

May 23, 2016

William F. Durham  
Director  
WV Department of Environmental Protection  
Division of Air Quality  
601 57th Street SE  
Charleston, WV 25304

Subject: Pinnacle Preparation Plant Title V Permit R30-10900006-2012 Renewal Application

Dear Mr. Durham:

Enclosed are two copies of the Title V permit application for the Pinnacle Mining Company, LLC (Pinnacle Mining) Pinnacle Preparation Plant (DAQ Plant ID No. 109-00006) located near Pineville, West Virginia. Per instruction provided on the WV Division of Air Quality (WVDAQ) website the two copies are being submitted as an ADOBE PDF file on CD, with the exception of forms requiring signature. Also, per instruction from Ms. Carrie McCumbers, if the area map, plot plans, and process flow diagrams are included in the electronic version of the application (and are readable in that pdf format), then the application does not have to include hard copies of them as indicated by the WVDAQ website instructions. The application was prepared by Patrick Environmental Services, LLC for Pinnacle Mining in accordance with the instructions and using the forms provided on the aforementioned website.

The Pinnacle Preparation Plant's current permit expires January 31, 2017, and the Title V permit renewal application is due for submittal on or before July 31, 2016. This application is being submitted to comply with this requirement.

Pinnacle Mining has made no physical or operational changes to the Pinnacle Preparation Plant since the issuance of the current Title V permit (January 31, 2012) that would triggered any WVDAQ or federal air regulatory requirement that is not included in the current permit. Furthermore, no new WVDAQ or federal air regulatory rules have been adopted since the current permit was issued that imposed new applicable requirements on the subject plant that necessitate new or revised permit terms. Therefore, Pinnacle Mining anticipates that WVDAQ will issue a renewal permit with the same terms as those contained in the current Title V permit.

If you have any question concerning this application, please contact Pinnacle Mining's Mr. Mike Isabell at (304) 256-5724 or me at (513) 508-2001.

Respectfully submitted,



Randy Patrick, P.E.  
Environmental Specialist

**Title V Permit R30-10900006-2012 Renewal Application  
For Pinnacle Preparation Plant**

*Submitted to:*

**West Virginia Division of Environmental Protection  
Division of Air Quality**

*Submitted by:*



**Pinnacle Mining Company, LLC  
Pineville, West Virginia**

*Prepared by:*

**Patrick Environmental Services, LLC  
6920 Rushwood Court  
Cincinnati, OH 45241**

**May 2016**

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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

INITIAL/RENEWAL TITLE V PERMIT APPLICATION - GENERAL FORMS

Section 1: General Information

Form with 10 numbered sections: 1. Name of Applicant (Pinnacle Mining Company, LLC), 2. Facility Name (Pinnacle Preparation Plant), 3. DAQ Plant ID No. (109-00006), 4. Federal Employer ID No. (061697780), 5. Permit Application Type (Renewal), 6. Type of Business Entity (Corporation), 7. Is the Applicant the: (Both), 8. Number of onsite employees (54), 9. Governmental Code (Privately owned and operated; 0), 10. Business Confidentiality Claims (No).

<b>11. Mailing Address</b>		
Street or P.O. Box: <b>P.O. Box 338</b>		
City: <b>Pineville</b>	State: <b>WV</b>	Zip: <b>24874</b>
Telephone Number: <b>(304) 256-5800</b>	Fax Number: <b>(304) 256-7172</b>	
<b>12. Facility Location</b>		
Street: <b>Pinnacle Creek Rd</b> <b>P.O. Box 338</b>	City: <b>Pineville</b>	County: <b>Wyoming</b>
UTM Easting: <b>456.10</b> km	UTM Northing: <b>4,155.40</b> km	Zone: <input checked="" type="checkbox"/> 17 or <input type="checkbox"/> 18
<b>Directions: At Pineville take Route 10 South approximately one mile, turn right onto Route 16 South, travel approximately one mile before turning left onto Pinnacle Creek Road.</b>		
Portable Source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Is facility located within a nonattainment area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, for what air pollutants?	
Is facility located within 50 miles of another state? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, name the affected state(s). <b>Kentucky</b> <b>Virginia</b>	
Is facility located within 100 km of a Class I Area <sup>1</sup> ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, name the area(s).	
If no, do emissions impact a Class I Area <sup>1</sup> ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
<sup>1</sup> Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.		

<b>13. Contact Information</b>		
Responsible Official: <b>Jon Lester</b>		Title: <b>General Manager</b>
Street or P.O. Box: <b>P.O. Box 338</b>		
City: <b>Pineville</b>	State: <b>WV</b>	Zip: <b>24874</b>
Telephone Number: <b>(304) 256-5226</b>	Fax Number: <b>(304) 256-7172</b>	
E-mail address: <b>JLester@senecacoal.com</b>		
Environmental Contact: <b>Mike Isabell</b>		Title: <b>Environmental Manager</b>
Street or P.O. Box: <b>P.O. Box 338</b>		
City: <b>Pineville</b>	State: <b>WV</b>	Zip: <b>24874</b>
Telephone Number: <b>(304) 256-5724</b>	Fax Number: <b>(304) 256-7172</b>	
E-mail address: <b>MIsabell@senecacoal.com</b>		
Application Preparer: <b>Randy Patrick</b>		Title: <b>Environmental Specialist</b>
Company: <b>Patrick Environmental Services, LLC</b>		
Street or P.O. Box: <b>6920 Rushwood Court</b>		
City: <b>Cincinnati</b>	State: <b>OH</b>	Zip: <b>45241</b>
Telephone Number: <b>(513) 508-2001</b>	Fax Number: ( ) -	
E-mail address: <b>rpatrick@pat-es.com</b>		

**14. Facility Description**

List all processes, products, NAICS and SIC codes for normal operation, in order of priority. Also list any process, products, NAICS and SIC codes associated with any alternative operating scenarios if different from those listed for normal operation.

Process	Products	NAICS	SIC
<b>Bituminous coal mining/preparation</b>	<b>Cleaned bituminous coal</b>	<b>212112</b>	<b>1222</b>

**Provide a general description of operations.**

**The Pinnacle facility is a coal preparation plant which processes raw coal from an associated underground bituminous coal mine plus other raw coal sources. The preparation process involves separating the higher ash reject and pyrite from the rest of the material, leaving a low-ash, low-sulfur coal. Operations at the plant include breaking, crushing, handling, screening, washing, and drying.**

15. Provide an **Area Map** showing plant location as **ATTACHMENT A**.

16. Provide a **Plot Plan(s)**, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is located as **ATTACHMENT B**. For instructions, refer to “Plot Plan - Guidelines.”

17. Provide a detailed **Process Flow Diagram(s)** showing each process or emissions unit as **ATTACHMENT C**. Process Flow Diagrams should show all emission units, control equipment, emission points, and their relationships.

**Section 2: Applicable Requirements**

<b>18. Applicable Requirements Summary</b>	
Instructions: Mark all applicable requirements.	
<input checked="" type="checkbox"/> SIP	<input type="checkbox"/> FIP
<input checked="" type="checkbox"/> Minor source NSR (45CSR13)	<input type="checkbox"/> PSD (45CSR14)
<input type="checkbox"/> NESHAP (45CSR34)	<input type="checkbox"/> Nonattainment NSR (45CSR19)
<input checked="" type="checkbox"/> Section 111 NSPS	<input type="checkbox"/> Section 112(d) MACT standards
<input type="checkbox"/> Section 112(g) Case-by-case MACT	<input type="checkbox"/> 112(r) RMP
<input type="checkbox"/> Section 112(i) Early reduction of HAP	<input type="checkbox"/> Consumer/commercial prod. reqts., section 183(e)
<input type="checkbox"/> Section 129 Standards/Reqs.	<input checked="" type="checkbox"/> Stratospheric ozone (Title VI)
<input type="checkbox"/> Tank vessel reqt., section 183(f)	<input type="checkbox"/> Emissions cap 45CSR§30-2.6.1
<input type="checkbox"/> NAAQS, increments or visibility (temp. sources)	<input type="checkbox"/> 45CSR27 State enforceable only rule
<input checked="" type="checkbox"/> 45CSR4 State enforceable only rule	<input type="checkbox"/> Acid Rain (Title IV, 45CSR33)
<input type="checkbox"/> Emissions Trading and Banking (45CSR28)	<input checked="" type="checkbox"/> Compliance Assurance Monitoring (40CFR64)
<input type="checkbox"/> CAIR NO <sub>x</sub> Annual Trading Program (45CSR39)	<input type="checkbox"/> CAIR NO <sub>x</sub> Ozone Season Trading Program (45CSR40)
<input type="checkbox"/> CAIR SO <sub>2</sub> Trading Program (45CSR41)	

## 19. Non Applicability Determinations

List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.

**CSR 45-10-4.1.e:**

The thermal dryer's potential to emit sulfur oxides is greater than 500 pounds per year.

**CSR 45-10-5.1:**

To Prevent and Control Air Pollution from the Emission of Sulfur Oxides. The thermal dryer is not part of a refinery process gas stream or any other process gas stream that contains hydrogen sulfides to be combusted. Therefore, 45CSR§10-5.1 does not apply to the thermal dryer.

**40 C.F.R. Part 60, Subpart Y:**

Standards of Performance for Coal Preparation and Processing Plants. Several units (Thermal dryer, C11-1, C11-2, Rotary Breakers 13-1 & 13-2, ST-3, ST-4, ST-5, ST-7, ST-8, C37, C45, Rock Bin, Rock Crusher #6, C8, C125, C128-1, C128-2, C100, Horizontal Axis Mixer No. 120, C119 and C132) were installed prior to October 27, 1974. Therefore, this subpart does not apply to these units per 40 C.F.R. §60.250(b). Also, this subpart does not apply to all coal, refuse, and fines open storage piles because they were installed prior to May 29, 2009.

**40 C.F.R. Part 64**

This is the third permit renewal for this facility. At the time of the first renewal, a CAM applicability review was conducted, and CAM requirements were added. No changes have been made at this facility since the first renewal that would require additional CAM permit conditions.

Permit Shield

**20. Facility-Wide Applicable Requirements**

List all facility-wide applicable requirements. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements).

C.S.R § 45-6-3.1: Open burning of refuse prohibited except as noted.

C.S.R § 45-6-3.2a: Open burning of refuse prohibited during atmospheric stagnations.

40 CFR § 61.145, 61.148, 61.150, C.S.R § 45-34: Asbestos removal associated with demolition or renovation.

C.S.R § 45-30-4.3.h.1.B: Notify and submit compliance schedule for newly applicable requirements.

WV Code §22-5-4(a)(15), C.S.R § 45-5-12.1. – 12.3: Conduct compliance testing as required.

C.S.R § 45-4-3.1: Objectionable odor prohibited.

C.S.R § 45-13-10.5: Permanent shutdown.

C.S.R § 45-11-5.2: Submit standby plan if requested.

Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing / recordkeeping / reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

C.S.R. § 45-6-3.1: None required.

C.S.R. § 45-6-3.2a: None required.

40 C.F.R. § 61.145, 61.148, and 61.150, C.S.R § 45-34: None required.

C.S.R. § 45-30-4.3.h.1.B: None required.

WV Code § 22-5-4(a)(15), C.S.R. § 45-5-12.1. -12.3: None required.

C.S.R. § 45-5-12.6: None required.

C.S.R. § 45-4-3.1: The permittee shall maintain a record of all odor complaints received. Such record shall be maintained on site five years from the record creation date, containing an assessment of the validity of the complaints as well as corrective action taken. 45CSR§30-5.1.c.

C.S.R. § 45-13-10.5: None required.

C.S.R. § 45-11-5.2: None required.

Are you in compliance with all facility-wide applicable requirements?  Yes  No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

**20. Facility-Wide Applicable Requirements (Continued) - Attach additional pages as necessary.**

List all facility-wide applicable requirements. For each applicable requirement, include the rule citation and/or permit with the condition number.

45 C.S.R. 13, R13-2183 B.2 & B.4, C.S.R. § 45-5-3.4, 40 C.F.R. § 60.254(a), 40 C.F.R. § 60.11(c),  
45 C.S.R. 16: 20% Opacity.

40 C.F.R. §60.8(a), 45CSR16, and 45CSR13, R13-2183, B.4: Conduct performance tests to determine compliance with limitations set forth in 40 C.F.R. 60.254(a) within 60 days of achieving maximum production rate but not later than 180 days after initial startup.

Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

45 C.S.R. 13, R13-2183 B.2 & B.4, C.S.R. § 45-5-3.4, 40 C.F.R. § 60.254(a), 40 C.F.R. § 60.11(c),  
45 C.S.R. 16 [Not required for stockpiles and haulroads – OS1, ST-14, ST-16, ST-2, ST-11, ST-12, ST-13, PRP, URP]:

a. To determine compliance with the opacity limit, the permittee will conduct weekly visual emissions observations in accordance with Method 22 of 40 C.F.R. 60, Appendix A for all coal processing and conveying equipment, coal storage systems, and coal transfer and loading systems. These observations will be conducted during periods of normal facility operation for a sufficient time interval to determine if the unit has visible emissions using procedures outlined in 40 C.F.R. 60, Appendix A, Method 22. If sources of visible emissions are identified during the survey, the permittee will conduct an opacity evaluation in accordance with 40 C.F.R. 60, Appendix A, Method 9, within 24 hours. A 40 C.F.R. 60, Appendix A, Method 9 evaluation will not be required if the visible emission condition is corrected in a timely manner and the units are operated at normal operating conditions with no visible emissions being observed.

b. A record of each visible emissions observation shall be maintained, including any data required by 40 C.F.R. 60 Appendix A, Method 22 or Method 9, whichever is appropriate. The record shall include, at a minimum, the date, time, name of the emission unit, the applicable visible emissions requirement, the results of the observation, and the name of the observer. Records shall be maintained on site for a period of no less than five (5) years stating any maintenance or corrective actions taken as a result of the weekly inspections, and the times the fugitive dust control system(s) are inoperable and any corrective actions taken. C.S.R. 45-30-5.1.c.

40 C.F.R. §60.8(a), 45CSR16, and 45CSR13, R13-2183, B.4: Submit the results of initial performance tests to the Administrator or delegated authority within 60 days. 40 C.F.R. 258(c).

Are you in compliance with all facility-wide applicable requirements?  Yes  No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

**20. Facility-Wide Applicable Requirements (Continued) - Attach additional pages as necessary.**

List all facility-wide applicable requirements. For each applicable requirement, include the rule citation and/or permit with the condition number.

**45 C.S.R. 13, R13-2183 B.2, C.S.R. § 45-5-6.1: Operate and maintain fugitive dust control system.**

**45 C.S.R. 13, R13-2183 B.2, C.S.R. § 45-5-6.2: Minimize dust generation and atmospheric entrainment through dust control methods and good operating practices & water truck.**

**45CSR§§30-4.4. and 5.1.c.3.D.: Any application form, report, or compliance certification required by this permit must contain a certification by the responsible official.**

**WV Code § 22-5-4(a)(14): Submit annual emission inventory.**

**45CSR§30-5.3.e.: Submit annual compliance certification.**

**45CSR§30-8: Submit certified emissions statement and fee payment annually.**

**45CSR§30-5.1.c.3.A.: Submit semi-annual monitoring reports.**

**40 C.F.R. § 82.154, 82.156, 82.158, 82.161: Comply with standards for recycling and emissions reduction while performing maintenance, service, repair, or disposal of equipment containing ozone depleting substances.**

Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

**45 C.S.R. 13, R13-2183 B.2, C.S.R. § 45-5-6.1: The permittee shall inspect all fugitive dust control systems weekly to ensure that they are operated and maintained in conformance with their designs. The permittee shall maintain records of all scheduled and non-scheduled maintenance. Records shall be maintained onsite for a period of no less than five (5) years stating any maintenance or corrective actions taken as a result of the weekly inspections, and the times the fugitive dust control system(s) are inoperable and any corrective actions taken. C.S.R. § 45-30-5.1.c.**

**45 C.S.R. 13, R13-2183 B.2, C.S.R. § 45-5-6.2: The permittee shall maintain daily records indicating the use of any dust suppressants or any other suitable dust control measures applied at the facility. These records shall be maintained on site for a period of no less than five (5) years. C.S.R. § 45-30-5.1.c.**

**45CSR§§30-4.4. and 5.1.c.3.D.: None required.**

**WV Code § 22-5-4(a)(14): The permittee shall submit an annual emission inventory and maintain a record of the submitted inventory on site for a period of no less than five years.**

**45CSR§30-5.3.e.: Maintain a copy for 5 years.**

**45CSR§30-8: Maintain a copy for 5 years.**

**45CSR§30-5.1.c.3.A.: Maintain a copy for 5 years.**

**40 C.F.R. § 82.154, 82.156, 82.158, 82.161: Licensed contractors are currently used for maintaining, servicing, repairing, and disposing of any equipment containing ozone depleting substances.**

Are you in compliance with all facility-wide applicable requirements?  Yes  No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

**20. Facility-Wide Applicable Requirements (Continued) - Attach additional pages as necessary.**

List all facility-wide applicable requirements. For each applicable requirement, include the rule citation and/or permit with the condition number.

**40 C.F.R 68:** If the facility becomes applicable to the requirements of Part 68, prepare and submit a risk management plan.

**45 CSR 13, R13-2183 A.10:** Fugitive dust control methods maintained and operated in a manner to minimize fugitive dust emissions.

**45 CSR 13, R13-2183 A.11:** Utilize water trucks as often as necessary to minimize atmospheric entrainment of fugitive emissions generated by haul roads.

**WV Code §§ 22-5-4(a)(14-15) and 45CSR13:** Conduct stack testing in accordance with West Virginia Code, underlying regulations, and permits. The Secretary may specify additional testing or alternative testing. Tests must be conducted in accordance with approved protocol. Notify the Secretary at least 15 days prior to testing and submit a report of the results within 60days.

**45CSR13, R13-2183, B.2., 45CSR§5-12.6:** Stacks venting thermal dryer exhaust, air table exhaust, or exhaust from any air pollution control device must include straight runs of sufficient length to establish flow patterns consistent with acceptable procedures.

**45CSR13, R13-2183, A.1.:** The facility must be constructed and operated in accordance with information filed in the Regulation 13 Permit Applications.

**45CSR§30-5.1.c.3.C.:** Report deviations resulting in an emergency or upset condition by phone within one working day and a written report must be submitted within ten days. If the deviation poses an imminent danger to the public report by phone immediately and a written report must be submitted within ten days. All deviation reports must identify the problem cause and the corrective action.

Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

**40 C.F.R 68:** None required.

**45 CSR 13, R13-2183 A.10:** The permittee will maintain daily records indicating the use of any dust suppressants or any other suitable dust control measures applied at the facility. These records will be maintained on site for a period of no less than five (5) years.

**45 CSR 13, R13-2183 A.11:** The permittee will maintain daily records indicating the use of any dust suppressants or any other suitable dust control measures applied at the facility. These records will be maintained on site for a period of no less than five (5) years.

**WV Code §§ 22-5-4(a)(14-15) and 45CSR13:** None required.

**45CSR13, R13-2183, B.2., 45CSR§5-12.6:** None required.

**45CSR13, R13-2183, A.1.:** Maintaining compliance with limitations, standards, monitoring, testing, recordkeeping, and reporting requirements of permit R13-2183K.

**45CSR§30-5.1.c.3.C.:** Report deviation within the required time frame and maintain copies of the deviation reports for five years.

Are you in compliance with all facility-wide applicable requirements?  Yes  No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

<b>21. Active Permits/Consent Orders</b>		
Permit or Consent Order Number	Date of Issuance MM/DD/YYYY	List any Permit Determinations that Affect the Permit <i>(if any)</i>
<b>R13-2183K</b>	<b>04/28/2008</b>	<b>Permit Determination No. PD15-042</b>
	/ /	
	/ /	

**22. Inactive Permits/Obsolete Permit Conditions – N/A**

Permit Number	Date of Issuance	Permit Condition Number
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**Section 3: Facility-Wide Emissions**

<b>23. Facility-Wide Emissions Summary [Tons per Year] – See Attachment I</b>	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	
Nitrogen Oxides (NO <sub>x</sub> )	
Lead (Pb)	
Particulate Matter (PM <sub>2.5</sub> ) <sup>1</sup>	
Particulate Matter (PM <sub>10</sub> ) <sup>1</sup>	
Total Particulate Matter (TSP)	
Sulfur Dioxide (SO <sub>2</sub> )	
Volatile Organic Compounds (VOC)	
Hazardous Air Pollutants <sup>2</sup>	Potential Emissions
Regulated Pollutants other than Criteria and HAP	Potential Emissions
<sup>1</sup> PM <sub>2.5</sub> and PM <sub>10</sub> are components of TSP. <sup>2</sup> For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.	

**Section 4: Insignificant Activities**

<b>24. Insignificant Activities (Check all that apply)</b>	
<input checked="" type="checkbox"/>	1. Air compressors and pneumatically operated equipment, including hand tools.
<input checked="" type="checkbox"/>	2. Air contaminant detectors or recorders, combustion controllers or shutoffs.
<input checked="" type="checkbox"/>	3. Any consumer product used in the same manner as in normal consumer use, provided the use results in a duration and frequency of exposure which are not greater than those experienced by consumer, and which may include, but not be limited to, personal use items; janitorial cleaning supplies, office supplies and supplies to maintain copying equipment.
<input checked="" type="checkbox"/>	4. Bathroom/toilet vent emissions.
<input checked="" type="checkbox"/>	5. Batteries and battery charging stations, except at battery manufacturing plants.
<input checked="" type="checkbox"/>	6. Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents. Many lab fume hoods or vents might qualify for treatment as insignificant (depending on the applicable SIP) or be grouped together for purposes of description.
<input type="checkbox"/>	7. Blacksmith forges.
<input type="checkbox"/>	8. Boiler water treatment operations, not including cooling towers.
<input checked="" type="checkbox"/>	9. Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
<input type="checkbox"/>	10. CO <sub>2</sub> lasers, used only on metals and other materials which do not emit HAP in the process.
<input checked="" type="checkbox"/>	11. Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
<input checked="" type="checkbox"/>	12. Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
<input checked="" type="checkbox"/>	13. Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
<input checked="" type="checkbox"/>	14. Demineralized water tanks and demineralizer vents.
<input type="checkbox"/>	15. Drop hammers or hydraulic presses for forging or metalworking.
<input checked="" type="checkbox"/>	16. Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.
<input type="checkbox"/>	17. Emergency (backup) electrical generators at residential locations.
<input checked="" type="checkbox"/>	18. Emergency road flares.
<input type="checkbox"/>	19. Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO <sub>x</sub> , SO <sub>2</sub> , VOC and PM) into the atmosphere at a rate of less than 1 pound per hour and less than 10,000 pounds per year aggregate total for each criteria pollutant from all emission units.  Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis:  _____  _____  _____  _____  _____  _____  _____  _____

<b>24. Insignificant Activities (Check all that apply)</b>	
<input type="checkbox"/>	20. Emission units which do not have any applicable requirements and which emit hazardous air pollutants into the atmosphere at a rate of less than 0.1 pounds per hour and less than 1,000 pounds per year aggregate total for all HAPs from all emission sources. This limitation cannot be used for any source which emits dioxin/furans nor for toxic air pollutants as per 45CSR27.  Please specify all emission units for which this exemption applies along with the quantity of hazardous air pollutants emitted on an hourly and annual basis:  _____ _____ _____ _____ _____
<input type="checkbox"/>	21. Environmental chambers not using hazardous air pollutant (HAP) gases.
<input checked="" type="checkbox"/>	22. Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.
<input type="checkbox"/>	23. Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.
<input checked="" type="checkbox"/>	24. Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
<input checked="" type="checkbox"/>	25. Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
<input checked="" type="checkbox"/>	26. Fire suppression systems.
<input checked="" type="checkbox"/>	27. Firefighting equipment and the equipment used to train firefighters.
<input checked="" type="checkbox"/>	28. Flares used solely to indicate danger to the public.
<input checked="" type="checkbox"/>	29. Fugitive emission related to movement of passenger vehicle provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.
<input type="checkbox"/>	30. Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.
<input checked="" type="checkbox"/>	31. Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.
<input type="checkbox"/>	32. Humidity chambers.
<input type="checkbox"/>	33. Hydraulic and hydrostatic testing equipment.
<input checked="" type="checkbox"/>	34. Indoor or outdoor kerosene heaters.
<input checked="" type="checkbox"/>	35. Internal combustion engines used for landscaping purposes.
<input type="checkbox"/>	36. Laser trimmers using dust collection to prevent fugitive emissions.
<input type="checkbox"/>	37. Laundry activities, except for dry-cleaning and steam boilers.
<input checked="" type="checkbox"/>	38. Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
<input type="checkbox"/>	39. Oxygen scavenging (de-aeration) of water.
<input type="checkbox"/>	40. Ozone generators.

<b>24. Insignificant Activities (Check all that apply)</b>	
<input checked="" type="checkbox"/>	41. Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification. (Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant owners/operators must still get a permit if otherwise requested.)
<input checked="" type="checkbox"/>	42. Portable electrical generators that can be moved by hand from one location to another. "Moved by Hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.
<input type="checkbox"/>	43. Process water filtration systems and demineralizers.
<input checked="" type="checkbox"/>	44. Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification.
<input checked="" type="checkbox"/>	45. Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
<input checked="" type="checkbox"/>	46. Routing calibration and maintenance of laboratory equipment or other analytical instruments.
<input type="checkbox"/>	47. Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.
<input type="checkbox"/>	48. Shock chambers.
<input type="checkbox"/>	49. Solar simulators.
<input checked="" type="checkbox"/>	50. Space heaters operating by direct heat transfer.
<input checked="" type="checkbox"/>	51. Steam cleaning operations.
<input checked="" type="checkbox"/>	52. Steam leaks.
<input type="checkbox"/>	53. Steam sterilizers.
<input checked="" type="checkbox"/>	54. Steam vents and safety relief valves.
<input checked="" type="checkbox"/>	55. Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.
<input checked="" type="checkbox"/>	56. Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP. Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.
<input type="checkbox"/>	57. Such other sources or activities as the Director may determine.
<input checked="" type="checkbox"/>	58. Tobacco smoking rooms and areas.
<input checked="" type="checkbox"/>	59. Vents from continuous emissions monitors and other analyzers.

*Section 5: Emission Units, Control Devices, and Emission Points*

<b>25. Equipment Table</b>
Fill out the <b>Title V Equipment Table</b> and provide it as <b>ATTACHMENT D</b> .
<b>26. Emission Units</b>
For each emission unit listed in the <b>Title V Equipment Table</b> , fill out and provide an <b>Emission Unit Form</b> as <b>ATTACHMENT E</b> .
For each emission unit not in compliance with an applicable requirement, fill out a <b>Schedule of Compliance Form</b> as <b>ATTACHMENT F</b> .
<b>27. Control Devices</b>
For each control device listed in the <b>Title V Equipment Table</b> , fill out and provide an <b>Air Pollution Control Device Form</b> as <b>ATTACHMENT G</b> .
For any control device that is required on an emission unit in order to meet a standard or limitation for which the potential pre-control device emissions of an applicable regulated air pollutant is greater than or equal to the Title V Major Source Threshold Level, refer to the <b>Compliance Assurance Monitoring (CAM) Form(s)</b> for CAM applicability. Fill out and provide these forms, if applicable, for each Pollutant Specific Emission Unit (PSEU) as <b>ATTACHMENT H</b> .

**Section 6: Certification of Information**

**28. Certification of Truth, Accuracy and Completeness and Certification of Compliance**

*Note: This Certification must be signed by a responsible official. The **original**, signed in **blue ink**, must be submitted with the application. Applications without an **original** signed certification will be considered as incomplete.*

**a. Certification of Truth, Accuracy and Completeness**

I certify that I am a responsible official (as defined at 45CSR§30-2.38) and am accordingly authorized to make this submission on behalf of the owners or operators of the source described in this document and its attachments. I certify under penalty of law that I have personally examined and am familiar with the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine and/or imprisonment.

**b. 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.

**Responsible official (type or print)**

Name: **Jon Lester**

Title: **General Manager**

**Responsible official's signature:**

Signature:  Signature Date: 5/16/14  
(Must be signed and dated in blue ink)

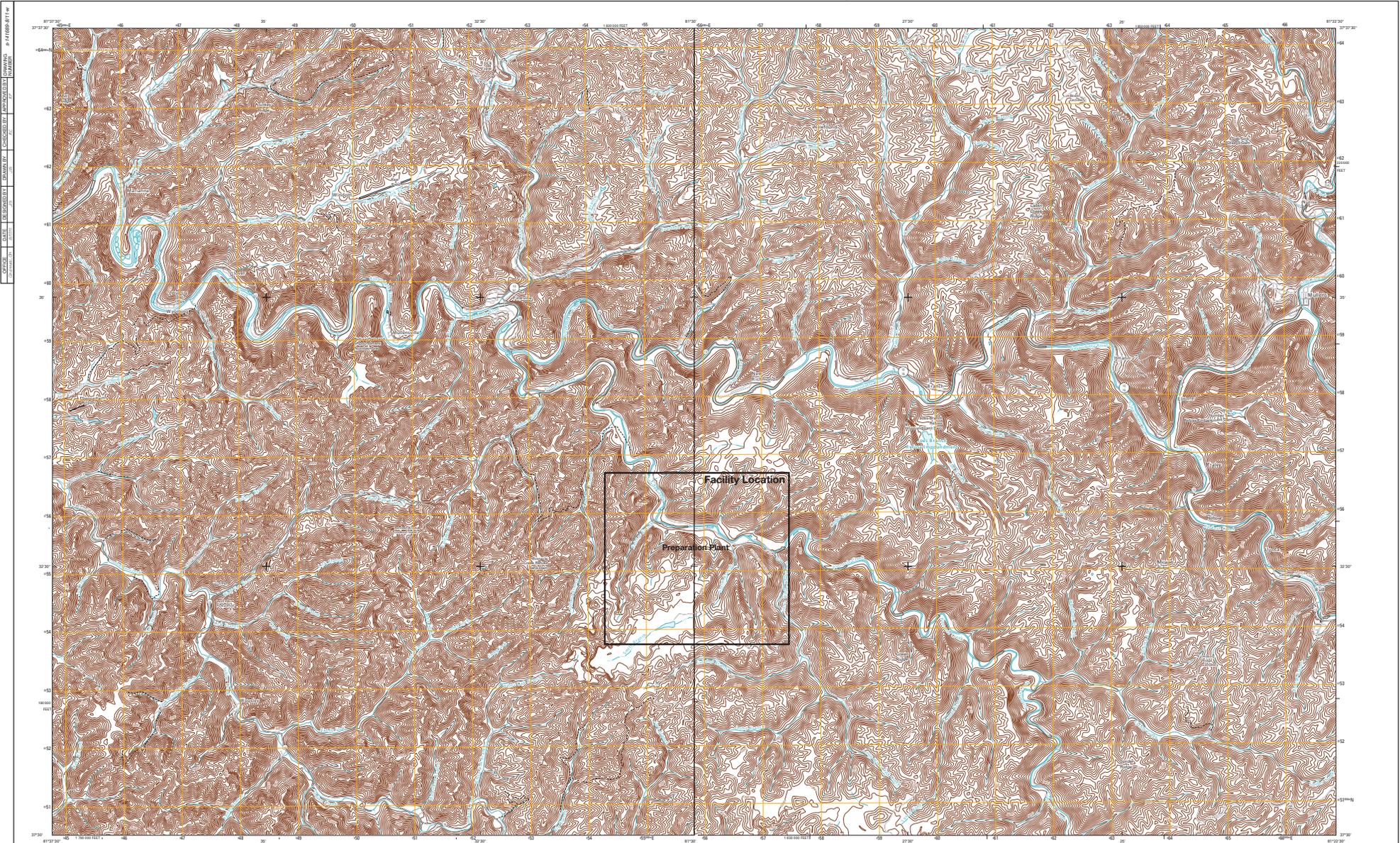
**Note: Please check all applicable attachments included with this permit application:**

<input checked="" type="checkbox"/>	ATTACHMENT A: Area Map
<input checked="" type="checkbox"/>	ATTACHMENT B: Plot Plan(s)
<input checked="" type="checkbox"/>	ATTACHMENT C: Process Flow Diagram(s)
<input checked="" type="checkbox"/>	ATTACHMENT D: Equipment Table
<input checked="" type="checkbox"/>	ATTACHMENT E: Emission Unit Form(s)
<input type="checkbox"/>	ATTACHMENT F: Schedule of Compliance Form(s) – <b>N/A</b>
<input checked="" type="checkbox"/>	ATTACHMENT G: Air Pollution Control Device Form(s)
<input checked="" type="checkbox"/>	ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s)

*All of the required forms and additional information can be found and downloaded from, the DEP website at [www.dep.wv.gov/dag](http://www.dep.wv.gov/dag), requested by phone (304) 926-0475, and/or obtained through the mail.*

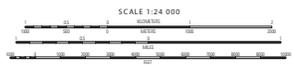
ATTACHMENT A

AREA MAP



COUNTY: MARYLAND  
 STATE: MARYLAND  
 COUNTY: MARYLAND  
 PROJECT: A 141000-0114

USGS 7.5 Minute Series - Priority IV and Military IV Contours



**ROAD CLASSIFICATION**

Interstate Road	State Road	Local Road	Other Road
Minor Road	Other Road	Other Road	Other Road
Other Road	Other Road	Other Road	Other Road

**Patrick Environmental Services, LLC**  
 PRINCIPLE BRING COMPANY, LLC  
 PRINCIPLE, WEST VIRGINIA  
 ATTACHMENT A  
 SITE LOCATION MAP

ATTACHMENT B

PLOT PLANS

OFFICE

Cincinnati, OH

DATE

8/30/11

DESIGNED BY

---

DRAWN BY

MSN

CHECKED BY

RC

APPROVED BY

RP

DRAWING NUMBER

141689-01

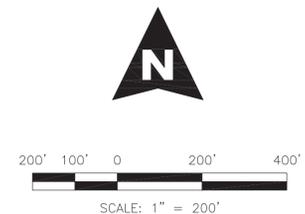


**LEGEND:**

	RAILROAD TRACKS
	UNPAVED ROAD
	MAINTENANCE ROAD/TRAIL
	WATER BOUNDARY

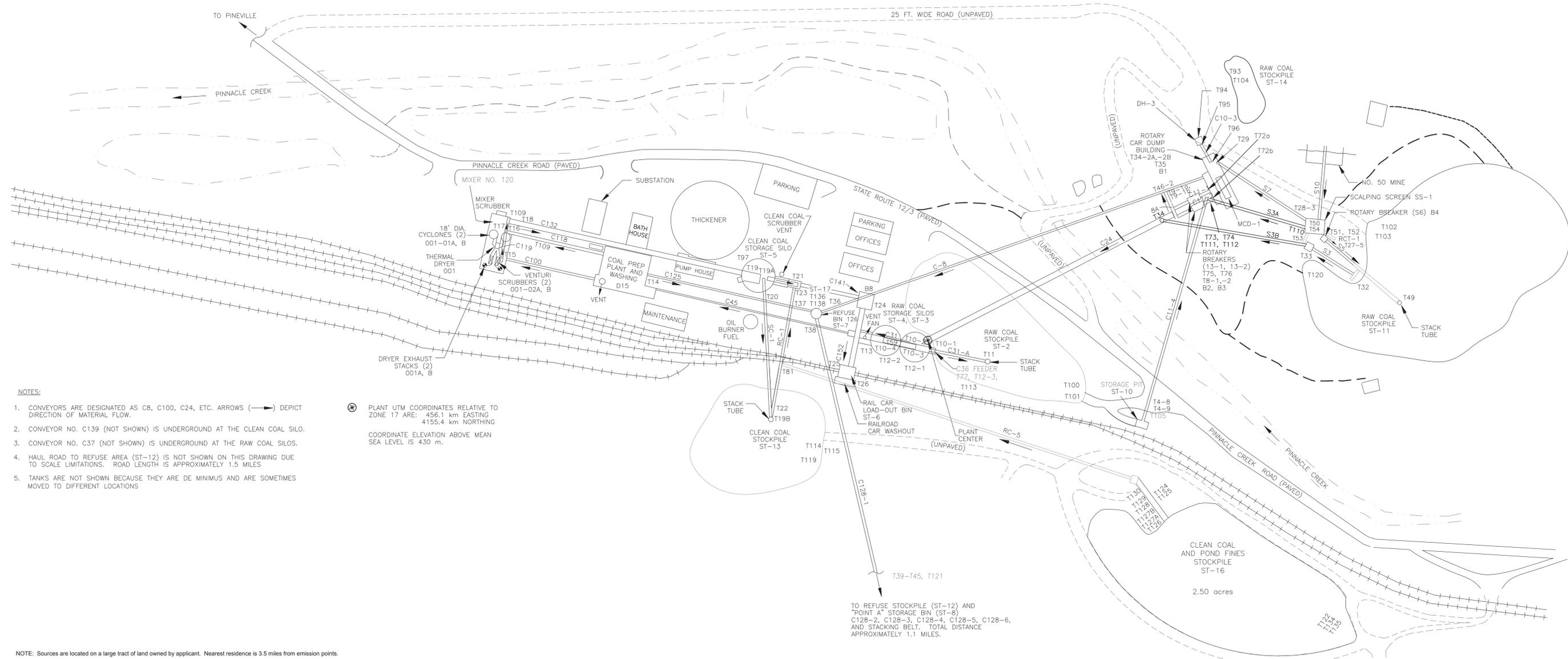
**NOTE:**  
 1. SEE FIGURE 2 FOR DETAILS ON EASTERN PART OF FACILITY.

**REFERENCE:**  
 CIVIL & ENVIRONMENTAL CONSULTANTS, INC.  
 3600 PARK 42 DRIVE, SUITE 130, CINCINNATI, OH 45241



<b>Patrick Environmental Services, LLC</b>
PINNACLE MINING COMPANY, LLC. PINNACLE CREEK ROAD PINEVILLE, WV 24874
<b>FIGURE 1</b> <b>OVERALL SITE PLAN</b> <b>PINNACLE PREPARATION PLANT</b>

DRAWING NUMBER 2007 70-02  
 APPROVED BY  
 CHECKED BY ES  
 DRAWN BY  
 DESIGNED BY  
 DATE 2/6/08  
 OFFICE Cincinnati, OH



- NOTES:**
- CONVEYORS ARE DESIGNATED AS C8, C100, C24, ETC. ARROWS (→) DEPICT DIRECTION OF MATERIAL FLOW.
  - CONVEYOR NO. C139 (NOT SHOWN) IS UNDERGROUND AT THE CLEAN COAL SILO.
  - CONVEYOR NO. C37 (NOT SHOWN) IS UNDERGROUND AT THE RAW COAL SILOS.
  - HAUL ROAD TO REFUSE AREA (ST-12) IS NOT SHOWN ON THIS DRAWING DUE TO SCALE LIMITATIONS. ROAD LENGTH IS APPROXIMATELY 1.5 MILES
  - TANKS ARE NOT SHOWN BECAUSE THEY ARE DE MINIMUS AND ARE SOMETIMES MOVED TO DIFFERENT LOCATIONS

\* PLANT UTM COORDINATES RELATIVE TO ZONE 17 ARE: 456.1 km EASTING  
 4155.4 km NORTHING  
 COORDINATE ELEVATION ABOVE MEAN SEA LEVEL IS 430 m.

TO REFUSE STOCKPILE (ST-12) AND "POINT A" STORAGE BIN (ST-8) C128-2, C128-3, C128-4, C128-5, C128-6, AND STACKING BELT. TOTAL DISTANCE APPROXIMATELY 1.1 MILES.

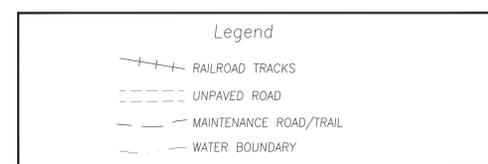
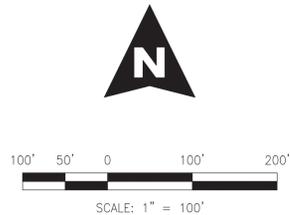
NOTE: Sources are located on a large tract of land owned by applicant. Nearest residence is 3.5 miles from emission points.

Transfer Point	Transfer From	Transfer To	Transfer Point	Transfer From	Transfer To
T4-8	TRUCK DUMPING	STORAGE PIT ST-10	T49	S5	STOCKPILE ST-11
T4-9	STORAGE PIT ST-10	C11-4	T50	S10	SCREEN SS-1
T8-1	BREAKER 13-1	C24	T51	SCREEN SS-1	RCT-1
T8-2	BREAKER 13-2	C24	T52	RCT-1	SS
T9-1a	BREAKER 13-1	8A	T53	SCREEN SS-1	S3B
T9-1b	BREAKER 13-2	8A	T54	SCREEN SS-1	BREAKER S6
T10-1	C24	C31-A	T65	TRUCK DUMPING	STOCKPILE OS-1
T10-2	C24	C31	T72a	MINE CAR DUMP MCD-1	C11-1
T10-3	C24	RAW COAL SILO ST-3	T72b	MINE CAR DUMP MCD-1	C11-2
T10-4	C31	RAW COAL SILO ST-4	T73	C11-4	C11-1
T11	C31-A	STOCKPILE ST-2	T74	C11-4	C11-2
T12-1	RAW COAL SILO ST-3	C37	T75	C11-1	BREAKER 13-1
T12-2	RAW COAL SILO ST-4	C37	T76	C11-2	BREAKER 13-2
T12-3	C36 FEEDER	C37	T77	STOCKPILE ST-2	C36 FEEDER
T13	C37	RC-5	T81	RC-5	DUMP TRUCK @ OS-1
T15	C100	THERMAL DRYER	T92	FRONT END LOADER @ OS-1	DUMP TRUCK @ OS-1
T16	C118	MIXER NO. 120	T93	TRUCK DUMPING	STOCKPILE ST-14
T17	C119	MIXER NO. 120	T94	FRONT END LOADER @ ST-14	DUMP HOPPER DH-3
T18	C119	C132	T95	DUMP HOPPER DH-3	C10-3
T19	C132	CLEAN COAL SILO ST-5	T96	C10-3	MINE CAR DUMP MCD-1
T19A	C132	SC-1	T100	FRONT END LOADER @ ST-2	DUMP TRUCK @ ST-2
T19B	SC-1	STOCKPILE ST-13	T101	TRUCK DUMPING	STOCKPILE ST-2
T20	C139	C139	T102	FRONT END LOADER @ ST-11	DUMP TRUCK @ ST-11
T21	C139	C139	T103	TRUCK DUMPING	STOCKPILE ST-11
T22	STOCKPILE ST-13	RC-1	T104	FRONT END LOADER @ ST-14	DUMP TRUCK @ ST-14
T23	RC-1	RC-1	T105	FRONT END LOADER DUMP	STORAGE PIT ST-10
T24	C141	C152	T110	SCREEN SS-1	S3A
T25	C152	LOADING BIN ST-8	T111	S3A	C11-1
T26	LOADING BIN ST-8	RAIL CAR	T112	S3A	C11-2
T27-5	BREAKER S6	S5	T113	STOCKPILE ST-2	RAILCAR
T28-3	BREAKER S6	S7	T114	TRUCK DUMPING	STOCKPILE ST-13
T29	S7	ROCK BIN	T119	TRUCK DUMPING	DUMP TRUCK @ ST-13
T30	STOCKPILE ST-11	S3	T120	S10	STOCKPILE ST-11
T31	S3	S3B	T121	C128-6	STACKING BELT
T32	S3B	C24	T122	TRUCK DUMPING (CLEAN COAL)	STOCKPILE ST-16
T34-2a	ROCK BIN	ROCK CRUSHER #6	T124	FRONT END LOADER @ ST-16	DUMP HOPPER DHRC-4
T34-2b	ROCK BIN	S5	T125	DUMP HOPPER DHRC-4	C120
T35	ROCK CRUSHER #6	C8	T126	(4) FEEDERS	C120
T36	C8	REFUSE BIN ST-7	T127A	C120	C121
T37	C125	REFUSE BIN ST-7	T127B	C120	RC-5
T38	REFUSE BIN ST-7	C128	T128	C128	SAMPLE COLLECTOR
T39	C128-1	STORAGE BIN ST-8	T129	SAMPLE COLLECTOR	C122
T40	STORAGE BIN ST-8	C128-2	T130	C122	RC-5
T41	C128-2	C128-3	T134	TRUCK DUMPING (POND FINES)	STOCKPILE ST-16
T42	C128-3	C128-4	T135	FRONT END LOADER @ ST-16	DUMP TRUCK @ ST-16
T43	C128-4	C128-5	T136	FRONT END LOADER @ ST-17	DUMP TRUCK @ ST-17
T44	C128-5	C128-6	T138	PLANT REFUSE BIN ST-7	STOCKPILE ST-17
T46	STACKING BELT	REFUSE STOCKPILE ST-12			
T46-2	8A	C8			

Storage	Description
ST-2	Raw Coal Storage Pile
ST-3	Raw Coal Storage Silo A
ST-4	Raw Coal Storage Silo B
ST-5	Clean Coal Storage Silo
ST-6	Clean Coal Railcar Loading Bin
ST-7	Plant Refuse Bin
ST-8	"Point A" Refuse Bin
ST-10	Raw Coal Storage Pit
ST-11	S6 Raw Coal Stockpile
ST-12	Refuse Stockpile
ST-13	Raw and Clean Coal Stockpile
ST-14	Raw Coal Stockpile
ST-16	Pond Fines and Clean Coal Stockpile
ST-17	Emergency Refuse Stockpile
OS-1	Raw Coal Storage Pile

Crushing / Breaking / Screening Operation	Unit
B1	#6 Rock Crusher
B2	13-1 Raw Coal Breaker
B3	13-2 Raw Coal Breaker
B4	S6 Raw Coal Breaker
B8	146 Clean Coal Sampler
SS-1	Scalping Screen SS-1

Storage Tank	Description / Location
XX	Various diesel fuel storage tanks of sizes
D-13	SPCC-PPP-01, 4,000 gal Kerosene
D-14	GPP-013883-01, 6,000 gal Frother
D-15	100 ton Magnetite Tank



REFERENCE:  
 CIVIL & ENVIRONMENTAL CONSULTANTS, INC.  
 3600 PARK 42 DRIVE, SUITE 130B, CINCINNATI, OH 45241

**Patrick Environmental Services, LLC**  
  
 PINNACLE MINING COMPANY, LLC  
 PINNACLE CREEK RD.  
 PINEVILLE, WV 24874  
  
**FIGURE 2**  
**PINNACLE PREPARATION PLANT**  
**PLOT PLAN OF MAIN OPERATIONS**

K. Wajjar - 2007 70-02.dwg - Thursday, 9/8/11 - 10:17 PM

ATTACHMENT C  
PROCESS FLOW DIAGRAMS

DRAWING NUMBER 2007 70-03

DESIGNED BY DATE 7/22/08

CHECKED BY ES

APPROVED BY

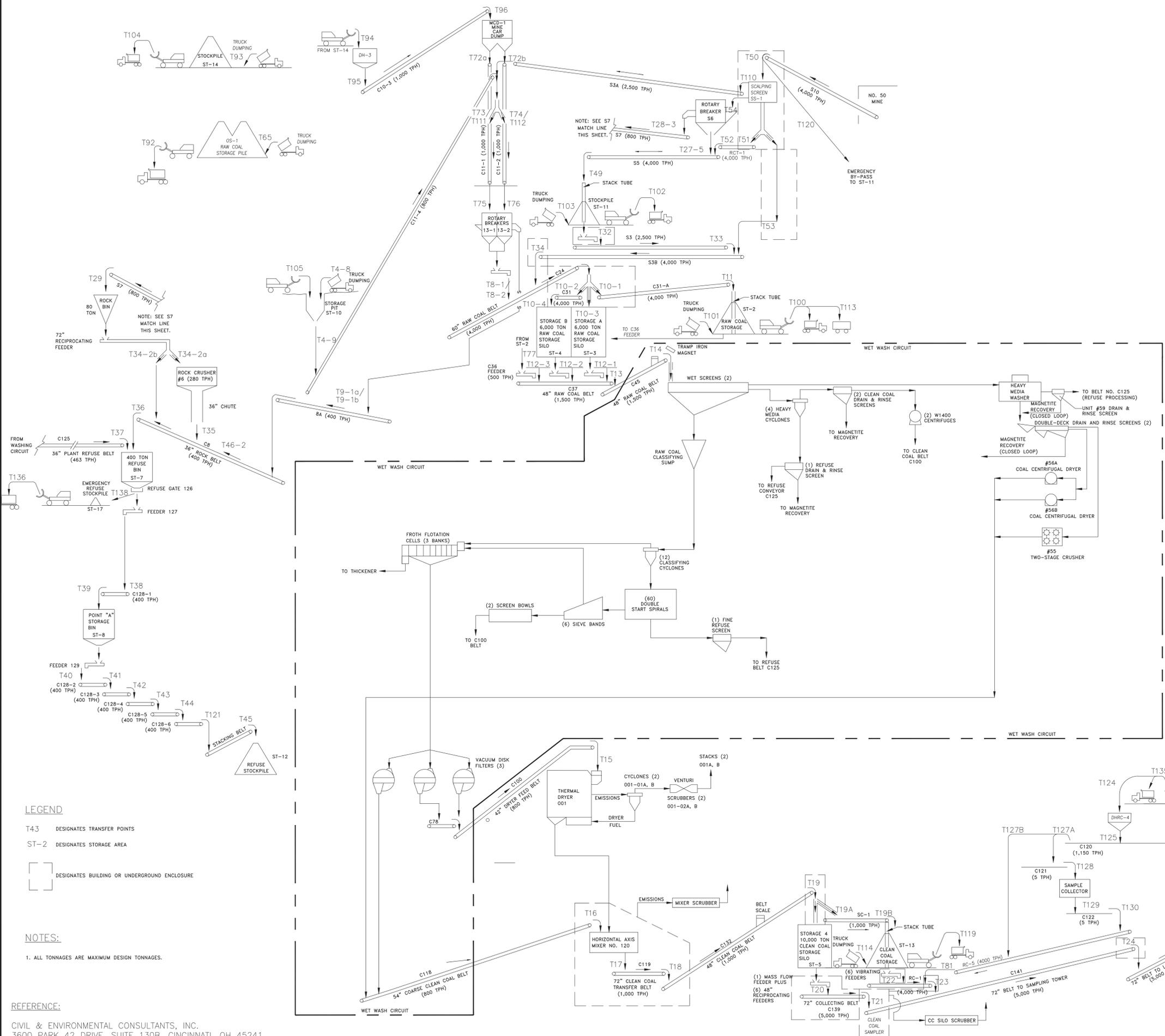
OFFICE Cincinnati, OH

NOTE: Sources are located on a large tract of land owned by applicant. Nearest residence is 3.5 miles from emission points.

Transfer Point	Transfer From	Transfer To	Transfer Point	Transfer From	Transfer To
T4-8	TRUCK DUMPING	STORAGE PIT ST-10	T49	S5	STOCKPILE ST-11
T4-9	STORAGE PIT ST-10	C11-4	T50	S10	SCREEN SS-1
T8-1	BREAKER 13-1	C24	T51	SCREEN SS-1	RC-1
T8-2	BREAKER 13-2	C24	T52	RC-1	S5
T9-1a	BREAKER 13-1	BA	T53	SCREEN SS-1	S3B
T9-1b	BREAKER 13-2	BA	T54	SCREEN SS-1	BREAKER S6
T10-1	C24	C31-A	T55	TRUCK DUMPING	STOCKPILE OS-1
T10-2	C24	C31	T72a	MINE CAR DUMP MCD-1	C11-1
T10-3	C24	RAW COAL SILO ST-3	T72b	MINE CAR DUMP MCD-1	C11-2
T10-4	C31	RAW COAL SILO ST-4	T73	C11-4	C11-1
T11	C31-A	STOCKPILE ST-2	T74	C11-4	C11-2
T12-1	RAW COAL SILO ST-3	C37	T75	C11-1	BREAKER 13-1
T12-2	RAW COAL SILO ST-4	C37	T76	C11-2	BREAKER 13-2
T12-3	C36 FEEDER	C37	T77	STOCKPILE ST-2	C36 FEEDER
T13	C45	C45	T81	RC-5	RC-1
T15	C100	THERMAL DRYER MIXER NO. 120	T92	FRONT END LOADER @ OS-1	DUMP TRUCK @ OS-1
T16	C18	MIXER NO. 120	T93	TRUCK DUMPING	STOCKPILE ST-14
T17	MIXER NO. 120	C19	T94	FRONT END LOADER @ ST-14	DUMP HOPPER DH-3
T18	C19	C19	T95	DUMP HOPPER DH-3	C10-3
T19	C132	CLEAN COAL SILO ST-5	T96	C10-3	MINE CAR DUMP MCD-1
T19A	C132	SC-1	T100	FRONT END LOADER @ ST-2	DUMP TRUCK @ ST-2
T19B	SC-1	STOCKPILE ST-13	T101	TRUCK DUMPING	STOCKPILE ST-2
T20	C139	FRONT END LOADER @ ST-11	T102	FRONT END LOADER @ ST-11	DUMP TRUCK @ ST-11
T21	C141	TRUCK DUMPING	T103	TRUCK DUMPING	STOCKPILE ST-11
T22	STOCKPILE ST-13	RC-1	T104	FRONT END LOADER @ ST-14	DUMP TRUCK @ ST-14
T23	RC-1	C141	T105	FRONT END LOADER DUMPING	STORAGE PIT ST-10
T24	C141	C152	T110	SCREEN SS-1	S3A
T25	C152	LOADING BIN ST-6	T111	S3A	C11-1
T26	LOADING BIN ST-6	S3	T112	S3A	RAIL CAR
T27-5	BREAKER S6	S5	T113	STOCKPILE ST-2	RAIL CAR
T28-3	BREAKER S6	S7	T114	TRUCK DUMPING	STOCKPILE ST-13
T29	S7	ROCK BIN	T119	STOCKPILE ST-13	DUMP TRUCK @ ST-13
T32	STOCKPILE ST-11	S3	T120	S10	STOCKPILE ST-11
T33	S3	S3B	T121	C128-6	STACKING BELT
T34	S3B	C24	T122	FRONT END LOADER (CLEAN COAL)	STOCKPILE ST-16
T34-2a	ROCK BIN	ROCK CRUSHER #6	T124	FRONT END LOADER @ ST-16	DUMP HOPPER DHRC-4
T34-2b	ROCK BIN	C8	T125	DUMP HOPPER DHRC-4	C120
T36	ROCK CRUSHER #6	C8	T126	(4) FEEDERS	C120
T37	REFUSE BIN ST-7	C125	T127A	C120	C121
T38	REFUSE BIN ST-7	C128-1	T127B	C121	RC-5
T39	C128-1	STORAGE BIN ST-8	T128	C121	SAMPLE COLLECTOR
T40	C128-2	C128-2	T129	C122	C122
T41	C128-3	C128-3	T134	TRUCK DUMPING (POND FINES)	STOCKPILE ST-16
T42	C128-3	C128-3	T135	FRONT END LOADER @ ST-16	DUMP TRUCK AT ST-16
T43	C128-4	C128-4	T136	FRONT END LOADER @ ST-17	DUMP TRUCK AT ST-17
T44	C128-5	C128-5	T138	PLANT REFUSE BIN ST-7	STOCKPILE ST-17
T45	STACKING BELT	BA	T46-2	REFUSE STOCKPILE ST-12	CB
T46-2	STACKING BELT	BA			
T46-2	STACKING BELT	BA			
T46-2	STACKING BELT	BA			
T46-2	STACKING BELT	BA			

Storage Area	Description
ST-2	Raw Coal Storage Pile
ST-3	Raw Coal Storage Silo A
ST-4	Raw Coal Storage Silo B
ST-5	Clean Coal Storage Silo
ST-6	Clean Coal Railcar Loading Bin
ST-7	Plant Refuse Bin
ST-8	"Point A" Refuse Bin
ST-10	Raw Coal Storage Pit
ST-11	S6 Raw Coal Stockpile
ST-12	Refuse Stockpile
ST-13	Raw and Clean Coal Stockpile
ST-14	Raw Coal Stockpile
ST-16	Pond Fines and Clean Coal Stockpile
ST-17	Emergency Refuse Stockpile
OS-1	Raw Coal Storage Pile

Storage Tank	Description / Location
XX	Various diesel fuel storage tanks of sizes
D-13	SPCC-PPP-01, 4,000 gal Kerosene
D-14	GPP-01883-01, 8,000 gal Fueler
D-15	100 ton Magnetite Tank



**LEGEND**  
T43 DESIGNATES TRANSFER POINTS  
ST-2 DESIGNATES STORAGE AREA  
[ ] DESIGNATES BUILDING OR UNDERGROUND ENCLOSURE

**NOTES:**  
1. ALL TONNAGES ARE MAXIMUM DESIGN TONNAGES.

**REFERENCE:**  
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.  
3600 PARK 42 DRIVE, SUITE 130B, CINCINNATI, OH 45241

**Patrick Environmental Services, LLC**

PINNACLE MINING COMPANY, LLC  
PINNACLE CREEK RD.  
PINEVILLE, WV 24874

**PINNACLE PREPARATION PLANT  
PROCESS FLOW DIAGRAM**

K. Hays - 2007 70-03.dwg - Friday, 9/2/08 - 346 Pk

ATTACHMENT D  
EQUIPMENT TABLE



ATTACHMENT E  
EMISSION UNIT FORMS

## ATTACHMENT E - Emission Unit Form

*Emission Unit Description*

<b>Emission unit ID number:</b> TD1	<b>Emission unit name:</b> Thermal Dryer	<b>List any control devices associated with this emission unit:</b> 2 Cyclones 2 Venturi Scrubbers
--	---	--

Provide a description of the emission unit (type, method of operation, design parameters, etc.):  
 McNally fluidized bed thermal dryer used to reduce the moisture content of clean coal exiting the wash circuit by contacting the wet coal with hot combustion gases from the burning of pulverized coal, natural gas or methane.

<b>Manufacturer:</b> McNally	<b>Model number:</b> 10	<b>Serial number:</b> Not Known
---------------------------------	----------------------------	------------------------------------

<b>Construction date:</b> Not Known	<b>Installation date:</b> 1970	<b>Modification date(s):</b> 1996
--	-----------------------------------	--------------------------------------

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 800 tons/hr

<b>Maximum Hourly Throughput:</b> 800 tons/hr	<b>Maximum Annual Throughput:</b> 5,670,000 tons	<b>Maximum Operating Schedule:</b> 7083 hr/year
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*Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>If yes, is it?</b> <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
--	---

<b>Maximum design heat input and/or maximum horsepower rating:</b> 225 million Btu/hr	<b>Type and Btu/hr rating of burners:</b> Two pulverized coal-fired burners with combined rating of 225 million Btu/hr
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List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.  
 The dryer can use pulverized coal, natural gas, or methane alone or in combination. Information on fuel properties is presented for coal combustion only as this is the worst case pollutant emitting activity. Since no different applicable requirements apply to the different fuels, an alternative operating scenario was not applied.

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Bituminous Coal	1.5 wt %	7.25 wt %	14,900 per lb

<b>Emissions Data – See Attachment I</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

**See Attachment I for calculations and assumptions.**

*Applicable Requirements*

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

C.S.R. § 45-5-3.1: 20% Opacity.

C.S.R. § 45-5-3.2: No more than 60% Opacity for more than 5 minutes during operation.

C.S.R. § 45-5-3.3: No More than 60% Opacity for more than 8 minutes during startup.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

C.S.R. § 45-5-3.1 thru 3.3: The permittee will conduct monitoring/recordkeeping/reporting for the thermal dryer as follows (C.S.R. § 45-30-5.1.c):

a. To determine compliance with the referenced opacity limits, the permittee will conduct daily visual emission observations in accordance with Method 22 of 40 C.F.R. 60, Appendix A for the thermal dryer. These observations will be conducted during periods of normal facility operation for sufficient time interval to determine if the unit has visible emissions using procedures outlined in 40 C.F.R. 60, Appendix A, Method 22. If sources of visible emissions are identified during the survey, the permittee will conduct an opacity evaluation in accordance with 40 C.F.R. 60, Appendix A, Method 9, within 24 hours. A 40 C.F.R. 60, Appendix A, Method 9 evaluation will not be required if the visible emission condition is corrected in a timely manner and the units are operated at normal operating conditions with no visible emissions being observed.

b. The thermal dryer will be observed visually during periods of building a fire of operating quality and minimization efforts taken to ensure particulate matter emissions of sixty percent (60%) opacity for a period of up to 8 minutes in any operating day is not exceeded during such activities.

c. A record of each visible emissions observation will be maintained, including any data required by 40 C.F.R. 60 Appendix A, Method 22 or Method 9, whichever is appropriate. The record will include, at a minimum, the date, time, name of the emission unit, the applicable visible emissions requirement, the results of the observation, and the name of the observer, any maintenance and corrective measures taken. Records will be maintained on site for a period of no less than five (5) years C.S.R. § 45-30-5.1.c.

**Applicable Requirements**

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

**C.S.R. § 45-5-4.1.b, C.S.R. § 45-5-Appendix 1.2: Maximum allowable particulate loading shall not exceed 0.083 grains per cubic foot.**

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

**C.S.R. § 45-5-4.1.b, C.S.R. § 45-5 Appendix 1.2:**

**Particulate testing was conducted in 2007 to establish CAM parameter indicator ranges.**

**Subsequent testing to determine compliance with the particulate loading limitations of C.S.R. § 45-5-4.1.b and C.S.R. § 45-5 Appendix 1.2 will be conducted in accordance with the schedule set forth in the following table:**

Test	Test Results	Testing Frequency
Initial	≤50% of particulate loading limit	Once/5 years
Initial	Between 50% and 90 % of particulate loading limit	Once/3 years
Initial	≥90% of particulate loading limit	Annual
Annual	If annual testing is required, after two successive tests indicate mass emission rates between 50% and 90 % of particulate loading limit	Once/3 years
Annual	If annual testing is required, after three successive tests indicate mass emission rates ≤50% of particulate loading limit	Once/5 years
Once/3 years	If testing is required once/3 years, after two successive tests indicate mass emission rates ≤50% of particulate loading limit	Once/5 years
Once/3 years	If testing is required once/3 years and any test indicates a mass emission rate ≥90% of particulate loading limit	Annual
Once/5 years	If testing is required once /5 years and any test indicates mass emission rates between 50% and 90 % of particulate loading limit	Once/3 years
Once/5 years	If testing is required once/5 years and any test indicates a mass emission rate ≥90% of particulate loading limit	Annual

**The permittee will perform parameter monitoring as outlined in the CAM Plan submitted to WVDAQ in 2006 and incorporated into the current Title V permit (see Attachment H). 45CSR§30-5.1.c.**

***Applicable Requirements***

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

C.S.R. § 45-5-4.2: Adding additional gas to dryer exhaust for circumventing rules prohibited.

C.S.R. § 45-5-4.3: Stack Height > 80 ft. or > 10 ft. from adjacent structure.

C.S.R. § 45-5-4.1.b., C.S.R. § 45-5-Appendix 2.1, 2.2, 2.3 (Permit 2183K Specific Requirement A.5): Continuously measure temperature, pressure drop in the scrubber, and pressure of water supply for scrubber, and maintain water flow equal to or greater than 2,240 gpm.

C.S.R. § 45-10-4.1 (Permit 2183K, Specific Requirement B.3): Maximum allowable sulfur dioxide (SO<sub>2</sub>) loading 2000 ppm.

C.S.R. § 45-10-8.1.a, 1.b, 2.a, 2.b: Secretary may require SO<sub>2</sub> monitoring device; permittee shall perform calculation based on fuel sulfur content basis and conduct compliance testing; and Secretary may conduct emission testing.

C.S.R. § 45-13 (Permit 2183K, Specific Requirement A.2): The dryer shall not be operated more than 7083 hours per year.

C.S.R. § 45-13 (Permit 2183K, Specific Requirement A.3): Permittee shall sample the dryer fuel coal daily for Btu and sulfur analysis.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

C.S.R. § 45-5-4.2: None required.

C.S.R. § 45-5-4.3: Determined by inspection.

C.S.R. § 45-5-1.b., C.S.R. § 45-5-Appendix 2.1, 2.2, 2.3 (Permit 2183K, Specific Requirement A.5) and C.S.R. § 45-10-4.1 and C.S.R. § 45-13 (Permit 2183K, Specific Requirement A.3): The permittee has implemented a WVDAQ approved CAM Plan that incorporates provisions for demonstrating compliance with these requirements.

C.S.R. § 45-10-8.1.a, 1.b, 2.a, 2.b: None Required.

C.S.R. § 45-13 (Permit 2183K, Specific Requirement A.2): The permittee will maintain daily records of the coal throughput and the hours of operation of the thermal dryer. A rolling yearly total will mean the sum of coal throughput at any given time for the previous twelve (12) months. These records will be maintained on site for a period of no less than five (5) years. C.S.R. 45-30-5.1.c.

**Applicable Requirements**

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

**C.S.R. § 45-13 (Permit 2183K, Specific Requirement A.4): Emissions from the thermal dryer shall not exceed the following hourly and annual limits:**

Pollutant	Emissions Limitations	
	One-Hour Average (lb/hour)	Annual (ton/year)
Volatile Organic Compounds (VOCs)	41.3	146
SO <sub>2</sub>	50.3	178
NO <sub>x</sub>	93.9	332
CO	50.3	178
Particulate Matter (PM)	77.0	272

**C.S.R. § 45-13 (Permit 2183K, Specific Requirement B.1): Permittee shall document scrubber malfunctions.**

**X** Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

**C.S.R. § 45-13 (Permit 2183K, Specific Requirement A.4): The permittee will use the same compliance demonstration methods as described above for the applicable requirement C.S.R. § 45-5-4.1.b, C.S.R. § 45-5-Appendix 1.2.**

**C.S.R. § 45-13 (Permit 2183K, Specific Requirement B.1): The permittee will use the same compliance demonstration methods as described above for the applicable requirement C.S.R. § 45-5-4.1.b., C.S.R. § 45-5-Appendix 2.1, 2.2, 2.3, and Permit 2183K, Specific Requirement A.5.**

***Applicable Requirements***

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

**40 C.F.R Part 64: Compliance Assurance Monitoring (CAM) Plan to address particulate and SO<sub>2</sub> emissions from thermal dryer.**

X Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

**40 C.F.R Part 64: A CAM plan has been approved by WVDAQ for the thermal dryer and incorporated into the current Title V permit (See Attachment H).**

Are you in compliance with all applicable requirements for this emission unit?  Yes \_\_\_ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

## ATTACHMENT E - Emission Unit Form

***Emission Unit Description***

<b>Emission unit ID number:</b> T4-1 through T135	<b>Emission unit name:</b> Transfer Operations	<b>List any control devices associated with this emission unit:</b> See Attachment J
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 These emission units are listed in Attachment J and include all the transfer operations of raw coal, clean coal, and refuse that generate fugitive particulate emissions. These include conveyor-to-conveyor transfers, conveyor-to-storage pile/silo, and storage pile/silo-to-conveyor transfers. The transfer of material associated with bins, hoppers, pits, truck dumping and end loader dumping also are included in this application as part of this group. Information requested below for these emission units is presented in Attachment J to the extent it is known.

<b>Manufacturer:</b> Not Known	<b>Model number:</b> Not Known	<b>Serial number:</b> Not Known
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<b>Construction date:</b> Not Known	<b>Installation date:</b> See Attachment J	<b>Modification date(s):</b> See Attachment J
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** See Attachment J

<b>Maximum Hourly Throughput:</b> See design capacity listed in Attachment J	<b>Maximum Annual Throughput:</b> See Attachment I	<b>Maximum Operating Schedule:</b>
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***Fuel Usage Data (fill out all applicable fields)***

<b>Does this emission unit combust fuel?</b> ___ Yes <input checked="" type="checkbox"/> No	<b>If yes, is it?</b> ___ Indirect Fired ___ Direct Fired
---	--

<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
--	---

**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b>Emissions Data – See Attachment I</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

**See Attachment I for calculations and assumptions.**

***Applicable Requirements***

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

C.S.R. § 45-5-3.1: 20% opacity limit. Applies only to scrubber stacks for Mixer 120(T16, T17 & T18) and C139(T20).

C.S.R. § 45-5-3.2: No more than 60% Opacity for no more than 5 minutes during any 60 minute period of operation. Applies only to scrubber stacks for Mixer 120(T16, T17 & T18) and C139 (T20).

40 C.F.R. § 60.254(a), 60.11(c): 20% Opacity. This New Source Performance Standard requirement applies only to the following transfer operations (transfer points are given in parenthesis):

Transfer Points [emission point ID(s): Truck Dumping [at ST-10 and (T4-8), DH-3(T93)]; Endloader [at OS-1 (T92), ST-2 (T77, T100, and T113), ST-10 (T105), ST-11 (T102), ST-13 (T119), ST-14 (T104), ST-16 (T135), DH-3 (T94), DHRC-4(T124)]; Bins/Hoppers [Rail Car Loading Bin ST-6 (T25 and T26), ST-10(T4-9), DH-3 (T95), Mine Car Dump MCD-1 (T72A and T72B)]; Conveyors [C24 (T10-1, T10-2 and T10-3), C31 (T10-4), C31A (T11), C36 Feeder (T12-3), C118 (T16), SC-1 (T19-B), C139 (T21), ST-13 Reclaim System (T22), RC-1 (T23), C141 (T24), C152 (T25), ST-6 Reclaim System (T26), S3A (T111 and T112), S7 (T29), ST-11 Reclaim System (T32), S3 (T33), S3B (T34), C128-3 (T42), C128-4 (T43), 8A (T46-2), S5 (T49), S10 (T50), RCT-1 (T52), C11-4 (T73, T74), RC-5 (T81), C10-3 (T96), C128-5 (T44), C128-6 (T121), C120 (T127A, T127B), C121 (T128, T129), C122 (T130)]; Breaker [S6 (T27-5, and T28-3)]; Screen [SS-1 (T51, T53, and T54)].

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

C.S.R. § 45-5-3.1, C.S.R. § 45-5-3.2, and 40 C.F.R. § 60.254(a), 60.11(c): The permittee will conduct monitoring/recordkeeping/reporting as follows (C.S.R. 45-30-5.1.c.) [Not required for stockpiles and haulroads – OS1, ST-14, ST-2, ST-11, ST-12, ST-13, ST-16, PRP, URP]:

a. To determine compliance with the referenced opacity limits, the permittee will conduct weekly visual emission observations in accordance with Method 22 of 40 C.F.R. 60, Appendix A for all coal processing and conveying equipment, coal storage systems, and coal transfer and loading systems. These observations will be conducted during periods of normal facility operation for a sufficient time interval to determine if the unit has visible emissions using procedures outlined in 40 C.F.R. 60, Appendix A, Method 22. If sources of visible emissions are identified during the survey, the permittee will conduct an opacity evaluation in accordance with 40 C.F.R. 60 Appendix A, Method 9, within 24 hours. A 40 C.F.R. 60, Appendix A, Method 9, evaluation will not be required if the visible emission condition is corrected in a timely manner and the units are operated at normal operating conditions with no visible emissions being observed.

b. A record of each visible emissions observation will be maintained, including any data required by 40 C.F.R. 60 Appendix A, Method 22 or Method 9, whichever is appropriate. The record will include, at a minimum, the date, time, name of the emission unit, the applicable visible emissions requirement, the results of the observation, and the name of the observer. Records will be maintained on site for a period of no less than five (5) years stating any maintenance or corrective actions taken as a result of the weekly inspections, and the times the fugitive dust control system(s) are inoperable and any corrective actions taken. C.S.R. 45-30-5.1.c.

**Applicable Requirements**

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

**40 C.F.R. §60.11(d), 45CSR16, and 45CSR13, R13-2183 B.4.: Maintain and operate any affected facility including the air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions. This New Source Performance Standard requirement applies only to the following transfer operations (transfer points are given in parenthesis):**

**Transfer Points [emission point ID(s): Truck Dumping [at ST-10 and (T4-8), DH-3(T93)]; Endloader [at OS-1 (T92), ST-2 (T77, T100, and T113), ST-10 (T105), ST-11 (T102), ST-13 (T119), ST-14 (T104), ST-16 (T135), DH-3 (T94), DHRC-4(T124)]; Bins/Hoppers [Rail Car Loading Bin ST-6 (T25 and T26), ST-10(T4-9), DH-3 (T95), Mine Car Dump MCD-1 (T72A and T72B)]; Conveyors [C24 (T10-1, T10-2 and T10-3), C31 (T10-4), C31A (T11), C36 Feeder (T12-3), C118 (T16), SC-1 (T19-B), C139 (T21), ST-13 Reclaim System (T22), RC-1 (T23), C141 (T24), C152 (T25), ST-6 Reclaim System (T26), S3A (T111 and T112), S7 (T29), ST-11 Reclaim System (T32), S3 (T33), S3B (T34), C128-3 (T42), C128-4 (T43), 8A (T46-2), S5 (T49), S10 (T50), RCT-1 (T52), C11-4 (T73, T74), RC-5 (T81), C10-3 (T96), C128-5 (T44), C128-6 (T121), C120 (T127A, T127B), C121 (T128, T129), C122 (T130)]; Breaker [S6 (T27-5, and T28-3)]; Screen [SS-1 (T51, T53, and T54)].**

**X Permit Shield**

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which will be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

**40 C.F.R. § 60.11(d): The permittee will inspect all fugitive dust control systems weekly to ensure that they are operated and maintained in conformance with their designs. The permittee will maintain records of all scheduled and non-scheduled maintenance. Records will be maintained on site for a period of no less than five (5) years stating any maintenance or corrective actions taken as a result of the weekly inspections, and the times the fugitive dust control system(s) are inoperable and any corrective actions taken. C.S.R. 45-30-5.1.c.**

**Applicable Requirements**

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

**C.S.R. § 45-13 (Permit 2183K, Specific Requirements A.6 & A.9):** The following processing limits will not be exceeded for SS-1, C45, C100, and RC5:

Type of Material and Location Where Processed	Maximum Amount to be Processed (TPY)
Raw coal feed from No. 50 Mine to Scalping Screen (SS-1).	6,900,000
Raw coal feed to Wet Wash Circuit/Preparation Plant (1,500 ton/hr * 7,083 hr/yr).	10,630,000
Feed coal from Wash Circuit to Thermal Dryer (800 ton/hr * 7,083 hr/yr).	5,670,000
Trucked Coal and/or Coal Fines from Conveyor RC-5 to Conveyor RC-1	860,000
Clean coal/Coal Fines from Loading Bin ST-6 to railroad cars	8,100,000

**X Permit Shield**

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which will be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

**C.S.R. § 45-13 (Permit 2183K, Specific Requirements A.6 & A.9):** The permittee will maintain on site certified monthly and annual records of the raw coal, clean coal, and coal fines transfer rates in accordance with the example data forms provided as Attachments A through C of Permit 2183K which are presented in this application as Attachment K. Records will be certified by a “responsible official” and maintained on site for a period of not less than five (5) years and will be made available to the Secretary or his or her duly authorized representative upon request. C.S.R. 45-13 Permit No. R13-2183K, Specific Requirement B.6.

Are you in compliance with all applicable requirements for this emission unit?  Yes \_\_\_ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

## ATTACHMENT E - Emission Unit Form

*Emission Unit Description*

<b>Emission unit ID number:</b> B1	<b>Emission unit name:</b> Rock Crusher #6	<b>List any control devices associated with this emission unit:</b> Full Enclosure	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b> Receives refuse from the Rock Bin, crushes it and transfers it to the 36-inch Rock Belt Conveyor C8.			
<b>Manufacturer:</b> McClanahan	<b>Model number:</b> 36X60 Rockmaster	<b>Serial number:</b> 1072-69	
<b>Construction date:</b> Not Known	<b>Installation date:</b> 1970	<b>Modification date(s):</b> N/A	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b> 280 tons/hr			
<b>Maximum Hourly Throughput:</b> 280 tons/hr	<b>Maximum Annual Throughput:</b> See Attachment I	<b>Maximum Operating Schedule:</b> 8760 hrs	
<b>Fuel Usage Data (fill out all applicable fields)</b>			
<b>Does this emission unit combust fuel?</b> ___ Yes <input checked="" type="checkbox"/> No		<b>If yes, is it?</b> ___ Indirect Fired ___ Direct Fired	
<b>Maximum design heat input and/or maximum horsepower rating:</b>		<b>Type and Btu/hr rating of burners:</b>	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b>			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b>Emissions Data – See Attachment I</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

**See Attachment I for calculations and assumptions.**

***Applicable Requirements***

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

**Only the Facility-wide requirements listed on the General Application Forms apply to these emission units.**

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

**Only the Facility-wide requirements listed on the General Application Forms apply to these emission units.**

Are you in compliance with all applicable requirements for this emission unit?  Yes  No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

## ATTACHMENT E - Emission Unit Form

*Emission Unit Description*

<b>Emission unit ID number:</b> <b>B2 &amp; B3</b>	<b>Emission unit name:</b> <b>Rotary Breakers 13-1 &amp; 13-2</b>	<b>List any control devices associated with this emission unit:</b> <b>Full Enclosure</b>
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
**These two identical emission units remove rocks from the raw coal and reduce coal lumps to a size that can be processed in the wash circuit. The information presented below is the same for each unit.**

<b>Manufacturer:</b> <b>Pennsylvania Crusher</b>	<b>Model number:</b> <b>9X22 RMS</b>	<b>Serial number:</b> <b>3792-3793</b>
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<b>Construction date:</b> <b>Not Known</b>	<b>Installation date:</b> <b>1970</b>	<b>Modification date(s):</b> <b>N/A</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
**1,000 tons/hr**

<b>Maximum Hourly Throughput:</b> <b>1,000 tons/hr</b>	<b>Maximum Annual Throughput:</b> <b>See Attachment I</b>	<b>Maximum Operating Schedule:</b> <b>8760 hrs</b>
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*Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> ___ Yes <input checked="" type="checkbox"/> No	<b>If yes, is it?</b> ___ Indirect Fired ___ Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b>Emissions Data – See Attachment I</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

**See Attachment I for calculations and assumptions.**

***Applicable Requirements***

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

**Only the Facility-wide requirements listed on the General Application Forms apply to these emission units.**

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

**Only the Facility-wide requirements listed on the General Application Forms apply to these emission units.**

Are you in compliance with all applicable requirements for this emission unit?  Yes  No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

## ATTACHMENT E - Emission Unit Form

*Emission Unit Description*

<b>Emission unit ID number:</b> B4	<b>Emission unit name:</b> Breaker S6	<b>List any control devices associated with this emission unit:</b> Full Enclosure
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 This emission unit removes rocks from the raw coal and reduces coal lumps to a size that can be processed in the wash circuit.

<b>Manufacturer:</b> Pennsylvania Crusher	<b>Model number:</b> 9X24	<b>Serial number:</b> Not Known
<b>Construction date:</b> Not Known	<b>Installation date:</b> 1986	<b>Modification date(s):</b> N/A

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 1,500 tons/hr

<b>Maximum Hourly Throughput:</b> 1,500 tons/hr	<b>Maximum Annual Throughput:</b> See Attachment I	<b>Maximum Operating Schedule:</b> 8760 hrs
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*Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> ___ Yes <input checked="" type="checkbox"/> No	<b>If yes, is it?</b> ___ Indirect Fired    ___ Direct Fired
<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>

**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b><i>Emissions Data – See Attachment I</i></b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

**[See Attachment I for calculations and assumptions.](#)**

***Applicable Requirements***

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

40 C.F.R. § 60.254(a), 60.11(c): 20% Opacity.

40 C.F.R. §60.11(d), 45CSR16, and 45CSR13, R13-2183 B.4.: Maintain and operate any affected facility including the air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

40 C.F.R. § 60.254(a), 60.11(c): The permittee will conduct monitoring/recordkeeping/reporting as follows (C.F.R. 45-30-5.1.c.):

a. To determine compliance with the referenced opacity limit, the permittee will conduct weekly visual emission observations in accordance with Method 22 of 40 C.F.R. 60, Appendix A for all coal processing and conveying equipment, coal storage systems, and coal transfer and loading systems. These observations will be conducted during periods of normal facility operation for a sufficient time interval to determine if the unit has visible emissions using procedures outlined in 40 C.F.R. 60, Appendix A, Method 22. If sources of visible emissions are identified during the survey, the permittee will conduct an opacity evaluation in accordance with 40 C.F.R. 60 Appendix A, Method 9, within 24 hours. A 40 C.F.R. 60, Appendix A, Method 9, evaluation will not be required if the visible emission condition is corrected in a timely manner and the units are operated at normal operating conditions with no visible emissions being observed.

b. A record of each visible emissions observation will be maintained, including any data required by 40 C.F.R. 60 Appendix A, Method 22 or Method 9, whichever is appropriate. The record will include, at a minimum, the date, time, name of the emission unit, the applicable visible emissions requirement, the results of the observation, and the name of the observer. Records will be maintained on site for a period of no less than five (5) years stating any maintenance or corrective actions taken as a result of the weekly inspections, and the times the fugitive dust control system(s) are inoperable and any corrective actions taken. C.S.R. 45-30-5.1.c.

40 C.F.R. § 60.11(d): The permittee will inspect all fugitive dust control systems weekly to ensure that they are operated and maintained in conformance with their designs. The permittee will maintain records of all scheduled and non-scheduled maintenance. Records will be maintained on site for a period of no less than five (5) years stating any maintenance or corrective actions taken as a result of the weekly inspections, and the times the fugitive dust control system(s) are inoperable and any corrective actions taken. C.S.R. 45-30-5.1.c.

Are you in compliance with all applicable requirements for this emission unit?  Yes  No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

## ATTACHMENT E - Emission Unit Form

*Emission Unit Description*

<b>Emission unit ID number:</b> OS-1	<b>Emission unit name:</b> Saw Mill Raw Coal Storage Pile	<b>List any control devices associated with this emission unit:</b> Minimize drop point
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 5.05-acre raw coal storage pile that receives coal via dump truck. A front-endloader is used to move coal from Stockpile OS-1 to trucks for hauling to Stockpiles ST-2, ST-11, ST-13, ST-14, ST-15, ST-16 or Storage Pit ST-10.

<b>Manufacturer:</b> N/A	<b>Model number:</b> N/A	<b>Serial number:</b> N/A
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<b>Construction date:</b> Not Known	<b>Installation date:</b> 1998	<b>Modification date(s):</b> 1999, 2000, 2001, & 2002
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 631,000 tons

<b>Maximum Hourly Throughput:</b> N/A	<b>Maximum Annual Throughput:</b> 250,000 tons	<b>Maximum Operating Schedule:</b> 8760 hrs
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*Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> ___ Yes <input checked="" type="checkbox"/> No	<b>If yes, is it?</b> ___ Indirect Fired ___ Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b><i>Emissions Data – See Attachment I</i></b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

**[See Attachment I for calculations and assumptions.](#)**

**Applicable Requirements**

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

**C.S.R. § 45-13 (Permit # 2183K, Specific Requirements A.7 & A.9): The following storage and truck delivery limits shall not be exceeded as determined using a 12-month rolling total:**

Stockpile/Bin ID No.	Material Stored	Maximum in Storage (tons)	Maximum to be Delivered (tons) <sup>1</sup>
Stockpile OS-1	raw coal	631,000	250,000
Stockpile ST-2	raw coal	77,000	180,000
Storage Bin ST-10	raw coal	≈ 50	550,000 <sup>2,3,6</sup>
Stockpile ST-11	raw coal	1,106,000	100,000 <sup>4</sup>
Stockpile ST-12	refuse	26,000	-----
Stockpile ST-13	clean or raw coal	514,000	360,000 <sup>5</sup>
Stockpile ST-14	raw coal	54,000	750,000 to 1,000,000 <sup>6</sup>
Stockpile ST-16	coal	120,000	360,000 <sup>7</sup>
	coal fines	combined	500,000 <sup>8</sup>

**Notes:**

- (1) Maximum quantity of coal to be delivered via trucks by other suppliers from outside sources.
- (2) Less the amount delivered directly to Stockpile ST-2.
- (3) Up to 250,000 TPY of the 550,000 TPY will pass over the truck scale near the refuse road.
- (4) Less the amount transferred from other stockpiles
- (5) Up to 360,000 TPY combined may be received at or shipped from ST-13 by truck.
- (6) The sum of coal trucked to Storage Pit ST-10 via the truck scale and the coal trucked to Stockpile ST-14 shall not exceed 1.0 million TPY.
- (7) Up to 360,000 TPY of coal may be received at or shipped from ST-16 by truck.
- (8) Up to 500,000 TPY of coal fines may be received at ST-16.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

**C.S.R. § 45-13 Permit 2183K, Specific Requirements A.7 & A.9: The permittee will maintain on site certified monthly and annual records of the raw coal, clean coal, and coal fines transfer rates in accordance with the example data forms provided as Attachments A through C in Permit 2183K and presented as Attachment K of this application. Records will be certified by a “responsible official” and maintained on site for a period of not less than five (5) years and will be made available to the Secretary or his or her duly authorized representative upon request. C.S.R. 45-13 Permit No. R13-2183K, Specific Requirement B.6.**

**Applicable Requirements**

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

**C.S.R. § 45-13 Permit 2183K, Specific Requirements A.8 & A.9: The following transfer limits between coal storage areas shall not be exceeded as determined using a 12-month rolling total:**

Originating Stockpile ID No.	Maximum Amount to be Transferred to Stockpiles Listed Below (TPY) <sup>1</sup>						
	OS-1	ST-2	ST-10	ST-11	ST-13	ST-14	ST-16
OS-1	-----	100,000	350,000	100,000	100,000	100,000	100,000
ST-2	100,000	-----	280,000 <sup>3</sup>	100,000	100,000	100,000	100,000
ST-10	0	0	-----	0	0	0	0
ST-11	100,000	100,000	100,000	-----	100,000	100,000	100,000
ST-13	100,000	100,000	100,000	100,000	-----	100,000	100,000
ST-14	100,000	100,000	100,000	100,000	100,000	-----	100,000
ST-16	100,000	100,000	100,000	100,000	100,000	100,000	-----
<b>All Areas<sup>2</sup></b>	100,000	100,000	530,000	100,000	100,000	100,000	100,000

**Notes:**

1. The quantities to be received for any single storage area are not additive.
2. The last row summarizes the maximum amount that could be transferred to each storage area from all other storage areas.
3. The permittee has the option to alternatively load up to 180,000 TPY into a railcar at ST-2 in lieu of transferring it to ST-10.

**X Permit Shield**

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

**C.S.R. § 45-13 Permit 2183K, Specific Requirements A.8 & A.9: The permittee will maintain on site certified monthly and annual records of the raw coal, clean coal, and coal fines transfer rates in accordance with the example data forms provided as Attachments A through C in Permit 2183 and presented as Attachment K of this application. Records will be certified by a “responsible official” and maintained on site for a period of not less than five (5) years and will be made available to the Secretary or his or her duly authorized representative upon request. C.S.R. 45-13 Permit No. R13-2183K, Specific Requirement B.6.**

<p><b>Applicable Requirements</b></p> <p>List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.</p> <p>C.S.R. § 45-13 Permit 2183K, Specific Requirements A.12: The permittee shall maintain and operate a vacuum truck along the paved entrance(s) to Stockpile OS-1 at all times during which truck traffic is present, either receiving or shipping coal.</p>
<p><b>X Permit Shield</b></p> <p>For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)</p> <p>C.S.R. § 45-13 Permit 2183K, Specific Requirements A.12: The permittee will maintain daily records indicating the use of any dust suppressants or any other suitable dust control measures applied at the facility. These records will be maintained on site for a period of no less than five (5) years. C.S.R. 45-30-5.1.c.</p>
<p>Are you in compliance with all applicable requirements for this emission unit? <input checked="" type="checkbox"/> Yes    ___ No</p> <p>If no, complete the <b>Schedule of Compliance Form</b> as ATTACHMENT F.</p>

## ATTACHMENT E - Emission Unit Form

*Emission Unit Description*

<b>Emission unit ID number:</b> ST-2	<b>Emission unit name:</b> Raw Coal Storage Pile	<b>List any control devices associated with this emission unit:</b> Minimize drop point
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 1.24-acre raw coal storage pile that receives coal from Conveyor C31-A and truck dump and transfers it via front-end loader to Feeder C36, Storage Pit ST-10, trucks, and/or railcar.

<b>Manufacturer:</b> N/A	<b>Model number:</b> N/A	<b>Serial number:</b> N/A
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<b>Construction date:</b> Not Known	<b>Installation date:</b> 1981	<b>Modification date(s):</b> 2001
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 77,000 tons

<b>Maximum Hourly Throughput:</b> N/A	<b>Maximum Annual Throughput:</b> 180,000 tons	<b>Maximum Operating Schedule:</b> 8760 hrs
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**Fuel Usage Data (fill out all applicable fields)**

<b>Does this emission unit combust fuel?</b> ___ Yes <input checked="" type="checkbox"/> No	<b>If yes, is it?</b> ___ Indirect Fired    ___ Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b><i>Emissions Data – See Attachment I</i></b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

**[See Attachment I for calculations and assumptions.](#)**

***Applicable Requirements***

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

C.S.R. § 45-13 (Permit # 2183K, Specific Requirements A.7 & A.9): Requirements are presented above under Emission Unit OS-1.

C.S.R. § 45-13 Permit 2183K, Specific Requirements A.8 & A.9: Requirements are presented above under Emission Unit OS-1.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

C.S.R. § 45-13 (Permit # 2183K, Specific Requirements A.7 & A.9): Compliance demonstration methods are as described above under Emission Unit OS-1.

C.S.R. § 45-13 Permit 2183K, Specific Requirements A.8 & A.9: Compliance demonstration methods are as described above under Emission Unit OS-1.

Are you in compliance with all applicable requirements for this emission unit?  Yes \_\_\_ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

## ATTACHMENT E - Emission Unit Form

*Emission Unit Description*

<b>Emission unit ID number:</b> ST-10	<b>Emission unit name:</b> Raw Coal Storage Pit ST-10	<b>List any control devices associated with this emission unit:</b> Partial Enclosure.
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 50-ton raw coal storage pit that receives coal by truck dumping and front-endloader and transfers it to Conveyor C11-4.

<b>Manufacturer:</b> N/A	<b>Model number:</b> N/A	<b>Serial number:</b> N/A
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<b>Construction date:</b> Not Known	<b>Installation date:</b> 1979	<b>Modification date(s):</b> 2001
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 50 tons

<b>Maximum Hourly Throughput:</b> N/A	<b>Maximum Annual Throughput:</b> 550,000 tons	<b>Maximum Operating Schedule:</b> 8760 hrs
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*Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> ___ Yes <input checked="" type="checkbox"/> No	<b>If yes, is it?</b> ___ Indirect Fired ___ Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b>Emissions Data – See Attachment I</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

**See Attachment I for calculations and assumptions.**

***Applicable Requirements***

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

C.S.R. § 45-13 (Permit # 2183K, Specific Requirements A.7 & A.9): Requirements are presented above under Emission Unit OS-1.

C.S.R. § 45-13 Permit 2183K, Specific Requirements A.8 & A.9: Requirement are presented above under Emission Unit OS-1.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

C.S.R. § 45-13 (Permit # 2183K, Specific Requirements A.7 & A.9): Compliance demonstration methods are as described above under Emission Unit OS-1.

C.S.R. § 45-13 Permit 2183K, Specific Requirements A.8 & A.9: Compliance demonstration methods are as described above under Emission Unit OS-1.

Are you in compliance with all applicable requirements for this emission unit?  Yes \_\_\_ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

## ATTACHMENT E - Emission Unit Form

*Emission Unit Description*

<b>Emission unit ID number:</b> ST-11	<b>Emission unit name:</b> ST-11	<b>List any control devices associated with this emission unit:</b> Minimize drop
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 Stack Tube/Stockpile ST-11 - Receives coal from Conveyor S5 and transfers via underground feeder to Conveyor S3 and/or via front-endloader to truck.

<b>Manufacturer:</b> N/A	<b>Model number:</b> N/A	<b>Serial number:</b> N/A
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<b>Construction date:</b> Not Known	<b>Installation date:</b> 1986	<b>Modification date(s):</b> 1998, 2001, 2006
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 1,106,000 tons

<b>Maximum Hourly Throughput:</b> N/A	<b>Maximum Annual Throughput:</b> See Applicable Requirements	<b>Maximum Operating Schedule:</b> 8760 hrs
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*Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> ___ Yes <input checked="" type="checkbox"/> No	<b>If yes, is it?</b> ___ Indirect Fired ___ Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b>Emissions Data – See Attachment I</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

**See Attachment I for calculations and assumptions.**

***Applicable Requirements***

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

C.S.R. § 45-13 (Permit # 2183K, Specific Requirements A.7 & A.9): Requirements are presented above under Emission Unit OS-1.

C.S.R. § 45-13 Permit 2183K, Specific Requirements A.8 & A.9: Requirements are presented above under Emission Unit OS-1.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

C.S.R. § 45-13 (Permit # 2183K, Specific Requirements A.7 & A.9): Compliance demonstration methods are as described above under Emission Unit OS-1.

C.S.R. § 45-13 Permit 2183K, Specific Requirements A.8 & A.9: Compliance demonstration methods are as described above under Emission Unit OS-1.

Are you in compliance with all applicable requirements for this emission unit?  Yes \_\_\_ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

## ATTACHMENT E - Emission Unit Form

*Emission Unit Description*

<b>Emission unit ID number:</b> ST-12	<b>Emission unit name:</b> Refuse Stockpile ST-12	<b>List any control devices associated with this emission unit:</b> None
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 Refuse Stockpile ST-12

<b>Manufacturer:</b> N/A	<b>Model number:</b> N/A	<b>Serial number:</b> N/A
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<b>Construction date:</b> Not Known	<b>Installation date:</b> 1970	<b>Modification date(s):</b> N/A
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 26,000 tons

<b>Maximum Hourly Throughput:</b> N/A	<b>Maximum Annual Throughput:</b> See Applicable Requirements	<b>Maximum Operating Schedule:</b> 8760 hrs.
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*Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> ___ Yes <input checked="" type="checkbox"/> No	<b>If yes, is it?</b> ___ Indirect Fired    ___ Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b><i>Emissions Data – See Attachment I</i></b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

**[See Attachment I for calculations and assumptions.](#)**

***Applicable Requirements***

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

C.S.R. § 45-5-7: Prevent and Control Air Pollution from Coal Refuse Disposal Areas.

C.S.R. § 45-5-8: Investigate Burning Coal Refuse as required.

45CSR13 (Permit R13-2183 Specific Requirement A.7): The maximum storage limit of refuse at the Refuse Storage ST-12 is 26,000 tons.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

C.S.R. § 45-5-7 and C.S.R. § 45-5-8: None required.

45CSR13 (Permit R13-2183 Specific Requirement A.7): Maintain daily records of the amount of refuse in storage at the beginning of each day, the amounts transferred to and from ST-12 each day, and the amount of refuse in storage at the end of each day. 45CSR§30-5.1.c.

Are you in compliance with all applicable requirements for this emission unit?  Yes \_\_\_ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

## ATTACHMENT E - Emission Unit Form

*Emission Unit Description*

<b>Emission unit ID number:</b> ST-13	<b>Emission unit name:</b> Stack Tube/Clean Coal Storage Stockpile ST-13	<b>List any control devices associated with this emission unit:</b> None
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 Stack Tube/Clean Coal Storage Stockpile ST-13 - Receives clean coal from Conveyor SC-1 and transfers it using six vibrating feeders to Belt Conveyor RC-1 and/or via front end loader to truck. Up to 360,000 TPY combined may be trucked to and from ST-13.

<b>Manufacturer:</b> N/A	<b>Model number:</b> N/A	<b>Serial number:</b> N/A
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<b>Construction date:</b> Not Known	<b>Installation date:</b> 1991	<b>Modification date(s):</b> 1998, 2002
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 514,000 tons

<b>Maximum Hourly Throughput:</b> N/A	<b>Maximum Annual Throughput:</b> See Applicable Requirements	<b>Maximum Operating Schedule:</b> 8760 hrs
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**Fuel Usage Data (fill out all applicable fields)**

<b>Does this emission unit combust fuel?</b> ___ Yes <input checked="" type="checkbox"/> No	<b>If yes, is it?</b> ___ Indirect Fired ___ Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b>Emissions Data – See Attachment I</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

**See Attachment I for calculations and assumptions.**

***Applicable Requirements***

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

**C.S.R. § 45-13 (Permit # 2183K, Specific Requirements A.7 & A.9): Requirements are presented above under Emission Unit OS-1.**

**C.S.R. § 45-13 Permit 2183K, Specific Requirements A.8 & A.9: Requirements are presented above under Emission Unit OS-1.**

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

**C.S.R. § 45-13 (Permit # 2183K, Specific Requirements A.7 & A.9): Compliance demonstration methods are as described above under Emission Unit OS-1.**

**C.S.R. § 45-13 Permit 2183K, Specific Requirements A.8 & A.9: Compliance demonstration methods are as described above under Emission Unit OS-1.**

Are you in compliance with all applicable requirements for this emission unit?  Yes  No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

## ATTACHMENT E - Emission Unit Form

*Emission Unit Description*

<b>Emission unit ID number:</b> ST-14	<b>Emission unit name:</b> Raw Coal Open Stockpile	<b>List any control devices associated with this emission unit:</b> None
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 Raw Coal Open Stockpile ST-14 - Receives coal by truck from offsite suppliers and transfers it via front-endloader to Dump Hopper DH-3 and/or front-endloader to truck.

<b>Manufacturer:</b> N/A	<b>Model number:</b> N/A	<b>Serial number:</b> N/A
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<b>Construction date:</b> Not Known	<b>Installation date:</b> 2001	<b>Modification date(s):</b> 2002
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 54,000 tons

<b>Maximum Hourly Throughput:</b> N/A	<b>Maximum Annual Throughput:</b> See Applicable Requirements	<b>Maximum Operating Schedule:</b> 8760 hrs
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*Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> ___ Yes <input checked="" type="checkbox"/> No	<b>If yes, is it?</b> ___ Indirect Fired ___ Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b><i>Emissions Data – See Attachment I</i></b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

**[See Attachment I for calculations and assumptions.](#)**

***Applicable Requirements***

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

C.S.R. § 45-13 (Permit # 2183K, Specific Requirements A.7 & A.9): Requirements are presented above under Emission Unit OS-1.

C.S.R. § 45-13 Permit 2183K, Specific Requirements A.8 & A.9: Requirements are presented above under Emission Unit OS-1.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

C.S.R. § 45-13 (Permit # 2183K, Specific Requirements A.7 & A.9): Compliance demonstration methods are as described above under Emission Unit OS-1.

C.S.R. § 45-13 Permit 2183K, Specific Requirements A.8 & A.9: Compliance demonstration methods are as described above under Emission Unit OS-1.

Are you in compliance with all applicable requirements for this emission unit?  Yes  No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

## ATTACHMENT E - Emission Unit Form

*Emission Unit Description*

<b>Emission unit ID number:</b> ST-16	<b>Emission unit name:</b> Coal & Pond Fines Stockpiles ST-16	<b>List any control devices associated with this emission unit:</b> Moisture Control
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
Storage Stockpile ST-16 – Receives coal and pond fines by truck and transfers it via front-end loader to Dump Hopper DHRC-4; via underground feeders to conveyor C120; and/or via front-end loader to truck.

<b>Manufacturer:</b> N/A	<b>Model number:</b> N/A	<b>Serial number:</b> N/A
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<b>Construction date:</b> 2002	<b>Installation date:</b> 2002	<b>Modification date(s):</b> 2008
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
120,000 tons

<b>Maximum Hourly Throughput:</b> N/A	<b>Maximum Annual Throughput:</b> See Applicable Requirements	<b>Maximum Operating Schedule:</b> 8760 hrs
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*Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> ___ Yes <input checked="" type="checkbox"/> No	<b>If yes, is it?</b> ___ Indirect Fired ___ Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b>Emissions Data – See Attachment I</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

**See Attachment I for calculations and assumptions.**

***Applicable Requirements***

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

**C.S.R. § 45-13 (Permit # 2183K, Specific Requirements A.7 & A.9): Requirements are presented above under Emission Unit OS-1.**

**C.S.R. § 45-13 Permit 2183K, Specific Requirements A.8 & A.9: Requirements are presented above under Emission Unit OS-1.**

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

**C.S.R. § 45-13 (Permit # 2183K, Specific Requirements A.7 & A.9): Compliance demonstration methods are as described above under Emission Unit OS-1.**

**C.S.R. § 45-13 Permit 2183K, Specific Requirements A.8 & A.9: Compliance demonstration methods are as described above under Emission Unit OS-1.**

Are you in compliance with all applicable requirements for this emission unit?  Yes  No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

## ATTACHMENT E - Emission Unit Form

*Emission Unit Description*

<b>Emission unit ID number:</b> PRP and URP	<b>Emission unit name:</b> PRP: Paved Roads and Parking Lots; URP: Unpaved Roads and Parking Lots	<b>List any control devices associated with this emission unit:</b> Water trucks with pressurized sprays (see Applicable Requirements for OS-1 entrance area).
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 PRP: Paved roads and parking lots used by vehicular traffic.  
 URP: Unpaved roads and parking lots used by vehicular traffic.

<b>Manufacturer:</b> N/A	<b>Model number:</b> N/A	<b>Serial number:</b> N/A
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<b>Construction date:</b> Not Known	<b>Installation date:</b> 1970	<b>Modification date(s):</b> 2001
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
N/A

<b>Maximum Hourly Throughput:</b> N/A	<b>Maximum Annual Throughput:</b> See Attachment I	<b>Maximum Operating Schedule:</b> 8760 hrs
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*Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> ___ Yes <input checked="" type="checkbox"/> No	<b>If yes, is it?</b> ___ Indirect Fired ___ Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b>Emissions Data – See Attachment I</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

**See Attachment I for calculations and assumptions.**

***Applicable Requirements***

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

C.S.R. § 45-13 (Permit # 2183K, Specific Requirement A.12): Requirement is presented above under Emission Unit OS-1. Applies only to paved area at entrance of Storage Pile OS-1.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

C.S.R. § 45-13 (Permit # 2183K, Specific Requirement A.12): Compliance demonstration method is as described above under Emission Unit OS-1.

Are you in compliance with all applicable requirements for this emission unit?  Yes \_\_\_ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

## ATTACHMENT E - Emission Unit Form

*Emission Unit Description*

<b>Emission unit ID number:</b> SS-1	<b>Emission unit name:</b> Scalping Screen SS-1	<b>List any control devices associated with this emission unit:</b> Full Enclosure
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):  
 Scalping Screen SS-1 - Receives coal from Conveyor S10. Oversized coal is routed to the Rotary Breaker S6. Undersized coal goes to a two-way flop gate which can transfer coal to Conveyor RCT-1 or Conveyor S3B.

<b>Manufacturer:</b> N/A	<b>Model number:</b> N/A	<b>Serial number:</b> N/A
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<b>Construction date:</b> Not Known	<b>Installation date:</b> 1998	<b>Modification date(s):</b> N/A
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 4,000 tons

<b>Maximum Hourly Throughput:</b> 4,000 tons	<b>Maximum Annual Throughput:</b> 7,000,000 tons	<b>Maximum Operating Schedule:</b> 8760
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*Fuel Usage Data (fill out all applicable fields)*

Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No	If yes, is it? ___ Indirect Fired ___ Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
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List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b>Emissions Data – See Attachment I</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

**See Attachment I for calculations and assumptions.**

***Applicable Requirements***

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

**C.S.R. § 45-13 (Permit # 2183K, Specific Requirements A.6 & A.9): Requirements are presented above under Transfer Operations (Emission Units T4-1 through T135).**

**40 C.F.R. § 60.254(a), 60.11(c): 20% opacity.**

**40 C.F.R. § 60.11(d): Operating and maintenance procedures.**

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

**C.S.R. § 45-13 (Permit # 2183K, Specific Requirements A.6 & A.9): Compliance demonstration methods are as described above under Transfer Operations (Emission Units T4-1 through T135).**

**40 C.F.R. § 60.254(a), 60.11(c): Compliance demonstration method is as described above under Emission Unit B4 (Breaker S6).**

**40 C.F.R. § 60.11(d): Compliance demonstration method is as described above under Emission Unit B4 (Breaker S6).**

Are you in compliance with all applicable requirements for this emission unit?  Yes \_\_\_ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

## ATTACHMENT E - Emission Unit Form

**Emission Unit Description**

<b>Emission unit ID number:</b> D-1, D-4, D-5	<b>Emission unit name:</b> Storage Tanks	<b>List any control devices associated with this emission unit:</b> None
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 The plant employs several small (less than 10,000 gallons) tanks to store diesel fuel (Tanks D-1, D-4, D-5), kerosene, waste oil, and miscellaneous aqueous solutions containing low vapor pressure organic compounds. These tanks are de minimis emission units that occasionally are replaced by similar de minimis tanks. They are not subject to any regulatory requirement. Emissions for the tanks that store diesel, kerosene, and the most volatile solution are presented in Attachment I and are deemed insignificant.

<b>Manufacturer:</b> N/A	<b>Model number:</b> N/A	<b>Serial number:</b> N/A
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<b>Construction date:</b> Not Known	<b>Installation date:</b> 1995 - 2004	<b>Modification date(s):</b> N/A
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 See Attachment I

<b>Maximum Hourly Throughput:</b>	<b>Maximum Annual Throughput:</b> See Attachment I	<b>Maximum Operating Schedule:</b> 8760 hrs
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**Fuel Usage Data (fill out all applicable fields)**

<b>Does this emission unit combust fuel?</b> ___ Yes <input checked="" type="checkbox"/> No	<b>If yes, is it?</b> ___ Indirect Fired    ___ Direct Fired
---	---

<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
--	---

**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b>Emissions Data – See Attachment I</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

**See Attachment I for calculations and assumptions.**

*Applicable Requirements*

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no applicable requirements for any of the liquid tanks located at this facility.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

N/A

Are you in compliance with all applicable requirements for this emission unit?  Yes \_\_\_ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

## ATTACHMENT E - Emission Unit Form

*Emission Unit Description*

<b>Emission unit ID number:</b> TH-1, AFS-1, DSS-1, and DI-1	<b>Emission unit name:</b> Misc. VOC Evaporative Losses	<b>List any control devices associated with this emission unit:</b> None
---	--	---

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 This emission activity is comprised of miscellaneous VOC evaporative losses from the wet washing of the coal (TH-1), coal freeze protection (anti-freeze spray, AFS-1 and de-icing, DI-1), and dust suppression (DSS-1). There are no applicable regulatory requirements for the operations generating these emissions.

<b>Manufacturer:</b> N/A	<b>Model number:</b> N/A	<b>Serial number:</b> N/A
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<b>Construction date:</b> Not Known	<b>Installation date:</b> 1970	<b>Modification date(s):</b> N/A
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
N/A

<b>Maximum Hourly Throughput:</b> N/A	<b>Maximum Annual Throughput:</b> N/A	<b>Maximum Operating Schedule:</b> 8760
--	--	--

**Fuel Usage Data (fill out all applicable fields)**

<b>Does this emission unit combust fuel?</b> ___ Yes <input checked="" type="checkbox"/> No	<b>If yes, is it?</b> ___ Indirect Fired ___ Direct Fired
---	--

<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
--	---

**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b>Emissions Data – See Attachment I</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

**See Attachment I for calculations and assumptions.**

***Applicable Requirements***

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no applicable requirements for this emission unit/activity.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

N/A

Are you in compliance with all applicable requirements for this emission unit?  Yes \_\_\_ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

## ATTACHMENT E - Emission Unit Form

*Emission Unit Description*

<b>Emission unit ID number:</b> <b>D-15</b>	<b>Emission unit name:</b> <b>Magnetite Tank with Dust Collector D-15</b>	<b>List any control devices associated with this emission unit:</b> <b>Full Enclosure</b>
--	--	--

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
**This magnetite tank with dust collector stores magnetite that is pneumatically transferred to the tank and then it is used in the separation circuits in the coal washing process. The dust collector with fabric filter prevents the loss of material during the pneumatic conveyance of magnetite to the tank. Therefore, the dust collector is an integral part of the process rather than a control device.**

<b>Manufacturer:</b> <b>Not Known</b>	<b>Model number:</b> <b>Not Known</b>	<b>Serial number:</b> <b>Not Known</b>
--	--	---

<b>Construction date:</b> <b>Not Known</b>	<b>Installation date:</b> <b>1970's</b>	<b>Modification date(s):</b> <b>N/A</b>
---	--	--

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
**100 tons**

<b>Maximum Hourly Throughput</b> <b>25 tons/hr</b>	<b>Maximum Annual Throughput:</b> <b>See Attachment I</b>	<b>Maximum Operating Schedule:</b> <b>109 hrs/yr</b>
---	--	---

*Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> ___ Yes <input checked="" type="checkbox"/> No	<b>If yes, is it?</b> ___ Indirect Fired ___ Direct Fired
---	--

<b>Maximum design heat input and/or maximum horsepower rating:</b>	<b>Type and Btu/hr rating of burners:</b>
--	---

**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**

**Describe each fuel expected to be used during the term of the permit.**

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<b><i>Emissions Data – See Attachment I</i></b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO <sub>x</sub> )		
Lead (Pb)		
Particulate Matter (PM <sub>2.5</sub> )		
Particulate Matter (PM <sub>10</sub> )		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO <sub>2</sub> )		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

**List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).**

**[See Attachment I for calculations and assumptions.](#)**

***Applicable Requirements***

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

C.S.R. § 45-7-3.1: 20% opacity limit.

C.S.R. § 45-7-3.1: 40% opacity limit for no more than 5 minutes in a 60 minute period.

C.S.R. § 45-7-4.1: Maximum allowable total stack emission rate shall not exceed 31 lb/hr.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

C.S.R. § 45-7-3.1 and C.S.R. § 45-7-3.1: No compliance demonstration is required because the tank vents inside the workspace of a building and only during filling, which last only approximately one hour.

C.S.R. § 45-7-4.1: No compliance demonstration is required because uncontrolled emissions are less than allowable emissions.

Are you in compliance with all applicable requirements for this emission unit?  Yes \_\_\_ No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT F

SCHEDULE OF COMPLIANCE  
NOT APPLICABLE

ATTACHMENT G

AIR POLLUTION CONTROL DEVICE FORMS

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> 001-2A & 001- 2B (2 identical units)	<b>List all emission units associated with this control device.</b> Thermal Dryer TD1
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<b>Manufacturer:</b> American Air Filter	<b>Model number:</b> "A" Kinpactor	<b>Installation date:</b> 07/01/1970
---	---------------------------------------	---

**Type of Air Pollution Control Device:**

<input type="checkbox"/> Baghouse/Fabric Filter	<input checked="" type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator		<input type="checkbox"/> Dry Plate Electrostatic Precipitator

**List the pollutants for which this device is intended to control and the capture and control efficiencies.**

Pollutant	Capture Efficiency	Control Efficiency
<b>Particulate Matter</b>	<b>100 %</b>	<b>99+ %</b>

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**  
 There are two identical scrubbers in parallel, each of which controls the exhaust from the two dryer cyclones. Each scrubber is designed to handle a maximum inlet gas flow of approximately 151,600 ft<sup>3</sup>/min at 248 °F and operate affectively when the pressure drop is maintained above 16 inches of water.

**Is this device subject to the CAM requirements of 40 C.F.R. 64?**  Yes  No  
 If Yes, **Complete ATTACHMENT H**  
 If No, **Provide justification.**

**Describe the parameters monitored and/or methods used to indicate performance of this control device.**  
 Monitoring of the performance of this device is prescribed by 45 CSR 5-4.1.b; 45 CSR 5-Appendix 2.a, 2b. and 2.3; and 45 CSR 13 (Permit 2183K). It includes monitoring of the thermal dryer exit temperature, the scrubber water supply pressure and the pressure drop across the scrubber. Monitoring is also performed in accordance with the WVDAQ-approved CAM Plan (see Attachment H).

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> <b>0011 (Clean Coal Scrubber)</b>	<b>List all emission units associated with this control device.</b> <b>Conveyor 139 under the Clean Coal Silo (Transfers T20, T21, and T23)</b>
---	--

<b>Manufacturer:</b> <b>Custom fabricated by previous owner</b>	<b>Model number:</b> <b>N/A</b>	<b>Installation date:</b> <b>Not Known</b>
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**Type of Air Pollution Control Device:**

<input type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input checked="" type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	

**List the pollutants for which this device is intended to control and the capture and control efficiencies.**

Pollutant	Capture Efficiency	Control Efficiency
<b>Fugitive Dust</b>	<b>N/A</b>	<b>N/A</b>

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**  
**The unit was custom- fabricated by previous plant owner to help control fugitive dust. Design data are not available.**

**Is this device subject to the CAM requirements of 40 C.F.R. 64?**  Yes  No

If Yes, Complete ATTACHMENT H

If No, Provide justification. **Conveyor 139, under the Clean Coal Silo (Transfers T20, T21, and T23), does not have pre-controlled emissions equal to or greater than major source thresholds and the clean coal scrubber has not been installed to achieve compliance with an emission limitation or standard.**

**Describe the parameters monitored and/or methods used to indicate performance of this control device.**  
**The opacity of the scrubber exhaust vent is monitored as prescribed by 45 CSR 5-3.1 and 3.2.**

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> 004 (Mix Scrubber)	<b>List all emission units associated with this control device.</b> Transfer points T16 (Conveyor C118), T17 (Horizontal Axis Mixer), and T18 (Conveyor C119).
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<b>Manufacturer:</b> Fisher-Klosterman	<b>Model number:</b> MS-650-H	<b>Installation date:</b> 03/31/1998
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**Type of Air Pollution Control Device:**

<input type="checkbox"/> Baghouse/Fabric Filter	<input checked="" type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator		<input type="checkbox"/> Dry Plate Electrostatic Precipitator

**List the pollutants for which this device is intended to control and the capture and control efficiencies.**

Pollutant	Capture Efficiency	Control Efficiency
<b>Fugitive Dust</b>	N/A	N/A

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**  
 This scrubber was installed to help control the fugitive dust from transfer points T16, T17 (Horizontal Axis Mixer), and T18. It is designed to handle an inlet gas flow of approximated 23,400 ACFM at 103°F.

**Is this device subject to the CAM requirements of 40 C.F.R. 64?**  Yes  No  
 If Yes, Complete ATTACHMENT H  
 If No, Provide justification. **Transfer points T16, T17 (Horizontal Axis Mixer), and T18 do not have pre-controlled emissions equal to or greater than major source thresholds and the mix scrubber has not been installed to achieve compliance with an emission limitation or standard.**

**Describe the parameters monitored and/or methods used to indicate performance of this control device.**  
 The opacity of the scrubber exhaust vent is monitored as prescribed by 45 CSR 5-3.1 and 3.2.

## ATTACHMENT H

### CAMPLIANCE ASSURANCE MONITORING (CAM) FORMS NOT APPLICABLE

A Compliance Assurance Monitoring (CAM) Plan was submitted with the Title V renewal application in 2006 and incorporated into the current Title V permit. No modifications have been made to the operation of the devices subject to this CAM Plan that would require the plan to be updated. Pinnacle Mining will continue to operate under the current CAM Plan.

ATTACHMENT I  
POTENTIAL EMISSIONS CALCULATIONS

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
 TITLE V POTENTIAL TO EMIT CALCULATIONS  
 AIR POLLUTANT SUMMARY**

**Criteria Pollutants**

Source	PM (tons/yr)	PM10 (tons/yr)	SO <sub>2</sub> (tons/yr)	NOx (tons/yr)	CO (tons/yr)	VOC (tons/yr)
Thermal Dryer	272.70	248.15	178.14	332.55	178.14	146.26
Transfer Operations	16.24	7.68	---	---	---	---
Crushers/Breakers	6.60	3.12	---	---	---	---
Screens	1.26	0.60	---	---	---	---
Storage Piles - Drop Operations	6.10	2.89	---	---	---	---
Storage Piles - Wind Emissions	11.94	5.65	---	---	---	---
Roadways and Parking Lots	429.10	86.95	---	---	---	---
Wet Wash / Water Treatment	---	---	---	---	---	38.36
Dust Suppression	---	---	---	---	---	0
Antifreeze	---	---	---	---	---	1.001
Clean Coal Sampler	0.029	0.014	---	---	---	---
Kerosene Storage Tanks	---	---	---	---	---	0.00000
Kerosene Filling, Dispensing and Spillage	---	---	---	---	---	0.0054
Frother Storage Tank	---	---	---	---	---	0.002
Frother Filling, Dispensing and Spillage	---	---	---	---	---	0.0043
Diesel Storage Tanks	---	---	---	---	---	0.0092
Diesel Filling, Dispensing and Spillage	---	---	---	---	---	0.69
Magnetite Tank	0.06	0.06	---	---	---	---
<b>Total</b>	<b>744</b>	<b>355</b>	<b>178</b>	<b>333</b>	<b>178</b>	<b>186</b>

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
TITLE V POTENTIAL TO EMIT CALCULATIONS  
AIR POLLUTANT SUMMARY**

**Hazardous Air Pollutants (HAPs)**

Source	Lead (tons/yr)	2,2,4-Trimethylpentane (tons/yr)	Antimony (tons/yr)	Arsenic (tons/yr)	Benzene (tons/yr)
Thermal Dryer	1.56E-03	---	4.34E-04	7.99E-03	---
Transfer Operations	2.48E-04	---	1.51E-05	9.61E-04	---
Crushers/Breakers	1.01E-04	---	6.14E-06	3.91E-04	---
Screens	1.93E-05	---	1.17E-06	7.46E-05	---
Storage Piles - Drop Operations	9.34E-05	---	5.68E-06	3.61E-04	---
Storage Piles - Wind Emissions	1.83E-04	---	1.11E-05	7.07E-04	---
Roadways and Parking Lots	---	---	---	---	---
Wet Wash / Water Treatment	---	5.15E-02	---	---	2.24E+00
Dust Suppression	---	---	---	---	---
Antifreeze	---	---	---	---	---
Clean Coal Sampler	---	---	---	---	---
Kerosene Storage Tanks	---	0.00E+00	---	---	0.00E+00
Kerosene Filling, Dispensing and Spillage	---	1.76E-05	---	---	1.15E-04
Frother Storage Tank	---	---	---	---	---
Frother Filling, Dispensing and Spillage	---	---	---	---	---
Diesel Storage Tanks	---	2.60E-05	---	---	1.13E-03
Diesel Dispensing Operations	---	1.96E-03	---	---	8.53E-02
Magnetite Tank	---	---	---	---	---
<b>Total</b>	<b>2.20E-03</b>	<b>5.35E-02</b>	<b>4.73E-04</b>	<b>1.05E-02</b>	<b>2.33</b>

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
TITLE V POTENTIAL TO EMIT CALCULATIONS  
AIR POLLUTANT SUMMARY**

**Hazardous Air Pollutants (HAPs) - continued**

Source	Beryllium (tons/yr)	Biphenyl (tons/yr)	Cadmium (tons/yr)	Chromium (tons/yr)	Cobalt (tons/yr)	Cresols (tons/yr)
Thermal Dryer	4.35E-04	---	1.71E-05	2.03E-03	2.88E-03	---
Transfer Operations	1.31E-05	---	1.06E-06	1.52E-04	1.32E-04	---
Crushers/Breakers	5.34E-06	---	4.29E-07	6.17E-05	5.35E-05	---
Screens	1.02E-06	---	8.19E-08	1.18E-05	1.02E-05	---
Storage Piles - Drop Operations	4.94E-06	---	3.97E-07	5.71E-05	4.94E-05	---
Storage Piles - Wind Emissions	9.66E-06	---	7.76E-07	1.12E-04	9.67E-05	---
Roadways and Parking Lots	---	---	---	---	---	---
Wet Wash / Water Treatment	---	3.99E-05	---	---	---	6.85E-04
Dust Suppression	---	---	---	---	---	---
Antifreeze	---	---	---	---	---	---
Clean Coal Sampler	---	---	---	---	---	---
Kerosene Storage Tanks	---	0.00E+00	---	---	---	0.00E+00
Kerosene Filling, Dispensing and Spillage	---	4.67E-08	---	---	---	2.05E-07
Frother Storage Tank	---	---	---	---	---	---
Frother Filling, Dispensing and Spillage	---	---	---	---	---	---
Diesel Storage Tanks	---	2.01E-08	---	---	---	3.46E-07
Diesel Dispensing Operations	---	1.52E-06	---	---	---	2.60E-05
Magnetite Tank	---	---	---	---	---	---
<b>Total</b>	<b>4.69E-04</b>	<b>4.14E-05</b>	<b>1.99E-05</b>	<b>2.43E-03</b>	<b>3.22E-03</b>	<b>7.11E-04</b>

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
TITLE V POTENTIAL TO EMIT CALCULATIONS  
AIR POLLUTANT SUMMARY**

**Hazardous Air Pollutants (HAPs) - continued**

Source	Cumene (tons/yr)	Ethylbenzene (tons/yr)	Formaldehyde (tons/yr)	Hexane (tons/yr)	Hydrochloric Acid (tons/yr)	Hydrogen Fluoride (tons/yr)
Thermal Dryer	---	---	6.27E-03	---	8.01	0.97
Transfer Operations	---	---	---	---	---	---
Crushers/Breakers	---	---	---	---	---	---
Screens	---	---	---	---	---	---
Storage Piles - Drop Operations	---	---	---	---	---	---
Storage Piles - Wind Emissions	---	---	---	---	---	---
Roadways and Parking Lots	---	---	---	---	---	---
Wet Wash / Water Treatment	6.79E-02	1.59E-01	---	4.49E+00	---	---
Dust Suppression	---	---	---	---	---	---
Antifreeze	---	---	---	---	---	---
Clean Coal Sampler	---	---	---	---	---	---
Kerosene Storage Tanks	0.00E+00	0.00E+00	---	0.00E+00	---	---
Kerosene Filling, Dispensing and Spillage	1.04E-05	4.79E-05	---	1.23E-03	---	---
Frother Storage Tank	---	---	---	---	---	---
Frother Filling, Dispensing and Spillage	---	---	---	---	---	---
Diesel Storage Tanks	3.43E-05	8.02E-05	---	2.27E-03	---	---
Diesel Dispensing Operations	2.58E-03	6.04E-03	---	1.71E-01	---	---
Magnetite Tank	---	---	---	---	---	---
<b>Total</b>	<b>7.05E-02</b>	<b>1.65E-01</b>	<b>6.27E-03</b>	<b>4.66</b>	<b>8.01</b>	<b>0.97</b>

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
TITLE V POTENTIAL TO EMIT CALCULATIONS  
AIR POLLUTANT SUMMARY**

**Hazardous Air Pollutants (HAPs) - continued**

Source	Manganese (tons/yr)	Mercury (tons/yr)	Naphthalene (tons/yr)	Nickel (tons/yr)	Phenol (tons/yr)	POM (tons/yr)
Thermal Dryer	5.00E-03	5.78E-03	---	4.37E-03	---	1.64E-03
Transfer Operations	1.59E-03	2.27E-06	---	3.09E-04	---	---
Crushers/Breakers	6.48E-04	9.24E-07	---	1.25E-04	---	---
Screens	1.24E-04	1.76E-07	---	2.39E-05	---	---
Storage Piles - Drop Operations	5.99E-04	8.54E-07	---	1.16E-04	---	---
Storage Piles - Wind Emissions	1.17E-03	1.67E-06	---	2.27E-04	---	---
Roadways and Parking Lots	---	---	---	---	---	---
Wet Wash / Water Treatment	---	---	1.61E-02	---	2.32E-03	---
Dust Suppression	---	---	---	---	---	---
Antifreeze	---	---	---	---	---	---
Clean Coal Sampler	---	---	---	---	---	---
Kerosene Storage Tanks	---	---	0.00E+00	---	0.00E+00	---
Kerosene Filling, Dispensing and Spillage	---	---	4.27E-06	---	7.45E-07	---
Frother Storage Tank	---	---	---	---	---	---
Frother Filling, Dispensing and Spillage	---	---	---	---	---	---
Diesel Storage Tanks	---	---	8.16E-06	---	1.17E-06	---
Diesel Dispensing Operations	---	---	6.14E-04	---	8.80E-05	---
Magnetite Tank	---	---	---	---	---	---
<b>Total</b>	<b>9.14E-03</b>	<b>5.79E-03</b>	<b>1.68E-02</b>	<b>5.17E-03</b>	<b>2.41E-03</b>	<b>1.64E-03</b>

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
TITLE V POTENTIAL TO EMIT CALCULATIONS  
AIR POLLUTANT SUMMARY**

**Hazardous Air Pollutants (HAPs) - continued**

Source	Selenium (tons/yr)	Styrene (tons/yr)	Toluene (tons/yr)	Xylene (tons/yr)	Total HAP (tons/yr)
Thermal Dryer	7.59E-04	---	---	---	9.01E+00
Transfer Operations	6.63E-05	---	---	---	3.25E-03
Crushers/Breakers	2.69E-05	---	---	---	1.32E-03
Screens	5.14E-06	---	---	---	2.52E-04
Storage Piles - Drop Operations	2.49E-05	---	---	---	1.22E-03
Storage Piles - Wind Emissions	4.87E-05	---	---	---	2.39E-03
Roadways and Parking Lots	---	---	---	---	0
Wet Wash / Water Treatment	---	1.43E-02	7.89E-01	4.44E-01	8.27E+00
Dust Suppression	---	---	---	---	0
Antifreeze	---	---	---	---	0
Clean Coal Sampler	---	---	---	---	0
Kerosene Storage Tanks	---	---	0.00E+00	0.00E+00	0.00E+00
Kerosene Filling, Dispensing and Spillage	---	---	3.22E-04	1.56E-04	1.90E-03
Frother Storage Tank	---	---	---	---	0
Frother Filling, Dispensing and Spillage	---	---	---	---	0
Diesel Storage Tanks	---	7.22E-06	3.99E-04	2.25E-04	4.18E-03
Diesel Dispensing Operations	---	5.43E-04	3.00E-02	1.69E-02	3.15E-01
Magnetite Tank	---	---	---	---	---
<b>Total</b>	<b>9.31E-04</b>	<b>1.48E-02</b>	<b>8.20E-01</b>	<b>4.62E-01</b>	<b>17.62</b>

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
 TITLE V POTENTIAL TO EMIT CALCULATIONS  
 AIR POLLUTANT SUMMARY**

**Additional Pollutants**

Source	CO <sub>2</sub> (tons/yr)	CH <sub>4</sub> (tons/yr)	N <sub>2</sub> O (tons/yr)	PM2.5 (tons/yr)	Ammonia (tons/yr)
Thermal Dryer	784.09	1.05	0.78	144.53	0.0148
Transfer Operations	---	---	---	1.16	---
Crushers/Breakers	---	---	---	0.47	---
Screens	---	---	---	0.09	---
Storage Piles - Drop Operations	---	---	---	0.44	---
Storage Piles - Wind Emissions	---	---	---	0.86	---
Roadways and Parking Lots	---	---	---	20.61	---
Wet Wash / Water Treatment	---	---	---	---	---
Dust Suppression	---	---	---	---	---
Antifreeze	---	---	---	---	---
Clean Coal Sampler	---	---	---	0.0020	---
Kerosene Storage Tanks	---	---	---	---	---
Kerosene Filling, Dispensing and Spillage	---	---	---	---	---
Frother Storage Tank	---	---	---	---	---
Frother Filling, Dispensing and Spillage	---	---	---	---	---
Diesel Storage Tanks	---	---	---	---	---
Diesel Dispensing Operations	---	---	---	---	---
Magnetite Tank	---	---	---	0.06	---
<b>Total</b>	<b>784</b>	<b>1.05</b>	<b>0.78</b>	<b>168</b>	<b>1.48E-02</b>

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
 TITLE V POTENTIAL TO EMIT CALUCLATIONS  
 CRITERIA AIR POLLUTANT EMISSIONS FROM THERMAL DRYER**

Pollutant	Emission Factor (lbs/hr) A	Operating Hours (hrs/yr) B	Emissions (lbs/yr) C	Emissions (tons/yr) D
Particulate Matter	77.00	7,083	545,391	272.70
PM10	70.07		496,306	248.15
PM2.5	40.81		289,057	144.53
Sulfur Dioxide	50.30		356,275	178.14
Nitrogen Oxides	93.90		665,094	332.55
Carbon Monoxide	50.30		356,275	178.14
VOC	41.30		292,528	146.26
Lead	See Air Toxics Calcs.			

**NOTES:**

A: Sulfur Dioxide, NOx, CO, & VOC from TraDet 1/1/97 stack test report; PM from TraDet, Inc., 10/2002 stack test report.

A: PM10: Emission Factor = (Particulate Matter Emission Factor) \* (0.91), where 0.91 is the PM10 mass fraction of total particulate matter (AP-42, 5th Ed., Appendix B.1, page B.1-52).

A: PM2.5: Emission Factor = (Particulate Matter Emission Factor) \* (0.53), where 0.53 is the PM2.5 mass fraction of total particulate matter (AP-42, 5th Ed., Appendix B.1, page B.1-52).

B: Operating hours obtained from Pinnacle Mining operating records.

C = A \* B

D = C / 2,000

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
 TITLE V POTENTIAL TO EMIT CALUCLATIONS  
 GREENHOUSE GAS EMISSIONS FROM THERMAL DRYER**

Pollutant	Emission Factor (lbs/ton) A	Quantity of Coal Burned (ton/yr) B	Emissions (lbs/yr) C	Emissions (tons/yr) D
Carbon Dioxide	30	52,273	1,568,176	784.09
Methane	0.04		2,091	1.045
Nitrous Oxide	0.03		1,568	0.78
Ammonia	0.000565		29.53	0.0148

**NOTES:**

A: Carbon Dioxide: Table 11.10-2 (November 1995), AP-42 Compilation of Air Pollutant Emission Factors. Emission factor for fluidized bed dryer with venturi scrubber.

A: Methane and Nitrous Oxide: Information obtained from Table 1.1-19 (September 1998), AP-42 Compilation of Air Pollutant Emission Factors. Emission factors are for a pulverized coal, dry bottom, wall-fired boiler.

A: Ammonia: FIRE Version 6.22, SCC 1-01-002-02.

B: Information obtained from Pinnacle Mining operating records.

C = A \* B

D = C / 2,000

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
TITLE V POTENTIAL TO EMIT CALUCLATIONS  
AIR TOXIC EMISSIONS FROM THERMAL DRYER (COAL COMBUSTION)**

Pollutant A	Concentration of Pollutant in Clean Coal (wt%) B	Quantity of Coal Burned (ton/yr) C	Pollutant Compound to Element Ratio D	Uncontrolled Emissions (lbs/yr) E	Control Efficiency (%) F	Controlled Emissions (lbs/yr) G	Controlled Emissions (tons/yr) H
Chloride / HCl Aerosol	0.075	52,273	1.03	80,083	80	16,017	8.008
Fluoride / HF	0.0088		1.05	9,684	80	1,937	0.97
Formaldehyde	0.000012		1	12.55	0	12.55	0.00627
Mercury	0.000011		1	11.56	0	11.56	0.00578
POM	0.0000031		1	3.29	0	3.29	0.001643

**Notes:**

- A: Except formaldehyde and POM, elements prior to the slash are found in clean coal and compounds to the right of the slash are manufactured during coal combustion. All Chloride and Fluoride is assumed to be converted into hydrochloric and hydrofluoric acid. Formaldehyde and POM are not present in coal but are formed during combustion.
- B: All except formaldehyde and POM: Information obtained from the following clean coal samples: Indian Ridge (Precision Testing Lab, 7/99), Pinnacle (Precision Testing Lab, 7/99), 100% Sewell (REI Consultants, 4/13/00, 2 analyses), Indian Ridge Product (REI Consultants, 4/13/00), and Pinnacle Product (REI Consultants, 4/13/00). The highest concentration of each constituent from all analyses was used for conservatism. Formaldehyde: Information based on formaldehyde emission factor (0.00024 lb formaldehyde/ton coal combusted) obtained from Table 1.1-14, AP-42 Compilation of Air Pollutant Emission Factors. Emission factor was converted to a "concentration in clean coal" by the following methodology:  
 $B = (0.00024 \text{ lb / ton}) * (1 \text{ ton} / 2000 \text{ lb}) * 100\%$
- Polycyclic Organic Matter (POM): Information based on POM emission factor (2.08 lb POM/10<sup>12</sup>Btu) obtained from Table 1.1-17, AP-42 Compilation of Air Pollutant Emission Factors. Emission factor was converted to a "concentration in clean coal" by the following methodology:  
 $B = ((2.08 * 15,112 \text{ Btu/lb coal}) / (10^{12} \text{ Btu})) * 100\%$
- C: Quantity of coal combusted in Thermal Dryer was obtained from Pinnacle operating records.
- D: Chloride and Fluoride are assumed to form (i.e., manufacture) a new compound (right side of slash in Column A). The compound to element ratio represents the ratio of molecular weight of the compound formed to that of the element.  
 $E = (B / 100\%) * (C * 2000 \text{ lb/ton}) * D$
- F: No control is assumed for potential emissions.
- F: Estimated hydrochloric acid aerosol control efficiency. Information obtained from letter dated December 15, 1999 from Randy Patrick, PES, to Larry King, USM, regarding review/comparison of Pinnacle CES and SARA Title III HAP emissions. A control efficiency of 80 to 90% is anticipated with the highly alkaline scrubber water used in the venturi scrubber. For conservatism, the lower value is used in these calculations (80%).
- $G = E * (1 - (F / 100))$
- $H = G / 2000 \text{ lbs/ton}$

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
TITLE V POTENTIAL TO EMIT CALUCLATIONS  
AIR TOXIC EMISSIONS FROM THERMAL DRYER (COAL COMBUSTION)**

Pollutant A	Concentration of Pollutant in Clean Coal (wt%) B	Controlled Particulate Matter Emissions (tons/yr) C	Compound to Element Ratio D	Controlled Emissions (tons/yr) E
Antimony / Sb <sub>2</sub> O <sub>3</sub>	0.0001	272.70	2.39	4.34E-04
Arsenic / As <sub>2</sub> O <sub>3</sub>	0.0011		2.64	7.99E-03
Beryllium / BeO	0.000058		2.78	4.35E-04
Cadmium / CdO	0.0000055		1.14	1.71E-05
Chromium / CrO	0.00057		1.31	2.03E-03
Cobalt / CoO	0.00083		1.27	2.88E-03
Lead / PbO	0.00053		1.08	1.56E-03
Manganese / MnO	0.0014		1.29	5.00E-03
Nickel / NiO	0.0013		1.27	4.37E-03
Selenium / SeO <sub>2</sub>	0.00020		1.41	7.59E-04

Notes:

- A: Elements prior to the slash are found in clean coal and compounds to the right of the slash are manufactured during coal combustion. It is assumed that the lowest weight metal compound (metal oxides) is formed during combustion (*EPCRA Section 313 Industry Guidance - Coal Mining Facilities*, EPA 745-B-99-002, January 1999).
- B: Information obtained from the following clean coal samples: Indian Ridge (Precision Testing Lab, 7/99), Pinnacle (Precision Testing Lab, 7/99), 100% Sewell (REI Consultants, 4/13/00, 2 analyses), Indian Ridge Product (REI Consultants, 4/13/00), and Pinnacle Product (REI Consultants, 4/13/00); and Table 3-4, *EPCRA Section 313 Industry Guidance, Coal Mining Facilities*, EPA 745-B-99-002, January 1999 (Antimony only). The highest concentration of each constituent from all analyses was used for conservatism.
- C: See "Criteria Air Pollutant Emissions from Thermal Dryer".
- D: Each element in Column A is assumed to form (i.e., manufacture) a new compound (right side of slash in Column A). The compound to element ratio represents the ratio of molecular weight of the compound formed to that of the element.
- E = (B / 100%) \* C \* D

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
TITLE V POTENTIAL TO EMIT CALUCLATIONS  
PARTICULATE MATTER EMISSIONS FROM TRANSFER OPERATIONS**

Transfer Point	From	To	Estimated Throughput (tons/yr) A	Moisture Content (%) B	Particulate Emission Factor (lbs/ton) C	Uncontrolled Particulate Emissions (lbs/yr) D	Control Efficiency (%) E	Controlled Particulate Emissions (lbs/yr) F	Controlled Particulate Emissions (tons/yr) G	Controlled PM10 Emissions (tons/yr) H	Controlled PM2.5 Emissions (tons/yr) I
T50	S10	Screen SS-1	7,000,000	7.3	0.00084	5,893	80	1,179	0.59	0.28	0.042
T110	Screen SS-1	S3A	0	7.3	0.00084	0	80	0	0	0	0.000
T54	Screen SS-1	Breaker S6	1,750,000	7.3	0.00084	1,473	80	295	0.15	0.070	0.011
T28-3	Breaker S6	S7	87,500	3.0	0.0029	256	50	128	0.064	0.030	0.005
T27-5	Breaker S6	S5	1,662,500	7.3	0.00084	1,400	50	700	0.35	0.17	0.025
T51	Screen SS-1	RCT-1	2,625,000	7.3	0.00084	2,210	80	442	0.22	0.105	0.016
T52	RCT-1	S5	2,625,000	7.3	0.00084	2,210	80	442	0.22	0.105	0.016
T49	S5	Stockpile ST-11	4,287,500	7.3	REFER TO "STORAGE PILES - DROP OPERATIONS"						
T32	Stockpile ST-11	S3	4,287,500	7.3	0.00084	3,610	80	722	0.36	0.17	0.026
T33	S3	S3B	4,287,500	7.3	0.00084	3,610	50	1,805	0.90	0.43	0.065
T53	Screen SS-1	S3B	2,625,000	7.3	0.00084	2,210	80	442	0.22	0.105	0.016
T34	S3B	C24	6,912,500	7.3	0.00084	5,820	50	2,910	1.45	0.69	0.104
T93	Dump Truck	ST-14	1,000,000	7.3	REFER TO "STORAGE PILES - DROP OPERATIONS"						
T94	ST-14 Front-End Loader	Dump Hopper DH-3	1,000,000	7.3	0.00084	842	50	421	0.21	0.100	0.015
T95	Dump Hopper DH-3	Conveyor C10-3	1,000,000	7.3	0.00084	842	50	421	0.21	0.100	0.015
T96	Conveyor C10-3	Mine Car Dump MCD-1	1,000,000	7.3	0.00084	842	80	168	0.084	0.040	0.006
T65	Truck Dumping	Stockpile OS-1	250,000	7.3	REFER TO "STORAGE PILES - DROP OPERATIONS"						
T92	Stockpile Area OS-1	Dump Truck (to ST-10 & ST-14)	250,000	7.3	0.00084	210	0	210	0.10524	0.04977	0.007537
T114	Truck Dumping	Stockpile ST-13	0	5.8	REFER TO "STORAGE PILES - DROP OPERATIONS"						
T113	Stockpile ST-2	Rail Car	180,000	7.3	0.00084	152	0	152	0.076	0.0358	0.0054
T4-8	Truck Dumping	Storage Pit ST-10	550,000	7.3	0.00084	463	0	463	0.23	0.110	0.0166
T4-9	Storage Pit ST-10	C11-4	550,000	7.3	0.00084	463	50	232	0.116	0.055	0.0083

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
TITLE V POTENTIAL TO EMIT CALCULATIONS  
PARTICULATE MATTER EMISSIONS FROM TRANSFER OPERATIONS**

Transfer Point	From	To	Estimated Throughput (tons/yr) A	Moisture Content (%) B	Particulate Emission Factor (lbs/ton) C	Uncontrolled Particulate Emissions (lbs/yr) D	Control Efficiency (%) E	Controlled Particulate Emissions (lbs/yr) F	Controlled Particulate Emissions (tons/yr) G	Controlled PM10 Emissions (tons/yr) H	Controlled PM2.5 Emissions (tons/yr) I
T73	C11-4	C11-1	275,000	7.3	0.00084	232	50	116	0.058	0.027	0.0041
T74	C11-4	C11-2	275,000	7.3	0.00084	232	50	116	0.058	0.027	0.0041
T72a	Mine Car Dump MCD-1	C11-1	500,000	7.3	0.00084	421	80	84	0.042	0.020	0.0030
T72b	Mine Car Dump MCD-1	C11-2	500,000	7.3	0.00084	421	80	84	0.042	0.020	0.0030
T111	S3A	C11-1	0	7.3	0.00084	0	50	0	0	0	0.0000
T112	S3A	C11-2	0	7.3	0.00084	0	50	0	0	0	0.0000
T75	C11-1	Breaker 13-1	775,000	7.3	0.00084	652	50	326	0.163	0.077	0.0117
T76	C11-2	Breaker 13-2	775,000	7.3	0.00084	652	50	326	0.16	0.077	0.0117
T8-1	Breaker 13-1	C24	736,250	7.3	0.00084	620	50	310	0.155	0.073	0.0111
T8-2	Breaker 13-2	C24	736,250	7.3	0.00084	620	50	310	0.155	0.073	0.0111
T9-1a	Breaker 13-1	8A	38,750	3.0	0.0029	113	50	57	0.028	0.0134	0.0020
T9-1b	Breaker 13-2	8A	38,750	3.0	0.0029	113	50	57	0.028	0.0134	0.0020
T10-1	C24	C31-A	838,500	7.3	0.00084	706	50	353	0.18	0.083	0.0126
T10-2	C24	C31	3,773,250	7.3	0.00084	3,177	80	635	0.32	0.15	0.0228
T10-3	C24	Raw Coal Silo ST-3	3,773,250	7.3	0.00084	3,177	80	635	0.32	0.15	0.0228
T10-4	C31	Raw Coal Silo ST-4	3,773,250	7.3	0.00084	3,177	80	635	0.32	0.15	0.0228
T11	C31-A	Stockpile ST-2	838,500	7.3	REFER TO "STORAGE PILES - DROP OPERATIONS"						
T77	Stockpile ST-2	C36 Feeder	838,500	7.3	0.00084	706	50	353	0.18	0.083	0.013
T12-1	Raw Coal Silo ST-3	C37	3,773,250	7.3	0.00084	3,177	80	635	0.32	0.15	0.023
T12-2	Raw Coal Silo ST-4	C37	3,773,250	7.3	0.00084	3,177	80	635	0.32	0.15	0.023
T12-3	C36 Feeder	C37	838,500	7.3	0.00084	706	80	141	0.071	0.033	0.005
T13	C37	C45	8,385,000	7.3	0.00084	7,059	100	0	0	0	0.000
T46-2	8A	C8	77,500	3.0	0.0029	227	80	45	0.023	0.0107	0.002
T29	S7	Rock Bin	87,500	3.0	0.0029	256	50	128	0.064	0.030	0.005
T34-2a	Rock Bin	Rock Crusher #6	0	3.0	0.0029	0	80	0	0	0	0.000
T34-2b	Rock Bin	C8	87,500	3.0	0.0029	256	80	51	0.026	0.0121	0.002
T35	Rock Crusher #6	C8	0	3.0	0.0029	0	80	0	0	0	0.000
T36	C8	Refuse Bin ST-7	165,000	3.0	0.0029	482	80	96	0.048	0.023	0.003
T37	C125	Refuse Bin ST-7	2,096,250	12.0	0.00042	880	80	176	0.088	0.042	0.006
T38	Refuse Bin ST-7	C128-1	2,261,250	12.0	0.00042	949	80	190	0.095	0.045	0.007
T39	C128-1	Storage Bin ST-8	2,261,250	12.0	0.00042	949	80	190	0.095	0.045	0.007
T40	Storage Bin ST-8	C128-2	2,261,250	12.0	0.00042	949	50	475	0.24	0.112	0.017
T41	C128-2	C128-3	2,261,250	12.0	0.00042	949	50	475	0.24	0.112	0.017

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
TITLE V POTENTIAL TO EMIT CALCULATIONS  
PARTICULATE MATTER EMISSIONS FROM TRANSFER OPERATIONS**

Transfer Point	From	To	Estimated Throughput (tons/yr) A	Moisture Content (%) B	Particulate Emission Factor (lbs/ton) C	Uncontrolled Particulate Emissions (lbs/yr) D	Control Efficiency (%) E	Controlled Particulate Emissions (lbs/yr) F	Controlled Particulate Emissions (tons/yr) G	Controlled PM10 Emissions (tons/yr) H	Controlled PM2.5 Emissions (tons/yr) I	
T42	C128-3	C128-4	2,261,250	12.0	0.00042	949	50	475	0.24	0.112	0.017	
T43	C128-4	C128-5	2,261,250	12.0	0.00042	949	50	475	0.24	0.112	0.017	
T44	C128-5	C128-6	2,261,250	12.0	0.00042	949	50	475	0.24	0.112	0.017	
T121	C128-6	Stacking Belt	2,261,250	12.0	0.00042	949	50	475	0.24	0.112	0.017	
T45	Stacking Belt	Refuse Stockpile ST-12	2,261,250	12.0	REFER TO "STORAGE PILES - DROP OPERATIONS"							
T15	C100	Thermal Dryer	4,472,000	12.0	0.00042	1,877	50	939	0.47	0.22	0.034	
T122	Clean Coal Truck	ST-16	360,000	5.8	REFER TO "STORAGE PILES - DROP OPERATIONS"							
T134	Pond Fines Truck	ST-16	500,000	18.0	REFER TO "STORAGE PILES - DROP OPERATIONS"							
T124	Endloader at ST-16	DHRC-4	0	12.9	0.0004	0	0	0	0.000	0.000	0.0000	
T125	DHRC-4	C120	0	12.9	0.0004	0	50	0	0.000	0.000	0.0000	
T126	ST-16	C120	860,000	12.9	0.0004	327	80	65	0.033	0.015	0.0023	
T127A	Conveyer C120	Conveyer C121	43,800	12.9	0.0004	17	50	8	0.004	0.002	0.0003	
T127B	Conveyer C120	RC-5	816,200	12.9	0.0004	310	50	155	0.077	0.037	0.0055	
T128	Conveyer C121	Sample Collector	43,800	12.9	0.0004	17	80	3	0.002	0.001	0.0001	
T129	Sample Collector	Conveyer C122	43,800	12.9	0.0004	17	80	3	0.002	0.001	0.0001	
T130	Conveyer C122	RC-5	43,800	12.9	0.0004	17	50	8	0.004	0.002	0.0003	
T16	C118	Mixer No. 120	6,288,750	5.8	0.0012	7,306	95	365	0.183	0.086	0.0131	
T17	Mixer No. 120	C119	6,288,750	5.8	0.0012	7,306	95	365	0.18	0.086	0.0131	
T18	C119	C132	6,288,750	5.8	0.0012	7,306	95	365	0.18	0.086	0.0131	
T19	C132	Clean Coal Silo ST-5	1,886,625	5.8	0.0012	2,192	80	438	0.22	0.104	0.0157	
T19-A	C132	SC-1	4,402,125	5.8	0.0012	5,114	80	1,023	0.51	0.24	0.0366	
T19-B	SC-1	Stockpile ST-13	4,402,125	5.8	REFER TO "STORAGE PILES - DROP OPERATIONS"							
T20	Clean Coal Silo ST-5	C139	1,886,625	5.8	0.0012	2,192	95	110	0.055	0.026	0.0039	
T21	C139	C141	1,886,625	5.8	0.0012	2,192	95	110	0.055	0.026	0.0039	
T22	Stockpile ST-13	RC-1	4,402,125	5.8	0.0012	5,114	80	1,023	0.51	0.24	0.0366	
T81	RC-5	RC-1	860,000	5.8	0.0012	999	80	200	0.10	0.05	0.0072	
T23	RC-1	C141	5,262,125	5.8	0.0012	6,113	95	306	0.15	0.072	0.0109	
T24	C141	C152	7,148,750	5.8	0.0012	8,305	80	1,661	0.83	0.39	0.0595	
T25	C152	Loading Bin ST-6	7,148,750	5.8	0.0012	8,305	80	1,661	0.83	0.39	0.0595	
T26	Loading Bin ST-6	Rail Car	7,148,750	5.8	0.0012	8,305	80	1,661	0.83	0.39	0.0595	
T119	Front-End Loader at ST-13	Dump Truck	360,000	5.8	0.0012	418	0	418	0.21	0.10	0.0150	
--	Clean Coal Sampler	--	REFER TO CLEAN COAL SAMPLER TRANSFER OPERATIONS AND CRUSHERS									
--	Scale Sampler	--	--	--	--	Neg.	--	Neg.	Neg.	Neg.	Neg.	
T101, Note J	Dump Truck	ST-2	180,000	7.3	REFER TO "STORAGE PILES - DROP OPERATIONS"							
See Note K	Origin Stockpile Front-End Loader	Dump Truck	100,000	7.3	0.00084	84	0	84	0.042	0.020	0.0030	
See Note K	Dump Truck	Destination Stockpile	100,000	7.3	REFER TO "STORAGE PILES - DROP OPERATIONS"							
--	Endloader at Green Ridge II	Dump Truck	1,000,000	7.3	0.00084	842	0	842	0.421	0.199	0.0301	
						<b>TOTAL</b>	<b>146,012</b>	<b>0</b>	<b>32,479</b>	<b>16.24</b>	<b>7.68</b>	<b>1.16</b>

Table notes appear on next page

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
TITLE V POTENTIAL TO EMIT CALCULATIONS  
PARTICULATE MATTER EMISSIONS FROM TRANSFER OPERATIONS**

**NOTES:**

A: Coal processing information obtained from Pinnacle operating records:

Raw coal feed (from No. 50 Mine, after breakers) =	6,912,500 tons
25% of No. 50 Mine raw coal passes through breaker and 5% of raw coal is refuse which is removed in the rotary breakers, thus No. 50 Mine output (run of mine) = Raw Coal Feed / (1 - (0.25 * 0.05))	7,000,000 tons
Run of mine coal input to Old Saw Mill Site =	250,000 tons
Coal processed through Old Saw Mill Screen OSS-1 =	0 tons
Coal From Outside Sources to ST-10 directly:	550,000 tons
Coal From Outside Sources to ST-10 via Truck Scale:	250,000 tons
Coal From Outside Sources directly to ST-10:	550,000 tons
Coal From OS-1 to ST-10:	250,000 tons
Coal From ST-2 (temp. storage for ST-10) to Rail Cars:	180,000 tons
Coal from Outside Sources to ST-14:	1,000,000 tons
Coal From Outside Sources to ST-14 via OS-1:	0 tons
Other Coal From Outside Sources to ST-14:	1,000,000 tons
Total Coal From Outside Sources:	1,550,000 tons
Coal moving flexibility from any pile to any pile:	100,000 tons
Coal moving flexibility: temporary storage at ST-2 for transfer to ST-10:	180,000 tons
Recovered Pond Fines trucked to ST-16	500,000 tons
Coal trucked to ST-16	360,000 tons
Coal/pond fines transferred to DHRC-4	300,000 tons
Coal/pond fines transferred from ST-16 via feeders	150,000 tons
Maximum capacity of wash circuit = 1,500 tph * 7,083 hr/yr =	10,624,500 tons
Maximum capacity of thermal dryer = 800 tph * 7,083 hr/yr =	5,666,400 tons
Prep Plant feed (calculated above) =	8,385,000 tons
Thermal Dryer feed (calculated above) =	4,472,000 tons
Total clean coal processed = 75% Prep Plant Feed =	6,288,750 tons

B: Typical moisture values estimated with Pinnacle Mining operating records.

$$C = k * 0.0032 * (U / 5)^{1.3} / (M / 2)^{1.4}$$

where k = particulate size multiplier = 0.74 for particulate matter

U = mean wind speed = 9.1 mph

M = percent moisture from column B.

Equation is from Section 13.2.4 of AP-42 (November 2006).

$$D = A * C$$

E: Control efficiencies as follows (per WVOAQ guidance):

0% for no control (open transfer)	80% for full enclosure / underground transfer
50% for partial enclosure	95% for full enclosure vented to scrubber
70% for conveyor transfer with water spray	99% for full enclosure vented to baghouse

$$F = D * (1 - E / 100)$$

$$G = F / 2,000$$

H = G \* 0.35 / 0.74, where 0.35 and 0.74 are the particle size multipliers for PM10 and PM, respectively. (See also Note C)

I = G \* 0.053 / 0.74, where 0.053 and 0.74 are the particle size multipliers for PM2.5 and PM, respectively. (See also Note C)

J: Coal hauled for temporary storage at ST-2. This amount that is eventually transferred into ST-10 is accounted for in the calculations for ST-10.

K: The "Origin Stockpile Front-End Loader to Dump Truck" Transfer Points are as follows: T92 (Front-end Loader at OS-1), T100 (Front-end Loader at ST-2), T102 (Front-end Loader at ST-11), T104 (Front-end Loader at ST-14), T119 (Front-end Loader at ST-13), T105 (Front-end loader at ST-10), and T135 (Front-end loader at ST-16). The "Dump Truck to Destination Stockpile" Transfer Points are as follows: T65 (Truck Dump at OS-1), T101 (Truck Dump at ST-2), T4-8 (Truck Dump at ST-10),

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
 TITLE V POTENTIAL TO EMIT CALCULATIONS  
 AIR TOXIC EMISSIONS FROM TRANSFER OPERATIONS (COAL PARTICULATE)**

Pollutant	Coal Particulate HAP Concentration (wt%) A	Particulate Matter Emissions (tons/yr) B	Coal Particulate HAP Emissions (lbs/yr) C	Coal Particulate HAP Emissions (tons/yr) D
Antimony	0.000093	16.24	0.030	1.51E-05
Arsenic	0.0059		1.92	9.61E-04
Beryllium	0.000081		0.026	1.31E-05
Cadmium	0.0000065		0.0021	1.06E-06
Chromium	0.00094		0.30	1.52E-04
Cobalt	0.00081		0.26	1.32E-04
Lead	0.0015		0.50	2.48E-04
Manganese	0.0098		3.19	1.59E-03
Mercury	0.000014		0.0045	2.27E-06
Nickel	0.0019		0.62	3.09E-04
Selenium	0.00041		0.133	6.63E-05

Notes:

A: Information obtained from raw coal samples taken July 1999 by Precision Testing Laboratory and May 4, 2000 by REIC. The concentration of Antimony was obtained from Table 3-4, *EPCRA Section 313 Industry Guidance, Coal Mining Facilities*, EPA 745-B-99-002, January 1999. The highest chemical concentration among the samples was used for conservatism.

B: See "Particulate Matter Emissions from Transfer Operations"

C = (A / 100) \* B \* 2000

D = C / 2,000

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
TITLE V POTENTIAL TO EMIT CALUCLATIONS  
PARTICULATE MATTER EMISSIONS FROM CRUSHERS / BREAKERS**

Unit	Material Throughput (tons/yr) A	Particulate Emission Factor (lbs/ton) B	Uncontrolled Particulate Emissions (lbs/yr) C	Control Efficiency (%) D	Controlled Particulate Emissions (lbs/yr) E	Controlled Particulate Emissions (tons/yr) F	Controlled PM10 Emissions (tons/yr) G	Controlled PM2.5 Emissions (tons/yr) H
Rock Crusher #6	0	0.018	0	80	0	0	0	0.00
Breaker 13-1	775,000	0.020	15,500	80	3,100	1.55	0.73	0.11
Breaker 13-2	775,000	0.020	15,500	80	3,100	1.55	0.73	0.11
Breaker S6	1,750,000	0.020	35,000	80	7,000	3.50	1.66	0.25
146 Clean Coal Sampler	REFER TO CLEAN COAL SAMPLER TRANSFER OPERATIONS AND CRUSHERS							
		<b>TOTAL</b>	66,000		13,200	6.60	3.12	0.47

**NOTES:**

A: Values obtained from estimated raw coal throughput for crushers/breakers #6, 13-1, 13-2, and S6 (see transfer operations calculations).

B: Emission factors per WVOAQ guidance document.

C = A \* B

D: Control efficiencies as follows (per WVOAQ guidance):  
80% for full enclosure  
99% for full enclosure vented to baghouse

E = C \* (1 - D / 100)

F = E / 2,000

G = F \* 0.35 / 0.74, where 0.35 and 0.74 are the particle size multipliers for PM10 and PM, respectively, for the aggregate handling equation, Section 13.2.4 of AP-42 (November 2006).

H = F \* 0.053 / 0.74, where 0.053 and 0.74 are the particle size multipliers for PM2.5 and PM, respectively, for the aggregate handling equation, Section 13.2.4 of AP-42 (November 2006).

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
 TITLE V POTENTIAL TO EMIT CALUCLATIONS  
 PARTICULATE MATTER EMISSIONS FROM SCREENS**

Unit	Material Throughput (tons/yr) A	Particulate Emission Factor (lbs/ton) B	Uncontrolled Particulate Emissions (lbs/yr) C	Control Efficiency (%) D	Controlled Particulate Emissions (lbs/yr) E	Controlled Particulate Emissions (tons/yr) F	Controlled PM10 Emissions (tons/yr) G	Controlled PM2.5 Emissions (tons/yr) H
Scalping Screen SS-1	7,000,000	0.0018	12,600	80	2,520	1.26	0.60	0.09
		TOTAL	12,600		2,520	1.26	0.60	0.09

NOTES:

A: Values obtained from estimated raw coal throughput for SS-1 (see transfer operations calculations).

B: Emission factor approved by WVOAQ during permitting of source installation.

C = A \* B

D: Control efficiencies as follows (per WVOAQ guidance): 80% for full enclosure

E = C \* (1 - D / 100)

F = E / 2,000

G = F \* 0.35 / 0.74, where 0.35 and 0.74 are the particle size multipliers for PM10 and PM, respectively, for the aggregate handling equation, Section 13.2.4 of AP-42 (November 2006).

H = F \* 0.053 / 0.74, where 0.053 and 0.74 are the particle size multipliers for PM2.5 and PM, respectively, for the aggregate handling equation, Section 13.2.4 of AP-42 (November 2006).

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
 TITLE V POTENTIAL TO EMIT CALCULATIONS  
 AIR TOXIC EMISSIONS FROM CRUSHERS / BREAKERS (COAL PARTICULATE)**

Pollutant	Coal Particulate HAP Concentration (wt%) A	Particulate Matter Emissions (tons/yr) B	Coal Particulate HAP Emissions (lbs/yr) C	Coal Particulate HAP Emissions (tons/yr) D
Antimony	0.000093	6.60	0.012	6.14E-06
Arsenic	0.0059		0.78	3.91E-04
Beryllium	0.000081		0.011	5.34E-06
Cadmium	0.0000065		0.0009	4.29E-07
Chromium	0.00094		0.12	6.17E-05
Cobalt	0.00081		0.11	5.35E-05
Lead	0.0015		0.20	1.01E-04
Manganese	0.0098		1.30	6.48E-04
Mercury	0.000014		0.0018	9.24E-07
Nickel	0.0019		0.25	1.25E-04
Selenium	0.00041		0.054	2.69E-05

Notes:

A: Information obtained from raw coal samples taken July 1999 by Precision Testing Laboratory and May 4, 2000 by REIC. The concentration of Antimony was obtained from Table 3-4, *EPCRA Section 313 Industry Guidance, Coal Mining Facilities*, EPA 745-B-99-002, January 1999. The highest chemical concentration among the samples was used for conservatism.

B: See "Particulate Matter Emissions from Crushers / Breakers"

C = (A / 100) \* B \* 2000

D = C / 2,000

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
TITLE V POTENTIAL TO EMIT CALUCLATIONS  
AIR TOXIC EMISSIONS FROM SCREENS (COAL PARTICULATE)**

Pollutant	Coal Particulate HAP Concentration (wt%) A	Particulate Matter Emissions (tons/yr) B	Coal Particulate HAP Emissions (lbs/yr) C	Coal Particulate HAP Emissions (tons/yr) D
Antimony	0.000093	1.26	0.0023	1.17E-06
Arsenic	0.0059		0.15	7.46E-05
Beryllium	0.000081		0.0020	1.02E-06
Cadmium	0.0000065		0.00016	8.19E-08
Chromium	0.00094		0.024	1.18E-05
Cobalt	0.00081		0.020	1.02E-05
Lead	0.0015		0.039	1.93E-05
Manganese	0.0098		0.25	1.24E-04
Mercury	0.000014		0.00035	1.76E-07
Nickel	0.0019		0.048	2.39E-05
Selenium	0.00041		0.0103	5.14E-06

Notes:

A: Information obtained from raw coal samples taken July 1999 by Precision Testing Laboratory and May 4, 2000 by REIC. The concentration of Antimony was obtained from Table 3-4, *EPCRA Section 313 Industry Guidance, Coal Mining Facilities*, EPA 745-B-99-002, January 1999.

The highest chemical concentration among the samples was used for conservatism.

B: See "Particulate Matter Emissions from Screens"

C = (A / 100) \* B \* 2000

D = C / 2,000

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
TITLE V POTENTIAL TO EMIT CALUCLATIONS  
PARTICULATE MATTER EMISSIONS FROM UNPAVED ROADWAYS AND PARKING AREAS**

Vehicle Type	s	W	Particulate Emission Factor lbs/VMT	PM10 Emission Factor lbs/VMT	PM2.5 Emission Factor lbs/VMT
1 Plant Vehicles	5.1	1.5	1.11	0.29	0.03
2 Maintenance Trucks	5.1	12.5	2.87	0.74	0.07
3 P&H Crane	5.1	15	3.12	0.80	0.08
4 Empty Dump Truck via Overland Road	5.1	14	3.02	0.78	0.08
5 Loaded Dump Truck via Overland Road	5.1	44	5.06	1.31	0.13
6 Endloader @ OS-1(OSS-1 Related)	5.1	47	5.22	1.35	0.13
7 Full Truck from Outside Sources to ST-10 via Truck Scale	5.1	44	5.06	1.31	0.13
8 Full Truck from Outside Sources directly to ST-10	5.1	44	5.06	1.31	0.13
9 Empty Truck from ST-10 directly to SR 12/3	5.1	14	3.02	0.78	0.08
10 Truck from OS-1 to ST-10 directly from SR 12/3	5.1	29	4.20	1.08	0.11
11 Full Truck from ST-10 to ST-2	5.1	44	5.06	1.31	0.13
12 Empty Truck from ST-2 to SR 12/3 Exit	5.1	14	3.02	0.78	0.08
13 Front-end Loader at ST-2 to ST-10 or Rail Cars	5.1	47	5.22	1.35	0.13
14 Full Truck from Outside Sources to ST-14	5.1	44	5.06	1.31	0.13
15 Empty Truck from ST-14 to Outside Sources	5.1	14	3.02	0.78	0.08
16 Front-end Loader at ST-14 (for transfer to DH-3)	5.1	47	5.22	1.35	0.13
17 Full Truck from Origin Stockpile to Destination Stockpile	5.1	44	5.06	1.31	0.13
18 Empty Truck from Destination Stockpile to Origin Stockpile	5.1	14	3.02	0.78	0.08
19 Front-end Loader at Origin Stockpile (for truck to Destination Stockpile)	5.1	47	5.22	1.35	0.13
20 Endloader at ST-13 to truck	5.1	47	5.22	1.35	0.13
21 Endloader at ST-16 to truck or DHRC-4	5.1	47	5.22	1.35	0.13
22 Truck between ST-13 & SR 12/3	5.1	29	4.20	1.08	0.11
23 Endloader at Green Ridge II Stockpile	5.1	47	5.22	1.35	0.13

Table continued on next page.

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
TITLE V POTENTIAL TO EMIT CALCULATIONS  
PARTICULATE MATTER EMISSIONS FROM UNPAVED ROADWAYS AND PARKING AREAS**

Vehicle Type	VMT/yr	Control Efficiency (%)	Controlled Particulate Emissions (ton/yr)	Controlled PM10 Emissions (ton/yr)	Controlled PM2.5 Emissions (ton/yr)
1 Plant Vehicles	15,132	85	1.26	0.32	0.032
2 Maintenance Trucks	3,640	85	0.78	0.20	0.020
3 P&H Crane	52	85	0.012	0.0031	0.00031
4 Empty Dump Truck via Overland Road	747	85	0.17	0.044	0.0044
5 Loaded Dump Truck via Overland Road	747	85	0.28	0.073	0.007
6 Endloader @ OS-1(OSS-1 Related)	911	85	0.356	0.0919	0.0092
7 Full Truck from Outside Sources to ST-10 via Truck Scale	1,941	85	0.74	0.19	0.0190
8 Full Truck from Outside Sources directly to ST-10	284	85	0.11	0.03	0.0028
9 Empty Truck from ST-10 directly to SR 12/3	521	85	0.12	0.030	0.0030
10 Truck from OS-1 to ST-10 directly from SR 12/3	3,504	85	1.1028	0.2845	0.0284
11 Full Truck from ST-10 to ST-2	170	85	0.06	0.02	0.0017
12 Empty Truck from ST-2 to SR 12/3 Exit	170	85	0.04	0.01	0.0010
13 Front-end Loader at ST-2 to ST-10 or Rail Cars	1,023	85	0.40	0.10	0.0103
14 Full Truck from Outside Sources to ST-14	15,379	85	5.84	1.51	0.15
15 Empty Truck from ST-14 to Outside Sources	15,379	85	3.49	0.90	0.090
16 Front-end Loader at ST-14 (for transfer to DH-3)	947	85	0.37	0.096	0.0096
17 Full Truck from Origin Stockpile to Destination Stockpile	2,518	85	0.96	0.25	0.025
18 Empty Truck from Destination Stockpile to Origin Stockpile	2,518	85	0.57	0.147	0.015
19 Front-end Loader at Origin Stockpile (for truck to Destination Stockpile)	95	85	0.037	0.0096	0.00096
20 Endloader at ST-13 to truck	341	85	0.133	0.0344	0.0034
21 Endloader at ST-16 to truck or DHRC-4	341	85	0.13	0.03	0.00
22 Truck between ST-13 & SR 12/3	6,977	85	2.196	0.5665	0.057
23 Endloader at Green Ridge II Stockpile	947	85	0.370	0.0956	0.010
		TOTAL	19.53	5.04	0.50

Notes:

Emission Factor is from AP-42, Section 13.2.2 (November, 2006), Equation 2 (with p=160 days with 0.01 inches of precipitation per year); adjusted for speed as allowed on page 13.2.2-4. The values for the parameters s, W, M and S listed in the table above are from the sources listed below :

$$\text{Emission Factor (lbs/VMT)} = [k * (s / 12)^a * (W / 3)^b]$$

W is mean vehicle weight (tons)

s is from AP-42 Table 13.2.2-1 for western surface coal mining

k, a, and b for particulate, PM10, and PM2.5 (not shown above) is from AP-42 Table 13.2.2-2

Notes continued on next page.

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
TITLE V POTENTIAL TO EMIT CALCULATIONS  
PARTICULATE MATTER EMISSIONS FROM UNPAVED ROADWAYS AND PARKING AREAS**

Vehicle Miles Traveled (VMT) were obtained as follows:

- 1, 2, 3: VMT from Title V permit application PTE calculations; estimated with Pinnacle operating records.
- 4, 5:  $VMT = (2100 \text{ ft} / 5280 \text{ ft}) * 6 \text{ trips/day} * (365 \text{ days} - 52 \text{ days})$
- 6: VMT for endloader at OS-1 loading a truck for transport to ST-10 or ST-14; 5.2-ton loader bucket; and average 50-foot trip and the material hauled (250,000 tons/yr).
- 7: VMT/yr based on the distance of the haul road from SR 12/3 to Truck Scale (1080 ft round trip) and from SR 12/3 to ST-10 (150 ft one-way) and amount of material hauled (250,000 tons/yr) in 30-ton capacity trucks.
- 8: VMT/yr based on the distance of the haul road from SR 12/3 directly to ST-10 (150 ft one-way) and amount of material hauled (300,000 tons/yr) in 30-ton capacity trucks.
- 9: VMT/yr based on the distance of the haul road from ST-10 directly to SR 12/3 (150 ft one-way) and number of empty trucks leaving site based on material hauled (550,000 tons/yr) in 30-ton capacity trucks.
- 10: VMT/yr based on the distance of the haul road from the mid-point of OS-1 to SR 12/3 (960 ft one-way, doubled for round trip) and from SR 12/3 to ST-10 (150 ft one-way, doubled for round trip) and amount of material hauled (250,000 tons/yr) in 30-ton capacity trucks.
- 11: VMT/yr based on the distance of the haul road from ST-10 to ST-2 for a loaded truck (150 ft) and the amount of material hauled (180,000 tons/yr) in 30-ton capacity trucks. Calculations for emissions generated by truck traffic prior to ST-10 can be found on Item 10.
- 12: VMT/yr based on the distance of the haul road from ST-2 to ST-10 for an empty truck (150 ft) and amount of material hauled (180,000 tons/yr) in 30-ton capacity trucks.
- 13: VMT/yr based on the distance of the haul road from ST-2 to ST-10 or Rail Cars for a Front-end Loader (150 ft, doubled for round trips) and amount of material hauled (180,000 tons/yr) in 10-ton capacity buckets on Front-end Loaders.
- 14: VMT/yr based on the distance of the haul road (overland road) from SR 12/3 to ST-14 for a loaded truck (2336 ft) and a 100 ft entrance at Green Ridge, and amount of material hauled (1,000,000 tons/yr) in 30-ton capacity trucks.
- 15: VMT/yr based on the distance of the haul road (overland road) from SR 12/3 to ST-14 for a loaded truck (2336 ft) and a 100 ft entrance at Green Ridge, and amount of material hauled (1,000,000 tons/yr) in 30-ton capacity trucks.
- 16: VMT/yr based on the distance of ST-14 to DH-3 (25 ft one-way, doubled for round-trip) and amount of material hauled (1,000,000 tons/yr) in 10-ton capacity front-end loaders.
- 17 and 18: The emissions from these items represent the worst-case scenario for moving 100,000 tons per year of coal from any stockpile on-site to any other stockpile on-site. The worst-case emissions scenario was determined to be the transfer of coal from Stockpile OS-1 to Stockpile ST-11. While an empty truck return trip for this scenario does not travel on the same roads as the full truck, it still represents the worst case scenario because of the length of unpaved roads traveled.
- 19: VMT/yr based on the distance of OS-1 to the receiving truck (25 ft one-way, doubled for round-trip) and amount of material hauled (100,000 tons/yr) in 10-ton capacity front-end loaders.
- 20: VMT/yr for endloader based on the distance of 25 ft to transfer material from ST-13 into truck, and amount of material hauled (0 tons/yr) in 10-ton capacity front-end loader.
- 21: VMT/yr for endloader based on the distance of 25 ft to transfer pond fines into DHRC-4 or truck, and the amount of material hauled (360,000 tons/yr) in 10-ton capacity front-end loader.
- 22: VMT/yr for clean coal dump trucks (unpaved) based on the distance of 1535 ft (trucks hauling clean coal from SR 12/3 to ST-13) and amount of material hauled (360,000 tons/yr clean coal) in 30-ton capacity trucks (then multiplied by 2 for trip back and forth)
- 23: VMT/yr for endloader based on the distance of 50 ft to transfer material from Green Ridge II stockpile into truck, and amount of material hauled (1,000,000 tons/yr) in 10-ton capacity front-end loader.

Control efficiencies as follows (per WVOAQ guidance):

85% for water truck; manufactured, pressurized water/chemical sprays  
75% for water truck; manufactured, pressurized sprays

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
TITLE V POTENTIAL TO EMIT CALCULATIONS  
PARTICULATE MATTER EMISSIONS FROM PAVED ROADWAYS AND PARKING AREAS**

Vehicle Type	k	sL	W	Particulate Emission Factor lbs/VMT	VMT/yr	Uncontrolled Particulate Emissions (lb/yr)	Uncontrolled Particulate Emissions (ton/yr)	Control Efficiency (%)	Controlled Particulate Emissions (ton/yr)	Controlled PM10 Emissions (ton/yr)	Controlled PM10 Emissions (ton/yr)
1 Car / Light Duty Gas	0.011	70	1.5	0.71	1,182	836	0.42	75	0.105	0.0209	0.0051
2 Plant Vehicles	0.011	70	1.5	0.71	6,916	4,892	2.45	75	0.61	0.1223	0.0300
3 Fork Lift	0.011	70	4.0	1.92	91	175	0.09	75	0.022	0.0044	0.0011
4 Maintenance Trucks	0.011	70	12.5	6.15	1,456	8,954	4.48	75	1.12	0.2239	0.0549
5 Maintenance 4-Wheeler	0.011	70	0.5	0.23	364	84	0.042	75	0.0105	0.0021	0.0005
6 P&H Crane	0.011	70	15.0	7.41	52	385	0.19	75	0.048	0.0096	0.0024
7 Dump Trucks	0.011	70	15.0	7.41	6,000	44,441	22.22	75	5.56	1.1110	0.2727
8 Dump Truck Entering/Exiting Truck Scale Area	0.011	17.5	29.0	4.11	732	3,010	1.50	75	0.38	0.0752	0.0185
9 Dump Truck Entering/Exiting OS-1	0.011	17.5	29.0	4.11	0	0	0.00	75	0.000	0.0000	0.0000
10 Truck between ST-13 & point on SR 12/3 where county maintains it (SR 12/3)	0.011	70	29.0	14.51	15,423	223,784	111.89	75	27.973	5.5946	1.3732
11 Full Truck from Outside Sources to ST-10 via Truck Scale	0.011	70	44.0	22.20	14,118	313,414	156.71	75	39.177	7.8354	1.9232
12 Full Truck from Outside Sources directly to ST-10	0.011	70	44.0	22.20	15,900	352,973	176.49	75	44.122	8.8243	2.1660
13 Empty Truck from ST-10 directly to SR 12/3	0.011	70	14.0	6.90	29,150	201,239	100.62	75	25.155	5.0310	1.2349
14 Truck from OS-1 to ST-10 directly from SR 12/3	0.011	70	44.0	22.20	7,333	162,797	81.40	75	20.350	4.0699	0.9990
15 Full Truck from Outside Sources to ST-14	0.011	70	44.0	22.20	67,333	1,494,770	747.38	75	186.846	37.3692	9.1724
16 Empty Truck from ST-14 to Outside Sources	0.011	70	14.0	6.90	67,333	464,840	232.42	75	58.105	11.6210	2.8524
						<b>TOTAL</b>	<b>1638.30</b>		<b>409.57</b>	<b>81.91</b>	<b>20.11</b>

**NOTES:**

Emission estimation equations from AP-42 Section 13.2.1 (January 2011), Equation (1) for industrial paved roads.

$$\text{Emission Factor (lbs/VMT)} = k * (sL)^{0.91} * (W)^{1.02} * (1 - P / 4N)$$

Variable definitions:

k = particle size multiplier for particle size PM-30 in units of lb/VMT

W = average weight (tons) of vehicles traveling the road

sL = road surface silt loading for particle size range of interest. The AP-42 Table 13.2.1-3 value for sand and gravel processing (70 g/m<sup>2</sup>) was reduced by 75% to 17.5 g/m<sup>2</sup> for the road at Truck Scale Area and OS-1 (#8 and #9 above) because the particular road is vacuumed at least once per day.

P = 160 days with 0.01 inches of precipitation per year

N = 365 day in a year

Vehicle Miles Traveled (VMT) were obtained as follows:

1 - 7: VMT estimated with Pinnacle operating records.

8: VMT/yr based on the travel over paved section of the haul road between SR 12/3 and Truck Scale Area (232 ft one-way, doubled for round-trip) and amount of material hauled (250,000 tons/yr) in 30-ton capacity trucks.

9: VMT data based on a road length of 100 ft. with round trips determined from Screen OSS-1 throughput (250,000 tons/yr). VMT is based on the assumption that all the coal screened by OSS-1 is hauled away from OS-1; rock from DHOS-1 (250,000 tons/yr) is used as base material at OS-1; and the amount of material hauled in each truck.

10: VMT/yr for dump trucks (paved) based on the distance of 225 ft (the paved section for trucks hauling clean coal off SR 12/3 to ST-13) and 0.6 miles (ST-13 & to point on SR 12/3 where county maintains it) and amount of material hauled (360,000 tons/yr) in 30-ton capacity trucks (then multiplied by 2 for trip back and forth). VMT/hr based on 12 truck trips per hour (then multiplied by 2 for trip back and forth).

11: VMT/yr based on the distance of SR 12/3 from Green Ridge II to ST-10 (1.59 miles one-way) plus 225 ft paved entrance section to scale area and amount of material hauled (250,000 tons/yr) in 30-ton capacity trucks.

12: VMT/yr based on the distance of SR 12/3 from Green Ridge II to ST-10 (1.59 miles one-way) and amount of material hauled (300,000 tons/yr) in 30-ton capacity trucks.

13: VMT/yr based on the distance of SR 12/3 from Green Ridge II to ST-10 (1.59 miles one-way) and number of empty trucks leaving site based on material hauled (550,000 tons/yr) in 30-ton capacity trucks.

14: VMT/yr based on the distance of SR 12/3 from OS-1 to ST-10 (0.44 miles one-way, doubled for round trip) and amount of material hauled (250,000 tons/yr) in 30-ton capacity trucks.

15: VMT/yr based on the distance of SR 12/3 from Green Ridge II to ST-14 for a loaded truck (2.02 miles) and amount of material hauled (1,000,000 tons/yr) in 30-ton capacity trucks.

16: VMT/yr based on the distance of SR 12/3 from ST-14 to Green Ridge II for an empty truck (2.02 ft) and amount of material hauled (1,000,000 tons/yr) in 30-ton capacity trucks.

Control of road dust through the use of a pressurized water truck with manufactured spray bar/nozzles is required by Permit R13-2183A. Pinnacle Mining uses a vacuum truck to help clean the entrance to OS-1.

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
TITLE V POTENTIAL TO EMIT CALUCLATIONS  
PARTICULATE MATTER EMISSIONS FROM STORAGE PILES - DROP OPERATIONS**

Transfer Point	From	To	Estimated Throughput (tons/yr) A	Moisture Content (%) B	Particulate Emission Factor (lbs/ton) C	Uncontrolled Particulate Emissions (lbs/yr) D	Control Efficiency (%) E	Controlled Particulate Emissions (lbs/yr) F	Controlled Particulate Emissions (tons/yr) G	Controlled PM10 Emissions (tons/yr) H	Controlled PM2.5 Emissions (tons/yr) I	
T11	C31-A	ST-2 (Raw Coal)	838,500	7.3	0.00084	706	0	706	0.35	0.17	0.025	
T49	S5	ST-11 (Raw Coal)	4,287,500	7.3	0.00084	3,610	0	3,610	1.80	0.85	0.129	
T45	Stacking Belt	ST-12 (Refuse)	2,261,250	12.0	0.00042	949	0	949	0.47	0.22	0.034	
T19-B	SC-1	ST-13 (Clean Coal)	4,402,125	5.8	0.0012	5,114	0	5,114	2.56	1.21	0.183	
T114	Truck Dumping	ST-13 (Raw/Clean Coal)	0	5.8	0.0012	0	0	0	0	0	0.000	
T65	Truck Dumping	OS-1 (Raw Coal)	250,000	7.3	0.00084	210	0	210	0.105	0.0498	0.008	
T93	Dump Truck	ST-14 (Raw Coal)	1,000,000	7.3	0.00084	842	0	842	0.42	0.20	0.030	
T101, Note J	Dump Truck	ST-2	180,000	7.3	0.00084	152	0	152	0	0	0.005	
T122	Clean Coal Truck	ST-16	360,000	5.8	0.0012	418	0	418	0	0	0.015	
T134	Pond Fines Truck	ST-16	500,000	18.0	0.00024	119	0	119	0	0	0.004	
See Note K	Dump Truck	Destination Stockpile	100,000	7.3	0.00084	84	0	84	0.042	0.020	0.003	
						<b>TOTAL</b>			<b>12,205</b>	<b>6.10</b>	<b>2.89</b>	<b>0.44</b>

**NOTES:**

A: See 'Particulate Matter Emissions From Transfer Operations'.

B: Typical moisture values estimated with Pinnacle Mining operating records.

$$C = k * 0.0032 * (U / 5)^{1.3} / (M / 2)^{1.4}$$

where k = particulate size multiplier = 0.74 for particulate matter

U = mean wind speed = 9.1 mph

M = percent moisture from column B.

Equation is from Section 13.2.4 of AP-42 (November 2006)

$$D = A * C$$

E: No control efficiencies due to open transfer of material.

$$F = D * (1 - E / 100)$$

$$G = F / 2,000$$

H = G \* 0.35 / 0.74, where 0.35 and 0.74 are the particle size multipliers for PM10 and PM, respectively. (See also Note C)

I = G \* 0.053 / 0.74, where 0.053 and 0.74 are the particle size multipliers for PM2.5 and PM, respectively. (See also Note C)

J: Coal hauled for temporary storage at ST-2. This amount that is eventually transferred into ST-10 and is accounted for in the calculations for ST-10.

K: The "Origin Stockpile Front-End Loader to Dump Truck" Transfer Points are as follows: T92 (Front-end Loader at OS-1),

T100 (Front-end Loader at ST-2), T102 (Front-end Loader at ST-11), T104 (Front-end Loader at ST-14),

T119 (Front-end Loader at ST-13), T105 (Front-end loader at ST-10), and T135 (Front-end loader at ST-16). The "Dump Truck to

Destination Stockpile" Transfer Points are as follows: T65 (Truck Dump at OS-1), T101 (Truck Dump at ST-2),

T4-8 (Truck Dump at ST-10), T103 (Truck Dump at ST-11), T93 (Truck Dump at ST-14), T114 (Truck Dump at ST-13),

and T122 (Truck Dump at ST-16).

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
 TITLE V POTENTIAL TO EMIT CALCULATIONS  
 AIR TOXIC EMISSIONS FROM STORAGE PILES - DROP OPERATIONS**

Pollutant	Coal Particulate HAP Concentration (wt%) A	Particulate Matter Emissions (tons/yr) B	Coal Particulate HAP Emissions (lbs/yr) C	Coal Particulate HAP Emissions (tons/yr) D
Antimony	0.000093	6.10	0.011	5.68E-06
Arsenic	0.0059		0.72	3.61E-04
Beryllium	0.000081		0.0099	4.94E-06
Cadmium	0.0000065		0.00079	3.97E-07
Chromium	0.00094		0.114	5.71E-05
Cobalt	0.00081		0.099	4.94E-05
Lead	0.0015		0.19	9.34E-05
Manganese	0.0098		1.20	5.99E-04
Mercury	0.000014		0.0017	8.54E-07
Nickel	0.0019		0.23	1.16E-04
Selenium	0.00041		0.050	2.49E-05

Notes:

A: Information obtained from raw coal samples taken July 1999 by Precision Testing Laboratory and May 4, 2000 by REIC. The concentration of Antimony was obtained from Table 3-4, *EPCRA Section 313 Industry Guidance, Coal Mining Facilities*, EPA 745-B-99-002, January 1999. The highest chemical concentration among the samples was used for conservatism.

B: See "Particulate Matter Emissions from Storage Piles - Drop Operations"

$C = (A / 100) * (B * 2000)$

$D = C / 2,000$

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
TITLE V POTENTIAL TO EMIT CALCULATIONS  
PARTICULATE MATTER EMISSIONS FROM STORAGE PILES - WIND EROSION**

Storage Pile	Area		Particulate Matter Emissions				PM10 Emissions	PM2.5 Emissions
	(ft <sup>2</sup> ) A	(acre) B	(lbs/acre/day) C	(lbs/day) D	(lbs/yr) E	(tons/yr) F	(tons/yr) G	(tons/yr) H
ST-2 (Raw Coal)	54,000	1.24	2.90	3.60	1,312	0.66	0.31	0.047
ST-11 (Raw Coal)	320,000	7.35	2.90	21.30	7,776	3.89	1.84	0.278
ST-12 (Refuse)	21,825	0.50	2.90	1.45	530	0.27	0.13	0.019
ST-13 (Clean Coal)	220,000	5.05	2.90	14.65	5,346	2.67	1.26	0.191
OS-1 (Raw Coal)	220,000	5.05	2.90	14.65	5,346	2.67	1.26	0.191
ST-14 (Raw Coal)	38,000	0.87	2.90	2.53	923	0.46	0.22	0.033
ST-16 (Clean Coal)	108,900	2.500	2.90	7.250	2,646	1.323	0.626	0.095
				TOTAL	23,880	11.94	5.65	0.86

NOTES:

A: Information obtained from Pinnacle Mining operating records.

B = A / 43,560 ft<sup>2</sup>/acre

C:  $E = 1.7 * (s / 1.5) * ((365 - p) / 235) * (f / 15)$

where E = uncontrolled emission factor (lb/day/acre)

s = % silt = 2.2% for coal (AP-42, 5th Ed., Table 13.2.4-1, November 2006).

p = number of days when precipitation greater than or equal to 0.01" = 160 days (AP-42, 5th Ed., Fig. 13.2.2-1).

f = % time when wind speed exceeds 12 mph = 20 (WVOAQ).

Equation is from 'Air Pollution Engineering Manual', Air and Waste Management Association, 1992.

D = B \* C

E = D \* 365 days/yr

F = E / 2,000

G =  $F * 0.35 / 0.74$ , where 0.35 and 0.74 are the particle size multipliers for PM10 and PM, respectively, for the aggregate handling equation, Section 13.2.4 of AP-42.

H =  $F * 0.053 / 0.74$ , where 0.053 and 0.74 are the particle size multipliers for PM2.5 and PM, respectively, for the aggregate handling equation, Section 13.2.4 of AP-42.

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
TITLE V POTENTIAL TO EMIT CALCULATIONS  
AIR TOXIC EMISSIONS FROM STORAGE PILES - WIND EROSION**

Pollutant	Coal Particulate HAP Concentration (wt%) A	Particulate Matter Emissions (tons/yr) B	Coal Particulate HAP Emissions (lbs/yr) C	Coal Particulate HAP Emissions (tons/yr) D
Antimony	0.000093	11.94	0.022	1.11E-05
Arsenic	0.0059		1.41	7.07E-04
Beryllium	0.000081		0.019	9.66E-06
Cadmium	0.0000065		0.0016	7.76E-07
Chromium	0.00094		0.22	1.12E-04
Cobalt	0.00081		0.19	9.67E-05
Lead	0.0015		0.37	1.83E-04
Manganese	0.0098		2.35	1.17E-03
Mercury	0.000014		0.0033	1.67E-06
Nickel	0.0019		0.45	2.27E-04
Selenium	0.00041		0.097	4.87E-05

Notes:

A: Information obtained from raw coal samples taken July 1999 by Precision Testing Laboratory and May 4, 2000 by REIC. The concentration of Antimony was obtained from Table 3-4, *EPCRA Section 313 Industry Guidance, Coal Mining Facilities*, EPA 745-B-99-002, January 1999.

The highest chemical concentration among the samples was used for conservatism.

B: See "Particulate Matter Emissions from Storage Piles - Wind Erosion"

C = (A / 100) \* (B \* 2000)

D = C / 2,000

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
TITLE V POTENTIAL TO EMIT CALCULATIONS  
VOC AND AIR TOXIC EMISSIONS FROM WET WASH, ANTIFREEZE, AND DUST SUPPRESSION**

Product (Use)	Annual Usage (gal/yr) A	Volatility (%) B	Retained By Solids (%) C	Max Density (lb/gal) D	Max VOC (ton/yr) E
Nalco 9843 (Wet Wash)	45,270	12.0	10	7.7	18.82
Diesel OR Nalco 9344 (Wet Wash)	63,000	9.0	10	7.1	18.12
Nalco 83904 (Wet Wash - Water Treatment)	14,050	45.0	95	9.0	1.42
Nalco 9851 (Wet Wash - Water Treatment)	5,560	0	95	8.8	0
Nalco 7880 (Wet Wash - Water Treatment)	85,950	0	95	10.3	0
Subtotal - Wet Wash					<b>38.36</b>
Nalco 8803 (Dust Suppression)	14,999	0	100	8.9	0
Nalco 1293 (Dust Suppression)	6,399	0	100	8.7	0
Subtotal - Dust Suppression					<b>0</b>
Nalco 8882 (Freeze Conditioner)	5,250	8.5	95	9.0	0.100
Nalco 8880 (Freeze Conditioner)	43,256	8.5	95	9.8	0.901
Subtotal - Freeze Conditioner					<b>1.001</b>
<b>TOTAL</b>					<b>39.36</b>

**AIR TOXIC SPECIATION PROFILE\***

Pollutant	Percentage* (wt%)	Emissions (tons/yr)
2,2,4-Trimethylpentane	0.28	0.052
Benzene	12.38	2.24
Biphenyl	0.00022	0.000040
Cresols	0.0038	0.00068
Cumene	0.37	0.068
Ethylbenzene	0.88	0.16
Hexane	24.76	4.49
Naphthalene	0.089	0.016
Phenol	0.013	0.0023
Styrene	0.079	0.014
Toluene	4.36	0.79
Xylene	2.45	0.44

**NOTES:**

A: Annual usage obtained from purchase records.

B: Percent volatilization based on BACT/LAER Analysis of PA Plan Approval Application for Permit #30-0072B. Products with 0% volatility are either polymer or inorganic solutions. Percent volatility for Nalco 9851 based on %VOC from MSDS and percent volatility for Nalco 9344 based on data from Jeff Stone of Nalco on 3/4/15 phone call with R. Patrick.

C: Percent retained by solids obtained from BACT/LAER Analysis of PA Plan Approval Application for Permit #30-0072B.

D: Density of material.

$E = A * D * (B / 100) * (1 - (C / 100)) / 2000 \text{ lb/ton}$

\* Speciation profile obtained from Radian Corporation report prepared for J.F. Durham, USEPA (August 10, 1993), regarding liquid and vapor HAP concentrations of various petroleum products.

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
TITLE V POTENTIAL TO EMIT CALCULATIONS  
PARTICULATE MATTER EMISSIONS FROM CLEAN COAL SAMPLING SYSTEM - TRANSFER OPERATIONS**

Source ID No.	Emission Point ID No.*	Transfer From	Transfer To	Maximum Throughput (tons/hr) A	Wind Speed (mph) B	Moisture Content (%) C	Particulate Emission Factor (lbs/ton) D	Uncontrolled Particulate Emissions (lbs/hr) E	Control Efficiency (%) F	Controlled Particulate Emissions (lbs/hr) G	Operating Hours (hrs/yr) H	Controlled Particulate Emissions (tons/yr) I	Controlled PM10 Emissions (tons/yr) J	Controlled PM2.5 Emissions (tons/yr) K
S01	F01	Conveyor #141	Primary Sample Belt Feeder	20.25	1.3	5.8	9.26E-05	0.0019	95	0.000094	7,083	0.00033	0.00016	0.00002
S02	F02	Primary Sample Belt Feeder	Primary Crusher	7.6	1.3	5.8	9.26E-05	0.00070	95	0.000035	7,083	0.00012	0.000059	0.00001
S04	F02	Primary Crusher	Tertiary Sample Belt Feeder	7.6	1.3	5.8	9.26E-05	0.00070	95	0.000035	7,083	0.00012	0.000059	0.00001
S05	F02	Tertiary Sample Belt Feeder	Sample Collector	0.2	1.3	5.8	9.26E-05	0.000019	95	0.00000093	7,083	0.0000033	0.0000016	0.00000
S06	F02	Tertiary Sample Belt Feeder	Sample Rejects Conveyor	7.4	1.3	5.8	9.26E-05	0.00069	95	0.000034	7,083	0.00012	0.000057	0.00001
S07	F02	Primary Sample Belt Feeder	Nuclear Analyzer	12.65	1.3	5.8	9.26E-05	0.0012	95	0.000059	7,083	0.00021	0.000098	0.00001
S08	F02	Nuclear Analyzer	Discharge Sample Belt Feeder	12.65	1.3	5.8	9.26E-05	0.0012	95	0.000059	7,083	0.00021	0.000098	0.00001
S09	F02	Discharge Sample Belt Feeder	Sample Rejects Conveyor	12.65	1.3	5.8	9.26E-05	0.0012	95	0.000059	7,083	0.00021	0.000098	0.00001
S10	F01	Sample Rejects Conveyor	Conveyor #141	20.05	1.3	5.8	9.26E-05	0.0019	95	0.000093	7,083	0.00033	0.00016	0.00002
											TOTAL	0.0017	0.00078	0.00012

**NOTES:**

\* Two fugitive emission locations have been identified, the Conveyor 141/Sampler Belt Enclosure (F01), and the Coal Sampler/Nuclear Analyzer Enclosure (F02).

A: Maximum throughput determined for worst-case (highest) sampling rate (i.e. smallest consignment size)

B: Mean wind speed (u) = 1.3 mph (lowest valid wind speed from AP-42) for operations inside buildings / enclosed structures.

C: Typical moisture values for cleaned coal.

$$D = k * 0.0032 * (U / 5)^{1.3} / (M / 2)^{1.4}$$

where k = particulate size multiplier = 0.74 for particulate matter

U = mean wind speed from column B.

M = percent moisture from column C.

$$E = A * D$$

F: Control Efficiencies from WVCES Guidance for Coal Prep Plants

95% for full enclosure vented to scrubber

$$G = E * (100 - F) / 100$$

H = Maximum hours of operation per year.

$$I = G * H / 2,000 \text{ lbs/ton}$$

J =  $I * 0.35 / 0.74$ , where 0.35 and 0.74 are the particle size multipliers for PM10 and PM, respectively, for the aggregate handling equation, Section 13.2.4 of AP-42.

K =  $I * 0.053 / 0.74$ , where 0.053 and 0.74 are the particle size multipliers for PM2.5 and PM, respectively, for the aggregate handling equation, Section 13.2.4 of AP-42.

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT**  
**TITLE V POTENTIAL TO EMIT CALCULATIONS**  
**PARTICULATE MATTER EMISSIONS FROM CLEAN COAL SAMPLING SYSTEM - CRUSHERS**

Source ID No.	Emission Point ID No.	Crusher ID	Maximum Throughput (tons/hr) A	Particulate Emission Factor (lbs/ton) B	Uncontrolled Particulate Emissions (lbs/hr) C	Control Efficiency (%) D	Controlled Particulate Emissions (lbs/hr) E	Operating Hours (hrs/yr) F	Controlled Particulate Emissions (tons/yr) G	Controlled PM10 Emissions (tons/yr) H	Controlled PM2.5 Emissions (tons/yr) I
S03	F02	Sampler Primary Crusher	7.6	0.020	0.15	95	0.0076	7,083	0.027	0.013	0.0019

NOTES:

A: Maximum throughput determined for worst-case (highest) sampling rate (i.e. smallest consignment size).

B: Emission factors per WVOAQ guidance document.

C = A \* B

D: Control efficiency of 95% for full enclosure vented to scrubber per WVOAQ guidance.

E = C \* (1 - D / 100)

F = Maximum hours of operation per year.

G = E \* F / 2,000 lb/ton

H = G \* 0.35 / 0.74, where 0.35 and 0.74 are the particle size multipliers for PM10 and PM, respectively, for the aggregate handling equation, Section 13.2.4 of AP-42.

I = G \* 0.053 / 0.74, where 0.053 and 0.74 are the particle size multipliers for PM2.5 and PM, respectively, for the aggregate handling equation, Section 13.2.4 of AP-42.

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT**  
**TITLE V POTENTIAL TO EMIT CALUCLATIONS**  
**TOTAL VOC EMISSIONS FROM DIESEL, KEROSENE AND OTHER STORAGE TANKS**

Storage Tank	Working / Breathing Losses (tons/yr)	Loading / Dispensing / Spillage Losses (tons/yr)	Total Losses (tons/yr)
D-1 Tank Diesel Throughput (SPCC-PPP-04, off-road vehicles, 15,000 gal)	0.0083	0.65	0.65
D-4 Tank Diesel Throughput (SPCC-PPP-08, on-road vehicles, 1000 gal)	0.00000	0.041	0.041
D-5 Tank Diesel Throughput (SPCC-PPP-09, process, 6000 gal)	0.0009	0.0013	0.0021
Kerosene Tank Throughput (SPCC-PPP-17, thermal dryer, 3500 gal)	0.00000	0.0054	0.0054
GPP-O13883-02 Frother	0.002	0.0043	0.007
<b>TOTAL</b>	<b>0.012</b>	<b>0.70</b>	<b>0.71</b>

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
TITLE V POTENTIAL TO EMIT CALUCLATIONS  
VOC EMISSIONS FROM DIESEL STORAGE TANKS (BREATHING/WORKING LOSSES)**

Storage Tank	Capacity (gal)	Throughput (gal/yr) A	VOC Emissions			
			Working Losses (lb/yr) B	Breathing Losses (lb/yr) B	Total Losses (lb/yr) B	Total Losses (ton/yr) C
D-1 Tank Diesel Throughput (SPCC-PPP-04, off-road vehicles, 15,000 gal)	15,000	810,000	12.36	4.17	16.53	0.0083
D-4 Tank Diesel Throughput (SPCC-PPP-08, on-road vehicles, 1000 gal)	1,000	52,000	0	0	0	0.00000
D-5 Tank Diesel Throughput (SPCC-PPP-09, process, 6000 gal)	6,000	63,000	1.01	0.77	1.78	0.0009
					<b>TOTAL</b>	<b>0.0092</b>

AIR TOXIC SPECIATION PROFILE\*

Pollutant	Percentage* (wt%)	Emissions (tons/yr)
2,2,4-Trimethylpentane	0.28	2.60E-05
Benzene	12.38	1.13E-03
Biphenyl	0.00022	2.01E-08
Cresols	0.0038	3.46E-07
Cumene	0.37	3.43E-05
Ethylbenzene	0.88	8.02E-05
Hexane	24.76	2.27E-03
Naphthalene	0.089	8.16E-06
Phenol	0.013	1.17E-06
Styrene	0.079	7.22E-06
Toluene	4.36	3.99E-04
Xylene	2.45	2.25E-04

NOTES:

A: Annual usage provided by Pinnacle operating records.

B: Emission values obtained from USEPA TANKS v4.09b.

C = B / 2000

\* Speciation profile obtained from Radian Corporation report prepared for J.F. Durham, USEPA (August 10, 1993), regarding liquid and vapor HAP concentrations of various petroleum products.

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
TITLE V POTENTIAL TO EMIT CALCULATIONS  
VOC EMISSIONS FROM DIESEL FUEL TANK LOADING, DISPENSING, AND SPILLAGE**

Storage Tank	Capacity (gal)	Throughput (gal/yr) A	Annual VOC Losses			VOC Emissions (lbs/yr) E	VOC Emissions (tons/yr) F
			Tank Loading (lbs/gal) B	Vehicle Refueling (lbs/gal) C	Spillage (lbs/gal) D		
D-1 Tank Diesel Throughput (SPCC-PPP-04, off-road vehicles, 15,000 gal)	15,000	810,000	0.000040	0.00086	0.0007	1292.41	0.646
D-4 Tank Diesel Throughput (SPCC-PPP-08, on-road vehicles, 1000 gal)	1,000	52,000	0.000040	0.00086	0.0007	82.97	0.0415
D-5 Tank Diesel Throughput (SPCC-PPP-09, process, 6000 gal)	6,000	63,000	0.000040	---	---	2.51	0.00126
						<b>TOTAL</b>	<b>0.689</b>

**AIR TOXIC SPECIATION PROFILE\***

Pollutant	Percentage* (wt%)	Emissions (tons/yr)
2,2,4-Trimethylpentane	0.28	1.96E-03
Benzene	12.38	8.53E-02
Biphenyl	0.00022	1.52E-06
Cresols	0.0038	2.60E-05
Cumene	0.37	2.58E-03
Ethylbenzene	0.88	6.04E-03
Hexane	24.76	1.71E-01
Naphthalene	0.089	6.14E-04
Phenol	0.013	8.80E-05
Styrene	0.079	5.43E-04
Toluene	4.36	3.00E-02
Xylene	2.45	1.69E-02

**NOTES:**

A: Annual usage provided by Pinnacle operating records.

B =  $12.46 * ((S * P * M) / T) / 1000$ ; where S = saturation factor (1.45, AP-42 Table 5.2-1), P = true vapor pressure of liquid (0.0090 psia, AP-42 Table 7.1-2), M = vapor molecular weight (130 lb/lb-mole, AP-42 Table 7.1-2), and T = temperature of bulk liquid loaded (530°R). Methodology obtained from AP-42, Section 5.2, Equation 1 (June 2008).

C =  $(264.2 * ((-5.909) - (0.0949 * T) + (0.0884 * T_b)) + (0.485 * RVP)) / (1000 \text{ mg/g} * 454 \text{ g/lb} * 0.26 \text{ gal/l})$ ; where T = temperature difference between fuel in vehicle tank and dispensed fuel (0 °F), TD = temperature of dispensed fuel (conservatively assumed 70 °F), and RVP = the Reid Vapor Pressure (0.213 psia, letter to J.F. Durham from P.B. Murphy, 8/10/93). Methodology obtained from AP-42, Section 5.2, Equation 6. Plant tank dispenses fuel directly into wet wash cells; therefore, no emissions are expected.

D: AP-42, Section 5.2, Table 5.2-7, Emissions from Fuel Spillage. Emission factor represents spillage of gasoline, which is more volatile than diesel.

Plant tank dispenses fuel directly into wet wash cells; therefore, no emissions are expected.

E = (B + C + D) \* A

F = E / 2000

\* Speciation profile obtained from Radian Corporation report prepared for J.F. Durham, USEPA (August 10, 1993), regarding liquid and vapor HAP concentrations of various petroleum products.

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
 TITLE V POTENTIAL TO EMIT CALCULATIONS  
 VOC EMISSIONS FROM KEROSENE AND OTHER STORAGE TANKS (BREATHING/WORKING LOSSES)**

Storage Tank	Capacity (gal)	Throughput (gal/yr) A	VOC Emissions			
			Working Losses (lb/yr) B	Breathing Losses (lb/yr) B	Total Losses (lb/yr) B	Total Losses (ton/yr) C
Kerosene Tank Throughput (SPCC-PPP-17, thermal dryer, 3500 gal)	3,500	4,650	0	0.00	0.00	0.00000
GPP-O13883-02 Frother	6,000	45,270	1.31	3.42	4.73	0.002
					<b>TOTAL</b>	<b>0.002</b>

**AIR TOXIC SPECIATION PROFILE (KEROSENE ONLY)\*\***

Pollutant	Percentage** (wt%)	Emissions (tons/yr)
2,2,4-Trimethylpentane	0.33	0.00E+00
Benzene	2.15	0.00E+00
Biphenyl	0.00087	0.00E+00
Cresols	0.0038	0.00E+00
Cumene	0.19	0.00E+00
Ethylbenzene	0.89	0.00E+00
Hexane	22.82	0.00E+00
Napthalene	0.080	0.00E+00
Phenol	0.014	0.00E+00
Toluene	6.00	0.00E+00
Xylene	2.91	0.00E+00

**NOTES:**

A: Annual usage provided by Pinnacle operating records.

B: Emission values obtained from USEPA TANKS v4.09b.

C = B / 2000

\* Frother conservatively modeled as 100% n-butanol (actually contains 10%-20%, but could also include 70%-100% as well).

\*\* Speciation profile obtained from Radian Corporation report prepared for J.F. Durham, USEPA (August 10, 1993), regarding liquid and vapor HAP concentrations of various petroleum products.

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
TITLE V POTENTIAL TO EMIT CALCULATIONS  
VOC EMISSIONS FROM KEROSENE AND OTHER TANK LOADING, DISPENSING, AND SPILLAGE**

Storage Tank	Capacity (gal)	Throughput (gal/yr) A	Annual VOC Losses			VOC Emissions (lbs/yr) D	VOC Emissions (tons/yr) E
			Tank Loading (lbs/gal) B	Vehicle Refueling (lbs/gal) C	Spillage (lbs/gal) D		
Kerosene Tank Throughput (SPCC-PPP-17, thermal dryer, 3500 gal)	3,500	4,650	0.000049	0.0016	0.0007	10.74	0.0054
GPP-O13883-02 Frother	6,000	45,270	0.00019	---	---	8.58	0.0043
<b>TOTAL</b>							<b>0.0097</b>

**AIR TOXIC SPECIATION PROFILE (KEROSENE ONLY)\*\***

Pollutant	Percentage* (wt%)	Emissions (tons/yr)
2,2,4-Trimethylpentane	0.33	1.76E-05
Benzene	2.15	1.15E-04
Biphenyl	0.00087	4.67E-08
Cresols	0.0038	2.05E-07
Cumene	0.19	1.04E-05
Ethylbenzene	0.89	4.79E-05
Hexane	22.82	1.23E-03
Naphthalene	0.080	4.27E-06
Phenol	0.014	7.45E-07
Toluene	6.00	3.22E-04
Xylene	2.91	1.56E-04

**NOTES:**

A: Annual usage provided by Pinnacle operating records.

B =  $12.46 * ((S * P * M) / T) / 1000$ ; where S = saturation factor (1.45, AP-42 Table 5.2-1), P = true vapor pressure of liquid (0.011 psia for kerosene from AP-42 Table 7.1-2; and 0.075 psia for n-butanol from TANKS 4.02 report), M = vapor molecular weight (130 lb/lb-mole for kerosene from AP-42 Table 7.1-2 and 74.12 lb/lb-mole from TANKS 4.02 report), and T = temperature of bulk liquid loaded (530 °R). Methodology obtained from AP-42, Section 5.2, Equation 1 (June 2008).

C =  $(264.2 * ((-5.909) - (0.0949 * T) + (0.0884 * T_D) + (0.485 * RVP))) / (1000 \text{ mg/g} * 454 \text{ g/lb} * 0.26 \text{ gal/l})$ ; where T = temperature difference between fuel in vehicle tank and dispensed fuel (0 °F), TD = temperature of dispensed fuel (conservatively assumed 70 °F), and RVP = the Reid Vapor Pressure (0.863 for kerosene, letter to J.F. Durham from P.B. Murphy, 8/10/93). Methodology obtained from AP-42, Section 5.2, Equation 6.

Plant tank dispenses frother directly into wet wash cells; therefore, no emissions are expected.

D: AP-42, Section 5.2, Table 5.2-7, Emissions from Fuel Spillage. Emission factor represents spillage of gasoline, which is more volatile than kerosene.

Plant tank dispenses frother directly into wet wash cells; therefore, no emissions are expected.

E = (B + C + D) \* A

F = E / 2000

\* Frother conservatively modeled as 100% n-butanol (actually contains 10%-20%, but could also include 70%-100% as well).

\*\* Speciation profile obtained from Radian Corporation report prepared for J.F. Durham, USEPA (August 10, 1993), regarding liquid and vapor HAP concentrations of various petroleum products.

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
 TITLE V POTENTIAL TO EMIT CALUCLATIONS  
 CRITERIA AIR POLLUTANT EMISSIONS FROM MANETITE TANK**

**D-15: Magnetite Tank (100 ton capacity)**

Pollutant	Emission Factor (lb/ton) A	Maximum Op Schedule (hr/yr) B	Maximum Transfer Rate (ton/hr) C	Uncontrolled Emissions (lb/yr) D	Uncontrolled Emissions (lb/hr) E	Uncontrolled Emissions (ton/yr) F	Control Efficiency (%) G	Controlled Emissions (lb/hr) H	Controlled Emissions (ton/yr) I
PM	0.61	81	25	1234	15.3	0.6	90	1.525	0.062

NOTES:

A: Obtained from AP-42, Section 11.17, Table 11.17-4, Product loading to an enclosed truck

B: Maximum operation schedule is based on 532.49 tons of magnetite purchased in 2010 multiplied by 3.8, which is the ratio of the coal production in 2010 (1,826,157 ton of coal) to the maximum production (6,912,500 tons of coal). The magnetite is transferred into the tank at a rate of 25 ton/hr.

C: Maximum transfer rate of magnetite from a truck to the silo supplied by rock dust vender.

$D = A * B * C$

$E = A * C$

$F = D / 2000[\text{lb/ton}]$

G: Control Efficiency based on a MERV 13 filter

$H = E * (1 - (G / 100))$

$I = F * (1 - (G / 100))$

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
TITLE V POTENTIAL TO EMIT CALCULATIONS  
CONCENTRATION OF HAP IN COAL**

Raw Coal HAP	Sample 1 Concentration		Sample 2 Concentration		Sample 3 Concentration		Sample 4 Concentration		Maximum Concentration	
	(mg/kg)	(wt%)	(mg/kg)	(wt%)	(mg/kg)	(wt%)	(mg/kg)	(wt%)	(mg/kg)	(wt%)
Antimony		0		0		0	0.93	0.000093	0.93	0.000093
Arsenic	23.8	0.00238	59.2	0.00592	10.1	0.00101		0	59.2	0.00592
Beryllium		0		0		0		0	0.81	0.000081
Cadmium	0.065	0.0000065		0		0		0	0.065	0.0000065
Chlorine	622	0.0622	393	0.0393	732	0.0732		0	732	0.0732
Chromium	5.25	0.000525	9.35	0.000935	8.8	0.00088		0	9.35	0.000935
Cobalt	5.3	0.00053	8.1	0.00081	6.5	0.00065		0	8.1	0.00081
Fluorine	105	0.0105	200	0.02	128	0.0128		0	200	0.02
Lead	6.75	0.000675	15.3	0.00153		0		0	15.3	0.00153
Manganese	28.6	0.00286	98.2	0.00982	71.8	0.00718		0	98.2	0.00982
Mercury		0	0.14	0.000014		0		0	0.14	0.000014
Nickel	10.4	0.00104	19	0.0019	16.4	0.00164		0	19	0.0019
Selenium	2.07	0.000207	4.08	0.000408		0		0	4.08	0.000408

Clean Coal HAP	Sample 5 Concentration		Sample 6 Concentration		Sample 7 Concentration		Sample 8 Concentration		Sample 9 Concentration		Sample 10 Concentration		Maximum Concentration	
	(mg/kg)	(wt%)	(mg/kg)	(wt%)	(mg/kg)	(wt%)	(mg/kg)	(wt%)	(mg/kg)	(wt%)	(mg/kg)	(wt%)	(mg/kg)	(wt%)
Antimony		0		0		0		0		0	0.66	0.000066	0.66	0.000066
Arsenic	11.1	0.00111		0	9.4	0.00094		0		0		0	11.10	0.00111
Beryllium		0		0		0		0	0.575	0.0000575		0	0.58	0.0000575
Cadmium	0.055	0.0000055		0		0		0		0		0	0.06	0.0000055
Chlorine	697	0.0697		0	745	0.0745		0	742	0.0742		0	745.00	0.0745
Chromium	5.7	0.00057	3.38	0.000338	4.45	0.000445	4.65	0.000465	4.15	0.000415		0	5.70	0.00057
Cobalt	5.95	0.000595		0	8.3	0.00083		0	6.32	0.000632		0	8.30	0.00083
Fluorine	44.6	0.00446		0	63.7	0.00637		0	88	0.0088		0	88.00	0.0088
Lead	5.3	0.00053		0	3.84	0.000384		0		0		0	5.30	0.00053
Manganese	10.4	0.00104		0	14.2	0.00142		0	8.75	0.000875		0	14.20	0.00142
Mercury		0		0		0		0		0		0	0.11	0.000011
Nickel	9.1	0.00091		0	11.4	0.00114		0	12.6	0.00126		0	12.60	0.00126
Selenium	1.58	0.000158		0	1.98	0.000198		0		0		0	1.98	0.000198

Notes:

Sample 1: Indian Ridge - Raw Coal (Precision #740136 - 7/99)

Sample 2: Pinnacle - Raw Coal (Precision #740135 - 7/99)

Sample 3: Sewell - Raw Coal (REI #0005231-01A 5/4/00)

Sample 4: Raw Coal (EPCRA Section 313 Industry Guidance - Coal Mining Facilities)

Sample 5: Indian Ridge - Clean Coal (Precision #740138 - 7/99)

Sample 6: Indian Ridge - Clean Coal (REI #0004429-02A 4/13/00)

Sample 7: Pinnacle - Clean Coal (Precision #740137 - 7/99)

Sample 8: Pinnacle - Clean Coal (REI #0004429-03A 4/13/00)

Sample 9: Sewell - Clean Coal (REI #0004429-01A & 0005021-01A 4/13/00)

Sample 10: Clean Coal (Raw Coal concentrations and Coal Cleaning Factors from EPCRA Coal Mining Guidance)

Beryllium and Mercury were analyzed for raw or clean coal only. Other concentration (raw or clean) was based on available measured concentration, converted using coal cleaning factors (assumed no mercury removal for conservatism)

**PINNACLE MINING COMPANY, LLC - PINNACLE PREP PLANT  
TITLE V POTENTIAL TO EMIT CALCULATIONS  
CALCULATION DATA**

		<u>Potential Emissions</u>	
1 a	No. 50 Mine Raw Coal Output (after breakers)	6,912,500	Tons/yr
b	Raw Coal Input to Old Saw Mill	250,000	Tons/yr
c	Screen OSS-1 Raw Coal Throughput	0	Tons/yr
d	Coal From Outside Sources to ST-10 directly:	550,000	Tons/yr
e	Coal From Outside Sources to ST-10 via Truck Scale:	250,000	Tons/yr
f	Coal From Outside Sources directly to ST-10:	300,000	Tons/yr
g	Coal From OS-1 to ST-10	250,000	Tons/yr
h	Coal From ST-2 (temp. storage for ST-10) to Rail Cars:	180,000	Tons/yr
i	Coal from Outside Sources to ST-14:	1,000,000	Tons/yr
j	Coal From Outside Sources to ST-14 via OS-1:	0	Tons/yr
k	Other Coal From Outside Sources ST-14:	1,000,000	Tons/yr
l	Total Raw Coal From Outside Sources (b+d+i+q):	1,550,000	Tons/yr
m	Coal moving flexibility from any pile to any pile:	100,000	Tons/yr
n	Coal moving flexibility: temporary storage at ST-2 for transfer to ST-10:	180,000	Tons/yr
o	Recovered Pond Fines trucked to ST-16	500,000	Tons/yr
p	Coal trucked to/from ST-13 or ST-16	360,000	Tons/yr
q	Coal/pond fines transferred to DHRC-4	300,000	Tons/yr
r	Coal/pond fines transferred from ST-16 via feeders	150,000	Tons/yr
2 a	Thermal Dryer Operating Hours	7,083	Hrs/yr
b	Thermal Dryer Coal Burned	52,273	Tons/yr
c	Average Coal Sulfur Content	N/A	wt%
3 a	D-1 Tank Diesel Throughput (SPCC-PPP-04, off-road vehicles, 15,000 gal)	810,000	Gal/Yr
b	D-4 Tank Diesel Throughput (SPCC-PPP-08, on-road vehicles, 1000 gal)	52,000	Gal/Yr
c	D-5 Tank Diesel Throughput (SPCC-PPP-09, process, 6000 gal)	63,000	Gal/Yr
d	Kerosene Tank Throughput (SPCC-PPP-17, thermal dryer, 3500 gal)	4,650	Gal/Yr
4 a	Other Chemicals (List Below)		
	Chemical Name / Purpose		
	Nalco 7880 / WWT (replaced Nalco 7883)	85,950	Gal/Yr
	Nalco 9843 / Frother	45,270	Gal/Yr
	Nalco 8803 / Car Top Dust Binder	14,999	Gal/Yr
	Nalco 1293 / Dust Ban	6,399	Gal/Yr
	Nalco 8882 / Deicer	5,250	Gal/Yr
	Nalco 83904 / Flocculant (Previously Nalco 8873)	14,050	Gal/Yr
	Nalco 9851+ / Cation (Previously Nalco 8853)	5,560	Gal/Yr
	Nalco 8880	43,256	Gal/Yr
	Nalco 9344 / Green Collector, Replacement for Diesel Fuel	78,250	Gal/Yr
5 a	Thermal Dryer Stack Test Results		
b	PM Stack Test Emission Rate	77.0	lbs/hr
c	SO <sub>2</sub> Stack Test Emission Rate	50.3	lbs/hr
d	NO <sub>x</sub> Stack Test Emission Rate	93.9	lbs/hr
e	CO Stack Test Emission Rate	50.3	lbs/hr
f	VOC Stack Test Emission Rate	41.3	lbs/hr

ATTACHMENT J

EMISSION POINTS AND POLLUTION CONTROL DEVICES

## ATTACHMENT J EMISSION POINTS AND POLLUTION CONTROL DEVICES

The following table provides a list of regulated air pollutant emission sources to be operated at the subject facility:

Equipment ID Number	Design Capacity	Year Installed / Modified (2)	Description	Method of Control (1)	Associated Transfer Points or Equipment		
					Location: B - Before A - After	ID. No.	Method of Control (1)
<b>Saw Mill Storage Addition</b>							
OS1	631,000 tons	I - 1998 M- 1999 M-2000 M - 2001 M - 2002	Open Stockpile OS-1 - Receives coal via dump truck. A front-endloader is used to move coal from the Open Stockpile OS-1 to trucks for hauling to Stockpiles ST-2, ST-11, ST-13, ST-14, ST-16 or Storage Pit ST-10.	N	B  A	T65  T92	MD  N
<b>Rotary Breakers (C11-1 &amp; C11-2) Circuit</b>							
ST-14	54,000 Tons	A - 2002 M-2001	Raw Coal Open Stockpile ST-14 - Receives coal by truck from Stockpile OS-1 and off site suppliers and transfers it via front-endloader to Dump Hopper DH-3 and/or front endloader to truck.	N	B  A	T93  T94 T104	MC  PE MC
DH-3	45 Tons	I - 2001	Dump Hopper DH-3 - Receives coal via truck and/or a front-endloader from Raw Coal Open Stockpile ST-14 and transfers it to Conveyor C10-3.	PE	B  A	T94  T95	PE  PE
C10-3	1,000 TPH	I - 2001	Conveyor C10-3 - Receives coal from Dump Hopper DH-3 and transfers it to Mine Car Dump MCD-1.	PE	B  A	T95  T96	PE  FE
MCD-1	40 Tons	I - 2001	Mine Car Dump MCD-1 - Receives coal from Conveyor C10-3 and transfers it to Conveyors C11 - 1 and/or C11-2 via feeders in the bottom of MCD-1.	PE	B  A	T96  T72A T72B	FE  FE FE
C11-1	1,000 TPH	I - 1970	Conveyor C11-1 - Receives coal from Mine Car Dump MCD-1, Conveyor S3A and Conveyor C11-4, and transfers it to Rotary Breaker 13-1.	PE	B   A	T72A T73 T111  T75	FE PE PE  PE

**ATTACHMENT J (Continued)**  
**EMISSION POINTS AND POLLUTION CONTROL DEVICES**

Equipment ID Number	Design Capacity	Year Installed / Modified (2)	Description	Method of Control (1)	Associated Transfer Points or Equipment		
					Location: B - Before A - After	ID. No.	Method of Control (1)
C11-2	1,000 TPH	I - 1970	Conveyor C11-2 - Receives coal from Mine Car Dump MCD-1, Conveyor C11-4, and Conveyor S3A and transfers it to Rotary Breaker 13-2.	PE	B  A	T72B T74 T112  T76	FE PE PE  PE
C11-4	800 TPH	I - 1979	Conveyor C11-4 - Receives coal from the Storage Pit ST-10 and transfers it to Belt Conveyor C11-1 and/or Belt Conveyor C11-2.	PE	B A	T4-9 T73 T74	PE PE PE
Rotary Breaker 13-1 (13-1E)	1,000 TPH	I - 1970	Rotary Breaker 13-1 - Receives coal from Conveyor C11-1. Transfers refuse to Belt Conveyor 8A. Transfers coal through a feeder to the 60" Raw Coal Belt Conveyor C24.	FE	B  A	T75  T8-1 T9-1A	PE  PE PE
Rotary Breaker 13-2 (13-2E)	1,000 TPH	I - 1970	Rotary Breaker 13-2 - Receives coal from Conveyor C11-2. Transfers refuse to Belt Conveyor 8A. Transfers coal through a feeder to the 60" Raw Coal Belt Conveyor C24.	FE	B  A	T76  T8-2 T9-1B	PE  PE PE
8A	Continued Under Refuse Circuit						
C24	Continued Under Raw Coal Handling System						
<b>Raw Coal Handling System</b>							
S10	4000 TPH	I - 1986 M - 1998 M - 2006	Conveyor S10 - Receives coal from No. 50 Mine and transfers it to Scalping Screen SS-1. (1998 - Lengthened only... No design capacity increase) (2006 - added SS-1 bypass chute to divert coal directly to ST-11).	PE	B  A	-----  T50 T120	-----  FE N
S3A	2,500 TPH	I-1986 M-2002	Conveyor S3A - Receives coal from Scalping screen SS-1 and transfers it to Belt Conveyor C11-1 and/or C11-2.	PE	B  A	T110  T111 T112	FE  PE PE
SS-1	4000 TPH	I - 1998	Scalping Screen SS-1 - Receives coal from Conveyor S10. Oversized coal is routed to the Shawnee Rotary Breaker S6. Undersized coal goes to a two-way flop gate, which can transfer coal to Conveyor RCT-1 or Conveyor S3B.	FE	B  A	T50  T54 T51 T53 T110	FE  FE FE FE

**ATTACHMENT J (Continued)**  
**EMISSION POINTS AND POLLUTION CONTROL DEVICES**

Equipment ID Number	Design Capacity	Year Installed / Modified (2)	Description	Method of Control (1)	Associated Transfer Points or Equipment		
					Location: B - Before A - After	ID. No.	Method of Control (1)
S6	1500 TPH	I-1986	Shawnee Rotary Breaker S6 - Receives coal from Scalping Screen SS-1. Refuse is transferred to Conveyor S7. Coal exiting the Rotary Breaker is transferred to Conveyor S5.	FE	B A	T54 T28-3 T27-5	FE PE PE
<b>S7 Continued under Refuse Circuit</b>							
RCT-1	4000 TPH	I - 1998	Conveyor RCT-1 - Receives coal from Scalping Screen SS-1 and transfers it to Conveyor S5.	FE	B A	T51 T52	FE FE
S5	4000 TPH	I - 1986 M - 1998	Conveyor S5 - Receives coal from Conveyor RCT-1 and Rotary Breaker S6, and transfers it to a Stack Tube/Stockpile ST-11. Note that Conveyor S5 was lengthened and its design capacity increased to 4,000 TPH.	PE	B A	T52 T27-5 T49	FE PE MD
ST-11	1,106,000 Tons	I - 1986 M-1998 M - 2001 M - 2006	Stack Tube/Stockpile ST-11 - Receives coal from Conveyor S5, truck, and SS-1 bypass chute and transfers via underground feeder to Conveyor S3 and/or via front endloader to truck.	N	B A	T49 T120 T103 T32 T102	MD N N FE MC
S3	2,500 TPH	I - 1986	Conveyor S3 - Receives coal from underground feeder located beneath Stack Tube/Stockpile ST-11 and transfers it to Conveyor S3B.	PE	B A	T32 T33	FE PE
S3B	4,000 TPH	I - 1986 M - 1998	Conveyor S3B - Receives coal from Conveyor S3 and Scalping Screen SS-1 two-way flop gate, and routes it to 60" Raw Coal Belt Conveyor C24. Design capacity increased to 4,000 TPH.	PE	B A	T33 T53 T34	PE FE PE
C24	4,000 TPH	I - 1970 M- 1994	Conveyor C24 - Receives coal from Conveyor S3B and Rotary Breakers 13-1 and 13-2 and transfers it to Raw Coal Storage Silo A ST-3, Conveyor C31, or Conveyor C31-A.	FE	B A	T34 T8-1 T8-2 T10-3 T10-2 T10-1	PE PE PE FE FE PE
<b>Raw Coal to Storage and to Preparation Plant</b>							
ST-3	6,000 Tons	I - 1970	6,000 Ton Raw Coal Storage Silo A ST-3 - Receives coal from Conveyor C24 and transfers it via one mass flow feeder and six 48" reciprocating feeders to a 48" Raw Coal Belt C37.	N	B A	T10-3 T12-1	FE FE

**ATTACHMENT J (Continued)**  
**EMISSION POINTS AND POLLUTION CONTROL DEVICES**

Equipment ID Number	Design Capacity	Year Installed / Modified (2)	Description	Method of Control (1)	Associated Transfer Points or Equipment		
					Location: B - Before A - After	ID. No.	Method of Control (1)
C31	4,000 TPH	I - 1970 M- 1994	Conveyor C31 - Receives coal from Conveyor C24 and transfers it to Raw Coal Storage Silo ST-4.	FE	B A	T10-2 T10-4	FE FE
ST-4	6,000 Tons	I - 1970	Raw Coal Storage Silo B ST-4 - Receives coal from Conveyor C31 and transfers it via one mass flow feeder and six 48" reciprocating feeders to a 48" Raw Coal Belt C37.	N	B A	T10-4 T12-2	FE FE
C31-A	4,000 TPH	I - 1981	Conveyor C31-A - Receives coal from Conveyor C24 and transfers coal to Stack Tube/Raw Coal Storage Stockpile ST-2.	PE	B A	T10-1 T11	PE MC
ST-2	77,000 Tons	I - 1981 M- 2001	Raw Coal Storage Stockpile ST-2 - Receives coal from Conveyor C31-A and truck dump and transfers it via front-endloader to Feeder C36, Storage Pit ST-10, trucks, and/or railcar.	N	B A	T11 T101 T100 T77 T113	MD MD MD MD, PE MD
C36	500 TPH	I - 1981	Feeder C36 - Receives coal from Raw Coal Storage Stockpile ST-2 and transfers it to the 48" Raw Coal Belt Conveyor C37.	PE	B A	T77 T12-3	PE FE
C37	1,500 TPH	I - 1970	48" Raw Coal Belt Conveyor C37 - Receives coal from the 48" Reciprocating Feeders from Raw Coal Storage Silos A and B (ST-3 and ST-4) and Feeder C36, and transfers it to Conveyor C45.	FE	B A	T12-1 T12-2 T12-3 T13	FE FE FE FE
C45	1,500 TPH	I - 1970	Conveyor C45 - Receives coal from Conveyor C37 and transfers it into the preparation plant.	PE	B A	T13 -----	FE -----
<b>Refuse Circuit</b>							
8A	400 TPH	I - 1992	Conveyor 8A - Receives refuse from Rotary Breakers 13-1 and 13-2. Refuse is transferred to Conveyor C8.	N	B A	T9-1A T9-1B T46-2	PE PE FE
C8	Continued below under C8						
S7	800 TPH	I - 1986	Conveyor S7 - Receives refuse from the Rotary Breaker S6 and transfers it to the 80 ton Rock Bin.	PE	B A	T28-3 T29	PE PE

**ATTACHMENT J (Continued)**  
**EMISSION POINTS AND POLLUTION CONTROL DEVICES**

Equipment ID Number	Design Capacity	Year Installed / Modified (2)	Description	Method of Control (1)	Associated Transfer Points or Equipment		
					Location: B - Before A - After	ID. No.	Method of Control (1)
Rock Bin	80 Ton	I - 1970	Rock Bin - Receives refuse from Conveyor S7 and transfers it to a 72" Reciprocating Feeder.	FE	B A	T29 -----	PE -----
Rock Crusher #6	280 TPH	I - 1970	Rock Crusher #6 - Receives refuse from Rock Bin and transfers it to 36" Rock Belt Conveyor C8.	FE	B A	T34-2a T35	FE FE
C8	400 TPH	I - 1970	36" Rock Belt Conveyor C8 - Receives refuse from Rock Bin #6 , Rock Crusher #6, and Conveyor 8A. Transfers refuse to the 400 ton Refuse Bin ST-7.	PE	B A	T34-2b T35 T46-2 T36	FE FE FE FE
C125	463 TPH	I - 1970	36" Plant Refuse Belt Conveyor C125 - Transfers refuse from the Preparation Plant's Washing Circuit to the 400 ton Refuse Bin ST-7.	PE	B A	----- T37	----- FE
ST-7	400 Ton	I - 1970	400 Ton Refuse Bin ST-7 - Receives coal refuse from 36" Rock Belt Conveyor C8 and 36" Plant Refuse Belt Conveyor C125 and transfers it to feeder 127 and then to Refuse Belt Conveyor C128-1 or the Emergency Refuse Stockpile.	FE	B A	T36 T37 -----	FE FE -----
C128-1	400 TPH	I - 1970	Conveyor - Receives refuse from Refuse Bin ST-7 and transfers it Point "A" Storage Bin ST-8.	PE	B A	T38 T39	FE FE
ST-8	85 Tons	I - 1970	Point "A" Storage Bin ST-8 - Receives refuse from Conveyor C128-1 and transfers it to Belt Conveyor C128-2.	FE	B A	T39 -----	FE -----
C128-2	400 TPH	I - 1970	Conveyor C128-2 - Receives refuse from Storage Bin ST-8 and transfers it to Conveyor C128-3.	PE	B A	T40 T41	PE PE
C128-3	400 TPH	I - 1983	Conveyor C128-3 - Receives refuse from Conveyor C128-2 and transfers it to Conveyor C128-4.	N	B A	T41 T42	PE PE
C128-4	400 TPH	I - 1983	Conveyor C128-4 - Receives refuse from Conveyor C128-3 and transfers it to Conveyor C128-5.	N	B A	T42 T43	PE PE
C128-5	400 TPH	I - 2001	Conveyor C128-5 - Receives refuse from Conveyor C128-4 and transfers it to conveyor C128-6.	N	B A	T43 T44	PE PE

**ATTACHMENT J (Continued)**  
**EMISSION POINTS AND POLLUTION CONTROL DEVICES**

Equipment ID Number	Design Capacity	Year Installed / Modified (2)	Description	Method of Control (1)	Associated Transfer Points or Equipment		
					Location: B - Before A - After	ID. No.	Method of Control (1)
C128-6 (C128-5E)	400 TPH	I - 2006	Conveyor C128-6 – Receives refuse from Conveyor C128-5 and transfers it to Stacking Belt Conveyor.	PE	B A	T44 T121	PE PE
Stacking Belt Conveyor	400 TPH	I - 1970	Stacking Belt Conveyor - Receives refuse from Conveyor C128-5 and transfers it to the Refuse Stockpile ST-12.	PE	B A	T121 T45	PE MC
ST-12	26,000 Tons	I - 1970	Refuse Stockpile ST-12 – Receives refuse from Stacking Belt Conveyor and dozers move into permanent storage. .	N	B A	T45 -----	MC -----
<b>Rotary Breakers ( 13-1 &amp; 13-2 ) Bypass</b>							
Raw Coal Auger Sampler	N/A	I – 1998	Raw Coal Auger Sampler - Samples coal from dump trucks at the truck scales. Emissions are expected to be minimal.	N	B A	----- -----	----- -----
ST-10	50 Tons	I – 1979 M – 2001	Raw Coal Storage Pit ST-10 - Receives coal from dump trucks and front-endloader and transfers it to Conveyor C11-4.	PE	B A	T4-8 T105 T4-9	MC MC PE
C11-4	Continued Under Rotary Breakers ( 13-1 & 13-2 ) Circuit						
RC-1	Continued under Clean Coal Circuit						
<b>Clean Coal Circuit</b>							
TD1	800 TPH	I - 1970 M- 1996	McNally Fluidized bed Thermal Dryer with two cyclones and two venturi scrubbers.	CY, SC, ME	B A	----- 001-2A,B	----- CY, SC, ME
C100	800 TPH	I - 1970	42" Dryer Feed Belt Conveyor C100 - Transfers wet coal from Preparation to Thermal Dryer, which dries it and transfers to Horizontal Axis Mixer No. 120.	PE	B A	----- T15	----- PE
C118	800 TPH	I - 1970 M-1995	54" Coarse Clean Coal Belt Conveyor - Receives coarse clean coal from inside Preparation Plant and transfers it to Horizontal Axis Mixer No. 120.	PE	B A	----- T16	----- FE, SC
Horizontal Axis Mixer No. 120	320 TPH	I - 1970	Horizontal Axis Mixer No. 120. Receives coarse clean coal from Conveyor C118 and clean coal from Thermal Dryer, and transfers coal to 72" Clean Coal Transfer Belt Conveyor C119.	FE	B A	T16 T17	FE, SC FE, SC
C119	1,000 TPH	I - 1970	72" Clean Coal Transfer Belt Conveyor C119 - Receives coal from the Horizontal Axis Mixer No. 120 and transfers coal to 48" Clean Coal Belt Conveyor C132.	FE	B A	T17 T18	FE, SC FE, SC

**ATTACHMENT J (Continued)**  
**EMISSION POINTS AND POLLUTION CONTROL DEVICES**

Equipment ID Number	Design Capacity	Year Installed / Modified (2)	Description	Method of Control (1)	Associated Transfer Points or Equipment		
					Location: B - Before A - After	ID. No.	Method of Control (1)
C132	1,000 TPH	I - 1970	48" Clean Coal Belt Conveyor C132 - Receives coal from the 72" Clean Coal Transfer Belt Conveyor C119 and transfers it to the 10,000 Ton Clean Storage Silo ST-5 and/or Conveyor SC-1.	FE	B A	T18 T19 T19A	FE, SC FE FE
ST-5	10,000 Ton	I - 1970	Storage 4 - 10,000 Ton Clean Coal Storage Silo ST-5. Receives coal from the 48" Clean Coal Belt Conveyor C132 and transfers it through one mass flow feeder and six 48" reciprocating feeders to a 72" Collecting Belt Conveyor C139.	FE	B A	T19 T20	FE FE, SC
C139	5,000 TPH	I - 1970 M - 1998	72" Collecting Belt Conveyor C139 - Receives coal from Storage 4 (ST-5) through one mass flow feeder and six 48" reciprocating feeders. Transfers coal to the 72" Belt Conveyor to Sampling Tower C141. Design capacity increased to 5,000 TPH.	FE	B A	T20 T21	FE, SC FE, SC
C141	5,000 TPH	I - 1970 M - 1998	72" Belt Conveyor C141 - Receives coal from 72" Collecting Belt Conveyor C139 and Conveyor RC-1, and transfers it to the 72" Belt Conveyor C152. Design capacity increased to 5,000 TPH. A small portion of coal from Conveyor C141 is transferred to and from the Clean Coal Sampler System.	FE	B A	T21 T23 T24	FE, SC FE, SC FE
Clean Coal Sampler System (F01 & F02)	N/A	I - 1970 M - 1998	Clean Coal Sampler System - Receives coal from 72" Belt Conveyor C141 via Primary Sample Belt Conveyor and transfers it to the Primary Sample Crusher and the Nuclear Analyzer and subsequently back to conveyor C141.	FE	B A	----- -----	----- -----
C152	5,000 TPH	I - 1970 M - 1998	72" Belt Conveyor to Loading Bin C152 - Receives coal from 72" Belt Conveyor C141 and transfers it to the 200 Ton Loading Bin ST-6. Design capacity increased to 5,000 TPH.	FE	B A	T24 T25	FE FE
ST-6	200 Ton	I - 1970 M - 2001 M - 2004	200 Ton Loading Bin ST-6 - Receives coal from the 72" Belt Conveyor C152 and transfers it to railroad cars.	FE	B A	T25 T26	FE FE, DSS
SC-1	1,000 TPH	I - 1991	Belt Conveyor SC-1 - Receives coal from the 48" Clean Coal Belt Conveyor C132 and transfers it to the Stack Tube/Clean Coal Storage Stockpile ST-13.	PE	B A	T19A T19B	FE MC
ST-13	514,000 Tons	I - 1991 M - 1998 M - 2002	Stack Tube/Clean Coal Storage Stockpile ST-13 - Receives clean coal from Conveyor SC-1 and transfers it using six vibrating feeders to Belt Conveyor RC-1 and/or via front end loader to truck. Up to 360,000 TPY combined may be trucked to and from ST-13.	N	B A	T19B T114 T22 T119	MC N FE N

**ATTACHMENT J (Continued)**  
**EMISSION POINTS AND POLLUTION CONTROL DEVICES**

Equipment ID Number	Design Capacity	Year Installed / Modified (2)	Description	Method of Control (1)	Associated Transfer Points or Equipment		
					Location: B - Before A - After	ID. No.	Method of Control (1)
RC-1	4,000 TPH	I - 1991 M - 1998	Belt Conveyor RC-1 – Receives coal from six vibrating feeders located underneath the Clean Coal Storage Stockpile ST-13 and also from Belt Conveyor RC-5, and transfers it to the 72” Belt Conveyor C141.	PE	B  A	T22 T81  T23	FE FE  FE, SC
<b>Trucked Coal and Coal Fines Circuit</b>							
ST-16 (ST-16E)	120,000 Ton	I - 2002  A - 2008	Coal & Pond Fines Open Stockpile ST-16 – Receives coal and pond fines by truck and transfers it via front-end loader to Dump Hopper DHRC-4; via underground feeders to conveyor C120; and/or via front-end loader to truck.	N	B  A	T122 T134 T124 T135 T126	N N PE MD FE
DHRC-4 (DHRC-4E)		I - 2002 A - 2008	Dump Hopper DHRC-4 – Receives coal and/or pond fines by front-end loader and transfers it to Conveyor C120.	PE	B  A	T124  T125	MD  PE
C120 (C120E)	1,150 TPH	I - 2002 A - 2008	Conveyor C120 – Receives coal and/or pond fines from Stockpile ST-16’s underground feeders and/or Dump Hopper DHRC-4 and transfers it to Conveyor C121 or Conveyor RC-5.	PE	B  A	T125 T126 T127A T127B	PE FE PE PE
C121 (C121E)	5 TPH	I - 2002 A - 2008	Conveyor C121 – Receives coal and/or pond fines from Conveyor C120 and transfers it to Conveyor C122 and Sample Collector.	PE	B  A	T127A  T128	PE  FE
C122 (C122E)	5 TPH	I - 2002 A - 2008	Conveyor C122 – Receives coal and/or pond fines from Conveyor C121 and transfers it to Conveyor RC5.	PE	B A	T129 T130	FE PE
RC-5 (RC-5E)	4000 TPH	I - 1998 M - 1999 M - 2001	Belt Conveyor RC-5 – Receives coal and/or coal fines from Conveyor C120 and C122 and transfers to Conveyor RC-1 (see Clean Coal Circuit).	N	B  A	T127B T130 T81	PE PE FE

**ATTACHMENT J (Continued)**  
**EMISSION POINTS AND POLLUTION CONTROL DEVICES**

Equipment ID Number	Design Capacity	Year Installed / Modified (2)	Description	Method of Control (1)	Associated Transfer Points or Equipment		
					Location: B - Before A - After	ID. No.	Method of Control (1)
<b>Roadways</b>							
PRP	N/A	I - 1970 M- 2001	Paved Roadways and parking lots.	RWMW	N/A	N/A	N/A
URP	N/A	I - 1970 M- 2001	Unpaved Roadways and parking lots	RWMW	N/A	N/A	N/A

- (1) Method of Control abbreviations: FE - Full Enclosure, PE - Partial Enclosure, WS - Water Sprays, MD - Minimization of Material Drop Height, N – None, MC – Moisture Control, DSS – Dust Suppressant Spray  
 CY – Cyclones, SC – Scrubbers, ME – Mist Eliminator, RWMW – Water Truck with Manufactured Pressurized Sprays
- (2) I – Year Installed, M- Year Modified , A – Year Added, N-Not Installed Yet

ATTACHMENT K

ATTACHMENTS A THROUGH C OF PERMIT R13-2183K

Attachment A - Example Data Form

**MONTHLY PROCESSING RATE REPORT <sup>(1)</sup>**

Pinnacle Mining Company, LLC

Pinnacle Preparation Plant

Permit No. R13-2183K

Plant ID No. 109-00006

Month, Year: \_\_\_\_\_ / \_\_\_\_\_

Day of Month	Raw Coal		Clean Coal			Coal Fines
	No. 50 Mine (Ton/Day)	Wet Wash Preparation Plant (Ton/Day)	Thermal Dryer Circuit (Ton/Day)	Loaded to Railroad Car (Ton/Day)	Loaded from ST-13 to Truck (Ton/Day)	Coal and/or Coal Fines to Conveyor RC-5 (Ton/Day)
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
Total -ton/month						
Twelve Month Rolling Total <sup>(2)</sup>						

Note: (1) The CERTIFICATION OF DATA ACCURACY statement appearing on the reverse side shall be completed within fifteen (15) days of the end of the reporting period. All records shall be kept on site for a period of at least five (5) years and shall be made available to the Director or his or her duly authorized representative upon request.

(2) The Twelve Month Rolling Total shall mean the sum of the amount of coal received, processed, or shipped at any given time during the previous twelve (12) consecutive calendar months. The maximum permitted operating rates shall not exceed the values listed in Specific Requirements A.6.

## CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that all information contained in the attached \_\_\_\_\_, representing the period beginning \_\_\_\_\_ and ending \_\_\_\_\_, and any supporting documents appended hereto, is true and correct to the best of my knowledge and that all reasonable efforts have been made to provide the most comprehensive information possible.

Name (Type or Print): \_\_\_\_\_

Signature<sup>1</sup>: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Fax No.: \_\_\_\_\_

<sup>1</sup>This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

- a. For a corporation: the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either (i) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), or (ii) the delegation of authority to such representative is approved in advance by the Secretary;
- b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
- c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of U.S. EPA); or
- d. The designated representative delegated with such authority and approved in advance by the Secretary.

Attachment B - Example Data Form

**MONTHLY DELIVERY RATE REPORT FROM OUTSIDE SUPPLIERS <sup>(1)</sup>**

Pinnacle Mining Company, LLC

Pinnacle Preparation Plant

Permit No. R13-2183K

Plant ID No. 109-00006

Month, Year: \_\_\_\_\_ / \_\_\_\_\_

Day of Month	Delivered To Stockpile:	Amount Delivered (tons)	Twelve Month Rolling Total <sup>(2)</sup>
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			

Note: (1) The CERTIFICATION OF DATA ACCURACY statement appearing on the reverse side shall be completed within fifteen (15) days of the end of the reporting period. All records shall be kept on site for a period of at least five (5) years and shall be made available to the Director or his or her duly authorized representative upon request.

(2) The Twelve Month Rolling Total shall mean the sum of the amount of coal received, processed, or shipped at any given time during the previous twelve (12) consecutive calendar months. The maximum permitted delivery rates shall not exceed the values listed in Specific Requirements A.7.

## CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that all information contained in the attached \_\_\_\_\_, representing the period beginning \_\_\_\_\_ and ending \_\_\_\_\_, and any supporting documents appended hereto, is true and correct to the best of my knowledge and that all reasonable efforts have been made to provide the most comprehensive information possible.

Name (Type or Print): \_\_\_\_\_

Signature<sup>1</sup>: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Fax No.: \_\_\_\_\_

<sup>1</sup>This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

- a. For a corporation: the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either (i) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), or (ii) the delegation of authority to such representative is approved in advance by the Secretary;
- b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
- c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of U.S. EPA); or
- d. The designated representative delegated with such authority and approved in advance by the Secretary.

Attachment C - Example Data Form

**MONTHLY TRANSFER RATE REPORT <sup>(1)</sup>**

Pinnacle Mining Company, LLC

Pinnacle Preparation Plant

Permit No. R13-2183K

Plant ID No. 109-00006

Month, Year: \_\_\_\_\_ / \_\_\_\_\_

Day of Month	Transferred From Stockpile:	Transferred To Stockpile:	Amount Transferred (tons)	Twelve Month Rolling Total <sup>(2)</sup>
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				

Note: (1) The CERTIFICATION OF DATA ACCURACY statement appearing on the reverse side shall be completed within fifteen (15) days of the end of the reporting period. All records shall be kept on site for a period of at least five (5) years and shall be made available to the Director or his or her duly authorized representative upon request.

(2) The Twelve Month Rolling Total shall mean the sum of the amount of coal transferred at any given time during the previous twelve (12) consecutive calendar months. The maximum permitted transfer rates shall not exceed the values listed in Specific Requirements Section A.8.

## CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that all information contained in the attached \_\_\_\_\_, representing the period beginning \_\_\_\_\_ and ending \_\_\_\_\_, and any supporting documents appended hereto, is true and correct to the best of my knowledge and that all reasonable efforts have been made to provide the most comprehensive information possible.

Name (Type or Print): \_\_\_\_\_

Signature<sup>1</sup>: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Fax No.: \_\_\_\_\_

\_\_\_\_\_

<sup>1</sup>This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

- a. For a corporation: the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either (i) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), or (ii) the delegation of authority to such representative is approved in advance by the Secretary;
- b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
- c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of U.S. EPA); or
- d. The designated representative delegated with such authority and approved in advance by the Secretary.