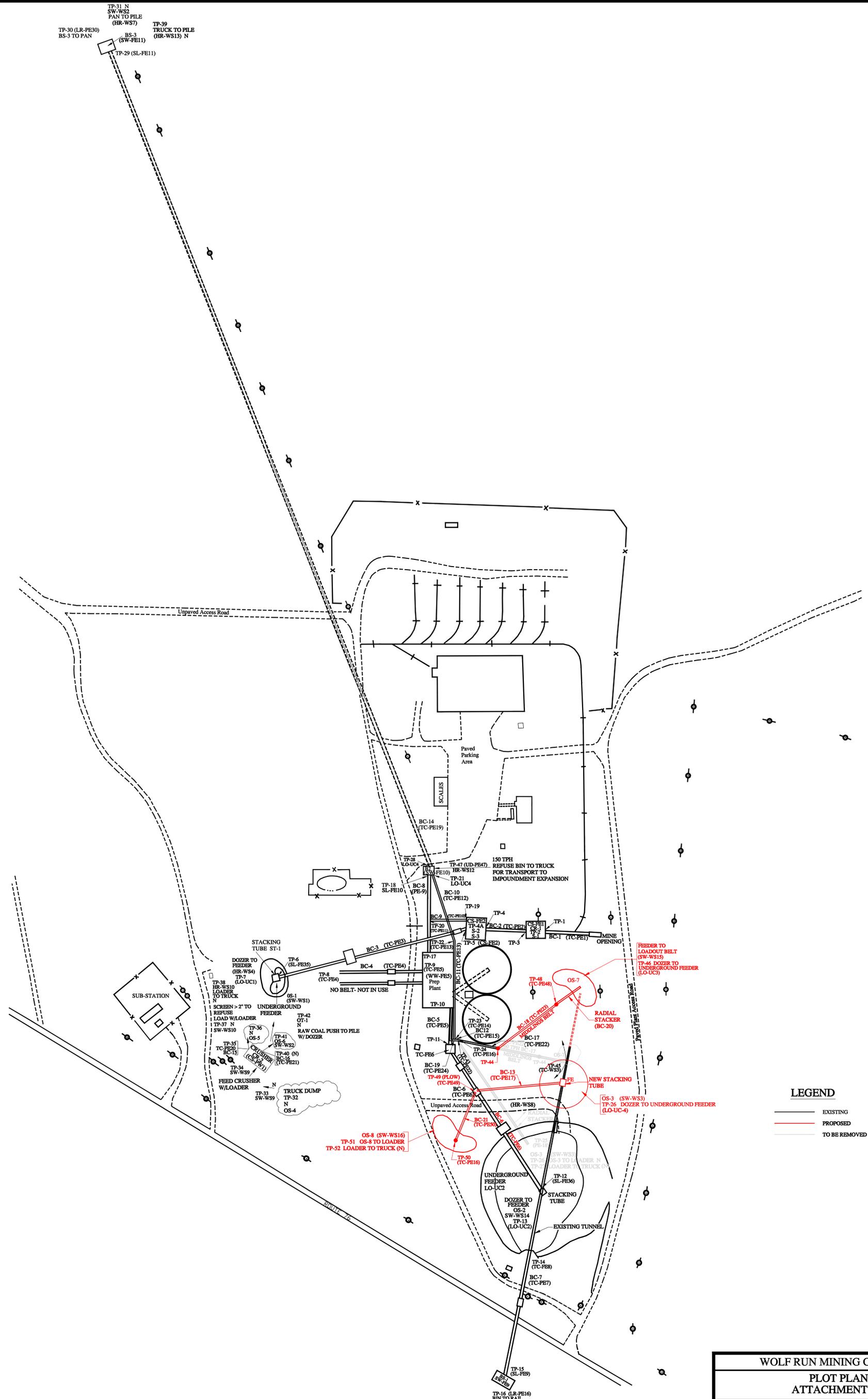
ATTACHMENT D

REGULATORY DISCUSSION

There is no change in the regulations to which the facility is subject as a result in the revisions proposed in the application.

ATTACHMENT E

PLOT PLAN



LEGEND

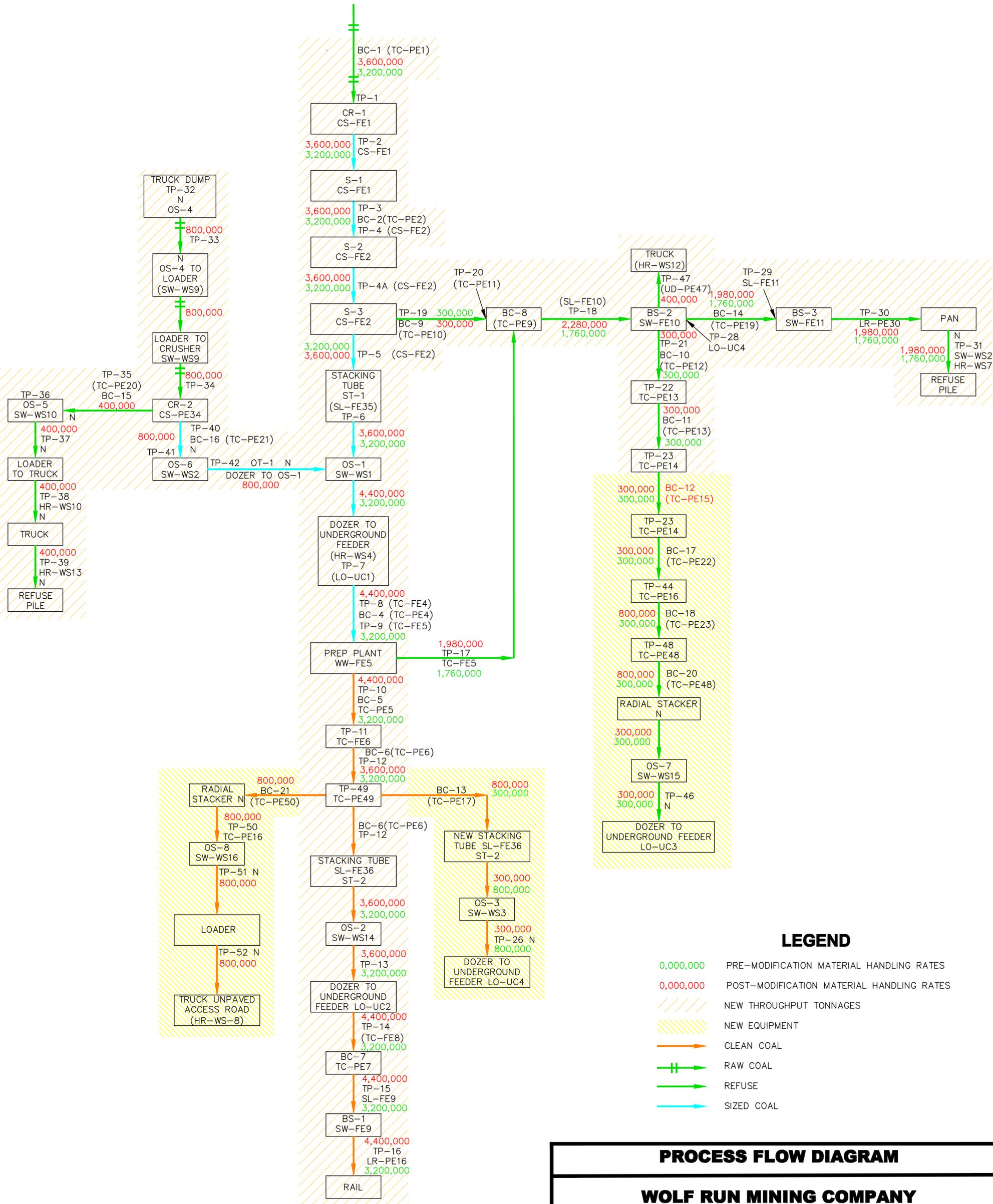
- EXISTING
- - - PROPOSED
- · · TO BE REMOVED

WOLF RUN MINING COMPANY		
PLOT PLAN ATTACHMENT "E"		
SCALE: 1" = 80'	CREATED: MAY 2008	REVISED: AUGUST 2016
MFN: 00-33302	CREATED BY: RS	REVISED BY: PC
Prepared By: <i>Surveyor And Associates, Inc.</i> Kingwood, West Virginia		PLEASANT DISTRICT BARBOUR COUNTY WEST VIRGINIA

ATTACHMENT F

PROCESS FLOW DIAGRAM

MINE OPENING



LEGEND

- 0,000,000 PRE-MODIFICATION MATERIAL HANDLING RATES
- 0,000,000 POST-MODIFICATION MATERIAL HANDLING RATES
- NEW THROUGHPUT TONNAGES
- NEW EQUIPMENT
- CLEAN COAL
- RAW COAL
- REFUSE
- SIZED COAL

PROCESS FLOW DIAGRAM

**WOLF RUN MINING COMPANY
SENTINEL PREPARATION PLANT**

DRAWN BY: RS

SCALE: SCHEMATIC

CREATED: MARCH 2014

MFN 00-33302

REVISED: AUGUST 2016 (PC)

**PREPARED BY:
SURVEYOR AND ASSOCIATES, INC.
KINGWOOD, WEST VIRGINIA**

**PLEASANT DISTRICT
BARBOUR COUNTY
WEST VIRGINIA**

ATTACHMENT G

PROCESS DESCRIPTION

ATTACHMENT G

PROCESS DESCRIPTION

- Raw coal exits the mine by a 54" belt conveyor (BC-1) which is protected by a partial enclosure (TC-PE1).
- Belt Conveyor 1 goes through transfer point (TP-1) to Double Roll Crusher (CR-1)
- From (CR-1) coal will go through transfer point 2 (TP-2) to Double Deck Screen (S-1), full enclosure (CS-FE1) protects structures from TP-1 to S-1.
- From S-1 the coal processes through transfer point 3 (TP-3) also protected by CS-FE1 to 54" belt conveyor 2 (BC-2) protected by partial enclosure 2 (TC-PE2).
- The raw coal then passes through transfer point 4 (TP-4) protected by full enclosure 2 (CS-FE2) to double deck screen 2 (S-2) onto double deck screen 3 (S-3) through transfer point 4A (TP-4A).
- Sized coal leaving double deck screen 3 passes through transfer point 5 (Tp-5) also protected by full enclosure 2 (CS-FE2) to 48" belt conveyor 3 (BC-3) protected by partial enclosure (TC-PE3).
- The sized coal will then pass through transfer point 6 (Tp-6) to stacking tube 1 (ST-1) and stockpile (OS-1) protected by (SL-FE35) and (WS-SW1).
- The sized coal will enter an underground feeder via dozer through transfer point 7 (TP-7) which is protected by (LO-UC1).
- The sized coal will exit the underground feeder through transfer point 8 (TP-8) protected by full enclosure 4 (TC-FE4) to 30" belt conveyor 4 (BC-4) protected by partial enclosure 4 (TC-PE4).
- Sized coal will exit belt conveyor 4 through transfer point 9 (TP-9) inside the preparation plant, protected by full enclosure 5 (TC-FE5).
- Coal will exit the preparation plant at transfer point 10 (TP-10) (TC-FE5) and enter on 36" belt conveyor 5 (BC-5) which is protected by partial enclosure 5 (TC-PE5).
- Belt conveyor 5 will transfer to 36" belt conveyor 6 (BC-6) protected by partial enclosure 6 (TC-PE6) or belt conveyor 19 (BC-19) through transfer point 11 (TP-11) protected by full enclosure 6 (TC-FE6).
- The coal will then pass through transfer point 12 (TP-12) to stacking tub (ST-2) and stockpile (OS-2) protected by (SL-FE36).
- The coal will enter an underground feeder via dozer, (LO-UC2), transfer point 13 (TP-13), protected by (LO-UC2).
- The coal will exit the underground feeder through transfer point 14 (TP-14) protected by full enclosure 8 (TC-FE8) to 60" belt conveyor 7 (BC-7) protected by partial enclosure 7 (TC-PE7).
- Coal will exit belt conveyor 7 through transfer point 15 (TP-15) to Bin 1 (BS-1) protected by full enclosure 9 (SL-FE9).
- The coal will exit BS-1 to the railroad cars through transfer point 16 (TP-16) protected by (LR-PE16).
- At full enclosure 2 (FE-2) refuse will exit double screen (S-3) through transfer point 19 (TP-19) protected by (CS-FE2) to 42" belt conveyor 9 (BC-9) protected by partial enclosure 10 (TC-PE10).
- From belt conveyor 9 refuse will enter onto 36" belt conveyor 8 (BC-8) protected by partial enclosure 9 (TC-PE9) through transfer point (TP-20) protected by partial enclosure 11 (TC-PE11).

ATTACHMENT G
PROCESS DESCRIPTION

- Also entering onto belt conveyor 8 (BC-8) is refuse, exiting the preparation plant at transfer point 17 (TP-17) protected by full enclosure 5 (TC-FE5).
- All refuse will enter Bin 2 (BS-2), protected by full enclosure 10 (SW-FE10) from belt conveyor 8 through transfer point 18 (TP-18) also protected by full enclosure 10 (SW-FE10).
- From (BS-2) refuse will exit by two different transfer points, approximately 300,000 tons per year will exit through transfer point 21 (TP-21) protected by full enclosure 10 (SW-FE10) onto 24" belt conveyor 10 (BC-10) protected by partial enclosure 12 (TC-PE12).
- Refuse will exit belt conveyor 10 at transfer point 22 (TP-22) protected by partial enclosure 13 (TC-PE13) and enter onto 24" belt conveyor 11 (BC-11) protected by partial enclosure 13 (TC-PE13).
- Refuse will then pass through transfer point 23 (TP-23) protected by partial enclosure 14 (TC-PE14) to 24" belt conveyor 12 (BC-12) protected by partial enclosure 15 (TC-PE15).
- Belt conveyor 12 will exit refuse through transfer point 24 (TP-24) protected by partial enclosure 16 (TC-PE16) onto 24" belt conveyor 13 (BC-13) protected by partial enclosure (TC-PE17) attached to a radial stacker protected by (SI-CS1).
- Refuse will then enter onto stockpile (OS-3) through transfer point 25 (TP-25).
- From stockpile OS-3, refuse will be removed by a loader at transfer point 26 (TP-26), the loader will load trucks at transfer point 27 (TP-27).
- The trucks will leave the site via unpaved and paved access roads protected by water (HR-WS8).
- The remainder of the refuse exiting BS-2 will pass through transfer point 28 (TP-28) protected by full enclosure 10 (SW-FE10) to 36" belt conveyor 14 (BC-14) protected by partial enclosure 19 (TC-PE19).
- From belt conveyor 14 (BC-14) refuse will enter Bin 3 (BS-3) through transfer point 29 (TP-29) protected by full enclosure (SL-FE11).
- Refuse will discharge from BS-3 to a pan by transfer point 30 (TP-30) protected by (LR-PE30). The pan will then spread the refuse to the refuse pile through transfer point 31 (TP-31).

ATTACHMENT G
PROCESS DESCRIPTION

REVISIONS APPROVED UNDER R13-119C

- Raw coal will be trucked to a truck dump and unloaded onto stockpile (OS-4) at transfer point 32 (TP-32).
- At transfer point 33 (TP-33) raw coal will be transferred from (OS-4) by an endloader. The endloader will take the raw coal to crusher (CR-2) which is protected by (CS-PE34) at transfer point 34 (TP-34) which is also protected by water (SW-WS9).
- From crusher (CR-2) refuse which is greater than 2 inches will enter onto belt conveyor 15 (BC-15) which is protected by partial enclosure (TC-PE20) at transfer point 35 (TP-35).
- From belt conveyor 15 (BC-15) refuse will enter onto stockpile (OS-5) at transfer point 36 (TP-36).
- An endloader will remove the refuse from stockpile (OS-5) at transfer point 37 (TP-37). The loader will then place the refuse in a truck at transfer point 38 (TP-38). The truck will then haul the material to the refuse pile and unload onto the refuse pile at transfer point 39 (TP-39).
- At transfer point 40 (TP-40), protected by partial enclosure (TC-PE21) sized coal will exit crusher (CR-2) and enter onto belt conveyer (BC-16).
- Belt conveyor (BC-16) will transfer sized coal onto stockpile (OS-6) at transfer point 41 (TP-41). The sized coal will be transferred from stockpile (OS-6) to stockpile (OS-1) by dozer at transfer point 42 (TP-42).
- At stockpile (OS-1) the coal will enter the underground feeder and proceed through the preparation plant as discussed earlier in the process description. Once the clean coal exits the preparation plant onto belt conveyor (BC-5) to belt conveyor (BC-19).
- The middlings will exit (BC-19) to belt conveyor (BC-17) at transfer point 43 (TP-43) which is protected by partial enclosure (TC-PE22).
- At transfer point 44 (TP-44) coals will transfer to belt conveyor (BC-18) which is protected by partial enclosure (TC-PE23).
- Belt conveyor (BC-18) which is a radial stacker will transfer coal to stockpile (OS-7) at transfer point 45 (TP-45).
- From stockpile (OS-7) coal will be pushed to an underground feeder by dozer at transfer point 46 (TP-46) which is protected by (LO-UC3).
- Coal will flow through the underground tunnel until it enters onto belt conveyor (BC-7) which is protected by partial enclosure (TC-PE7) at transfer point (TP-14) which is protected by full enclosure (TC-FE8).
- Belt conveyor (BC-7) will transfer coal into Bin 1 (BS-1) at transfer point (TP-15) which is protected by full enclosure (SL-FE9).
- From (BS-1) all coal will enter onto the rail at transfer point (Tp-16) which is protected by (LR-TC1).
- At Bin 2 (BS-2) part of the refuse from the preparation plant will now enter into trucks at transfer point 47 (TP-47) protected by (UD-PE47) to be hauled to the refuse expansion which the unpaved access road will be protected by (HR-WS12).

ATTACHMENT G
PROCESS DESCRIPTION

REVISIONS PROPOSED UNDER R13-119D – AUGUST 2016 MODIFICATION

- The middlings will exit (BC-19) to belt conveyor (BC-17) at transfer point 43 (TP-43) which is protected by partial enclosure (TC-PE22).
- At transfer point 44 (TP-44) coals will transfer to belt conveyor (BC-18) which is protected by partial enclosure (TC-PE23).
- Belt conveyor (BC-18) will transfer the middlings to Radial Stacker at transfer point (TP-48 which is protected by partial enclosure) TC-PE48).
- Radial Stacker (BC-20) will transfer middlings to stockpile (OS-7) at transfer point 46 (TP-46).
- From stockpile (OS-7) coal will be pushed to an underground feeder by dozer at transfer point 46 (TP-46) which is protected by (LO-UC3).

- A plow (flop gate) will be installed in BC-6 at transfer point 49 (TP-49) which will be protected by a partial enclosure 49 (TC-PE49).
- Belt conveyor (BC-6) will transfer coal to Belt conveyor (BC-13) which will pass through transfer point 29 (TP-26) to new stacking tube (ST-3) and stockpile (OS-3).
- The coal will enter an underground feeder via dozer, (LO-UC4) transfer point 26 (TP-26), protected by (LO-UC4).
- The plow (flop gate) to be installed in BC-6 at transfer point 49 (TP-49) will be protected by partial enclosure 49 (TC-PE49). The plow at TP-49 will divert the material into a chute off the side of BC-6 at TP-49, then depending on which way the flop gate is positioned at TP-49 will determine whether the material goes to BC-13 and the new stacking tube (ST-3) or to BC-21 (the new radial stacker) to OS-8.
- Belt conveyor (BC-21) which is a radial stacker will transfer coal to stockpile (OS-8) at transfer point 45 (TP-50).
- From stockpile OS-8, clean coal will be removed by a loader at transfer point 52 (TP-52), the loader will load trucks at transfer point 51 (TP-51).

- Stockpile bases for previously approved stockpile area will be enlarged to 37,500 square feet or 50,000 tons maximum. Two stockpiles, OS-3 and OS-8, will be enlarged to a base of 46,875 square feet or 62,500 tons maximum.

EQUIPMENT TABLE

EQUIPMENT TABLE

Equipment ID No.	Description	Year Installed	Maximum Capacity		Control Equipment
			TPH	TPY	
CR-1	Double Roll Crusher	1991*	1350	3,600,000	FE-1
CR-2	Double Roll Crusher	2011	600	3,600,000	CS-PE34
S-1	Double Deck Screen	1991*	1350	3,600,000	FE-1
S-2	Double Deck Vibrating Screen	1991*	1350	3,600,000	FE-2
S-3	Double Deck Vibrating Screen	1991*	1350	3,600,000	FE-2
Belts					
BC-1	Belt Conveyor - Raw Coal	1991*	2500	4,400,000	PE-1
BC-2	Belt Conveyor - Raw Coal	1991*	1350	3,600,000	PE-2
BC-3	Belt Conveyor - Raw Coal	1991*	1350	3,600,000	PE-3
BC-4	Belt Conveyor - Raw Coal	1991*	600	4,400,000	PE-4
BC-5	Belt Conveyor - Clean Coal	1991*	800	4,400,000	PE-5
BC-6	Belt Conveyor - Clean Coal	1991*	800	3,600,000	PE-6
BC-7	Belt Conveyor - Clean Coal	1991*	2500	4,400,000	PE-7
BC-8	Belt Conveyor - Refuse	1991*	400	2,280,000	PE-9
BC-9	Belt Conveyor - Refuse	2008	244	300,000	PE-10
BC-10	Belt Conveyor - Refuse	2008	244	300,000	PE-12
BC-11	Belt Conveyor - Refuse	2008	244	300,000	PE-13
BC-12	Belt Conveyor - Refuse	2008	244	300,000	PE-15
BC-13	Belt Conveyor - Refuse	2016**	360	800,000	PE-17
BC-14	Belt Conveyor - Refuse	1991*	400	1,980,000	PE-19
BC-15	Belt Conveyor - Sized Coal	2011	360	800,000	PE-20
BC-16	Belt Conveyor - Sized Coal	2011	360	800,000	PE-21
BC-17	Belt Conveyor - Clean Coal	2011	360	800,000	PE-22
BC-18	Belt Conveyor - Clean Coal	2011	360	800,000	PE-23
BC-19	Belt Conveyor - Clean Coal	2011	360	800,000	PE-24
BC-20	Belt Conveyor - Clean Coal	2016**	360	800,000	PE-48
BC-21	Belt Conveyor - Clean Coal	2016**	360	800,000	PE-50

EQUIPMENT TABLE

Storage	Description	Max. Base Area (sq. ft.)	Max. Storage Capacity (tons)	Max. Capacity TPY	Control Equipment
OS-1	Sized Coal Stockpile	37,500	50,000	4,400,000	WS-1
OS-2	Clean Coal Stockpile	37,500	50,000	3,600,000	WS-2
OS-3	Refuse Stockpile	46,875	62,500	300,000	WS-3
Bin 1	Clean Coal Bin	600	161	4,400,000	FE-9
Bin 2	Refuse Coal Bin	600	161	2,280,000	FE-10
Bin 3	Refuse Coal Bin	600	161	1,980,000	FE-11
OS-4	Raw Coal	37,500	50,000	800,000	WS-9
OS-5	Sized Coal Stockpile	37,500	50,000	400,000	WS-10
OS-6	Sized Coal Stockpile	37,500	50,000	800,000	WS-11
OS-7	Sized Coal Stockpile	37,500	50,000	800,000	TC-WS15
OS-8	Clean Coal Stockpile	46,875	62,500	800,000	TC-WS16

* Notes when permit was acquired by current owner, not when equipment may have been initially installed.

** Notes when equipment will be installed and/or modified, if permit approved.

CONVEYING AFFECTED SOURCE SHEET

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		
BC-1	11/11	RC	Raw – 2" x 0	2500	4,400,000	5 %	PE-1
BC-2	11/11	SC	Raw – 2" x 0	1350	3,600,000	5 %	PE-2
BC-3	11/11	SC	¾" x 0	1350	3,600,000	5 %	PE-3
BC-4	11/11	SC	¾" x 0	600	4,400,000	5 %	PE-4
BC-5	11/11	CC	¾" x 0	800	4,400,000	5 %	PE-5
BC-6	11/11	CC	¾" x 0	800	3,600,000	5 %	PE-6
BC-7	11/11	CC	¾" x 0	2500	4,400,000	5 %	PE-7
BC-8	11/11	R	+ ¾"	400	2,280,000	5 %	PE-9
BC-9	06/08	R	+ ¾"	244	300,000	5 %	PE-10
BC-10	06/08	R	+ ¾"	244	300,000	5 %	PE-12
BC-11	06/08	R	+ ¾"	244	300,000	5 %	PE-13
BC-12	06/08	R	+ ¾"	244	300,000	5 %	PE-15
BC-13	06/08	R	+ ¾"	244	800,000	5 %	PE-17
BC-14	11/11	R	+ ¾"	400	1,980,000	5 %	PE-19
BC-15	11/11	R	+ ¾"	360	800,000	5 %	PE-20
BC-16	11/11	SC	¾" x 0	360	800,000	5 %	PE-21
BC-17	11/11	CC	¾" x 0	360	800,000	5 %	PE-22
BC-18	11/11	CC	¾" x 0	360	800,000	5 %	PE-23
BC-19	11/11	CC	¾" x 0	360	800,000	5 %	PE-24

1. 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		

2. Enter the date that each crusher and screen was constructed, reconstructed, or modified.
 3. Enter the type of material being handled - Raw Coal (RC) Sized Coal (SC) Clean Coal (CC) Refuse (R) Other (O)
 4. 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.
 5. Enter the maximum material transfer rate for each conveyor in tons per hour and tons per year.
 6. Enter the average percent moisture content of the conveyed material.
 7. Enter the control device for the conveyor. PE - Partial Enclosure (example 3/4 hoop), FE - Full Enclosure, N – None

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		
BC-20	11/16	CC	2" x 0	360	800,000	5 %	PE-48
BC-21	11/16	CC	2" x 0	360	800,000	5 %	PE-49

1. 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				
2. Enter the date that each crusher and screen was constructed, reconstructed, or modified.
3. Enter the type of material being handled - Raw Coal (RC) Sized Coal (SC) Clean Coal (CC) Refuse (R) Other (O)
4. 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.
5. Enter the maximum material transfer rate for each conveyor in tons per hour and tons per year.
6. Enter the average percent moisture content of the conveyed material.
7. Enter the control device for the conveyor. PE - Partial Enclosure (example ¾ hoop), FE - Full Enclosure, N - None

CRUSHING AND SCREENING AFFECTED SOURCE SHEET

CRUSHING AND SCREENING AFFECTED SOURCE SHEET

Source Identification Number ¹		CR-1	CR-2	S-1	S-2	S-3	
Type of Crusher or Screen ²		DR	DR	DD	DD	DD	
Make, Model No., Serial No. ³		Mclanahan 30"x60" Heavy Duty Double Roll Crusher HDDR306000 1	Tesab 1012T 707	2-8' x 16' DD incline Vib Screen S/N #4701	8' x 16' DD incline Vib Screen SN #4702	8' x 16' DD incline Vib Screen S/N #4702	
Date of Construction, Reconstruction, or Modification (Month/Year) ⁴		2008	2011	2008	2008	2008	
Maximum Throughput ⁵	tons/hour	1350	600	1350	1350	1350	
	tons/year	3,600,000	3,600,000	3,600,000	3,600,000	3,600,000	
Material sized from/to: ⁶		Raw - 2"x0	Raw - 2"x0	Raw - 2"x0	Raw - 2"x0	Raw - 2"x0	
Average Moisture Content (%) ⁷		5 %	5 %	5 %	5 %	5 %	
Control Device ID Number ⁸		CS-FE1	CS-PE34	CS-FE1	CS-FE2	CS-FE2	
Baghouse Stack Parameters ⁹	height (ft)						
	diameter (ft)						
	volume (ACFM)						
	exit temp (F)						
	UTM Coordinates						
Maximum Operating Schedule ¹⁰	hours/day	24	24	24	24	24	
	days/year	7	7	7	7	7	
	hours/year	8736	8736	8736	8736	8736	

1. Enter the appropriate Source Identification Number for each crusher and screen. For example, in the case of an operation which incorporates multiple crushers, the crushers should be designated CR-1, CR-2, CR-3 etc. beginning with the breaker or primary crusher. Multiple screens should be designated S-1, S-2, S-3 etc.
2. Describe types of crushers and screens using the following codes:

HM	Hammermill	SS	Stationary Screen	DR	Double Roll Crusher
SD	Single Deck Screen	BM	Ball Mill	DD	Double-Deck Screen
RB	Rotary Breaker	TD	Triple Deck Screen	JC	Jaw Crusher
GC	Gyratory Crusher	OT	Other		
3. Enter the make, model number, and serial number of the crusher/screen.
4. Enter the date that each crusher and screen was constructed, reconstructed, or modified.
5. Enter the maximum throughput for each crusher and screen in tons per hour and tons per year.
6. Describe the nominal material size reduction (e.g. +2" / -3/8").
7. Enter the average percent moisture content of the material processed.
8. Enter the appropriate Control Device Identification Number for each crusher and screen. Refer to Table A - *Control Device Listing and Control Device Identification Number Instructions* in the *Reference Document* for Control Device ID prefixes and numbering.
9. Enter the appropriate stack parameters if a baghouse control device is used.
10. Enter the maximum operating schedule for each crusher and screen in hours per day, days per year and hours per year.

STORAGE ACTIVITY AFFECTED SOURCE SHEET

STORAGE ACTIVITY AFFECTED SOURCE SHEET

Source Identification Number ¹	OS-1	OS-2	OS-3	OS-4	OS-5	OS-6
Type of Material Stored ²	Sized Coal	Clean Coal	Clean Coal	Raw Coal	Sized Coal	Sized Coal
Average Moisture Content (%) ³	5 %	5 %	5 %	5 %	5 %	5 %
Maximum Yearly Storage Throughput (tons) ⁴	4,400,000	3,600,000	800,000	800,000	400,000	800,000
Maximum Storage Capacity (tons) ⁵	50,000	50,000	62,500	50,000	50,000	50,000
Maximum Base Area (ft ²) ⁶	37,500	37,500	62,500	37,500	37,500	37,500
Maximum Pile Height (ft) ⁷	20	20	20	15	15	15
Method of Material Load-in ⁸	ST-1	ST-2	ST-3	TD-1	SS-1	SS-2
Load-in Control Device Identification Number ⁹	SL-FE35	SL-FE36	SL-FE37	NONE	NONE	NONE
Storage Control Device Identification Number ⁹	SW-WS1	SW-WS14	SW-WS3	SW-WS9	SW-WS10	SW-WS2
Method of Material Load-out ⁸	UC	UC	UC	OT	FE	OT
Load-out Control Device Identification Number ⁹	LO-UC1	LO-UC2	LO-UC4	NONE	NONE	NONE

1. Enter the appropriate Source Identification Number for each storage activity using the following codes. For example, if the facility utilizes three storage bins, four open stockpiles and one storage building (full enclosure), the Source Identification Numbers should be BS-1, BS-2, and BS-3; OS-1, OS-2, OS-3, and OS-4; and SB-1, respectively.

BS	Bin or Storage Silo (full enclosure)	E3	Enclosure (three sided enclosure)
OS	Open Stockpile	SB	Storage Building (full enclosure)
SF	Stockpiles with wind fences	OT	Other

2. Describe the type of material stored or stockpiled. (e.g. clean coal (CC), raw coal (RC), refuse (R), sized coal (SC), other (O))

3. Enter the average percent moisture content of the stored material.

4. Enter the maximum yearly storage throughput for each storage activity.

5. Enter the maximum storage capacity for each storage activity in tons (e.g. silo capacity, maximum stockpile size, etc.)

6. For stockpiles, enter the maximum stockpile base area.

7. For stockpiles, enter the maximum stockpile height.

8. Enter the method of load-in or load-out to/from stockpiles or bins using the following codes:

CS	Clamshell	SS	Stationary Conveyor/Stacker
FC	Fixed Height Chute from Bins	ST	Stacking Tube
FE	Front Endloader	TC	Telescoping Chute from Bins
MC	Mobile Conveyor/Stacker	TD	Truck Dump
UC	Under-pile or Under-Bin Reclaim Conveyor	PC	Pneumatic Conveyor/Stacker
RC	Rake or Bucket Reclaim Conveyor	OT	Other

9. Enter the appropriate Control Device Identification Number for each storage activity. Refer to Table A - *Control Device Listing* and *Control Device Identification Number Instructions* in the *Reference Document* for Control Device ID prefixes and numbering.

STORAGE ACTIVITY AFFECTED SOURCE SHEET

Source Identification Number ¹	OS-7	OS-8	Bin 1	Bin 2	Bin 3
Type of Material Stored ²	Clean Coal	Clean Coal	Clean Coal	Refuse	Refuse
Average Moisture Content (%) ³	5 %	5 %	5 %	5 %	5 %
Maximum Yearly Storage Throughput (tons) ⁴	800,000	800,000	4,400,000	2,280,000	1,980,000
Maximum Storage Capacity (tons) ⁵	50,000	62,500	161	161	161
Maximum Base Area (ft ²) ⁶	37,500	46,875	600	600	600
Maximum Pile Height (ft) ⁷	20	20	8	8	8
Method of Material Load-in ⁸	MC-2	MC-3	FC-1	UC-1	FC-2
Load-in Control Device Identification Number ⁹	NONE	NONE	SL-FE9	SL-FE10	SL-FE11
Storage Control Device Identification Number ⁹	SW-WS15	SW-WS16	SW-FE9	SW-FE10	SW-FE11
Method of Material Load-out ⁸	UC	FE	FC	UC	FC
Load-out Control Device Identification Number ⁹	LO-UC3	NONE	LR-PE16	LO-UC4	LR-PE30

- Enter the appropriate Source Identification Number for each storage activity using the following codes. For example, if the facility utilizes three storage bins, four open stockpiles and one storage building (full enclosure), the Source Identification Numbers should be BS-1, BS-2, and BS-3; OS-1, OS-2, OS-3, and OS-4; and SB-1, respectively.

BS	Bin or Storage Silo (full enclosure)	E3	Enclosure (three sided enclosure)
OS	Open Stockpile	SB	Storage Building (full enclosure)
SF	Stockpiles with wind fences	OT	Other
- Describe the type of material stored or stockpiled. (e.g. clean coal (CC), raw coal (RC), refuse (R), sized coal (SC), other (O))
- Enter the average percent moisture content of the stored material.
- Enter the maximum yearly storage throughput for each storage activity.
- Enter the maximum storage capacity for each storage activity in tons (e.g. silo capacity, maximum stockpile size, etc.)
- For stockpiles, enter the maximum stockpile base area.
- For stockpiles, enter the maximum stockpile height.
- Enter the method of load-in or load-out to/from stockpiles or bins using the following codes:

CS	Clamshell	SS	Stationary Conveyor/Stacker
FC	Fixed Height Chute from Bins	ST	Stacking Tube
FE	Front Endloader	TC	Telescoping Chute from Bins
MC	Mobile Conveyor/Stacker	TD	Truck Dump
UC	Under-pile or Under-Bin Reclaim Conveyor	PC	Pneumatic Conveyor/Stacker
RC	Rake or Bucket Reclaim Conveyor	OT	Other
- Enter the appropriate Control Device Identification Number for each storage activity. Refer to Table A - *Control Device Listing* and *Control Device Identification Number Instructions* in the *Reference Document* for Control Device ID prefixes and numbering.

EQUIPMENT LIST FORM

EQUIPMENT LIST FORM

Type Change, if any (New, Modification, or Removal)	Date of Change	Emissions Unit (Source)		Air Pollution Control Device		Emission Point	
		ID No. ¹	Source	ID No. ²	Device Type	ID No. ³	Emission Type ⁴
Modification	11/01/2011	BC-1	Belt Conveyor	TC-PE1	PE	TP-1	N/A
Modification	11/01/2011	CR-1	Crusher	CS-FE1	FE	TP-2	N/A
Modification	11/01/2011	S-1	Double Deck Screen	CS-FE1	FE	TP-3	N/A
Modification	11/01/2011	BC-2	Belt Conveyor	TC-PE2	PE	TP-4	N/A
Modification	11/01/2011	S-2	Double Deck Screen	CS-FE2	FE	TP-4	N/A
Modification	11/01/2011	S-3	Double Deck Screen	CS-FE2	FE	TP-5	N/A
Modification	11/01/2011	BC-3	Belt Conveyor	TC-PE3	PE	TP-6	N/A
Modification	11/01/2011	ST-1	Stacking Tube	SL-FE35	FE	TP-6	N/A
Modification	11/01/2011	OT-1	Dozer To Feeder	LO-UC1	CS	TP-7	N/A
Modification	11/01/2011	BC-4	Belt Conveyor	TC-PE4	PE	TP-8	N/A
Modification	11/01/2011	BC-4	Belt Conveyor to Prep Plant	TC-FE5	FE	TP-9	N/A

Include all process equipment that will be part of this permit application review, including previously unpermitted emissions units (sources) and air pollution control devices.

¹ Number as 1s, 2s, 3s ... or other appropriate designation. Must match process flow diagram.

² Number as 1c, 2c, 3c ... or other appropriate designation. Must match process flow diagram.

³ Number as 1e, 2e, 3e ... or other appropriate designation. Must match process flow diagram.

⁴ Please add descriptors such as upward vertical stack, downward vertical stack, horizontal stack, relief vent, rain cap, etc.

EQUIPMENT LIST FORM

Type Change, if any (New, Modification, or Removal)	Date of Change	Emissions Unit (Source)		Air Pollution Control Device			Emission Point	
		ID No. 1	Source	ID No. 2	Device Type	ID No. 3	Emission Type 4	
Modification	11/01/2011	BC-5	Prep Plant to Belt Conveyor	TC-FE5	FE	TP-10	N/A	
Modification	11/01/2011	BC-5	Belt Conveyor	TC-FE6	FE	TP-11	N/A	
Modification	11/01/2011	BC-6	Belt Conveyor	TC-PE6	PE	TP-12	N/A	
Modification	11/01/2011	ST-2	Stacking Tube	SL-FE36	FE	TP-12	N/A	
Modification	11/01/2011	LO-UC2	Dozer to Feeder	LO-UC2	UC	TP-13	N/A	
Modification	11/01/2011	BC-7	Belt Conveyor	TC-PE7	PE	TP-14	N/A	
Modification	11/01/2011	BC-7	Belt Conveyor to Bin 1	SL-FE9	FE	TP-15	N/A	
Modification	11/01/2011	TP-16	Bin 1 to Rail	LR-PE16	PE	TP-16	N/A	
Modification	11/01/2011	BC-8	Prep Plant to BC	TC-FE5	FE	TP-17	N/A	
Modification	11/01/2011	BC-8	Belt Conveyor	TC-PE9	PE	TP-18	N/A	
Modification	11/01/2011	BC-8	Belt Conveyor to Bin 2	SL-FE10	FE	TP-18	N/A	

Include **all** process equipment that will be part of this permit application review, including previously unpermitted emissions units (sources) and air pollution control devices.

¹ Number as 1s, 2s, 3s ... or other appropriate designation. Must match process flow diagram.

² Number as 1c, 2c, 3c ... or other appropriate designation. Must match process flow diagram.

³ Number as 1e, 2e, 3e ... or other appropriate designation. Must match process flow diagram.

⁴ Please add descriptors such as upward vertical stack, downward vertical stack, horizontal stack, relief vent, rain cap, etc.

EQUIPMENT LIST FORM

Type Change, if any (New, Modification, or Removal)	Date of Change	Emissions Unit (Source)		Air Pollution Control Device		Emission Point	
		ID No. 1	Source	ID No. 2	Device Type	ID No. 3	Emission Type ⁴
Modification	11/01/2011	TP-28	Bin 2 to Belt Conveyor	LO-UC4	UC	TP-28	N/A
Modification	11/01/2011	BC-14	Belt Conveyor	TC-PE19	PE	TP-29	N/A
Modification	11/01/2011	BC-14	Belt Conveyor to Bin 3	SL-FE11	FE	TP-29	N/A
Modification	11/01/2011	TP-30	Bin 3 to Pan	LR-PE30	PE	TP-30	N/A
Modification	11/01/2011	TP-31	Pan to Refuse Pile	N	None	TP-31	N/A
Modification	06/30/2008	BC-9	Double Deck Screen 3 to Belt Conveyor	CS-FE2	FE	TP-19	N/A
Modification	06/30/2008	BC-9	Belt Conveyor	TC-PE10	PE	TP-20	N/A
Modification	06/30/2008	BC-10	Bin 2 to Belt Conveyor	LO-UC4	UC	TP-21	N/A
Modification	06/30/2008	BC-10	Belt Conveyor	TC-PE12	PE	TP-22	N/A
Modification	06/30/2008	BC-11	Belt Conveyor	TC-PE13	PE	TP-23	N/A
Modification	06/30/2008	BC-12	Belt Conveyor	TC-PE15	PE	TP-24	N/A

Include all process equipment that will be part of this permit application review, including previously unpermitted emissions units (sources) and air pollution control devices.

¹ Number as 1s, 2s, 3s ... or other appropriate designation. Must match process flow diagram.

² Number as 1c, 2c, 3c ... or other appropriate designation. Must match process flow diagram.

³ Number as 1e, 2e, 3e ... or other appropriate designation. Must match process flow diagram.

⁴ Please add descriptors such as upward vertical stack, downward vertical stack, horizontal stack, relief vent, rain cap, etc.

EQUIPMENT LIST FORM

Type Change, if any (New, Modification, or Removal)	Date of Change	Emissions Unit (Source)		Air Pollution Control Device		Emission Point	
		ID No. 1	Source	ID No. 2	Device Type	ID No. 3	Emission Type 4
Modification	06/30/2008	BC-13	Belt Conveyor	TC-PE17	PE	TP-25	N/A
Modification	06/30/2008	PE-18	Radial Stacker to OS-3	N	None	TP-25	N/A
Modification	11/22/2016	TP-26	Dozer to Underground Feeder	N	None	TP-26	N/A
Modification	11/01/2011	TP-32	Truck Dump to OS-4	N	None	TP-32	N/A
Modification	11/01/2011	TP-33	OS-4 to Loader	N	None	TP-33	N/A
Modification	11/01/2011	TP-34	Loader to CR-2	CS-PE34	PW	TP-34	N/A
Modification	11/01/2011	TP-35	CR-2 to Belt Conveyor	TC-PE20	PE	TP-35	N/A
Modification	11/01/2011	BC-15	Belt Conveyor	TC-PE20	PE	TP-35	N/A
Modification	11/01/2011	TP-36	Belt Conveyor to OS-5	N	None	TP-36	N/A
Modification	11/01/2011	TP-37	OS-5 to Loader	N	None	TP-37	N/A

Include all process equipment that will be part of this permit application review, including previously unpermitted emissions units (sources) and air pollution control devices.

¹ Number as 1s, 2s, 3s ... or other appropriate designation. Must match process flow diagram.

² Number as 1c, 2c, 3c ... or other appropriate designation. Must match process flow diagram.

³ Number as 1e, 2e, 3e ... or other appropriate designation. Must match process flow diagram.

⁴ Please add descriptors such as upward vertical stack, downward vertical stack, horizontal stack, relief vent, rain cap, etc.

EQUIPMENT LIST FORM

Type Change, if any (New, Modification, or Removal)	Date of Change	Emissions Unit (Source)		Air Pollution Control Device		Emission Point	
		ID No. ¹	Source	ID No. ²	Device Type	ID No. ³	Emission Type ⁴
Modification	11/01/2011	TP-38	Loader to Truck	N	None	TP-38	N/A
Modification	11/01/2011	TP-39	Truck to Refuse Pile	N	None	TP-39	N/A
Modification	11/01/2011	TP-40	DR-2 to Belt Conveyor	TC-PE21	PE	TP-40	N/A
Modification	11/01/2011	BC-16	Belt Conveyor	TC-PE21	PE	TP-40	N/A
Modification	11/01/2011	TP-41	Belt Conveyor to OS-6	N	None	TP-41	N/A
Modification	11/01/2011	TP-42	OS-6 to OS-1 by Dozer	N	None	TP-42	N/A
Modification	11/01/2011	TP-43	Belt Conveyor 12 to Belt Conveyor 17	TC-PE22	PE	TP-43	N/A
Modification	11/22/2016	BC-17	Belt Conveyor	TC-PE22	PE	TP-44	N/A
Modification	11/22/2016	TP-44	Belt Conveyor 17 to Belt Conveyor 18	TC-PE23	PE	TP-44	N/A
Modification	11/22/2016	BC-18	Belt Conveyor	TC-PE23	PE	TP-48	N/A
Modification	11/22/2016	TP-45	Belt Conveyor to OS-7	N	None	TP-45	N/A

Include all process equipment that will be part of this permit application review, including previously unpermitted emissions units (sources) and air pollution control devices.

¹ Number as 1s, 2s, 3s ... or other appropriate designation. Must match process flow diagram.

² Number as 1c, 2c, 3c ... or other appropriate designation. Must match process flow diagram.

³ Number as 1e, 2e, 3e ... or other appropriate designation. Must match process flow diagram.

⁴ Please add descriptors such as upward vertical stack, downward vertical stack, horizontal stack, relief vent, rain cap, etc.

EQUIPMENT LIST FORM

Type Change, if any (New, Modification, or Removal)	Date of Change	Emissions Unit (Source)		Air Pollution Control Device		Emission Point	
		ID No. 1	Source	ID No. 2	Device Type	ID No. 3	Emission Type 4
Modification	11/22/2016	TP-46	OS-7 to Underground Feeder	LO-UC3	UC	TP-46	N/A
Modification	11/01/2011	TP-47	Bin 2 to Truck	UD-PE47	PW	TP-47	N/A
Modification	11/01/2011	BC-19	BC-5 to BC-19	TC-PE24	PE	TP-11	N/A
Modification	11/22/2016	TP-48	BC-18 to Radial Stacker	TC-PE48	PE	TP-48	N/A
Modification	11/22/2016	BC-20	Radial Stacker	TC-PE48	PE	TP-48	N/A
Modification	11/22/2016	TP-49	BC-6 to BC-21	TC-PE49	PE	TP-49	N/A
Modification	11/22/2016	BC-21	Radial Stacker	TC-PE50	PE	TP-50	N/A
Modification	11/22/2016	TP-50	BC-21 to OS-8	TC-PE50	PE	TP-50	N/A
Modification	11/22/2016	TP-51	OS-8 to Loader	N	NONE	TP-51	N/A
Modification	11/22/2016	TP-52	Loader to Truck	N	NNOE	TP-51	N/A
Modification	11/22/2016	TP-49	BC-6 to BC-13	TC-PE49	PE	TP-49	N/A

Include all process equipment that will be part of this permit application review, including previously unpermitted emissions units (sources) and air pollution control devices.

¹ Number as 1s, 2s, 3s ... or other appropriate designation. Must match process flow diagram.

² Number as 1e, 2c, 3c ... or other appropriate designation. Must match process flow diagram.

³ Number as 1e, 2e, 3e ... or other appropriate designation. Must match process flow diagram.

⁴ Please add descriptors such as upward vertical stack, downward vertical stack, horizontal stack, relief vent, rain cap, etc.

ATTACHMENT K

FUGITIVE EMISSIONS DATA AND SUMMARY SHEET

Attachment K

FUGITIVE EMISSIONS DATA SUMMARY SHEET

The FUGITIVE EMISSIONS SUMMARY SHEET provides a summation of fugitive emissions. Fugitive emissions are those emissions which could not reasonably pass through a stack, chimney, vent or other functionally equivalent opening. Note that uncaptured process emissions are not typically considered to be fugitive, and must be accounted for on the appropriate EMISSIONS UNIT DATA SHEET and on the EMISSION POINTS DATA SUMMARY SHEET.

Please note that total emissions from the source are equal to all vented emissions, all fugitive emissions, plus all other emissions (e.g. uncaptured emissions).

APPLICATION FORMS CHECKLIST - FUGITIVE EMISSIONS
1.) Will there be haul road activities? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> If YES, then complete the HAUL ROAD EMISSIONS UNIT DATA SHEET.
2.) Will there be Storage Piles? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> If YES, complete Table 1 of the NONMETALLIC MINERALS PROCESSING EMISSIONS UNIT DATA SHEET.
3.) Will there be Liquid Loading/Unloading Operations? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If YES, complete the BULK LIQUID TRANSFER OPERATIONS EMISSIONS UNIT DATA SHEET.
4.) Will there be emissions of air pollutants from Wastewater Treatment Evaporation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If YES, complete the GENERAL EMISSIONS UNIT DATA SHEET.
5.) Will there be Equipment Leaks (e.g. leaks from pumps, compressors, in-line process valves, pressure relief devices, open-ended valves, sampling connections, flanges, agitators, cooling towers, etc.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If YES, complete the LEAK SOURCE DATA SHEET section of the CHEMICAL PROCESSES EMISSIONS UNIT DATA SHEET.
6.) Will there be General Clean-up VOC Operations? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If YES, complete the GENERAL EMISSIONS UNIT DATA SHEET.
7.) Will there be any other activities that generate fugitive emissions? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> If YES, complete the GENERAL EMISSIONS UNIT DATA SHEET or the most appropriate form.
If you answered "NO" to all of the items above, it is not necessary to complete the following table, "Fugitive Emissions Summary."

FUGITIVE EMISSIONS SUMMARY		All Regulated Pollutants ¹ Chemical Name/CAS ¹	Maximum Potential Uncontrolled Emissions ²		Maximum Potential Controlled Emissions ³		Est. Method Used ⁴
			lb/hr	ton/yr	lb/hr	ton/yr	
Haul Road/Road Dust Emissions Paved Haul Roads	PM	0	0	0	0	EE	
Unpaved Haul Roads	PM	281.21	543.47	84.36	163.04	EE	
Storage Pile Emissions	PM	2.16	2.16	0.54	2.35	EE	
Loading/Unloading Operations	N/A	N/A	N/A	N/A	N/A	N/A	
Wastewater Treatment Evaporation & Operations	N/A	N/A	N/A	N/A	N/A	N/A	
Equipment Leaks	N/A	Does not apply	N/A	Does not apply	N/A	N/A	
General Clean-up VOC Emissions	N/A	N/A	N/A	N/A	N/A	N/A	
Other							

¹ List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. LIST Acids, CO, CS₂, VOCs, H₂S, Inorganics, Lead, Organics, O₃, NO, NO₂, SO₂, SO₃, all applicable Greenhouse Gases (including CO₂ and methane), etc. DO NOT LIST H₂, H₂O, N₂, O₂, and Noble Gases.

² Give rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

³ Give rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

⁴ Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).

ATTACHMENT N

EMISSIONS SUMMARY AND CALCULATIONS

EMISSIONS SUMMARY

Name of applicant: Wolf Run Mining Company
 Name of plant: Sentinel Mine

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

Uncontrolled PM		Controlled PM	
lb/hr	TPY	lb/hr	TPY

FUGITIVE EMISSIONS				
<i>Stockpile Emissions</i>	2.16	9.46	0.54	2.35
<i>Unpaved Haulroad Emissions</i>	281.21	543.47	84.36	163.04
<i>Paved Haulroad Emissions</i>	0.00	0.00	0.00	0.00
Fugitive Emissions Total	283.37	552.93	84.90	165.39

POINT SOURCE EMISSIONS				
<i>Equipment Emissions</i>	432.00	295.89	86.40	59.18
<i>Transfer Point Emissions</i>	36.98	52.56	13.19	16.70
Point Source Emissions Total*	468.98	348.45	99.59	75.88

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

Facility Emissions Total	752.34	901.37	184.49	241.27
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***Facility Potential to Emit (PTE) (Baseline Emissions) = 75.88**
(Based on Point Source Total controlled PM TPY emissions from above) ENTER ON LINE 26 OF APPLICATION

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

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

FUGITIVE EMISSIONS				
<i>Stockpile Emissions</i>	1.01	4.44	0.25	1.10
<i>Unpaved Haulroad Emissions</i>	83.00	160.41	24.90	48.12
<i>Paved Haulroad Emissions</i>	0.00	0.00	0.00	0.00
Fugitive Emissions Total	84.02	164.86	25.15	49.23

POINT SOURCE EMISSIONS				
<i>Equipment Emissions</i>	203.04	139.07	40.61	27.81
<i>Transfer Point Emissions</i>	17.49	24.86	6.24	7.90
Point Source Emissions Total*	220.53	163.93	46.85	35.71

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

Facility Emissions Total	304.55	328.78	72.00	84.94
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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	146
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	Sized Coal Stockpile	5	37,500	SW-WS1	75
OS-2	Clean Coal Stockpile	5	37,500	SW-WS14	75
OS-3	Clean Coal Stockpile	5	46,875	SW-WS3	75
Bin 1	Clean Coal Bin	5	600	SW-FE9	100
Bin 2	Refuse Coal Bin	5	600	SW-FE10	100
Bin 3	Refuse Coal Bin	5	600	SW-FE11	100
OS-4	Raw Coal From Truck Dump	5	37,500	SW-WS9	75
OS-5	Sized Coal Stockpile	5	37,500	SW-WS10	75
OS-6	Sized Coal Stockpile	5	37,500	SW-WS2	75
OS-7	Sized Coal Stockpile	5	37,500	SW-WS15	75
OS-8	Clean Coal Stockpile	5	46,875	SW-WS16	75

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

s =	silt content of road surface material (%)	10
p =	number of days per year with precipitation >0.01 inch	146
M _{dry} =	surface material moisture content (%) - dry conditions	0.2

Item Number	Description	Number of wheels	Mean Vehicle Weight(tons)	Mean Vehicle Speed (mph)	Miles per Trip	Maximum Trips Per Hour	Maximum Trips Per Year	Control Device ID Number	Control Efficiency %
1	Dozer For Sized Coal Transfer	2	32	3	0.04	97	#####	HR-WS4	70
2	Dozer For Clean Coal Transfer	2	32	3	0.04	97	#####	HR-WS5	70
3	Loader To Truck	4	32	3	0.04	30	#####	HR-WS6	70
4	Pan To Spread Refuse	4	50	4	0.1	50	#####	HR-WS7	70
5	Dozer For Sized Coal Transfer	2	32	3	0.04	97	#####	HR-WS9	70
6	Loader To Truck	4	32	3	0.04	40	#####	HR-WS10	70
7	Dozer For Midlings To Feeder	2	32	3	0.04	48	46,875	HR-WS11	70
8	Truck To Refuse	0	0	0	0	20	40,000	\$12 & HR	70
9									

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

sL =	road surface silt loading, (g/ft^2)	70
P =	number of days per year with precipitation >0.01 inch	146

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

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
CR-1	27.000	18.493	5.400	3.699	12.690	8.692	2.538	1.738
CR-2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	27.000	18.493	5.400	3.699	12.690	8.692	2.538	1.738

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	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.000							

1c. Screening

Screen ID Number	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
S-1	135.000	92.465	27.000	18.493	63.450	43.459	12.690	8.692
S-2	135.000	92.465	27.000	18.493	63.450	43.459	12.690	8.692
S-3	135.000	92.465	27.000	18.493	63.450	43.459	12.690	8.692
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	405.000	277.395	81.000	55.479	190.350	130.376	38.070	26.075

Crushing and Screening	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
TOTAL	432.000	295.888	86.400	59.178	203.040	139.068	40.608	27.814

EMISSION FACTORS

source: Air Pollution Engineering Manual and References

(lb/ton of material throughput)

PM	
Primary Crushing	0.02
Tertiary Crushing	0.06
Screening	0.1

PM-10	
Primary Crushing	0.0094
Tertiary Crushing	0.0282
Screening	0.047

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
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTALS	36.978	52.558	13.193	16.703	17.490	24.859	6.240	7.900

Source:

AP42, Fifth Edition, Revised 11/2006
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

Emission Factor

For PM $E = \frac{k \cdot (0.0032) \cdot [(U/5)^{1.3}]}{(M/2)^{1.4}}$
=lb/ton

For PM-10 $E = \frac{k \cdot (0.0032) \cdot [(U/5)^{1.3}]}{(M/2)^{1.4}}$
=lb/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	0.253	1.106	0.063	0.277	0.119	0.520	0.030	0.130
OS-2	0.253	1.106	0.063	0.277	0.119	0.520	0.030	0.130
OS-3	0.316	1.383	0.079	0.346	0.148	0.650	0.037	0.162
Bin 1	0.004	0.018	0.000	0.000	0.002	0.008	0.000	0.000
Bin 2	0.004	0.018	0.000	0.000	0.002	0.008	0.000	0.000
Bin 3	0.004	0.018	0.000	0.000	0.002	0.008	0.000	0.000
OS-4	0.253	1.106	0.063	0.277	0.119	0.520	0.030	0.130
OS-5	0.253	1.106	0.063	0.277	0.119	0.520	0.030	0.130
OS-6	0.253	1.106	0.063	0.277	0.119	0.520	0.030	0.130
OS-7	0.253	1.106	0.063	0.277	0.119	0.520	0.030	0.130
OS-8	0.316	1.383	0.079	0.346	0.148	0.650	0.037	0.162
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTALS	2.159	9.456	0.537	2.351	1.015	4.444	0.252	1.105

Source:

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

Emission Factors

For PM $E = (1.7) * ((\text{Inputs!F147})/1.5) * ((365 - \text{Inputs!I139})/235) * ((\text{Inputs!I140})/15)$

For PM-10 $E = 0.47 * (1.7) * ((\text{Inputs!F147})/1.5) * ((365 - \text{Inputs!I139})/235) * ((\text{Inputs!I140})/15)$

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

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

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	48.55	172.06	14.57	51.62	14.33	50.79	4.30	15.24
2	48.55	125.14	14.57	37.54	14.33	36.94	4.30	11.08
3	15.02	28.60	4.50	8.58	4.43	8.44	1.33	2.53
4	76.48	134.61	22.95	40.38	22.58	39.73	6.77	11.92
5	48.55	31.28	14.57	9.39	14.33	9.23	4.30	2.77
6	20.02	40.04	6.01	12.01	5.91	11.82	1.77	3.55
7	24.03	11.73	7.21	3.52	7.09	3.46	2.13	1.04
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	281.21	543.47	84.36	163.04	83.00	160.41	24.90	48.12

Source:

AP42, Fifth Edition, Revised 11/2006
13.2.2 Unpaved Roads

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

$$E = k \left(\frac{s}{12} \right)^a \left(\frac{W}{3} \right)^b = \text{lb/vmt}$$

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 per year with precipitation >0.01 inch	157	

Emission Factors

For PM $E = \left(\frac{W}{12} \right)^a \left(\frac{H}{3} \right)^b \left(\frac{365}{P} \right)^c$

For PM-10 $E = \left(\frac{W}{12} \right)^a \left(\frac{H}{3} \right)^b \left(\frac{365}{P} \right)^c$

For lb/hr $(\text{lb/vmt}) \times (\text{miles per trip}) \times (\text{Max trips per hour})$

For Ton/yr $(\text{lb/vmt}) \times (\text{miles per trip}) \times (\text{Max trips per year}) \times (1/2000)$

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Source:

AP42, Fifth Edition, Revised 11/2006
13.2.1 PAVED ROADS

Emission Estimate For Paved Haulroads

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

Where:

		PM	PM-10
k =	particle size multiplier	0.082	0.016
sL =	road surface silt loading, (g/ft ²)	70	
P =	number of days per year with precipitation >0.01 inch	146	
N =	number of days in averaging period	365	
C =	factor for exhaust, brake wear and tire wear	0.0047	0.0047

Emission Factors

- For PM** E= $(k * ((sL/2)^{0.65} * ((Inputs!G190)/3)^{1.5}) - C) * (1 - ((Inputs!P146)/4 * Inputs!N365))$
- For PM-10** E= $(k * ((sL/2)^{0.65} * ((Inputs!G190)/3)^{1.5}) - C) * (1 - ((Inputs!P146)/4 * Inputs!N365))$
- For lb/hr** (lb/vmt)*(miles per trip)*(Max trips per hour)
- For Ton/yr** (lb/vmt)*(miles per trip)*(Max trips per year)*(1/2000)

ATTACHMENT P

PUBLIC NOTICE

AIR QUALITY PERMIT NOTICE

Notice of Application

Notice is given that Wolf Run Mining Company, 100 Tygart Drive, Grafton, West Virginia 26354 has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a Modification Permit for a Coal Preparation Facility located on Route 76, near Philippi, in Barbour County, West Virginia. The latitude and longitude coordinates are: Latitude 39° 12' 00" and Longitude 80° 03' 02".

The applicant estimates there will be a decrease in the potential to discharge the following Regulated Air Pollutants: for Particulate Matter a decrease of 58.65 tons per year and for Particulate Matter under 10 microns a decrease of 27.56 tons per year.

Startup of operation is planned to begin on or about the 21st day of November, 2016. 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 1250, during normal business hours.

Dated this the 17th day of August, 2016.

By: Wolf Run Mining Company
Greg Nair
Power of Attorney
100 Tygart Drive
Grafton, West Virginia 26354

ATTACHMENT R

AUTHORITY OF CORPORATION

**Attachment R
AUTHORITY OF CORPORATION
OR OTHER BUSINESS ENTITY (DOMESTIC OR FOREIGN)**

TO: The West Virginia Department of Environmental Protection,
Division of Air Quality

DATE: August 10, 2016, 2016

ATTN.: Director

Corporation's / other business entity's Federal Employer I.D. Number 55-0699931

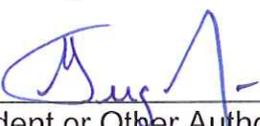
The undersigned hereby files with the West Virginia Department of Environmental Protection, Division of Air Quality, a permit application and hereby certifies that the said name is a trade name which is used in the conduct of an incorporated business or other business entity.

Further, the corporation or the business entity certifies as follows:

(1) Greg Nair (is/are) the authorized representative(s) and in that capacity may represent the interest of the corporation or the business entity and may obligate and legally bind the corporation or the business entity.

(2) The corporation or the business entity is authorized to do business in the State of West Virginia.

(3) If the corporation or the business entity changes its authorized representative(s), the corporation or the business entity shall notify the Director of the West Virginia Department of Environmental Protection, Division of Air Quality, immediately upon such change.



President or Other Authorized Officer
(Vice President, Secretary, Treasurer or other official in charge of a principal business function of the corporation or the business entity)

(If not the President, then the corporation or the business entity must submit certified minutes or bylaws stating legal authority of other authorized officer to bind the corporation or the business entity).

Secretary

Name of Corporation or business entity

POWER OF ATTORNEY

**WOLF RUN MINING COMPANY
TO
GREG NAIR**

Dated: January 1, 2016

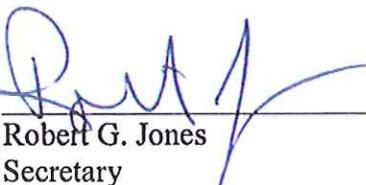
Expires: December 31, 2016

KNOW ALL MEN BY THESE PRESENTS: That Wolf Run Mining Company ("Company"), a corporation organized and existing under the laws of the State of West Virginia, acting by and through Robert G. Jones, its duly authorized Secretary, has and does hereby appoint Greg Nair its true and lawful Attorney-in-Fact with power and authority, for and on behalf, and in the name of the Company, during the period herein specified, and subject to the restrictions and limitations set forth in this Power, to execute, acknowledge and deliver in the ordinary and regular course of the Company's business, applications for mining, environmental, safety, and health permits, permit transfers, or permit bond releases or bond adjustments, amendments, supplements or modifications to such permits, certificates or other instruments directly related to such amendments, supplements or modifications, monthly production reports, air quality, water quality or other environmental reports, quarterly discharge monitoring reports and any other like or similar reports required to be filed with any local, state or federal governmental agency.

The Attorney herein appointed shall be authorized to act pursuant to this Power from the date hereof only so long as such Attorney shall remain an employee of Arch Coal, Inc. or any subsidiary thereof, or until December 31, 2016, or until such earlier time as this instrument has been revoked, annulled, rescinded or set aside by an instrument of revocation filed with the Secretary of the Company, whichever first occurs.

IN WITNESS WHEREOF, the Company has caused this Power of Attorney to be executed on its behalf, and its seal to be hereunto affixed as of the day and year first above written, by the undersigned, Robert G. Jones, duly authorized Secretary of the Company.

WOLF RUN MINING COMPANY

By: 
Robert G. Jones
Secretary

STATE OF MISSOURI)
) ss
COU TY OF ST. LOUIS)

On this 16th day of December, 2015, before me, the undersigned notary public, personally appeared Robert G. Jones, known to me to be the person whose name is subscribed to the within instrument and acknowledged that he executed the same for the purposes therein contained.

IN WIT ESS WHEREOF, I hereunto set my hand and official seal.



Notary Public

My Commission Expires: December 1, 2017

PEGGY FELDMANN Notary Public - Notary Seal State of Missouri Commissioned for St. Louis County My Commission Expires: December 01, 2017 Commission Number: F13552693

00050

REVISION NO. 3
DATE 11/10/06

State of West Virginia



Certificate

I, Betty Ireland, Secretary of State of the State of West Virginia, hereby certify that

Articles of Amendment to the Articles of Incorporation of

ANKER WEST VIRGINIA MINING COMPANY, INC.

Are filed in my office as required by the provisions of the West Virginia Code and are found to conform to law. Therefore, I issue this.

CERTIFICATE OF AMENDMENT TO THE ARTICLES OF INCORPORATION

changing the name of the corporation to

WOLF RUN MINING COMPANY



Given under my hand and the Great Seal of the State of West Virginia on this day of December 13, 2005

Betty Ireland

Secretary of State

DEC. 13. 2005 9:20AM

CORPORATION SERVICE COMPANY

NO. 5620 P. 2

00051

Secretary of State
State Capitol Bldg.
1900 Kanawha Blvd. East
Charleston, WV 25305



Corporations Division
Tel: (800) 538-3000
Fax: (800) 538-8730
Mon - 8:30-5:00pm

REVISION NO. 3
DATE 1/10/06

www.wvnet.com

business@wvnet.com

WEST VIRGINIA ARTICLES OF INCORPORATION PROFIT AMENDMENT

FILED
File One Original

In accordance with §§10-10-1000 of the Code of West Virginia, the undersigned corporation adopts the following Articles of Amendment to its Articles of Incorporation:

FIRST The name of the corporation is Anker West Virginia Mining Company, Inc.

SECOND The following amendment(s) to the Articles of Incorporation were adopted by: (check one of the following statements)

- the shareholders of the corporation
- the incorporators or board of directors and shareholder approval was not required.

THIRD The date of the adoption of the amendment(s) was: December 9, 2005

FOURTH Change of Name Information or Text of Amendment

Change of name from: Anker West Virginia Mining Company, Inc.

To: Wolf Run Mining Company

Other amendment(s) (attach additional pages to form, if needed)

FILED

DEC 13 2005

IN THE OFFICE OF
SECRETARY OF STATE

FIFTH Contact name and number of person to reach in case of problem with filing (optional, however, listing one may help to avoid a return or rejection of filing if there appears to be a problem with the document)

Name: _____ Phone: _____

[Signature]
Signature

President
Capacity in which he/she is signing
(examples: president, chairman, etc.)

FORM CD-9

Issued by the WV Secretary of State

Revised 1/05