

# HENTHORN

Environmental Services

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January 20, 2017

William F. Durham, Director  
Division of Air Quality  
WV Department of Environmental Protection  
601 57<sup>th</sup> Street  
Charleston, West Virginia 25304

**Via Hand Delivery**

Re: Kepler Processing Company, LLC  
Title V Permit No. R30-10900013-2012  
Application for Renewal

Dear Mr. Durham:


Enclosed are two copies of the application of Kepler Processing Company, LLC, for renewal of Title V Permit No. R30-10900013-2012. According to current guidance, hard copies are provided for documents requiring signature, along with the area map, plot plan, and process flow diagrams. All other files are provided electronically on the CDs in the back of each copy of the application.

Thank you for your assistance in this matter. Should you have any questions, please call me.

Sincerely,



Jennie L. Henthorn



*Specializing in Strategic Environmental Planning and Permitting*

# Kepler Processing Company, LLC

**Pocahontas No. 51 Preparation Plant**  
Pineville, West Virginia

Plant ID No. 03-54-109-00013

Application for  
Renewal of Title V Permit No.  
R30-10900013-2012

January 2017

Prepared by:



517 Sixth Avenue  
St. Albans, WV 25177

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**WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL  
PROTECTION**

**DIVISION OF AIR QUALITY**

601 57<sup>th</sup> Street SE

Charleston, WV 25304

Phone: (304) 926-0475

[www.dep.wv.gov/daq](http://www.dep.wv.gov/daq)

**INITIAL/RENEWAL TITLE V PERMIT APPLICATION - GENERAL FORMS**

**Section 1: General Information**

<b>1. Name of Applicant (As registered with the WV Secretary of State's Office):</b> Kepler Processing Company, LLC	<b>2. Facility Name or Location:</b> Pocahontas No. 51 Preparation Plant
<b>3. DAQ Plant ID No.:</b> 03-54-109-00013	<b>4. Federal Employer ID No. (FEIN):</b> 55-0741627
<b>5. Permit Application Type:</b> <input type="checkbox"/> Initial Permit <input checked="" type="checkbox"/> Permit Renewal <input type="checkbox"/> Update to Initial/Renewal Permit Application When did operations commence? 1968 What is the expiration date of the existing permit? 24 July 2017	
<b>6. Type of Business Entity:</b> <input type="checkbox"/> Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Governmental Agency <input type="checkbox"/> Limited Partnership <input type="checkbox"/> LLC	<b>7. Is the Applicant the:</b> <input type="checkbox"/> Owner <input type="checkbox"/> Operator <input checked="" type="checkbox"/> Both If the Applicant is not both the owner and operator, please provide the name and address of the other party. _____ _____ _____
<b>8. Number of onsite employees:</b> 30	
<b>9. Governmental Code:</b> <input checked="" type="checkbox"/> Privately owned and operated; 0 <input type="checkbox"/> Federally owned and operated; 1 <input type="checkbox"/> State government owned and operated; 2 <input type="checkbox"/> County government owned and operated; 3 <input type="checkbox"/> Municipality government owned and operated; 4 <input type="checkbox"/> District government owned and operated; 5	
<b>10. Business Confidentiality Claims</b> Does this application include confidential information (per 45CSR31)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, identify each segment of information on each page that is submitted as confidential, and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's "PRECAUTIONARY NOTICE-CLAIMS OF CONFIDENTIALITY" guidance.	

<b>11. Mailing Address</b>		
<b>Street or P.O. Box:</b> P.O. Box 1392		
<b>City:</b> Pineville	<b>State:</b> WV	<b>Zip:</b> 24874
<b>Telephone Number:</b> (304) 732-6452	<b>Fax Number:</b> (304) 732-6454	

<b>12. Facility Location</b>		
<b>Street:</b> State Route 97	<b>City:</b> Pineville	<b>County:</b> Wyoming
<b>UTM Easting:</b> 449.67      km	<b>UTM Northing:</b> 4,158.67      km	<b>Zone:</b> <input checked="" type="checkbox"/> 17    or <input type="checkbox"/> 18
<b>Directions:</b> From Pineville travel West on State Route 97 approximately three (3) miles. Facility is adjacent to State Route 97.		
<b>Portable Source?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
<b>Is facility located within a nonattainment area?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>If yes, for what air pollutants?</b>
<b>Is facility located within 50 miles of another state?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<b>If yes, name the affected state(s).</b> Virginia Kentucky
<b>Is facility located within 100 km of a Class I Area!<sup>1</sup></b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  <b>If no, do emissions impact a Class I Area!<sup>1</sup></b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>If yes, name the area(s).</b>
<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>		
<b>Responsible Official:</b> Thomas M. Haynes, Jr.		<b>Title:</b> President
<b>Street or P.O. Box:</b> P.O. Box 1392		
<b>City:</b> Pineville	<b>State:</b> WV	<b>Zip:</b> 24874
<b>Telephone Number:</b> (304) 732-6452	<b>Fax Number:</b> (304) 732-6454	
<b>E-mail address:</b> thaynes@alphanr.com		
<b>Environmental Contact:</b> Thomas M. Haynes, Jr.		<b>Title:</b> President
<b>Street or P.O. Box:</b> P.O. Box 1392		
<b>City:</b> Pineville	<b>State:</b> WV	<b>Zip:</b> 24874
<b>Telephone Number:</b> (304) 732-6452	<b>Fax Number:</b> (304) 732-6454	
<b>E-mail address:</b> thaynes@alphanr.com		
<b>Application Preparer:</b> Jennie Henthorn		<b>Title:</b> Owner
<b>Company:</b> Henthorn Environmental Services LLC		
<b>Street or P.O. Box:</b> P.O. Box 599		
<b>City:</b> St. Albans	<b>State:</b> WV	<b>Zip:</b> 25177
<b>Telephone Number:</b> (304) 727-1445	<b>Fax Number:</b> N/A	
<b>E-mail address:</b> jennie@henvtl.com		

**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
Coal Preparation and Handling	Clean Coal	212111	1221

**Provide a general description of operations.**

The Pocahontas No. 51 Preparation Plant is a coal preparation plant with a thermal dryer. It has the ability to screen, break/size, wash, thermally dry, store, and load out/in coal. The maximum capacity of the preparation plant is 1,000 tons per hour of raw coal feed.

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**

18. Applicable Requirements Summary	
Instructions: Mark all applicable requirements.	
<input checked="" type="checkbox"/> SIP	<input type="checkbox"/> FIP
<input checked="" type="checkbox"/> Minor source NSR (45CSR13)	<input checked="" type="checkbox"/> PSD (45CSR14)
<input checked="" 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/Reqts.	<input 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
<p>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.</p> <p><b>Section 112</b> – no MACT standard has been promulgated for thermal dryers.</p> <p><b>Section 129</b> Standards and Requirements – facility does not combust solid waste.</p> <p><b>Section 183</b> (tank vessel requirement) – no tanks/vessels utilized at this facility.</p> <p><b>NAAQS increments or visibility</b> (temp. sources) – no temporary sources.</p> <p><b>Emission Trading and Banking</b> (45CSR28) – not involved in this program.</p> <p><b>NO<sub>x</sub> Budget Trading Program Non-EGU's</b> (45CSR1) – does not meet the definition of NO<sub>x</sub> Budget Unit</p> <p><b>FIP</b> – none in place</p> <p><b>Nonattainment NSR (45CSR19)</b>-Not located in a non-attainment area or will not contribute to a violation of section 107 of the CAA.</p> <p><b>Section 183 (e)</b> – facility is not a regulated entity as defined by Section 183 (e)(C).</p> <p><b>Statospheric Ozone (Title VI)</b> – does not emit any of the listed pollutants.</p> <p><b>Emissions Cap</b> 45CSR30-2.6.1 – none in place</p>
<input checked="" type="checkbox"/> Permit Shield



**19. Non Applicability Determinations (Continued)** - Attach additional pages as necessary.

**45CSR27** – does not meet definition of chemical processing unit.

**Acid Rain (Title IV)** – not an EGU.

**NO<sub>x</sub> Budget Trading Program non-EGU's (45CSR1)** – not involved in this program.

**NO<sub>x</sub> Budget Trading Program EGU's (45CSR26)** – not an EGU.



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).

**Open burning.** The open burning of refuse by any person is prohibited except as noted in 45CSR§6-3.1. **[45CSR§6-3.1.]**

**Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause or allow any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible. **[45CSR§6-3.2.]**

**Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them. **[40 C.F.R. 61 and 45CSR34]**

**Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public. **[45CSR§4-3.1 State-Enforceable only.]**

**Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11. **[45CSR§11-5.2]**

**Emission inventory.** The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality. **[W.Va. Code § 22-5-4(a)(14)]**

**Ozone-depleting substances.** For those facilities performing maintenance, service, repair or disposal of appliances, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:

- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to 40 C.F.R. §§ 82.154 and 82.156.
- b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 C.F.R. § 82.158.
- c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 C.F.R. § 82.161. **[40 C.F.R. 82, Subpart F]**

**Risk Management Plan.** Should this stationary source, as defined in 40 C.F.R. § 68.3, become subject to Part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in 40 C.F.R. § 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 C.F.R. Part 70 or 71. **[40 C.F.R. 68]**

Water spray systems for the purpose of fugitive particulate dust control shall be designed, installed, operated, and maintained so as to minimize the generation of fugitive particulate emissions from the wind erosion of stockpiles and material transfer points/

...(continued)



Permit Shield

**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). (Continued)**

The permittee shall maintain pressurized water spray bars on site and in good operating condition, and shall utilize same to apply water, or a mixture of water and an environmentally acceptable dust control additive, hereinafter referred to as solution, as often as is necessary in order to minimize the atmospheric entrainment of fugitive particulate emissions that may be generated from haulroads and other work areas where mobile equipment is used. The spray bar shall be equipped with commercially available spray nozzles, of sufficient size and number, so as to provide adequate coverage to the area being treated. The pump delivering the water, or solution, shall be of sufficient size and capacity so as to be capable of delivering to the spray nozzle(s) an adequate quantity of water, or solution, and at a sufficient pressure, so as to assure that the treatment process will minimize the atmospheric entrainment of fugitive particulate emissions generated from the haulroads and work areas where mobile equipment is used.

A properly designed, installed, and maintained winterization system on each of the water spray systems shall be in place so to functionally maintain all fugitive particulate dust control during periods when ambient temperature falls to or below 32 degrees Fahrenheit. **[45CSR13 - Permit R13-2104-§4.1.3.]**

The permittee shall maintain a water truck on site at the facility and in good operating condition, and shall utilize same to apply water, or a mixture of water and an environmentally acceptable dust control additive, hereinafter referred to as solution, as often as is necessary to minimize the atmospheric entrainment of fugitive particulate emissions that may be generated from haul roads, stockpiles and other work areas where mobile equipment is used. **[45CSR13 - Permit R13-2104-§4.1.4.]**

The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-2104, R13-2104A, R13-2104B, R13-2104C, R13-2104D, R13-2104F and R13-2104G F and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to. **[45CSR13 - Permit R13-2104-§2.5.1.]**

No person shall cause, suffer, allow or permit a coal preparation plant or handling operation to operate that is not equipped with a fugitive dust control system. This system shall be operated and maintained in such a manner as to minimize the emission of particulate matter into the open air. **[45CSR13 - Permit R13-2104-§4.1.9. and 45CSR§5-6.1.]**

3.1.13. The owner or operator of a coal preparation plant or handling operation shall maintain dust control of the premises and owned, leased or controlled access roads by paving, or other suitable measures. Good operating practices shall be observed in relation to stockpiling, car loading, breaking, screening and general maintenance to minimize dust generation and atmospheric entrainment.

**[45CSR13 - Permit R13-2104-§4.1.9. and 45CSR§5-6.2.]**

In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations, authorized by Permit R13-2104, the permittee shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period. **[45CSR13 - Permit R13-2104-§2.1.14.]**

No person shall construct, modify or relocate any coal preparation plant or coal handling operation without first obtaining a permit in accordance with the provisions of W. Va. Code §22-5-1 et seq. and the Director's rules for review and permitting of new or modified sources. **[45CSR13 - Permit R13-2104-§4.1.9. and 45CSR§5-10.1.]**

...(continued)

☒ **Permit Shield**

**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). (Continued)**

Operation and Maintenance of Air Pollution Control Equipment. The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.

**[45CSR13 - Permit R13-2104-§4.1.11.]**

☒ **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.)**

**Monitoring Requirements**

**Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

- a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable.
- b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit.
- c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.
- d. The permittee shall submit a report of the results of the stack test within 60 days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and... (continued)

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

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

**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.)**

to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:

1. The permit or rule evaluated, with the citation number and language.
2. The result of the test for each permit or rule condition.
3. A statement of compliance or non-compliance with each permit or rule condition.

**[WV Code §§ 22-5-4(a)(14-15), 45CSR13 and 45CSR10]**

#### **Recordkeeping Requirements**

**Monitoring information.** The permittee shall keep records of monitoring information that include the following:

- a. The date, place as defined in this permit and time of sampling or measurements;
- b. The date(s) analyses were performed;
- c. The company or entity that performed the analyses;
- d. The analytical techniques or methods used;
- e. The results of the analyses; and
- f. The operating conditions existing at the time of sampling or measurement.

**[45CSR§30-5.1.c.2.A., 45CSR13 - Permit R13-2104-§4.4.1.]**

**Retention of records.** The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of monitoring sample, measurement, report, application, or record creation date. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Where appropriate, records may be maintained in computerized form in lieu of the above records. **[45CSR§30-5.1.c.2.B., 45CSR13 - Permit R13-2104-§3.4.1.]**

**Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken. **[45CSR§30-5.1.c. State-Enforceable only.]**

The permittee shall maintain records indicating the use of any dust suppressants or any other suitable dust control measures applied at the facility. The permittee shall also inspect all fugitive dust control systems monthly 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 and shall state any maintenance or corrective actions taken as a result of the monthly inspections, the times the fugitive dust control system(s) were inoperable and any corrective actions taken. **[45CSR§30-5.1.c.]**

#### **Reporting Requirements**

**Responsible Official.** Any application form, report, or compliance certification required by this permit to be submitted to DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. **[45 CSR §30-4.4 and 5.1.c.3.D].**

(...continued)

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

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

**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.)**

A permittee may request confidential treatment for the submission of reporting required under 45 CSR §30-5.1.c.3. pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45 CSR 31. **[45 CSR §30-5.1.c.3.E.]**

Except for the electronic submittal of the annual certification to the USEPA as required in 3.5.5 below, all notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, mailed first class or by private carrier with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

**If to the DAQ:**

Director  
WVDEP  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304  
Phone: 304/926-0475  
FAX: 304/926-0478

**If to the US EPA:**

Associate Director  
Office of Air Enforcement and  
Compliance Assistance (3AP20)  
U. S. Environmental Protection Agency  
Region III  
1650 Arch Street  
Philadelphia, PA 19103-2029

**Certified Emissions Statement.** The permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality. **[45 CSR §30-8].**

**Compliance Certification.** The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. The annual certification to the USEPA shall be submitted in electronic format only. It shall be submitted by e-mail to the following address: R3\_APD\_Permits@epa.gov. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification. **[45 CSR §30-5.3.e.]**

**Semi-Annual Monitoring Reports.** The permittee shall submit reports of any required monitoring on September 15 for the reporting period January 1 to June 30 and March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 45 CSR §30-4.4. **[45 CSR §30-5.1.c.3.A.].**

**Emergencies.** For reporting emergency situations, refer to Section 2.17 of this permit.

**Deviations.**

a. In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:

(...continued)

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

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

**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.)**

1. Any deviation resulting from an emergency or upset condition, as defined in 45 CSR §30-5.7, shall be reported by telephone or telefax within one (1) working day of the date on which the permittee becomes aware of the deviation, if the permittee desires to assert the affirmative defense in accordance with 45 CSR §30-5.6. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.
2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or telefax. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.
3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.
4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken. **[45 CSR §30-5.1.c.3.C].**
- b. The permittee shall, in the reporting of deviations from permit requirements, including those attributable to upset condition as defined in this permit, report the probable cause of such deviations and any corrective actions or preventative measures taken in accordance with any rules of the Secretary. **[45 CSR §30-5.1.c.3.B].**
- c. Every report submitted under this subsection shall be certified by a responsible official. **[45 CSR §5.1.c.3.D].**

**New applicable requirements.** If any applicable requirement is promulgated during the term of this permit, the permittee will meet such requirements on a timely basis, or in accordance with a more detailed schedule if required by the applicable requirements. **[45 CSR §30-4.3.h.1.B].**

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

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

**21. Active Permits/Consent Orders**

Permit or Consent Order Number	Date of Issuance MM/DD/YYYY	List any Permit Determinations that Affect the Permit <i>(if any)</i>
R30-10900013-2012	07/24/2012	
R13-2104G	03/17/2014	

**22. Inactive Permits/Obsolete Permit Conditions**

Permit Number	Date of Issuance	Permit Condition Number
R13-2104	07/01/1997	
R13-2104A	11/20/2001	
R13-2104B	04/14/2003	
R13-2104C	03/30/2004	
R13-2104D	06/22/2006	
R13-2104E	08/13/2013	
R13-2104F	03/17/2014	



**Section 3: Facility-Wide Emissions**

<b>23. Facility-Wide Emissions Summary [Tons per Year]</b>	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	135.73
Nitrogen Oxides (NO <sub>x</sub> )	221.36
Lead (Pb)	0.0092
Particulate Matter (PM <sub>2.5</sub> ) <sup>1</sup>	60.12
Particulate Matter (PM <sub>10</sub> ) <sup>1</sup>	160.97
Total Particulate Matter (TSP)	403.51
Sulfur Dioxide (SO <sub>2</sub> )	250.47
Volatile Organic Compounds (VOC)	147.77
Hazardous Air Pollutants <sup>2</sup>	Potential Emissions
Acetaldehyde	0.0125
Acetophenone	0.0003
Acrolein	0.0064
Benzene	0.0285
Benzyl Chloride	0.0153
Bis(2-ethylhexyl) phthalate	0.0016
Bromoform	0.0009
Carbon Disulfide	0.0028
2-Chloroacetophenone	0.0002
Chlorobenzene	0.0005
Chloroform	0.0013
Cumene	0.0001
Cyanide	0.0548
2,4-Dinitrotoluene	6.13E-06
Dimethyl Sulfate	0.0011
Ethyl Benzene	0.0021
Ethyl Chloride	0.0009

Ethylene dichloride	0.0009
Formaldehyde	0.0053
Hexane	0.0015
Isophorone	0.0127
Methyl Bromide	0.0035
Methyl Chloride	0.0116
Methyl Hydrazine	0.0037
Methyl Methacrylate	0.0004
Methyl tert butyl ether	0.0008
Methylene Chloride	0.0064
Naphthalene	0.0003
Phenol	0.0004
Propionaldehyde	0.0083
Styrene	0.0005
Tetrachloroethylene	0.0009
Toluene	0.0053
1,1,1-Trichloroethane	0.0004
Xylenes	0.0008
Vinyl Acetate	0.0002
Hydrochloric Acid	0.0246
Hydrofluoric Acid	0.1971
Antimony (Sb <sub>2</sub> O <sub>5</sub> )	0.0004
Arsenic (As <sub>2</sub> O <sub>5</sub> )	0.0090
Beryllium (BeO)	0.0005
Cadmium (CdO)	0.0011
Chromium (CrO <sub>3</sub> )	0.0057
Chromium (VI)	0.0017
Cobalt (CoO)	0.0022
Manganese (MnO <sub>2</sub> )	0.0107

Mercury (HgO)	0.0018
Nickel (NiO)	0.0061
Selenium (SeO2)	0.0285
Regulated Pollutants other than Criteria and HAP	Potential Emissions
N <sub>2</sub> O	0.88
<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 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 type="checkbox"/>	14. Demineralized water tanks and demineralizer vents.
<input type="checkbox"/>	15. Drop hammers or hydraulic presses for forging or metalworking.
<input 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"/>	<p>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.</p> <p>Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>

24. Insignificant Activities (Check all that apply)	
<input type="checkbox"/>	<p>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.</p> <p>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:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>
<input type="checkbox"/>	21. Environmental chambers not using hazardous air pollutant (HAP) gases.
<input 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 type="checkbox"/>	24. Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
<input 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 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.

24. Insignificant Activities (Check all that apply)	
<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 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 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 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 type="checkbox"/>	50. Space heaters operating by direct heat transfer.
<input type="checkbox"/>	51. Steam cleaning operations.
<input type="checkbox"/>	52. Steam leaks.
<input type="checkbox"/>	53. Steam sterilizers.
<input type="checkbox"/>	54. Steam vents and safety relief valves.
<input 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 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: Thomas M. Haynes, Jr.

Title: President

**Responsible official's signature:**

Signature: Thomas M. Haynes, Jr. Signature Date: 1-18-2017  
(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 checked="" type="checkbox"/>	ATTACHMENT F: Schedule of Compliance Form(s)
<input checked="" type="checkbox"/>	ATTACHMENT G: Air Pollution Control Device Form(s)
<input checked="" type="checkbox"/>	ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s)

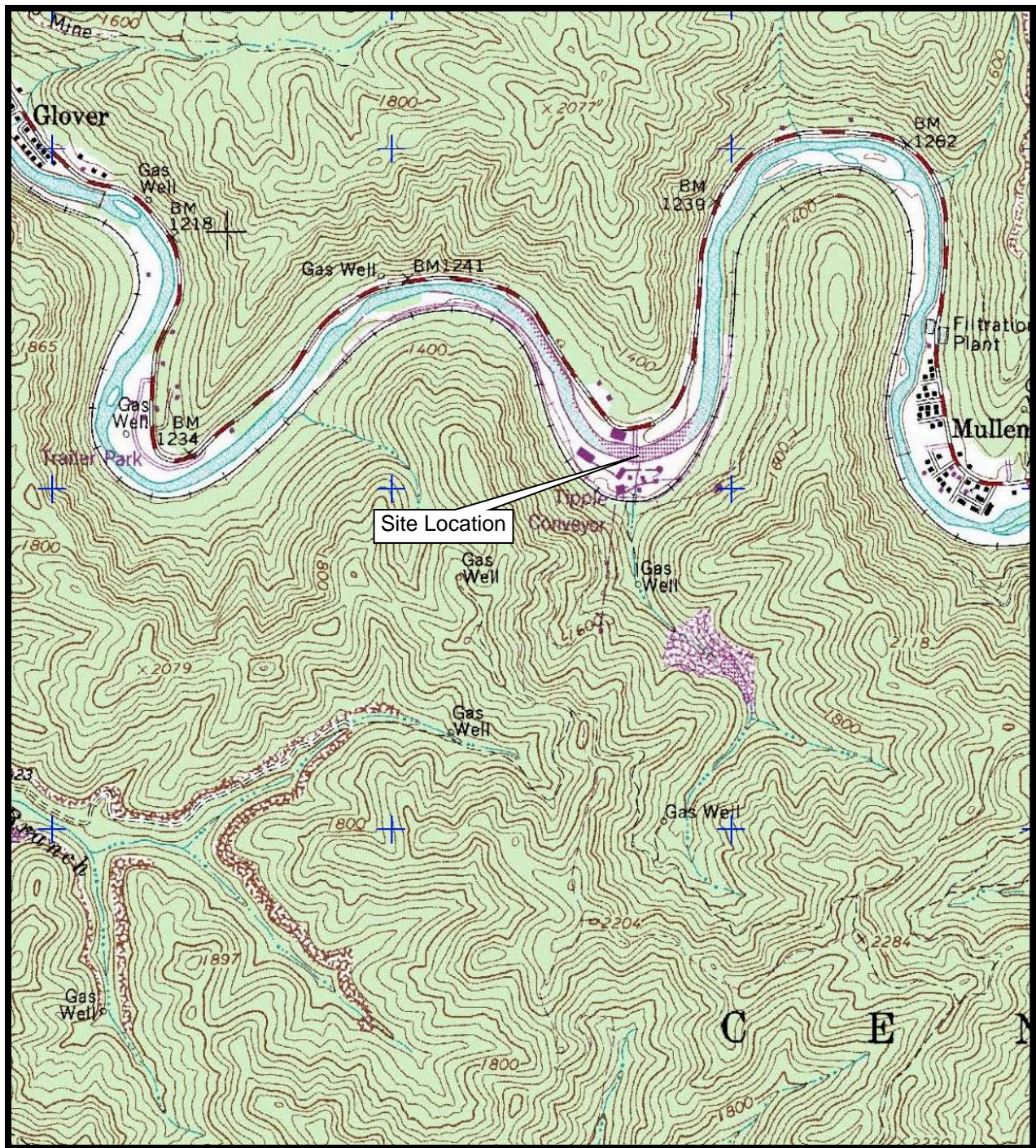
*All of the required forms and additional information can be found and downloaded from, the DEP website at [www.dep.wv.gov/dag](http://www.dep.wv.gov/dag), requested by phone (304) 926-0475, and/or obtained through the mail.*



# **Attachment A**

## Area Map





## Attachment A

Area Map

USGS 7.5 Minute Series Topographic Map  
Pineville, W.Va. Quadrangle

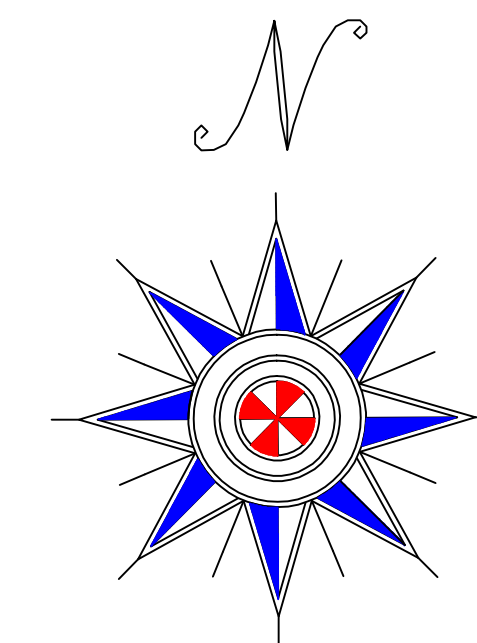
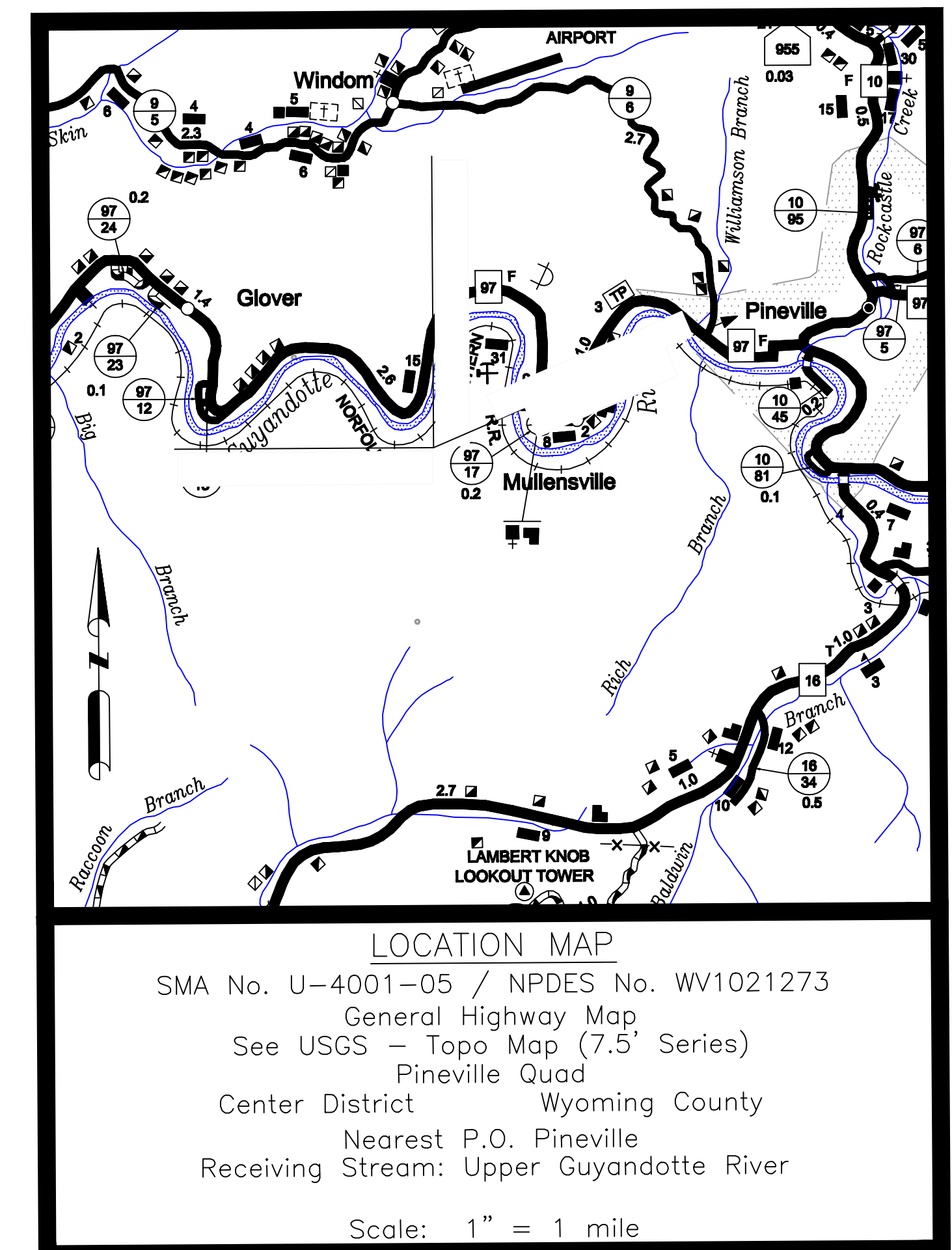
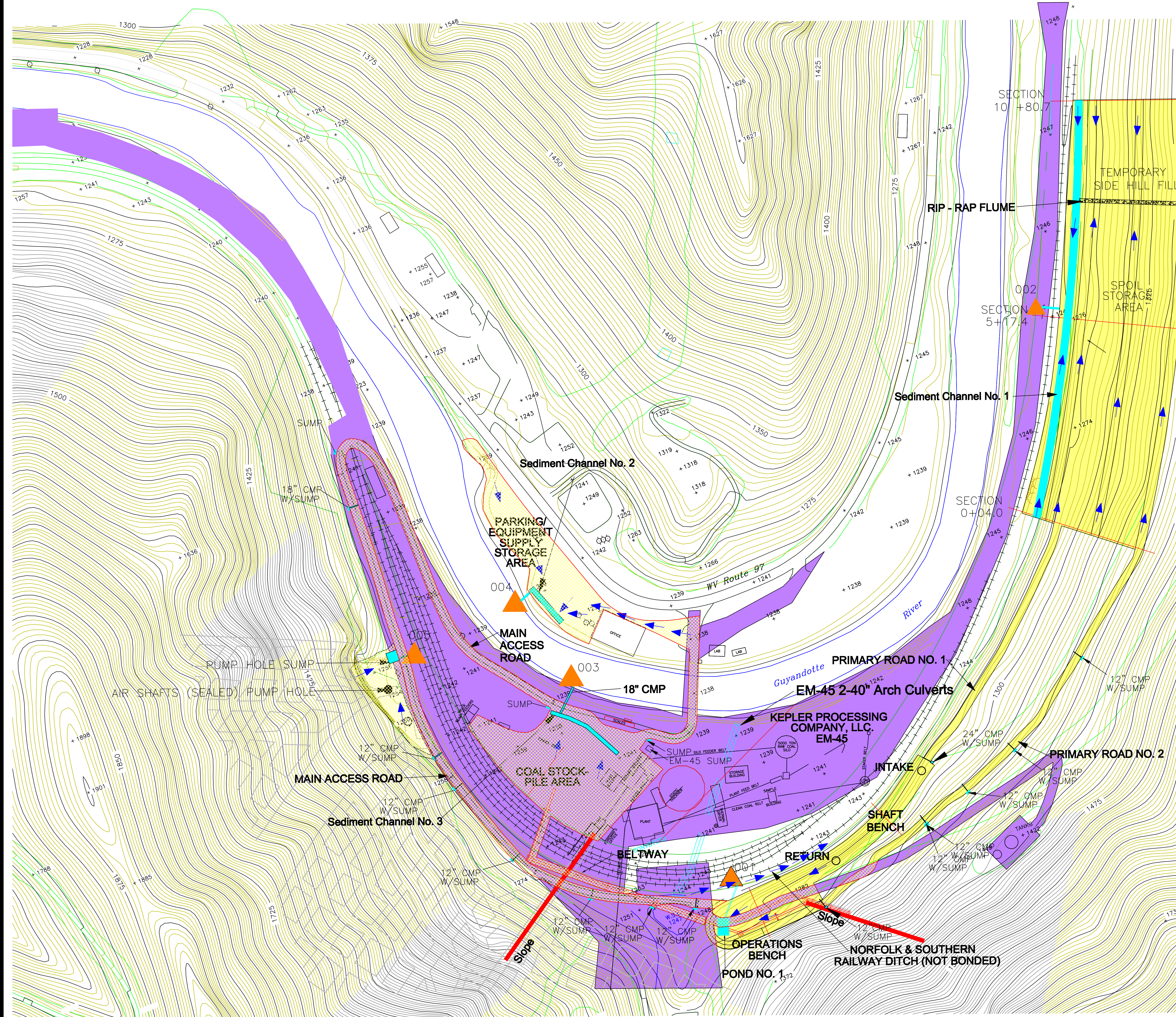
Henthorn Environmental Services LLC



# **Attachment B**

Plot Plan





**ATTACHMENT B**  
**PLOT PLAN**  
**KEPLER PROCESSING COMPANY, LLC**

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS MAP IS CORRECT AND SHOWS ALL THE INFORMATION TO THE BEST OF MY KNOWLEDGE AND BELIEF REQUIRED BY THE SURFACE MINING LAWS OF THIS STATE.

\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
REGISTRATION

\_\_\_\_\_  
DATE

ACKNOWLEDGED BEFORE ME A NOTARY PUBLIC, \_\_\_\_\_  
THIS \_\_\_\_\_, OF \_\_\_\_\_, MY COMMISSION EXPIRES \_\_\_\_\_

LEGEND	
	Proposed Area
	Overbonded Area
	Sump/Culvert
	Location of Regrade Cross-section
	N&S Railroad R-O-W
	ADJACENT PERMIT
	NPDES OUTLET
	GROUNDWATER MONITORING POINT
	TOPSOIL STORAGE AREA

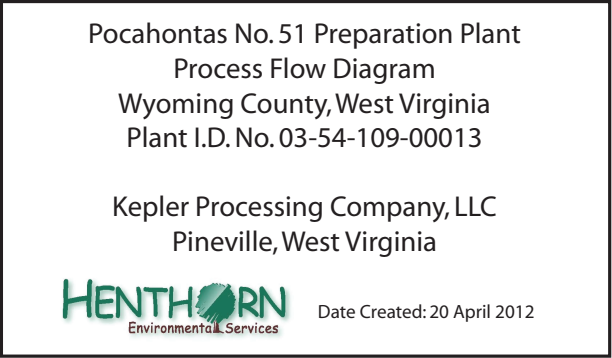
MAIN ACCESS ROAD .....	4.80 AC.
PRIMARY ROAD NO. 2 .....	0.57 AC.
PRIMARY ROAD NO. 1 .....	0.32 AC.
BELTWAY .....	0.24 AC.
COAL STOCKPILE AREA .....	1.34 AC.
SPOIL STORAGE AREA .....	8.27 AC.
OPERATIONS AREA .....	1.33 AC.
TOTAL BONDED AREA .....	16.87 AC.

ROAD FORK DEVELOPMENT COMPANY, INC. P.O. BOX 565 MATEWAN, W.V. 25678 GUYANDOTTE SLOPE MINE POCAHONTAS NO. 3 SEAM SITE PLAN			 Lexington, KY    Grundy, VA Pikeville, KY    Charleston, WV Hazard, KY
DATE: 2/22/05	REV. DATE	SCALE: Scale: 1" = 200'	
FILENAME: SITE PLAN	DIRECTORY:	PLOT DATE:	PERMIT NO: SMA No. U-4001-05 NPDES NO. WV1021273
CAD BY: C.C.	CHK BY: J.D.E.	APPRVD. BY: J.D.E.	ATTACHMENT: O-1
			PAGE NO: 1 OF 1



# **Attachment C**

## Process Flow Diagram



## **Attachment D**

### Title V Equipment Table

**ATTACHMENT D - Title V Equipment Table**  
(includes all emission units at the facility except those designated as  
insignificant activities in Section 4, Item 24 of the General Forms)

Emission Point ID <sup>1</sup>	Control Device <sup>1</sup>	Emission Unit ID <sup>1</sup>	Emission Unit Description	Design Capacity	Year Installed/Modified
T5, T6, and T7	FE/FE	SC1	Vibrating Scalping Screen	1000 ton/hr	2013
T15, T16, and T17	PE	SC2	Stationary Grate Screen	700 ton/hr	2010
T6, T8 and T20A	FE	RB1	Rotary Breaker	600 ton/hr	1968
T38 and T39	MC	OS1	Raw Coal Stockpile	100,000 ft <sup>2</sup> / 20,000 ton	1982
T35, T37, and T13	MC	OS2	Raw/Clean Coal Stockpile	100,000 ft <sup>2</sup> / 30,000 ton	1996
T22	MC	OS3	Emergency Refuse Stockpile	200 ft <sup>2</sup> /400 ton	1996
T47	MC	OS4	Lime Stockpile	500 ft <sup>2</sup> /50 ton	1999
T16	MC	OS5	Raw Coal Stockpile	2,544 ft <sup>2</sup> /500 ton	2010
T33 and T34	FE	B1	Train Loadout Bin	450 ton	1997
T26 and T27	FE	B2	Refuse Bin	200 ton	2013
T1 and T3	PE	B3	Truck Dump Hopper	50 ton	2013
T2 and T4	PE	B4	Truck Dump Hopper	50 ton	2013
T40, T41, and T46	FE	B5	Refuse Bin	200 ton	2013
T10 and T11	FE	B6	Raw Coal Silo	5,000 ton	2013
T22, T23, and T44	FE	B7	Plant Refuse Bin	175 ton	2013
T48 and T49	PE	B8	Lime Bin	25 ton	1999
T30, T31, and T32	Multi-Clone, Wet Scrubber, Mist	TD1	Thermal Dryer	Design – 130 MMBtu/hr Actual – 105 MMBtu/hr	1968
T1, T2, T37, T38, and T39	WS	UPR1	Raw/Clean Coal Truck Traffic	0.5 mile/trip	NA
T27	WS	UPR2	Refuse Truck Traffic	0.5 mile/trip	NA
T41	WS	UPR3	Refuse Truck Traffic	1 mile/trip	NA
T13, T39, T48, and T51	WS	UPR4	Endloader/Dozer Traffic	1 mile/trip	NA
T47	WS	UPR5	Lime Trucks	0.5 mile/trip	NA
T47	WS	PVD1	Lime Trucks	0.5 mile/trip	NA



T53	WS	UPR6	Refuse Truck Traffic	6 mile/trip	NA
T3, T4, and T5	PE	C-1	Truck Dump Conveyor to SC1	1000 ton/hr	2013
T21, T45, and T22	PE	C-2	Refuse Conveyor to B7	600 ton/hr	2013
T6 and T43	PE	C-3	Raw Coal Conveyor to C-17	500 ton/hr	1996
T6, T7, T8, and T9	PE	C-4	Raw Coal Conveyor to C-5	1000 ton/hr	2013
T9 and T10	PE	C-5	Raw Coal Conveyor to C-6	1000 ton/hr	2013
T11 and T12	PE	C-6	Silo Recovery Conveyor	1,000 ton/hr	1997
T14 and T15	MC	C-7	Raw Coal Conveyor to SC-2 or C-8	700 ton/hr	1976
T15 and T36A	PE	C-8	Clean Coal Recycle Conveyor	700 ton/hr	1996
T17, T12, and T19	PE	C-9	Raw Coal Conveyor to Wet Wash	1,000 ton/hr	1997
T44 and T26	PE	C-10	Refuse Conveyor to B5 or C-16	600 ton/hr	2013
T29 and T30	PE	C-12	Clean Coal to Thermal Dryer	550 ton/hr	1968
T28, T30, T31, T36A, T32 and T36	PE	C-13A	Clean Coal Conveyor to C-13B	700 ton/hr	1997
T36 and T33	PE	C-13B	Clean Coal Conveyor to B1	700 ton/hr	1997
T33 and T35	PE	C-14	Clean Coal Conveyor to OS2	700 ton/hr	1996
T26 and T40	PE	C-15	Refuse Conveyor to B5 or C-16	500 ton/hr	2013
T43, T50, T20A, and T21	PE	C-17	Refuse Conveyor to OS3 or C-2	500 ton/hr	2013
T52 and T45	PE	C-18	Refuse Conveyor to C-2	500 ton/hr	2013
T49 and T50	PE	C-19	Lime Conveyor	25 ton/hr	1999
T16 and T17	PE	C-21	Refuse Conveyor to OS5	700 ton/hr	2010
T26 and T54	PE	C-22	Refuse Conveyor to B2 or C-15	600 ton/hr	2013
T54 and T55	PE	C-23	Refuse Conveyor to the Refuse Embankment	600 ton/hr	2013

<sup>1</sup>For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

# **Attachment E**

Emission Unit Forms

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> See attached table	<b>Emission unit name:</b> See attached table (C-1 through C-19)	<b>List any control devices associated with this emission unit:</b>  Enclosures, water sprays, and/or moisture content
---	--	--

**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**

All conveyors and transfer points. (\*\*Note – the calculated emissions contain all transfer points, not just those associated with the conveyors. This was done for consistency with past Title V permit applications. See emission calculations in Attachment I.)

<b>Manufacturer:</b> NA	<b>Model number:</b> NA	<b>Serial number:</b>
<b>Construction date:</b> See attached table	<b>Installation date:</b> See attached table	<b>Modification date(s):</b>

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):** See attached table

<b>Maximum Hourly Throughput:</b> See attached table	<b>Maximum Annual Throughput:</b> See attached table	<b>Maximum Operating Schedule:</b> 8,760 hours/year
---	---	--

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

<b>Does this emission unit combust fuel?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>If yes, is it?</b>  <input type="checkbox"/> Indirect Fired <input type="checkbox"/> 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</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> )	See Attachment I	
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.).**

Calculating transfer point emission factor using AP-42, Fifth Edition, Volume 1, Revised 11/2006, 13.2.4. Aggregate Handling and Storage Piles.

***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.

See Attachment E-1

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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.*)

*In addition to the facility-wide requirements set forth in the Application Form, the following requirements apply:*

See Attachment E-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> 21S	<b>Emission unit name:</b> Vibrating Scalping Screen (SC1)	<b>List any control devices associated with this emission unit:</b> Full enclosure within building
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 800 ton/hr screen

<b>Manufacturer:</b> Unknown	<b>Model number:</b> NA	<b>Serial number:</b> NA
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<b>Construction date:</b> 1968	<b>Installation date:</b> 1968	<b>Modification date(s):</b> NA
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 700 ton/hr

<b>Maximum Hourly Throughput:</b> 800 ton/hr	<b>Maximum Annual Throughput:</b> 4,300,000 ton/yr	<b>Maximum Operating Schedule:</b> 8,760 hours/year
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### *Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> ___Yes <u>  X  </u> 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</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> )	See Attachment I	
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.).**

Particulate matter emissions are calculated based on emission factors found in the General Permit (G-10C) Calculation Spreadsheet.

***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.

See Attachment E-1

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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.*)

See Attachment E-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> 22S	<b>Emission unit name:</b> Grate Screen (SC2)	<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.):**  
 700 ton/hr screen

<b>Manufacturer:</b> Unknown	<b>Model number:</b> NA	<b>Serial number:</b> NA
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<b>Construction date:</b> 1976	<b>Installation date:</b> 1976	<b>Modification date(s):</b> NA
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 700 ton/hr

<b>Maximum Hourly Throughput:</b> 700 ton/hr	<b>Maximum Annual Throughput:</b> 4,300,000 ton/yr	<b>Maximum Operating Schedule:</b> 8,760 hours/year
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### *Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> ___Yes    __X_ 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</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> )	See Attachment I	
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.).**

Particulate matter emissions are calculated based on emission factors found in the General Permit (G-10C) Calculation Spreadsheet.

***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.

See Attachment E-1

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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.*)

*In addition to the facility-wide requirements set forth in the Application Form, the following requirements apply:*

See Attachment E-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> 19S	<b>Emission unit name:</b> Rotary Breaker (RB1)	<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.):**  
 600 ton/hr rotary breaker

<b>Manufacturer:</b> Unknown	<b>Model number:</b> NA	<b>Serial number:</b> NA
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<b>Construction date:</b> 1968	<b>Installation date:</b> 1968	<b>Modification date(s):</b> NA
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 600 ton/hr

<b>Maximum Hourly Throughput:</b> 600 ton/hr	<b>Maximum Annual Throughput:</b> 4,300,000 ton/yr	<b>Maximum Operating Schedule:</b> 8,760 hours/year
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### *Fuel Usage Data (fill out all applicable fields)*

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

<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</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> )	See Attachment I	
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.).**

Particulate matter emissions are calculated based on emission factors found in the General Permit (G-10C) Calculation Spreadsheet.

***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.

See Attachment E-1

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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.*)

*In addition to the facility-wide requirements set forth in the Application Form, the following requirements apply:*

See Attachment E-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> 32S	<b>Emission unit name:</b> Raw Coal Stockpile (OS-1)	<b>List any control devices associated with this emission unit:</b> Moisture Content
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 Raw Coal Stockpile – 20,000 ton capacity  
 100,000 square feet

<b>Manufacturer:</b> NA	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b> 1982	<b>Installation date:</b> 1982	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 20,000 ton capacity/100,000 square feet

<b>Maximum Hourly Throughput:</b> 700 tons	<b>Maximum Annual Throughput:</b> 4,300,000 tons	<b>Maximum Operating Schedule:</b> 8,760 hours/year
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### *Fuel Usage Data (fill out all applicable fields)*

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

<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</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> )	See Attachment I	
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
<p><b>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.).</b></p> <p>Stockpile emissions calculated using the emission factors located in the AP-42, Fifth Edition, Volume 1, Revised 11/2006, 13.2.4 Aggregate Handling and Storage Piles.</p>		



***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.**

See Attachment E-1

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**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.)**

See Attachment E-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> 34S	<b>Emission unit name:</b> Raw Coal Stockpile (OS-2)	<b>List any control devices associated with this emission unit:</b> Moisture Content
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 Raw Coal Stockpile – 30,000 ton capacity  
 100,000 square feet

<b>Manufacturer:</b> NA	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b> 1996	<b>Installation date:</b> 1996	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 30,000 ton capacity/100,000 square feet

<b>Maximum Hourly Throughput:</b> 700 tons	<b>Maximum Annual Throughput:</b> 3,010,000 tons	<b>Maximum Operating Schedule:</b> 8,760 hours/year
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### *Fuel Usage Data (fill out all applicable fields)*

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

<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</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> )	See Attachment I	
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
<p><b>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.).</b></p> <p>Stockpile emissions calculated using the emission factors located in the AP-42, Fifth Edition, Volume 1, Revised 11/2006, 13.2.4 Aggregate Handling and Storage Piles.</p>		

***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.**

See Attachment E-1

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**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.)**

See Attachment E-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> 35S	<b>Emission unit name:</b> Refuse Stockpile (OS-3)	<b>List any control devices associated with this emission unit:</b> Moisture Content
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 Raw Coal Stockpile – 400 ton capacity  
 200 square feet

<b>Manufacturer:</b> NA	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b> 1968	<b>Installation date:</b> 1968	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 400 ton capacity/200 square feet

<b>Maximum Hourly Throughput:</b> 500 tons	<b>Maximum Annual Throughput:</b> 100,000 tons	<b>Maximum Operating Schedule:</b> 8,760 hours/year
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### *Fuel Usage Data (fill out all applicable fields)*

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

<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</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> )	See Attachment I	
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
<p><b>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.).</b></p> <p>Stockpile emissions calculated using the emission factors located in the AP-42, Fifth Edition, Volume 1, Revised 11/2006, 13.2.4 Aggregate Handling and Storage Piles.</p>		

***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.**

See Attachment E-1

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**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.)**

See Attachment E-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> 33S	<b>Emission unit name:</b> Lime Stockpile (OS-4)	<b>List any control devices associated with this emission unit:</b> Moisture Content
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 Raw Coal Stockpile – 50 ton capacity  
 500 square feet

<b>Manufacturer:</b> NA	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b> 1999	<b>Installation date:</b> 1999	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 50 ton capacity/500 square feet

<b>Maximum Hourly Throughput:</b> 25 tons	<b>Maximum Annual Throughput:</b> 219,000 tons	<b>Maximum Operating Schedule:</b> 8,760 hours/year
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### *Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>If yes, is it?</b> <input type="checkbox"/> Indirect Fired <input type="checkbox"/> 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</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> )	See Attachment I	
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
<p><b>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.).</b></p> <p>Stockpile emissions calculated using the emission factors located in the AP-42, Fifth Edition, Volume 1, Revised 11/2006, 13.2.4 Aggregate Handling and Storage Piles.</p>		

***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.**

See Attachment E-1

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**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.)**

See Attachment E-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> 43S	<b>Emission unit name:</b> Refuse Stockpile (OS-5)	<b>List any control devices associated with this emission unit:</b> Moisture Content
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 Raw Coal Stockpile – 500 ton capacity  
 2,544 square feet

<b>Manufacturer:</b> NA	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b> 2004	<b>Installation date:</b> 2004	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 500 ton capacity/2,544 square feet

<b>Maximum Hourly Throughput:</b> 500 tons	<b>Maximum Annual Throughput:</b> 4,300,000 tons	<b>Maximum Operating Schedule:</b> 8,760 hours/year
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### *Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> ___Yes <u>X</u> 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</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> )	See Attachment I	
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
<p><b>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.).</b></p> <p>Stockpile emissions calculated using the emission factors located in the AP-42, Fifth Edition, Volume 1, Revised 11/2006, 13.2.4 Aggregate Handling and Storage Piles.</p>		

***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.**

See Attachment E-1

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**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.)**

See Attachment E-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> B1	<b>Emission unit name:</b> Train Loadout Bin	<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.):**

<b>Manufacturer:</b> Unknown	<b>Model number:</b> NA	<b>Serial number:</b> NA
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<b>Construction date:</b> 1997	<b>Installation date:</b> 1997	<b>Modification date(s):</b> NA
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 450 ton

<b>Maximum Hourly Throughput:</b> 700 tons	<b>Maximum Annual Throughput:</b> 3,010,000 tons	<b>Maximum Operating Schedule:</b> 8,760 hours/year
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### *Fuel Usage Data (fill out all applicable fields)*

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



***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.**

See Attachment E-1

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**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.)**

See Attachment E-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> B2	<b>Emission unit name:</b> Refuse Bin	<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.):**

<b>Manufacturer:</b> Unknown	<b>Model number:</b> NA	<b>Serial number:</b> NA
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<b>Construction date:</b> 1997	<b>Installation date:</b> 1997	<b>Modification date(s):</b> NA
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 200 ton

<b>Maximum Hourly Throughput:</b> 500 tons	<b>Maximum Annual Throughput:</b> 1,850,000 tons	<b>Maximum Operating Schedule:</b> 8,760 hours/year
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### *Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>If yes, is it?</b> <input type="checkbox"/> Indirect Fired <input type="checkbox"/> 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 Included with Conveyors and Transfer Points</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
<p><b>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.).</b></p>		

***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.**

See Attachment E-1

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**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.)**

See Attachment E-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> B3	<b>Emission unit name:</b> Truck Dump Hopper	<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.):**

<b>Manufacturer:</b> Unknown	<b>Model number:</b> NA	<b>Serial number:</b> NA
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<b>Construction date:</b> 1976	<b>Installation date:</b> 1976	<b>Modification date(s):</b> NA
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 50 ton

<b>Maximum Hourly Throughput:</b> 800 tons	<b>Maximum Annual Throughput:</b> 4,300,000 tons	<b>Maximum Operating Schedule:</b> 8,760 hours/year
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### *Fuel Usage Data (fill out all applicable fields)*

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

<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

### *Emissions Data* Included with Conveyors and Transfer Points

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.).**

***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.**

See Attachment E-1

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**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.)**

See Attachment E-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> B4	<b>Emission unit name:</b> Truck Dump Hopper	<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.):**

<b>Manufacturer:</b> Unknown	<b>Model number:</b> NA	<b>Serial number:</b> NA
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<b>Construction date:</b> 1976	<b>Installation date:</b> 1976	<b>Modification date(s):</b> NA
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 50 ton

<b>Maximum Hourly Throughput:</b> 800 tons	<b>Maximum Annual Throughput:</b> 4,300,000 tons	<b>Maximum Operating Schedule:</b> 8,760 hours/year
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### *Fuel Usage Data (fill out all applicable fields)*

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

<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 Included with Conveyors and Transfer Points</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
<p><b>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.).</b></p>		



***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.**

See Attachment E-1

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**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.)**

See Attachment E-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> B5	<b>Emission unit name:</b> Refuse Bin	<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.):**

<b>Manufacturer:</b> Unknown	<b>Model number:</b> NA	<b>Serial number:</b> NA
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<b>Construction date:</b> 1997	<b>Installation date:</b> 1997	<b>Modification date(s):</b> NA
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 200 ton

<b>Maximum Hourly Throughput:</b> 500 tons	<b>Maximum Annual Throughput:</b> 1,850,000 tons	<b>Maximum Operating Schedule:</b> 8,760 hours/year
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### *Fuel Usage Data (fill out all applicable fields)*

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

<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 Included with Conveyors and Transfer Points</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
<p><b>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.).</b></p>		

***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.**

See Attachment E-1

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**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.)**

See Attachment E-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> B6	<b>Emission unit name:</b> Raw Coal Silo	<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.):**

<b>Manufacturer:</b> Unknown	<b>Model number:</b> NA	<b>Serial number:</b> NA
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<b>Construction date:</b> 1968	<b>Installation date:</b> 1968	<b>Modification date(s):</b> NA
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 5,000 ton

<b>Maximum Hourly Throughput:</b> 800 ton	<b>Maximum Annual Throughput:</b> 4,300,000 tons	<b>Maximum Operating Schedule:</b> 8,760 hours/year
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### *Fuel Usage Data (fill out all applicable fields)*

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



***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.**

See Attachment E-1

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**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.)**

See Attachment E-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> B7	<b>Emission unit name:</b> Plant Refuse Bin	<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.):**

<b>Manufacturer:</b> Unknown	<b>Model number:</b> NA	<b>Serial number:</b> NA
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<b>Construction date:</b> 1997	<b>Installation date:</b> 1997	<b>Modification date(s):</b> NA
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 175 ton

<b>Maximum Hourly Throughput:</b> 500 tons	<b>Maximum Annual Throughput:</b> 1,850,000 tons	<b>Maximum Operating Schedule:</b> 8,760 hours/year
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### *Fuel Usage Data (fill out all applicable fields)*

<b>Does this emission unit combust fuel?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>If yes, is it?</b> <input type="checkbox"/> Indirect Fired <input type="checkbox"/> 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 Included with Conveyors and Transfer Points</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
<p><b>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.).</b></p>		

***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.**

See Attachment E-1

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**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.)**

See Attachment E-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> B8	<b>Emission unit name:</b> Lime Bin	<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.):**

<b>Manufacturer:</b> Unknown	<b>Model number:</b> NA	<b>Serial number:</b> NA
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<b>Construction date:</b> 1999	<b>Installation date:</b> 1999	<b>Modification date(s):</b> NA
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 25 ton

<b>Maximum Hourly Throughput:</b> 25 ton	<b>Maximum Annual Throughput:</b> 219,000 tons	<b>Maximum Operating Schedule:</b> 8,760 hours/year
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### *Fuel Usage Data (fill out all applicable fields)*

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

### *Emissions Data* Included with Conveyors and Transfer Points

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.).**

***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.**

See Attachment E-1

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**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.)**

See Attachment E-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> TD1	<b>Emission unit name:</b> Thermal Dryer	<b>List any control devices associated with this emission unit:</b> Multi-Clone, Wet Scrubber, and Mist Eliminator
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**

Coal-fired fluidized bed thermal dryer  
550 tons per hour  
130 mmBtu/hr (Limited to 105 mmBtu/hr)

<b>Manufacturer:</b> Heyl and Patterson	<b>Model number:</b> Model No. 135	<b>Serial number:</b> NA
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<b>Construction date:</b> 1968	<b>Installation date:</b> 1968	<b>Modification date(s):</b> NA
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
130 mmBtu/hr

<b>Maximum Hourly Throughput:</b> 550 tons dried per hour	<b>Maximum Annual Throughput:</b> 3,010,000 tons dried annually	<b>Maximum Operating Schedule:</b> 8,760 hours/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
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<b>Maximum design heat input and/or maximum horsepower rating:</b> 130 MMBtu/hr	<b>Type and Btu/hr rating of burners:</b> Riley #350 105 MMBtu/hr Furnace Two gas burners @6 MMBtu/hr each
--	--

**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.**

Coal (Primary) – 5 ton/hr and 43,800 ton/yr  
Natural Gas (Secondary) – 11,765 ft<sup>3</sup>/hr and 103,058,824 ft<sup>3</sup>/yr

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Coal	1.18%	6%	15,000 Btu/lb
Natural Gas	20 gr/100 ft <sup>3</sup>	NA	1020 Btu/ft <sup>3</sup>

<b><i>Emissions Data</i></b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Attachment I	
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
<p><b>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.).</b></p> <p>All emissions for Thermal Dryer burning natural gas were calculated from AP-42, Fifth Edition, Volume 1, revised 11/2006, Section 1.4.3 Emissions from Natural Gas Combustion.</p> <p>Emissions for Thermal Dryer burning coal were calculated from AP-42, Fifth Edition, Volume 1, revised 11/2006, Section 11.10 Coal Cleaning, Tables 11.10-1 and 11.10-2 for combustion emissions and dryer emissions of NO<sub>x</sub>, VOC, PM, and PM<sub>10</sub>, and from Section 1.1 Bituminous and Subbituminous Coal Combustion for combustion emissions for CO, SO<sub>2</sub>, N<sub>2</sub>O, and HAPs.</p> <p>Note: Stack test data indicates that the actual particulate emission factor is 10X less than the AP-42 emission factor.</p>		

***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.**

See Attachment E-2

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**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.)**

See Attachment E-2

**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> 37S	<b>Emission unit name:</b> Unpaved Haulroad 1(UPR1)	<b>List any control devices associated with this emission unit:</b> Water Spray
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 Unpaved haulroad – 1 mile per trip

<b>Manufacturer:</b> NA	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b> NA	<b>Installation date:</b> NA	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 20 trips/hr and 130,303 trips/yr

<b>Maximum Hourly Throughput:</b> 20 trips	<b>Maximum Annual Throughput:</b> 130,304 trips	<b>Maximum Operating Schedule:</b> 8,760 hours/year
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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</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> )	See Attachment I	
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.).**

Calculated using emission factors from AP-42 Fifth Edition -13.2.2 Unpaved Roads, last updated: 11/2006

***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 facility-wide requirements apply to this Emission Unit.

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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 facility-wide requirements apply to this Emission Unit.

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> 39S	<b>Emission unit name:</b> Unpaved Haulroad 2 (UPR2)	<b>List any control devices associated with this emission unit:</b> Water Spray
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 Unpaved haulroad – 1 mile per trip

<b>Manufacturer:</b> NA	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b> NA	<b>Installation date:</b> NA	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 10 trips/hr and 37,000 trips/yr

<b>Maximum Hourly Throughput:</b> 10 trips	<b>Maximum Annual Throughput:</b> 37,000 trips	<b>Maximum Operating Schedule:</b> 8,760 hours/year
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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</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> )	See Attachment I	
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.).**

Calculated using emission factors from AP-42 Fifth Edition -13.2.2 Unpaved Roads, last updated: 12/2003

***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 facility-wide requirements apply to this Emission Unit.

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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 facility-wide requirements apply to this Emission Unit.

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> 39S	<b>Emission unit name:</b> Unpaved Haulroad 3 (UPR3)	<b>List any control devices associated with this emission unit:</b> Water Spray
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 Unpaved haulroad – 1 mile per trip

<b>Manufacturer:</b> NA	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b> NA	<b>Installation date:</b> NA	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 10 trips/hr and 37,000 trips/yr

<b>Maximum Hourly Throughput:</b> 10 trips	<b>Maximum Annual Throughput:</b> 37,000 trips	<b>Maximum Operating Schedule:</b> 8,760 hours/year
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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>
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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</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> )	See Attachment I	
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.).**

Calculated using emission factors from AP-42 Fifth Edition -13.2.2 Unpaved Roads, last updated: 12/2003



***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 facility-wide requirements apply to this Emission Unit.

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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 facility-wide requirements apply to this Emission Unit.

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> UPR4	<b>Emission unit name:</b> Unpaved Haulroad 4 (UPR4)	<b>List any control devices associated with this emission unit:</b> Water Spray
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 Unpaved haulroad (Endloader/Dozer Traffic) – 1 mile per trip

<b>Manufacturer:</b> NA	<b>Model number:</b> NA	<b>Serial number:</b> NA
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<b>Construction date:</b> NA	<b>Installation date:</b> NA	<b>Modification date(s):</b> NA
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 1 trip/hr and 8,760 trips/yr

<b>Maximum Hourly Throughput:</b> 1 trip	<b>Maximum Annual Throughput:</b> 8,760 trips	<b>Maximum Operating Schedule:</b> 8,760 hours/year
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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>  
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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</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> )	See Attachment I	
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.).**

Calculated using emission factors from AP-42 Fifth Edition -13.2.2 Unpaved Roads, last updated: 12/2003

***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 facility-wide requirements apply to this Emission Unit.

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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 facility-wide requirements apply to this Emission Unit.

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> UPR5	<b>Emission unit name:</b> Unpaved Haulroad 5 (UPR5)	<b>List any control devices associated with this emission unit:</b> Water Spray
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 Unpaved haulroad (Lime Trucks) – 0.5 mile per trip

<b>Manufacturer:</b> NA	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b> NA	<b>Installation date:</b> NA	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 2 trip/hr and 9,955 trips/yr

<b>Maximum Hourly Throughput:</b> 2 trip	<b>Maximum Annual Throughput:</b> 9,955 trips	<b>Maximum Operating Schedule:</b> 8,760 hours/year
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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</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> )	See Attachment I	
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.).**

Calculated using emission factors from AP-42 Fifth Edition -13.2.2 Unpaved Roads, last updated: 12/2003

***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 facility-wide requirements apply to this Emission Unit.

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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 facility-wide requirements apply to this Emission Unit.

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> 39S	<b>Emission unit name:</b> Unpaved Haulroad 6 (UPR 6)	<b>List any control devices associated with this emission unit:</b> Water Spray
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 Unpaved haulroad – 6 mile per trip

<b>Manufacturer:</b> NA	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b> NA	<b>Installation date:</b> NA	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 1 trips/hr and 24 trips/yr

<b>Maximum Hourly Throughput:</b> 1 trips	<b>Maximum Annual Throughput:</b> 24 trips	<b>Maximum Operating Schedule:</b> 8,760 hours/year
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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>
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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</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> )	See Attachment I	
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.).**

Calculated using emission factors from AP-42 Fifth Edition -13.2.2 Unpaved Roads, last updated: 12/2003

***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 facility-wide requirements apply to this Emission Unit.

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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 facility-wide requirements apply to this Emission Unit.

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> 42S	<b>Emission unit name:</b> Paved Haulroad 1 (PVD1)	<b>List any control devices associated with this emission unit:</b> Water Spray
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 Paved haulroad (Lime Trucks) – 0.5 mile per trip

<b>Manufacturer:</b> NA	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b> NA	<b>Installation date:</b> NA	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 2 trips/hr and 9,995 trips/yr

<b>Maximum Hourly Throughput:</b> 2 trips	<b>Maximum Annual Throughput:</b> 9,995 trips	<b>Maximum Operating Schedule:</b> 8,760 hours/year
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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</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> )	See Attachment I	
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.).**

Calculated paved haulroad emission factor using AP42 Equation 13.21

***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 facility-wide requirements apply to this Emission Unit.

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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 facility-wide requirements apply to this Emission Unit.

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-1

### Materials Handling 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.**

#### Limitations and Standards

The permittee shall not exceed the maximum hourly and annual throughput rates and other criteria outlined in the table below and in the table in Section 1.0 Emission Units (i.e., table in Section 1.0 Emission Units of Permit R13-2014).

Equipment ID No.	Maximum Capacity		Control Equipment*	Associated Transfer Points		
	TPH	TPY x 10 <sup>6</sup>		Location:	ID No.	Control Equipment*
OS1	700	4.3	MC	Before	T38	MC
				After	T39	MC
B3	1000	4.3	PE	Before	T1	MC
				After	T3	FE
B4	1000	4.3	PE	Before	T2	MC
				After	T4	FE
C-1	1000	4.3	PE	Before	T3/T4	FE,FE
				After	T5	FE/FE
SC1	1000	4.3	FE/FE	Before	T5	FE/FE
				After	T6	FE/FE
				After	T7	FE
RB1	600	4.3	FE	Before	T6	FE/FE
				After	T20A	FE
				After	T8	FE
C-4	1000	4.3	PE	Before	T6	FE/FE
				Before	T7	FE
				Before	T8	FE
				After	T9	FE
C-5	1000	4.3	PE	Before	T9	FE
				After	T10	PE
B6	1000	4.3	FE	Before	T10	PE
				After	T11	PE
C-21	700	0.005	PE	Before	T16	FE
				After	T18	MC

Equipment ID No.	Maximum Capacity		Control Equipment*	Associated Transfer Points		
	TPH	TPY x 10 <sup>6</sup>		Location:	ID No.	Control Equipment*
OS5	700	0.005	MC	Before	T18	MC
				After	T53	MC
C-9	1,000	4.3	PE	Before	T12	PE
				Before	T17	FE
				After	T19	FE/FE
OS2	700	4.3	MC	Before	T35	PE
				Before	T37	MC
				After	T13	MC
				After	T14	FE
C-14	700	3.01	PE	Before	T33	FE
				After	T35	PE
C-18	600	2.25	PE	Before	T52	FE
				After	T45	PE
C-19	25	0.219	PE	Before	T49	PE
				After	T50	FE
B8	25	0.219	PE	Before	T48	MC
				After	T49	PE
OS4	25	0.219	MC	Before	T47	MC
				After	T48	MC
C-10	600	2.25	PE	Before	T44	FE/FE
				After	T26	FE
C-23	600	2.25	PE	Before	T54	PE
				After	T55	PE
C-22	600	2.25	PE	Before	T54	PE
				After	T26	FE
B2	600	2.25	FE	Before	T26	FE
				After	T27	PE
C-12	550	3.01	PE	Before	T29	FE/FE
				After	T30	FE
C-13B	700	3.01	PE	Before	T36	PE
				After	T33	FE
B1	700	3.01	FE	Before	T33	FE
				After	T34	PE
C-7	700	4.3	PE	Before	T14	FE
				After	T15	PE
SC2	700	4.3	FE, WS	Before	T15	PE
				After	T16	FE

Equipment ID No.	Maximum Capacity		Control Equipment*	Associated Transfer Points		
	TPH	TPY x 10 <sup>6</sup>		Location:	ID No.	Control Equipment*
				After	T17	FE
C-6	1,000	4.3	PE	Before	T11	PE
				After	T12	PE
C-8	700	3.01	PE	Before	T15	PE
				After	T36A	PE
C-13A	700	3.01	PE	Before	T28	FE/FE
				Before	T30	FE
				Before	T31	FE
				Before	T32	FE
				Before	T36A	PE
				After	T36	PE
C-3	500	1.85	PE	Before	T6	FE/FE
				After	T43	FE
C-17	600	2.25	PE	Before	T43	FE
				Before	T20A	FE
				Before	T50	FE
				After	T21	PE
C-2	600	2.25	PE	Before	T21	PE
				Before	T45	PE
				After	T22	FE/FE
OS3	600	0.1	MC	Before	T22	MC
B7	600	2.25	FE	Before	T22	FE/FE
				Before	T23	FE
				After	T44	FE/FE
C-15	600	2.25	PE	Before	T26	FE
				After	T40	FE
B5	600	2.25	FE	Before	T40	FE
				After	T41	PE
				After	T46	MC

\* FE - Full Enclosure, PE - Partial Enclosure, MC – Moisture Content, WS - Water Spray

**[45CSR13 - Permit R13-2104-§4.1.1.]**

Compliance with all annual throughput limits shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the amount of material received, processed, and/or shipped at any given time during the previous twelve (12) consecutive calendar months. **[45CSR13 - Permit R13-2104-§4.1.2.]**

**Standards for Particulate Matter.** On and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, reconstructed, or modified on or before April 28, 2008, gases which exhibit 20



percent opacity or greater. [40 CFR 60 Subpart Y is applicable to storage bins and hoppers (B1, B8), and conveyors (C-3, C-6, C-7, C-8, C-9, C-13A, C-13B, C-14, C-19)]. **[45CSR13 - Permit R13-2104-§§4.1.9. & 4.1.13. 45CSR§5-3.4., 45CSR16 and 40 CFR §60.254(a)]**

**Standards for Particulate Matter.** On and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, reconstructed, or modified after April 28, 2008, must meet the requirements in paragraphs (b)(1) through (3) of 40 CFR §60.254(b). [Screens SC1 and SC2, storage bins and hoppers B2, B3, B4, B5, B6, B7 and conveyors C-1, C-2, C-4, C-5, C-10, C-15, C-17, C-18, C-21, C-22 and C-23] *Compliance with this streamlined limit will assure compliance with 45CSR§5-3.4*

- a. Except as provided in paragraph (b)(3) of 40 CFR §60.254(b), the owner or operator must not cause to be discharged into the atmosphere from the affected facility any gases which exhibit 10 percent opacity or greater. **[40CFR§60.254(b)(1)]**
- b. Equipment used in the loading, unloading, and conveying operations of open storage piles are not subject to the opacity limitations of paragraph (b)(1) of 40 CFR §60.254(b). **[40CFR§60.254(b)(3)]**

**[45CSR13 - Permit R13-2104-§4.1.14., 45CSR16 and 40 CFR §60.254(b)]**

At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any affected facility [i.e. *Storage: (B1, B2, B3, B4, B5, B6, B7, B8), Screens: (SC1, SC2), Conveyors: (C-1, C-2, C-3, C-4, C-5, C-6, C-7, C-8, C-9, C-10, C-13A, C-13B, C-14, C-15, C-17, C-18, C-19, C-21, C-22, C-23)*] including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. **[45CSR13 - Permit R13-2104-§4.1.12., 45CSR16, and 40 CFR §60.11(d)]**

In order to prevent and control air pollution from coal refuse disposal areas, the operation of coal refuse disposal areas shall be conducted in accordance with the standards established by 45CSR§5-7.(conditions 4.1.7 through 4.1.13. below) (*Refuse Stockpiles OS3 and OS5*) **[45CSR13 - Permit R13-2104-§4.1.9. and 45CSR§5-7.1.]**

Coal refuse is not to be deposited on any coal refuse disposal area unless the coal refuse is deposited in such a manner as to minimize the possibility of ignition of the coal refuse. (*Refuse Stockpiles OS3 and OS5*) **[45CSR13 - Permit R13-2104-§4.1.9. and 45CSR§5-7.2.]**

Coal refuse disposal areas shall not be so located with respect to mine openings, tipples or other mine buildings, unprotected coal outcrops or steam lines, that these external factors will contribute to the ignition of the coal refuse on such coal refuse disposal areas. (*Refuse Stockpiles OS3 and OS5*) **[45CSR13 - Permit R13-2104-§4.1.9. and 45CSR§5-7.3.]**

Vegetation and combustible materials shall not be left on the ground at the site where a coal refuse pile is to be established, unless it is rendered inert before coal refuse is deposited on such site. (*Refuse Stockpiles OS3 and OS5*) **[45CSR13 - Permit R13-2104-§4.1.9. and 45CSR§5-7.4.]**

Coal refuse shall not be dumped or deposited on a coal refuse pile known to be burning, except for the purpose of controlling the fire or where the additional coal refuse will not tend to ignite or where such dumping will not result in statutory air pollution. (*Refuse Stockpiles OS3 and OS5*) **[45CSR13 - Permit R13-2104-§4.1.9. and 45CSR§5-7.5.]**

Materials with low ignition points used in the production or preparation of coal, including, but not limited to, wood, brattice cloth, waste paper, rags, oil and grease, shall not be deposited on any coal refuse disposal area or in such

proximity as will reasonably contribute to the ignition of a coal refuse disposal area. (*Refuse Stockpiles OS3 and OS5*) [45CSR13 - Permit R13-2104-§4.1.9. and 45CSR§5-7.6.]

Garbage, trash, household refuse and like materials shall not be deposited on or near any coal refuse disposal area. (*Refuse Stockpiles OS3 and OS5*) [45CSR13 - Permit R13-2104-§4.1.9. and 45CSR§5-7.7.]

The deliberate ignition of a coal refuse disposal area or the ignition of any materials on such an area by any person or persons is prohibited. (*Refuse Stockpiles OS3 and OS5*) [45CSR13 - Permit R13-2104-§4.1.9. and 45CSR§5-7.8.]

With respect to all burning coal refuse disposal areas, the person responsible for the coal refuse disposal areas or the land on which the coal refuse disposal areas are located shall use due diligence to control air pollution from the coal refuse disposal areas. Consistent with the declaration of policy and purpose set forth in W. Va. Code §22-5-1, the Director shall determine what constitutes due diligence with respect to each such burning coal refuse disposal area. When a study of any burning coal refuse disposal area by the Director establishes that air pollution exists or may be created, the person responsible for the coal refuse disposal area or the land on which the coal refuse disposal area is located shall submit to the Director a report setting forth satisfactory methods and procedures to eliminate, prevent or reduce the air pollution. The report shall be submitted within such time as the Director shall specify. The report for the elimination, prevention or reduction of air pollution shall contain sufficient information, including, completion dates, to establish that the corrective measures can be executed with due diligence. If approved by the Director, the corrective measures and completion dates shall be embodied in a consent order issued pursuant to W. Va. Code §§ 22-5-1 et seq. If the report is not submitted as requested or if the Director determines that the methods and procedures set forth in the report are not adequate to reasonably control the air pollution he or she shall issue an order requiring the elimination, prevention or reduction of the air pollution. (*Refuse Stockpiles OS3 and OS5*)[45CSR13 - Permit R13-2104-§4.1.9. and 45CSR§5-8.3.]

### **Monitoring Requirements**

[Reserved]

### **Testing Requirements**

To determine compliance with the opacity limits of permit condition 4.1.3., the permittee shall conduct weekly visual emission observations in accordance with Method 22 of 40 CFR 60, Appendix A for all coal processing and conveying equipment, coal storage systems, and coal transfer and loading systems. These observations shall be conducted during periods of facility operation for a sufficient time interval to determine if the unit has visible emissions using procedures outlined in 40CFR60 Appendix A, Method 22. If sources of visible emissions are identified during the survey, the permittee shall conduct an opacity evaluation in accordance with 40CFR60 Appendix A, Method 9, within 24 hours. A 40CFR60 Appendix A, Method 9 evaluation shall 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 [45CSR13 - Permit R13-2104-§4.2.1., 45CSR16, 40 CFR §60.257(a) & §60.11]

Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, or at such other times specified by 40 CFR Part 60 and at such other times as may be required, the owner or operator of such facility shall conduct performance test(s) and furnish a written report of the results of such performance test(s). [45CSR13 - Permit R13-2104-§4.3.1., 45CSR16, 40 CFR §60.8(a)]

Compliance with opacity standards in 40 CFR Part 60 shall be determined by conducting observations in accordance with Method 9 in appendix A of 40 CFR Part 60. For purposes of determining initial compliance, the minimum total time of observations shall be 3 hours (30 6-minute averages) for the performance test or other set of observations (meaning those fugitive-type emission sources subject only to an opacity standard). [45CSR13 - Permit R13-2104-§4.3.2., 45CSR16, 40 CFR §60.11(b)]

**Performance Tests and Other Compliance Requirements for Subpart Y - Performance Tests.** An owner or operator of each affected facility that commenced construction, reconstruction, or modification on or before April 28, 2008, must conduct all performance tests required by §60.8 to demonstrate compliance with the applicable emission standards using the methods identified in 40 CFR §60.257. **[45CSR13 - Permit R13-2104-§4.3.3., 45CSR16, 40 CFR §60.255(a)]**

**Performance Tests and Other Compliance Requirements for Subpart Y - Performance Tests.** An owner or operator of each affected facility that commenced construction, reconstruction, or modification after April 28, 2008, must conduct performance tests according to the requirements of §60.8 and the methods identified in §60.257 to demonstrate compliance with the applicable emission standards in Subpart Y as specified in paragraphs (b)(1) and (b)(2) of 40 CFR §60.255.

- a. For each affected facility subject to an opacity standard, an initial performance test must be performed. Thereafter, a new performance test must be conducted according to the requirements in paragraphs (b)(2)(i) through (iii) of 40 CFR §60.255, as applicable, except as provided for in paragraphs (e) and (f) of 40 CFR §60.255. Performance test and other compliance requirements for coal truck dump operations are specified in paragraph (h) of 40 CFR §60.255.

**[40 CFR §60.255(b)(2)]**

1. If any 6-minute average opacity reading in the most recent performance test exceeds half the applicable opacity limit, a new performance test must be conducted within 90 operating days of the date that the previous performance test was required to be completed.

**[40 CFR §60.255(b)(2)(i)]**

2. If all 6-minute average opacity readings in the most recent performance are equal to or less than half the applicable opacity limit, a new performance test must be conducted within 12 calendar months of the date that the previous performance test was required to be completed.

**[40 CFR §60.255(b)(2)(ii)]**

**[45CSR13 - Permit R13-2104-§4.3.4., 45CSR16, 40 CFR §60.255(b)]**

**Performance Tests and Other Compliance Requirements for Subpart Y - Monitoring Visible Emissions or Digital Opacity Compliance System.** As an alternative to meeting the requirements in paragraph (b)(2) of 40 CFR §60.255 *[see permit condition 4.3.5. above]*, an owner or operator of an affected facility that commenced construction, reconstruction, or modification after April 28, 2008, may elect to comply with the requirements in paragraph (f)(1) or (f)(2) of 40 CFR §60.255.

- a. Monitor visible emissions from each affected facility according to the requirements in paragraphs (f)(1)(i) through (iii) of 40 CFR §60.255. **[40 CFR §60.255(f)(1)]**

1. Conduct one daily 15-second observation each operating day for each affected facility (during normal operation) when the coal preparation and processing plant is in operation. Each observation must be recorded as either visible emissions observed or no visible emissions observed. Each observer determining the presence of visible emissions must meet the training requirements specified in §2.3 of Method 22 of appendix A-7 of this part. If visible emissions are observed during any 15-second observation, the owner or operator must adjust the operation of the affected facility and demonstrate within 24 hours that no visible emissions are observed from the affected facility. If visible emissions are observed, a Method 9, of appendix A-4 of this part, performance test must be conducted within 45 operating days. **[40 CFR §60.255(f)(1)(i)]**

2. Conduct monthly visual observations of all processes and control equipment. If any deficiencies are observed, the necessary maintenance must be performed as expeditiously as possible. **[40 CFR §60.255(f)(1)(ii)]**

3. Conduct a performance test using Method 9 of Appendix A-4 of this part at least once every 5 calendar years for each affected facility. **[40 CFR §60.255(f)(1)(iii)]**

- b. Prepare a written site-specific monitoring plan for a digital opacity compliance system for approval by the Administration or delegated authority. The plan shall require observations of at least one digital image every 15 seconds for 10-minute periods (during normal operation) every operating day. An approvable monitoring plan must include a demonstration that the occurrences of visible emissions are not in excess of 5 percent of the observation period. For reference purposes in preparing the monitoring plan, see OAQPS "Determination of Visible Emission Opacity from Stationary Sources Using Computer-Based Photographic Analysis Systems."

This document is available from the U.S. Environmental Protection Agency (U.S. EPA); Office of Air Quality and Planning Standards; Sector Policies and Programs Division; Measurement Group (D243-02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emission Measurement Center Preliminary Methods. The monitoring plan approved by the Administrator delegated authority shall be implemented by the owner or operator. [40 CFR §60.255(f)(2)]

[45CSR13 - Permit R13-2104-§4.3.5., 45CSR16, 40 CFR §60.255(f)]

**Performance Tests and Other Compliance Requirements for Subpart Y - COMS.** As an alternative to meeting the requirements in paragraph (b)(2) of this section [see permit condition 4.3.5. above], an owner or operator of an affected facility that commenced construction, reconstruction, or modification after April 28, 2008, subject to a visible emissions standard under this subpart may install, operate, and maintain a continuous opacity monitoring system (COMS). Each COMS used to comply with provisions of this subpart must be installed, calibrated, maintained, and continuously operated according to the requirements in paragraphs (g)(1) and (2) of 40 CFR §60.255. [45CSR13 - Permit R13-2104-§4.3.6., 45CSR16, 40 CFR §60.255(g)]

**Performance Tests and Other Compliance Requirements for Subpart Y - Truck Dump Operations.** The owner or operator of each affected coal truck dump operation that commenced construction, reconstruction, or modification after April 28, 2008, (i.e. Truck unloading to Hoppers “B3” and “B4”) must meet the requirements specified in paragraphs (h)(1) through (3) of 40 CFR §60.255.

- a. Conduct an initial performance test using Method 9 of Appendix A-4 of this part according to the requirements in 40 CFR §60.255 paragraphs (h)(1)(i) and (ii). [40CFR§60.255(h)(1)]
  1. Opacity readings shall be taken during the duration of three separate truck dump events. Each truck dump event commences when the truck bed begins to elevate and concludes when the truck bed returns to a horizontal position. [40CFR§60.255(h)(1)(i)]
  2. Compliance with the applicable opacity limit is determined by averaging all 15-second opacity readings made during the duration of three separate truck dump events. [40CFR§60.255(h)(1)(ii)]
- b. Conduct monthly visual observations of all process and control equipment. If any deficiencies are observed, the necessary maintenance must be performed as expeditiously as possible. [40CFR§60.255(h)(2)]
- c. Conduct a performance test using Method 9 of appendix A-4 of 40 CFR Part60 at least once every 5 calendar years for each affected facility. [40CFR§60.255(h)(3)]

[45CSR13 - Permit R13-2104-§4.3.7., 45CSR16, 40 CFR §60.255(h)]

**Performance Tests and Other Compliance Requirements for Subpart Y.** If any affected coal processing and conveying equipment (e.g., breakers, crushers, screens, conveying systems), coal storage systems, or other coal transfer and loading systems that commenced construction, reconstruction, or modification after April 28, 2008, are enclosed in a building, and the emissions from the building do not exceed any of the standards in §60.254 that apply to the affected facility, then the facility shall be deemed to be in compliance with such standards. [45CSR13 - Permit R13-2104-§4.3.8., 45CSR16, 40 CFR §60.255(c)]

**Test Methods and Procedures for Subpart Y.** The owner or operator must determine compliance with the applicable opacity standards as specified in paragraphs (a)(1) through (3) of 40 CFR §60.257.

- a. Method 9 of appendix A-4 of 40 CFR Part 60 and the procedures in §60.11 must be used to determine opacity, with the exceptions specified in 40 CFR §60.257 paragraphs (a)(1)(i) and (ii). [40 CFR §60.257(a)(1)]
  1. The duration of the Method 9 of Appendix A-4 of this part performance test shall be 1 hour (ten 6-minute averages). [40 CFR §60.257(a)(1)(i)]
  2. If, during the initial 30 minutes of the observation of a Method 9 of Appendix A-4 of this part performance test, all of the 6-minute average opacity readings are less than or equal to half the applicable opacity limit, then the observation period may be reduced from 1 hour to 30 minutes. [40 CFR §60.257(a)(1)(ii)]
- b. To determine opacity for fugitive coal dust emissions sources, the additional requirements specified in 40 CFR §60.257 paragraphs (a)(2)(i) through (iii) must be used. [40 CFR §60.257(a)(2)]
  1. The minimum distance between the observer and the emission source shall be 5.0 meters (16 feet), and the sun shall be oriented in the 140-degree sector of the back. [40 CFR §60.257(a)(2)(i)]

2. The observer shall select a position that minimizes interference from other fugitive coal dust emissions sources and make observations such that the line of vision is approximately perpendicular to the plume and wind direction. **[40 CFR §60.257(a)(2)(ii)]**
3. The observer shall make opacity observations at the point of greatest opacity in that portion of the plume where condensed water vapor is not present. Water vapor is not considered a visible emission. **[40 CFR §60.257(a)(2)(iii)]**
- c. A visible emissions observer may conduct visible emission observations for up to three fugitive, stack, or vent emission points within a 15-second interval if the following conditions specified in 40 CFR §60.257 paragraphs (a)(3)(i) through (iii) of this section are met. **[40 CFR §60.257(a)(3)]**
  1. No more than three emissions points may be read concurrently. **[40 CFR §60.257(a)(3)(i)]**
  2. All three emissions points must be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points. **[40 CFR §60.257(a)(3)(ii)]**
  3. If an opacity reading for any one of the three emissions points is within 5 percent opacity from the applicable standard (excluding readings of zero opacity), then the observer must stop taking readings for the other two points and continue reading just that single point. **[40 CFR §60.257(a)(3)(iii)]**

**[45CSR13 - Permit R13-2104-§4.3.9., 45CSR16, 40 CFR §60.257(a)]**

### **Recordkeeping Requirements**

To demonstrate compliance with the operating limits set forth under Permit R13-2104, the permittee shall maintain daily throughput records using the sample record keeping format appended to Permit R13-2104 as Appendix A and B (see Appendix A and Appendix B of this permit). The permittee shall maintain daily throughput records of the amount of water applied through the fixed water spray system and by the water truck using the sample record keeping format appended to Permit R13-2104 as Appendix C (see Appendix C of this permit). These records shall be maintained on site for a period of not less than five (5) years and certified records shall be made available to the Director or a duly authorized representative of the Director upon request. **[45CSR13 - Permit R13-2104-§4.4.4]**

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 the date and time of each visible emission check, the emission point or equipment / source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6-10 mph NE wind) during the visual emission check(s). An example form is supplied in Permit R13-2104 as Appendix D (see Appendix D of this permit). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9. For an emission unit out of service during the weekly evaluation, the record of observation may note "out of service" (O/S) or equivalent. **[45CSR13 - Permit R13-2104-§§4.2.1. and 4.4.5, 45CSR§30-5.1.c.]**

**Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures. **[45CSR13 - Permit R13-2104-§4.4.2.]**

**Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

- a. The equipment involved.
- b. Steps taken to minimize emissions during the event.
- c. The duration of the event.
- d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.

- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

**[45CSR13 - Permit R13-2104-§4.4.3.]**

The owner or operator of a coal preparation and processing plant that commenced construction, reconstruction, or modification after April 28, 2008, shall maintain in a logbook (written or electronic) on-site and make it available upon request. The logbook shall record the following:

- a. The manufacturer's recommended maintenance procedures and the date and time of any maintenance and inspection activities and the results of those activities. Any variance from manufacturer recommendation, if any, shall be noted. **[40 CFR §60.258(a)(1)]**
- b. The date and time of periodic coal preparation and processing plant visual observations, noting those sources with visible emissions along with corrective actions taken to reduce visible emissions. Results from the actions shall be noted. **[40 CFR §60.258(a)(2)]**
- c. The amount and type of coal processed each calendar month. **[40 CFR §60.258(a)(3)]**
- d. The amount of chemical stabilizer or water purchased for use in the coal preparation and processing plant. **[40 CFR §60.258(a)(4)]**
- e. Monthly certification that the dust suppressant systems were operational when any coal was processed and that manufacturer's recommendations were followed for all control systems. Any variance from the manufacturer's recommendations, if any, shall be noted. **[40 CFR §60.258(a)(5)]**
- f. Monthly certification that the fugitive coal dust emissions control plan was implemented as described. Any variance from the plan, if any, shall be noted. A copy of the applicable fugitive coal dust emissions control plan and any letters from the Administrator providing approval of any alternative control measures shall be maintained with the logbook. Any actions, *e.g.* objections, to the plan and any actions relative to the alternative control measures, *e.g.* approvals, shall be noted in the logbook as well. **[40 CFR §60.258(a)(6)]**

**[45CSR16, 40 CFR §60.258(a)]** *[Screens SC1 and SC2, Storage bins and hoppers B2, B3, B4, B5, B6, B7, Conveyors C-1, C-2, C-4, C-5, C-10, C-15, C-17, C-18, C-21, C-22 and C-23]*

**Reporting Requirements**

Upon observing any visible emissions in excess of twenty percent (20%) opacity under 4.3.1. above, the Company shall submit a written report, certified by a responsible official, to the Director of the Division of Air Quality within five (5) days after taking said reading. **[45CSR13 - Permit R13-2104-§4.2.1.]**

With regard to any testing required by the Director, the permittee shall submit to the Director of Air Quality and the Associate Director - Office of Enforcement and Permit Review (3AP12) of the U.S. EPA a test protocol detailing the proposed test methods, the date, and the time the proposed testing is to take place, as well as identifying the sampling locations and other relevant information. The test protocol must be received by the Director and the Associate Director no less than thirty (30) days prior to the date the testing is to take place. Test results shall be submitted to the Director and the Associate Director no more than sixty (60) days after the date the testing takes place. **[45CSR13 - Permit R13-2104-§4.5.1.]**

Any violation(s) of the allowable visible emission requirement for any emission source discovered during observation using 40CFR Part 60, Appendix A, Method 9 must be reported in writing to the Director of the Division of Air Quality as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned. **[45CSR13 - Permit R13-2104-§4.5.2.]**

Any owner or operator subject to the provisions of 40 CFR Part 60 shall furnish written notification as follows:

- a. A notification of the date construction (or reconstruction as defined under §60.15) of an affected facility is commenced postmarked no later than 30 days after such date. **[40 CFR §60.7(a)(1)]**
- b. A notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date. **[40 CFR §60.7(a)(3)]**

**[45CSR13 - Permit R13-2104-§4.5.3., 45CSR16, 40 CFR §60.7(a)]**

**Reporting for Subpart Y - Opacity Exceedances.** For the purposes of reports required under 40 CFR §60.7(c), any owner or operator subject to the provisions of Subpart Y also shall report semiannually periods of excess emissions as follow:

- a. All 6-minute average opacities that exceed the applicable standard. [40 CFR §60. 258(b) (3)]  
[45CSR13 - Permit R13-2104-§4.5.4., 45CSR16, 40 CFR §60.258(b)]

**Reporting for Subpart Y - Results of Initial Performance Tests.** The owner or operator of an affected facility shall submit the results of initial performance tests to the Administrator or delegated authority, consistent with the provisions of section 60.8. The owner or operator who elects to comply with the reduced performance testing provisions of sections 60.255(c) or (d) shall include in the performance test report identification of each affected facility that will be subject to the reduced testing. The owner or operator electing to comply with section 60.255(d) shall also include information which demonstrates that the control devices are identical. [45CSR13 - Permit R13-2104-§4.5.5., 45CSR16, 40 CFR §60.258(c)]

**Reporting for Subpart Y - WebFIRE Data Base.** After July 11, 2011, within 60 days after the date of completing each performance evaluation conducted to demonstrate compliance with this subpart, the owner or operator of the affected facility must submit the test date to EPA by successfully entering the data electronically into EPA's WebFIRE data base available at <http://cfpub.epa.gov/oarweb/index.cfm?action=fire.main>. For performance tests that cannot be entered into WebFIRE (i.e. Method 9 of appendix A-4 of this part opacity performance tests) the owner or operator of the affected facility must mail a summary copy to United States Environmental Protection Agency; Energy Strategies Group; 109 TW Alexander DR; mail code D243-01; RTP, NC 27711. [45CSR13 - Permit R13-2104-§4.5.6., 45CSR16, 40 CFR §60.258(d)]

## **Attachment E-2**

### **Thermal Dryer 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.***

#### **Limitations and Standards**

The maximum fuel feed rate to the thermal dryer shall not exceed 105 mmBtu per hour. To demonstrate compliance with this operating limit, the permittee shall continue to use a Riley #350 pulverizer which limits the dryer to 105 mmBtu/hr fuel feed rate.

**[45CSR13 - Permit R13-2104-§4.1.8.]**

#### **Particulate Matter (PM) Requirements**

In accordance with 45CSR5, Section 3.1., all particulate matter emissions from all coal processing (i.e. thermal dryer TD1) systems shall be limited to a maximum of twenty (20) percent opacity. **[45CSR13 - Permit R13-2104-§§ 4.2.1. & 4.1.9. and 45CSR§5-3.1.]**

The provisions of 5.1.3. above shall not apply to particulate matter emitted, which is less than sixty percent (60%) opacity for a period or periods aggregating no more than five (5) minutes in any sixty (60) minute period during operation. **[45CSR13 - Permit R13-2104-§4.1.9. and 45CSR§5-3.2.]**

The provisions of 5.1.3. and 5.1.4. above shall not apply to particulate matter emitted, which is less than sixty percent (60%) opacity for a period of up to eight (8) minutes in any operating day for the purposes of building a fire of operating quality in the fuel burning equipment of a thermal dryer. **[45CSR13 - Permit R13-2104-§4.1.9. 45CSR§5-3.3.]**

Particulate matter vented into the open air from the thermal dryer exhaust, shall not exceed 0.12 grains per [dry] standard cubic foot (gr/DSCF). **[45CSR13 - Permit R13-2104-§4.1.9. 45CSR§5-4.1.b. and 45CSR5 – Appendix §1.1.]**

No person shall circumvent 45CSR5 by adding additional gas to any dryer exhaust or group of dryer exhaust for the purpose of reducing the grain loading. **[45CSR13 - Permit R13-2104-§4.1.9. 45CSR§5-4.2.]**

Exhaust gases from a thermal dryer shall not be vented into the open air at an altitude of less than eighty (80) feet above the foundation grade of the structure containing the dryer or less than ten (10) feet above the top of the said structure or any adjacent structure, whichever is greater. In determining the desirable height of a plant stack, due consideration shall be given to the local topography, meteorology, the location of nearby dwellings and public roads, the stack emission rate, and good engineering practice as set forth in 45CSR20. **[45CSR13 - Permit R13-2104-§4.1.9. 45CSR§5-4.3.]**

A monitoring device for the continuous measurement of the temperature of the gas stream at the exit of the thermal dryer shall be installed, calibrated, maintained, and continuously operated. The monitoring device is to be certified by the manufacturer to be accurate within plus or minus three degrees Fahrenheit ( $\pm 3^{\circ}\text{F}$ ) and is to be recalibrated at least once annually or as necessary. **[45CSR13 - Permit R13-2104-§4.1.9. 45CSR§§5-4.1.b. & 9.2. and 45CSR5 – Appendix §§2.1. & 2.3]**

A monitoring device for the continuous measurement of the pressure loss in the inlet airflow to the scrubber shall be installed, calibrated, maintained, and continuously operated. The pressure drop shall be measured between the inlet



airflow to the scrubber and outlet airflow of the scrubber which is atmospheric. The monitoring device is to be certified by the manufacturer to be accurate within plus or minus one inch ( $\pm 1$  in.) water gauge and is to be recalibrated at least once annually or as necessary. **[45CSR13 - Permit R13-2104-§4.1.9. 45CSR§§5-4.1.b. & 9.2. and 45CSR5 – Appendix §§2.2.a. & 2.3.]**

A monitoring device for the continuous measurement of the water supply pressure to the scrubber shall be installed, calibrated, maintained, and continuously operated. The monitoring device is to be certified by the manufacturer to be accurate within plus or minus five percent ( $\pm 5\%$ ) water gauge and is to be recalibrated at least once annually or as necessary. **[45CSR13 - Permit R13-2104-§4.1.9. 45CSR§§5-4.1.b. & 9.2. and 45CSR5 – Appendix §§2.2.b. & 2.3.]**

Any stack venting thermal dryer exhaust gases and/or air table exhaust gases or exhaust gases or air from any air pollution control device shall include straight runs of sufficient length to establish flow patterns consistent with acceptable stack sampling procedures. Flow straightening devices shall be required where cyclonic gas flow would exist in the absence of such devices. **[45CSR§5-12.6.]**

### **Sulfur Dioxide (SO<sub>2</sub>) Requirements**

Emissions of Sulfur Dioxide (SO<sub>2</sub>) from the thermal dryer shall not exceed 56.85 pounds per hour nor 249 tons per year. Compliance with the annual emission limit shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the amount of Sulfur Dioxide (SO<sub>2</sub>) emitted at any given time during the previous twelve (12) consecutive calendar months. **[45CSR13 - Permit R13-2104-§4.1.5.]**

The sulfur dioxide emissions into open air from the thermal dryer shall not exceed an in-stack sulfur dioxide concentration of 2000 ppmv by volume. **[45CSR§10-4.1.]**

Compliance with the allowable sulfur dioxide concentration limitations contained in 5.1.14. above, shall be based on a block three (3) hour averaging time. **[45CSR§10-4.2.]**

At the request of the Director the owner and/or operator of a source shall install such stack gas monitoring devices as the Director deems necessary to determine compliance with the provisions of 45CSR§10-4.1. The data from such devices shall be readily available at the source location or such other reasonable location that the Director may specify. At the request of the Director, or his or her duly authorized representative, such data shall be made available for inspection or copying. Failure to promptly provide such data shall constitute a violation of 45CSR10. **[45CSR§10-8.2.a.]**

### **Monitoring Requirements**

The permittee shall demonstrate compliance with the SO<sub>2</sub> emission limits set forth under conditions 5.1.13. and 5.1.14. above, by complying with the stipulations as stated below:

- a. The owner or operator of a thermal dryer shall meet the following minimum coal sampling requirements:
  1. The coal sample acquisition point shall be at a location where representative samples of the total coal flow to be combusted by the dryer may be obtained
  2. Coal shall be sampled at least once per day
  3. Minimum sample size shall be five hundred (500) grams.
  4. A composite of the samples shall be analyzed at the end of each calendar month
- b. Coal samples shall be prepared for analysis in accordance with procedures specified in ASTM D2013-86, "Standard Method of Preparing Coal Samples for Analysis."
- c. The heat content of coal samples shall be determined in accordance with procedures specified in ASTM D2015-85, "Standard Test Method for Gross Calorific Value of Solid fuel by the Adiabatic Bomb Calorimeter," or ASTM D5865, "Standard Test Method for Gross Calorific Value of Coal and Coke by the Isotherm Bomb Calorimeter."
- d. The sulfur content of coal samples shall be determined in accordance with procedures specified in ASTM D3177-84, "Standard Test Methods for Total Sulfur in the Analysis Sample of Coal and Coke", or ASTM

D4239-85, "Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods" or any other method approved by the Director.

1. An excursion shall be defined as sulfur content of fuel greater than 1.18% with a heat content of 13,000 Btu/lb (As the heat content increases the allowable sulfur content increases proportionally) in accordance with "Indicator 1" of the submitted CAM Plan. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- e. The owner or operator of a thermal dryer shall calculate the SO<sub>2</sub> emissions for each month based on the Maximum heat input of 105 mmBtu/hr and the results of the analyses for sulfur and heat content for the month according to the following equations:

**Equation 1:**

$$\text{SO}_2 \text{ (lb/hr)} = 2 \times (\text{MFR} / \text{HV}) \times (\text{S} / 100) \times (1 - \text{CE} / 100)$$

Where:

MFR = Maximum heat input of 105,000,000 Btu/hr

HV = Heating value of fuel in Btu/lb

S = Percent sulfur content of fuel

CE = Wet scrubber percent SO<sub>2</sub> control efficiency (i.e., 70%)

2 = 2 lb SO<sub>2</sub> per 1lb S

**Equation 2:**

$$\text{SO}_2 \text{ (ppmv)} = \text{SO}_2 \text{ (lb/hr)} \times (385 / 64) \times (1 / 133,620) \times (1 / 60) \times 10^6$$

Where:

SO<sub>2</sub> (ppmv) = Sulfur dioxide concentration by volume

SO<sub>2</sub> (lb/hr) = Sulfur dioxide weight rate

385 = Molar volume in scf/lb-mole

64 = Molecular weight of Sulfur dioxide in lb/lb-mole

133,620 = Exhaust fan volumetric flow rate in standard cubic feet per minute (scfm)

60 = Minutes per hour

If compliance with 45CSR§10-4.1. can be demonstrated with these "worse case" conditions (i.e., by using the maximum design heat input, and the minimum volumetric gas flow rate in the equations), then compliance at lower heat inputs and/or higher stack gas flow rates will be ensured. [45CSR§30-5.1.c., 45CSR§10-8.2.c., 45CSR10A - Monitoring Plan, 45CSR13 - Permit R13-2104-§§4.1.6. & 4.1.7., and 40CFR§§64.6(c) & 64.7(d)]

**Proper Maintenance** – At all times, the permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

[45CSR§30-5.1.c., 40 C.F.R. §64.7(b)]

**Testing Requirements**

To determine compliance with the opacity limits of permit condition 5.1.3., the permittee shall conduct weekly visual emission observations in accordance with Method 22 of 40 CFR 60, Appendix A for the thermal dryer. These observations shall 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 40CFR60 Appendix A, Method 22. If sources of visible emissions are identified during the survey, the permittee shall conduct an opacity evaluation in accordance with 40CFR60 Appendix A, Method 9, within 24 hours. A 40CFR60 Appendix A, Method 9 evaluation shall 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. [45CSR13 - Permit R13-2104-§4.2.1.]

The thermal dryer unit included in this permit shall be observed visually during periods of building a fire of operating quality 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 [45CSR§30-5.1.c.]

The permittee shall conduct tests to determine compliance with the particulate matter (PM) emission limitations in accordance with the frequency established in the following table and the results of the most recent tests already conducted. The permittee shall use Method 5 or an alternative method approved by the Director for such testing. Parameter indicator ranges shall be re-established or verified for the exit temperature of the thermal dryer, water pressure to the control equipment, and the pressure loss of the inlet airflow to the scrubber. The permittee shall re-establish and/or verify these indicator ranges and operate within these ranges to provide a reasonable assurance that the thermal dryer unit is in compliance with opacity and particulate loading limits. The permittee shall take immediate corrective action when a parameter falls outside the indicator range established for that parameter and shall record the cause and corrective measures taken. The Director shall be furnished with a written report of the results of such testing and established indicator ranges. The permittee shall also record the following parameters during such testing:

- a. Opacity readings on the exhaust stack following the procedures of Method 9;
- b. Amount of coal burned and the amount of coal dried;
- c. Coal drying temperature and residence time in the dryer;
- d. Temperature of the gas stream at the exit of the thermal dryer;
- e. Flow rate through the dryer and converted to dry standard cubic feet;
- f. Water pressure to the control equipment; and
- g. Pressure loss of the inlet airflow to the scrubber. The pressure drop will be measured between the inlet airflow to the scrubber and outlet airflow of the scrubber, which is atmospheric loss through the venturi constriction of the control equipment.

Subsequent testing to determine compliance with the particulate loading limitations of 5.1.6. above, shall be conducted in accordance with the schedule set forth in the following table:

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

The current inlet water pressure parameter is set at 10.1 psi and the pressure drop is set at 23 inches of H<sub>2</sub>O. An excursion per the 40CFR64 CAM Plan is defined as values below these current values based on a 3-hour rolling average. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

If during the next scheduled test or subsequent testing thereafter, the parameter set points are re-established the permittee shall submit a modification to the CAM Plan [45CSR§30-5.1.c., 40 CFR §64.7(d)]

### **Recordkeeping Requirements**

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 daily inspections, and the times the fugitive dust control system(s) are inoperable and any corrective actions taken. [45CSR13 - Permit R13-2104-§4.2.1., 45CSR§30-5.1.c.]

The fuel usage being continuously measured with a rotary counter shall be recorded and compiled at the end of each day on a lbs/day basis. The operation of the rotary counter shall be verified by daily visual inspection. [45CSR§30-5.1.c., 40 CFR §64.6(c)]

The measured pressure drop of 5.1.10. above, and the measured water supply pressure of 5.1.11 above, shall be continuously recorded by a strip chart(s) and manually recorded once every 12 hours. [45CSR§30-5.1.c., 40 CFR §64.6(c)]

For CAM, the owner or operator shall comply with the recordkeeping requirements of permit conditions 3.4.1. and 3.4.2. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 CFR §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40 CFR Part 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). [45CSR§30-5.1.c., 40 CFR §64.9(b)]

**Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures. [45CSR13 - Permit R13-2104-§4.4.2.]

**Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

- a. The equipment involved.
- b. Steps taken to minimize emissions during the event.
- c. The duration of the event.
- d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[45CSR13 - Permit R13-2104-§4.4.3.]

### **Reporting Requirements**

Upon observing any visible emissions in excess of twenty percent (20%) opacity, or excess of forty (40%) for any period or periods aggregating more than five (5) minutes in any sixty (60) minute period, the company shall submit a written report, certified by a responsible official, to the Director of the Division of Air Quality within five (5) days after taking said reading. **[45CSR13 - Permit R13-2104-§4.2.1.]**

For CAM, monitoring reports shall be submitted to the director and at a minimum shall include and be in accordance with information in permit conditions 3.5.6. and 3.5.8. as applicable. Also, at a minimum, the following information, as applicable, shall be included:

- a. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
- b. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
- c. A description of the actions taken to implement a QIP during the reporting period as specified in 40 CFR §64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

**[45CSR§30-5.1.c., 40 CFR §64.9(a)]**

# **Attachment F**

## **Compliance Schedule**

**ATTACHMENT F - Schedule of Compliance Form**

Complete this section if you indicated noncompliance with any of the applicable requirements identified in the permit application. For each emission unit which is not in compliance, identify the applicable requirement, the reason(s) for noncompliance, a description of how the source will achieve compliance, and a detailed schedule of compliance. If there is a consent order that applies to this requirement, attach a copy to this form.

**1. Applicable Requirement**

**Not Applicable – This Section Intentionally Left Blank**

**Unit(s):****Applicable Requirement:****2. Reason for Noncompliance:****3. How will Compliance be Achieved?****4. Consent Order Number (if applicable):****5. Schedule of Compliance.** Provide a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance, including a date for final compliance.

Remedial Measure or Action

Date to be Achieved

**6. Submittal of Progress Reports.****Content of Progress Report:****Report starting date:** MM/DD/YYYY**Submittal frequency:**

## **Attachment G**

### **Air Pollution Control Device Forms**



<b>ATTACHMENT G - Air Pollution Control Device Form</b>		
<b>Control device ID number:</b> 0005	<b>List all emission units associated with this control device.</b> Thermal Dryer	
<b>Manufacturer:</b> Research Cottrell, Inc.	<b>Model number:</b> Type C-24 Cyclotrell	<b>Installation date:</b> 1968
<b>Type of Air Pollution Control Device:</b>		
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input type="checkbox"/> Baghouse/Fabric Filter</div> <div style="width: 33%;"><input type="checkbox"/> Venturi Scrubber</div> <div style="width: 33%;"><input checked="" type="checkbox"/> Multiclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Bed Adsorber</div> <div style="width: 33%;"><input type="checkbox"/> Packed Tower Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Single Cyclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Drum(s)</div> <div style="width: 33%;"><input type="checkbox"/> Other Wet Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Cyclone Bank</div> <div style="width: 33%;"><input type="checkbox"/> Catalytic Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Condenser</div> <div style="width: 33%;"><input type="checkbox"/> Settling Chamber</div> <div style="width: 33%;"><input type="checkbox"/> Thermal Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Flare</div> <div style="width: 33%;"><input type="checkbox"/> Other (describe) _____</div> <div style="width: 33%;"><input type="checkbox"/> Wet Plate Electrostatic Precipitator</div> <div style="width: 33%;"><input type="checkbox"/> Dry Plate Electrostatic Precipitator</div> </div>		
<b>List the pollutants for which this device is intended to control and the capture and control efficiencies.</b>		
Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter	100%	40%
<b>Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).</b>  Average pressure drop – 4 inches of H <sub>2</sub> O		
<b>Is this device subject to the CAM requirements of 40 C.F.R. 64?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, <b>Complete ATTACHMENT H</b> If No, <b>Provide justification.</b>		
<b>Describe the parameters monitored and/or methods used to indicate performance of this control device.</b>  Pressure Drop Gas Temperature Gas Flow Rate Water Pressure		

<b>ATTACHMENT G - Air Pollution Control Device Form</b>		
<b>Control device ID number:</b> 0006	<b>List all emission units associated with this control device.</b> Thermal Dryer	
<b>Manufacturer:</b> Research Cottrell, Inc.	<b>Model number:</b> NA	<b>Installation date:</b> 1968
<b>Type of Air Pollution Control Device:</b>		
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input type="checkbox"/> Baghouse/Fabric Filter</div> <div style="width: 33%;"><input type="checkbox"/> Venturi Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Multiclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Bed Adsorber</div> <div style="width: 33%;"><input type="checkbox"/> Packed Tower Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Single Cyclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Drum(s)</div> <div style="width: 33%;"><input checked="" type="checkbox"/> Other Wet Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Cyclone Bank</div> <div style="width: 33%;"><input type="checkbox"/> Catalytic Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Condenser</div> <div style="width: 33%;"><input type="checkbox"/> Settling Chamber</div> <div style="width: 33%;"><input type="checkbox"/> Thermal Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Flare</div> <div style="width: 33%;"><input type="checkbox"/> Other (describe) _____</div> <div style="width: 33%;"><input type="checkbox"/> Wet Plate Electrostatic Precipitator</div> <div style="width: 33%;"><input type="checkbox"/> Dry Plate Electrostatic Precipitator</div> </div>		
<b>List the pollutants for which this device is intended to control and the capture and control efficiencies.</b>		
Pollutant	Capture Efficiency	Control Efficiency
Particulate Matter	100%	99.25%
Sulfur Dioxide	NA	70%
Nitrogen Oxides	NA	NA
<b>Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).</b>  Average pressure drop – 25 inches of H <sub>2</sub> O		
<b>Is this device subject to the CAM requirements of 40 C.F.R. 64?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, <b>Complete ATTACHMENT H</b> If No, <b>Provide justification.</b>		
<b>Describe the parameters monitored and/or methods used to indicate performance of this control device.</b>  Pressure Drop Gas Temperature Gas Flow Rate Water Pressure		

<b>ATTACHMENT G - Air Pollution Control Device Form</b>		
<b>Control device ID number:</b> 0007	<b>List all emission units associated with this control device.</b> Thermal Dryer	
<b>Manufacturer:</b> NA	<b>Model number:</b> NA	<b>Installation date:</b> 1968
<b>Type of Air Pollution Control Device:</b>		
<div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input type="checkbox"/> Baghouse/Fabric Filter</div> <div style="width: 33%;"><input type="checkbox"/> Venturi Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Multiclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Bed Adsorber</div> <div style="width: 33%;"><input type="checkbox"/> Packed Tower Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Single Cyclone</div> <div style="width: 33%;"><input type="checkbox"/> Carbon Drum(s)</div> <div style="width: 33%;"><input type="checkbox"/> Other Wet Scrubber</div> <div style="width: 33%;"><input type="checkbox"/> Cyclone Bank</div> <div style="width: 33%;"><input type="checkbox"/> Catalytic Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Condenser</div> <div style="width: 33%;"><input type="checkbox"/> Settling Chamber</div> <div style="width: 33%;"><input type="checkbox"/> Thermal Incinerator</div> <div style="width: 33%;"><input type="checkbox"/> Flare</div> <div style="width: 33%;"><input checked="" type="checkbox"/> Other (describe) - <u>Mist Eliminator</u></div> <div style="width: 33%;"><input type="checkbox"/> Wet Plate Electrostatic Precipitator</div> <div style="width: 33%;"><input type="checkbox"/> Dry Plate Electrostatic Precipitator</div> </div>		
<b>List the pollutants for which this device is intended to control and the capture and control efficiencies.</b>		
Pollutant	Capture Efficiency	Control Efficiency
<b>Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).</b>  Prohibits the exit of water droplets from the thermal dryer stack.		
<b>Is this device subject to the CAM requirements of 40 C.F.R. 64?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, <b>Complete ATTACHMENT H</b> If No, <b>Provide justification.</b>		
<b>Describe the parameters monitored and/or methods used to indicate performance of this control device.</b>		

## **Attachment H**

### **Compliance Assurance Monitoring (CAM) Plan Forms**

## ATTACHMENT H - Compliance Assurance Monitoring (CAM) Plan Form

For definitions and information about the CAM rule, please refer to 40 CFR Part 64. Additional information (including guidance documents) may also be found at <http://www.epa.gov/ttn/emc/cam.html>

### CAM APPLICABILITY DETERMINATION

- 1) Does the facility have a PSEU (Pollutant-Specific Emissions Unit considered separately with respect to EACH regulated air pollutant) that is subject to CAM (40 CFR Part 64), which must be addressed in this CAM plan submittal? To determine applicability, a PSEU must meet all of the following criteria (*If No, then the remainder of this form need not be completed*):
- ☒ YES    ☐ NO
- a. The PSEU is located at a major source that is required to obtain a Title V permit;
- b. The PSEU is subject to an emission limitation or standard for the applicable regulated air pollutant that is NOT exempt;
- LIST OF EXEMPT EMISSION LIMITATIONS OR STANDARDS:
- NSPS (40 CFR Part 60) or NESHAP (40 CFR Parts 61 and 63) proposed after 11/15/1990.
  - Stratospheric Ozone Protection Requirements.
  - Acid Rain Program Requirements.
  - Emission Limitations or Standards for which a WVDEP Division of Air Quality Title V permit specifies a continuous compliance determination method, as defined in 40 CFR §64.1.
  - An emission cap that meets the requirements specified in 40 CFR §70.4(b)(12).
- c. The PSEU uses an add-on control device (as defined in 40 CFR §64.1) to achieve compliance with an emission limitation or standard;
- d. The PSEU has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than the Title V Major Source Threshold Levels; AND
- e. The PSEU is NOT an exempt backup utility power emissions unit that is municipally-owned.

### BASIS OF CAM SUBMITTAL

- 2) Mark the appropriate box below as to why this CAM plan is being submitted as part of an application for a Title V permit:
- ☒ RENEWAL APPLICATION. ALL PSEUs for which a CAM plan has NOT yet been approved need to be addressed in this CAM plan submittal.
- ☐ INITIAL APPLICATION (submitted after 4/20/98). ONLY large PSEUs (i. e., PSEUs with potential post-control device emissions of an applicable regulated air pollutant that are equal to or greater than Major Source Threshold Levels) need to be addressed in this CAM plan submittal.
- ☐ SIGNIFICANT MODIFICATION TO LARGE PSEUs. ONLY large PSEUs being modified after 4/20/98 need to be addressed in this cam plan submittal. For large PSEUs with an approved CAM plan, Only address the appropriate monitoring requirements affected by the significant modification.

### 3) <sup>a</sup> **BACKGROUND DATA AND INFORMATION**

Complete the following table for **all** PSEUs that need to be addressed in this CAM plan submittal. This section is to be used to provide background data and information for each PSEU in order to supplement the submittal requirements specified in 40 CFR §64.4. If additional space is needed, attach and label accordingly.

PSEU DESIGNATION	DESCRIPTION	POLLUTANT	CONTROL DEVICE	<sup>b</sup> EMISSION LIMITATION or STANDARD	<sup>c</sup> MONITORING REQUIREMENT
TD1	THERMAL DRYER	SO2	VENTURI SCRUBBER	45CSR 10-3.3f; 3.2 LBS/MMBTU	DAILY FUEL SAMPLING, COMPOSITE, AND ANALYZE MONTHLY FOR SULFUR AND HEAT CONTENT, CALCULATE MONTHLY SO2 EMISSIONS, AND CONTINUOUSLY MONITOR PRESSURE DROP AND WATER PRESSURE
				45CSR10-4.1; 2000 PPM	DAILY FUEL SAMPLING, COMPOSITE, AND ANALYZE MONTHLY FOR SULFUR AND HEAT CONTENT, CALCULATE MONTHLY SO2 EMISSIONS, AND CONTINUOUSLY MONITOR PRESSURE DROP AND WATER PRESSURE
				45CSR13-2104D.6; 56.85 LBS/HR & 249 TPY	DAILY FUEL SAMPLING, COMPOSITE, AND ANALYZE MONTHLY FOR SULFUR AND HEAT CONTENT, CALCULATE MONTHLY SO2 EMISSIONS, AND CONTINUOUSLY MONITOR PRESSURE DROP AND WATER PRESSURE
				45CSRR10-6.4; Fuel Usage lbs/day (105 MMBtu/hr max)	CONTINUOUSLY MONITOR FUEL USAGE WITH ROTARY COUNTER
<u>EXAMPLE</u> Boiler No. 1	Wood-Fired Boiler	PM	Multiclone	45CSR§2-4.1.c.; 9.0 lb/hr	Monitor pressure drop across multiclone: Weekly inspection of multiclone

<sup>a</sup> If a control device is common to more than one PSEU, one monitoring plan may be submitted for the control device with the affected PSEUs identified and any conditions that must be maintained or monitored in accordance with 40 CFR §64.3(a). If a single PSEU is controlled by more than one control device similar in design and operation, one monitoring plan for the applicable control devices may be submitted with the applicable control devices identified and any conditions that must be maintained or monitored in accordance with 40 CFR §64.3(a).

<sup>b</sup> Indicate the emission limitation or standard for any applicable requirement that constitutes an emission limitation, emission standard, or standard of performance (as defined in 40 CFR §64.1).

<sup>c</sup> Indicate the monitoring requirements for the PSEU that are required by an applicable regulation or permit condition.

### CAM MONITORING APPROACH CRITERIA

Complete this section for **EACH** PSEU that needs to be addressed in this CAM plan submittal. This section may be copied as needed for each PSEU. This section is to be used to provide monitoring data and information for **EACH** indicator selected for **EACH** PSEU in order to meet the monitoring design criteria specified in 40 CFR §64.3 and §64.4. If more than two indicators are being selected for a PSEU or if additional space is needed, attach and label accordingly with the appropriate PSEU designation, pollutant, and indicator numbers.

<b>4a) PSEU Designation:</b> TD1	<b>4b) Pollutant:</b> SULFUR DIOXIDE	<b>4c) <sup>a</sup>Indicator No. 1:</b> SULFUR CONTENT OF 1.18% (WITH HEAT CONTENT OF 13,000 BTU/LB)	<b>4d) <sup>a</sup>Indicator No. 2:</b> MAXIMUM HEAT INPUT OF 105 MMBTU/HR
<b>5a) GENERAL CRITERIA</b> Describe the <u>MONITORING APPROACH</u> used to measure the indicators:		COAL IS SAMPLED DAILY, COMPOSITED, AND ANALYZED MONTHLY FOR SULFUR AND HEAT CONTENT	FUEL USAGE IS CONTINUOUSLY MONITORED WITH A ROTARY COUNTER.
<sup>b</sup> Establish the appropriate <u>INDICATOR RANGE</u> or the procedures for establishing the indicator range which provides a reasonable assurance of compliance:		MAXIMUM SULFUR CONTENT IS 1.18% WITH A HEAT CONTENT OF 13,000 BTU/LB. AS THE HEAT CONTENT INCREASES THE ALLOWABLE SULFUR CONTENT INCREASES PROPORTIONALLY.	MAXIMUM MASS EMISSION RATE IS 56.85 LB/HR WITH 12-MONTH ROLLING TOTAL MAXIMUM OF 249 TPY.
<b>5b) PERFORMANCE CRITERIA</b> Provide the <u>SPECIFICATIONS FOR OBTAINING REPRESENTATIVE DATA</u> , such as detector location, installation specifications, and minimum acceptable accuracy:		500 GRAMS OF COAL WILL BE SAMPLED FROM POINT WHERE A REPRESENTATIVE SAMPLE CAN BE OBTAINED.	FUEL USAGE IS CONTINUOUSLY MEASURED WITH A ROTARY COUNTER ON A LBS/DAY BASIS.
<sup>c</sup> For new or modified monitoring equipment, provide <u>VERIFICATION PROCEDURES</u> , including manufacturer's recommendations, <u>TO CONFIRM THE OPERATIONAL STATUS</u> of the monitoring:		NA	NA
Provide <u>QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC) PRACTICES</u> that are adequate to ensure the continuing validity of the data, (i.e., daily calibrations, visual inspections, routine maintenance, RATA, etc.):		SAMPLE PREPARATION DONE ACCORDING TO ASTM METHOD D4239.	THE OPERATION OF THE ROTARY COUNTER IS VERIFIED BY VISUAL INSPECTION.
<sup>d</sup> Provide the <u>MONITORING FREQUENCY</u> :		COAL IS SAMPLED ONCE PER DAY DURING NORMAL OPERATION.	CONTINUOUSLY MONITORED AND TOTAL COAL USED IS RECORDED AT THE END OF EACH DAY.
Provide the <u>DATA COLLECTION PROCEDURES</u> that will be used:		COAL SAMPLES ARE COLLECTED AT A POINT WHERE A REPRESENTATIVE SAMPLE CAN BE OBTAINED. THEY ARE PREPARED ACCORDING TO ASTM METHOD D3177	FUEL USAGE IS COMPILED AT THE END OF EACH DAY.
Provide the <u>DATA AVERAGING PERIOD</u> for the purpose of determining whether an excursion or exceedance has occurred:		COAL SAMPLES ARE COMPOSITED MONTHLY	DAILY

<sup>a</sup> Describe all indicators to be monitored which satisfies 40 CFR §64.3(a). Indicators of emission control performance for the control device and associated capture system may include measured or predicted emissions (including visible emissions or opacity), process and control device operating parameters that affect control device (and capture system) efficiency or emission rates, or recorded findings of inspection and maintenance activities.

<sup>b</sup> Indicator Ranges may be based on a single maximum or minimum value or at multiple levels that are relevant to distinctly different operating conditions, expressed as a function of process variables, expressed as maintaining the applicable indicator in a particular operational status or designated condition, or established as interdependent between more than one indicator. For CEMS, COMS, or PEMS, include the most recent certification test for the monitor.

<sup>c</sup> The verification for operational status should include procedures for installation, calibration, and operation of the monitoring equipment, conducted in accordance with the manufacturer's recommendations, necessary to confirm the monitoring equipment is operational prior to the commencement of the required monitoring.

<sup>d</sup> Emission units with post-control PTE ≥ 100 percent of the amount classifying the source as a major source (i.e., Large PSEU) must collect four or more values per hour to be averaged. A reduced data collection frequency may be approved in limited circumstances. Other emission units must collect data at least once per 24 hour period.

### CAM MONITORING APPROACH CRITERIA

Complete this section for **EACH** PSEU that needs to be addressed in this CAM plan submittal. This section may be copied as needed for each PSEU. This section is to be used to provide monitoring data and information for **EACH** indicator selected for **EACH** PSEU in order to meet the monitoring design criteria specified in 40 CFR §64.3 and §64.4. If more than two indicators are being selected for a PSEU or if additional space is needed, attach and label accordingly with the appropriate PSEU designation, pollutant, and indicator numbers.

<b>4a) PSEU Designation:</b> TD1	<b>4b) Pollutant:</b> SULFUR DIOXIDE	<b>4c) <sup>a</sup> Indicator No. 1:</b> PRESSURE DROP	<b>4d) <sup>a</sup> Indicator No. 2:</b> WATER PRESSURE
<b>5a) GENERAL CRITERIA</b> Describe the <u>MONITORING APPROACH</u> used to measure the indicators:		WATER PRESSURE IS CONTINUOUSLY MONITORED.	PRESSURE DROP IS CONTINUOUSLY MONITORED/
<sup>b</sup> Establish the appropriate <u>INDICATOR RANGE</u> or the procedures for establishing the indicator range which provides a reasonable assurance of compliance:		AN EXCURSION IS DEFINED AS PRESSURE DROP BELOW 23 INCHES OF H2O.	AN EXCURSION IS DEFINED AS WATER PRESSURE BELOW 10.1 PSI.
<b>5b) PERFORMANCE CRITERIA</b> Provide the <u>SPECIFICATIONS FOR OBTAINING REPRESENTATIVE DATA</u> , such as detector location, installation specifications, and minimum acceptable accuracy:		PRESSURE DROP MEASUREMENTS ARE TAKEN AT THE INLET OF THE SCRUBBER AND AT A LOCATION BETWEEN THE SCRUBBER AND THE MIST ELIMINATOR.	PRESSURE DROP MEASUREMENTS ARE TAKEN AT THE INLET OF THE SCRUBBER AND AT A LOCATION BETWEEN THE SCRUBBER AND THE MIST ELIMINATOR. WATER PRESSURE IS RECORDED BEFORE THE SCRUBBER.
<sup>c</sup> For new or modified monitoring equipment, provide <u>VERIFICATION PROCEDURES</u> , including manufacturer's recommendations, <u>TO CONFIRM THE OPERATIONAL STATUS</u> of the monitoring:		NA	NA
Provide <u>QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC) PRACTICES</u> that are adequate to ensure the continuing validity of the data, (i.e., daily calibrations, visual inspections, routine maintenance, RATA, etc.):		CALIBRATION PERFORMED ON THE PRESSURE DROP RECORDER/MONITOR IS PERFORMED AS NEEDED BUT AT LEAST ONCE ANNUALLY. PRESSURE DROP IS ACCURATE WITHIN 1 INCH OF H2O.	CALIBRATION PERFORMED ON THE WATER PRESSURE GAUGE IS PERFORMED AS NEEDED BUT AT LEAST ONCE ANNUALLY. THE WATER PRESSURE GAUGE IS ACCURATE TO WITHIN 5%.
<sup>d</sup> Provide the <u>MONITORING FREQUENCY</u> :		PRESSURE DROP MONITORED CONTINUOUSLY.	WATER PRESSURE MONITORED CONTINUOUSLY.
Provide the <u>DATA COLLECTION PROCEDURES</u> that will be used:		CONTINUOUSLY RECORDED BY STRIP CHART AND MANUALLY RECORDED ONCE EVERY 12 HOURS.	CONTINUOUSLY RECORDED BY STRIP CHART AND MANUALLY RECORDED ONCE EVERY 12 HOURS.
Provide the <u>DATA AVERAGING PERIOD</u> for the purpose of determining whether an excursion or exceedance has occurred:		3-HOUR ROLLING AVERAGE.	3-HOUR ROLLING AVERAGE.

<sup>a</sup> Describe all indicators to be monitored which satisfies 40 CFR §64.3(a). Indicators of emission control performance for the control device and associated capture system may include measured or predicted emissions (including visible emissions or opacity), process and control device operating parameters that affect control device (and capture system) efficiency or emission rates, or recorded findings of inspection and maintenance activities.

<sup>b</sup> Indicator Ranges may be based on a single maximum or minimum value or at multiple levels that are relevant to distinctly different operating conditions, expressed as a function of process variables, expressed as maintaining the applicable indicator in a particular operational status or designated condition, or established as interdependent between more than one indicator. For CEMS, COMS, or PEMS, include the most recent certification test for the monitor.

<sup>c</sup> The verification for operational status should include procedures for installation, calibration, and operation of the monitoring equipment, conducted in accordance with the manufacturer's recommendations, necessary to confirm the monitoring equipment is operational prior to the commencement of the required monitoring.

<sup>d</sup> Emission units with post-control PTE ≥ 100 percent of the amount classifying the source as a major source (i.e., Large PSEU) must collect four or more values per hour to be averaged. A reduced data collection frequency may be approved in limited circumstances. Other emission units must collect data at least once per 24 hour period.



## ***RATIONALE AND JUSTIFICATION***

Complete this section for EACH PSEU that needs to be addressed in this CAM plan submittal. This section may be copied as needed for each PSEU. This section is to be used to provide rationale and justification for the selection of EACH indicator and monitoring approach and EACH indicator range in order to meet the submittal requirements specified in 40 CFR §64.4.

6a) PSEU Designation:  
TD1

6b) Regulated Air Pollutant:  
SULFUR DIOXIDE

7) **INDICATORS AND THE MONITORING APPROACH:** Provide the rationale and justification for the selection of the indicators and the monitoring approach used to measure the indicators. Also provide any data supporting the rationale and justification. Explain the reasons for any differences between the verification of operational status or the quality assurance and control practices proposed, and the manufacturer's recommendations. (If additional space is needed, attach and label accordingly with the appropriate PSEU designation and pollutant):

Coal sampling and analysis of SO<sub>2</sub> content along with measuring the amount of coal burned is a sufficient way to determine SO<sub>2</sub> emissions. By knowing the concentration of SO<sub>2</sub> in the coal and the fuel usage a simple calculation can be performed to determine compliance. Pressure drop and water pressure monitoring effectively indicates the scrubber is operating properly.

8) **INDICATOR RANGES:** Provide the rationale and justification for the selection of the indicator ranges. The rationale and justification shall indicate how EACH indicator range was selected by either a COMPLIANCE OR PERFORMANCE TEST, a TEST PLAN AND SCHEDULE, or by ENGINEERING ASSESSMENTS. Depending on which method is being used for each indicator range, include the specific information required below for that specific indicator range. (If additional space is needed, attach and label accordingly with the appropriate PSEU designation and pollutant):

- COMPLIANCE OR PERFORMANCE TEST (Indicator ranges determined from control device operating parameter data obtained during a compliance or performance test conducted under regulatory specified conditions or under conditions representative of maximum potential emissions under anticipated operating conditions. Such data may be supplemented by engineering assessments and manufacturer's recommendations). The rationale and justification shall INCLUDE a summary of the compliance or performance test results that were used to determine the indicator range, and documentation indicating that no changes have taken place that could result in a significant change in the control system performance or the selected indicator ranges since the compliance or performance test was conducted.
- TEST PLAN AND SCHEDULE (Indicator ranges will be determined from a proposed implementation plan and schedule for installing, testing, and performing any other appropriate activities prior to use of the monitoring). The rationale and justification shall INCLUDE the proposed implementation plan and schedule that will provide for use of the monitoring as expeditiously as practicable after approval of this CAM plan, except that in no case shall the schedule for completing installation and beginning operation of the monitoring exceed 180 days after approval.
- ENGINEERING ASSESSMENTS (Indicator Ranges or the procedures for establishing indicator ranges are determined from engineering assessments and other data, such as manufacturers' design criteria and historical monitoring data, because factors specific to the type of monitoring, control device, or PSEU make compliance or performance testing unnecessary). The rationale and justification shall INCLUDE documentation demonstrating that compliance testing is not required to establish the indicator range.

### **RATIONALE AND JUSTIFICATION:**

Historic coal analysis records indicate the sulfur content is between 0.75 and 0.85 percent. It has never approached its limit of 1.18% per R13-2104D. This indicator range is taken from the R13-2104D permit. This limit was established to eliminate this facility from PSD status.

Fuel throughput records indicate compliance with established parameter of 105 MMBtu/hr. This indicator range is taken from the R13-2104D permit. This is the design heat input rating.

Water pressure (10.1 psi minimum) and pressure drop (23 in. of H<sub>2</sub>O minimum) are monitored continuously verifying the proper operation of the scrubber. These operating parameters were established following a stack test in 2002.

Stack test data indicates actual SO<sub>2</sub> concentrations are well below limits even though the pH of the scrubber liquor was approximately 3. If the facility is in compliance with their SO<sub>2</sub> limit with a pH as low as this, establishing a parameter is not necessary. We cannot justify monitoring pH for this reason. It seems that if this facility was required to monitor pH it would amount to a parameter being established that has no effect on compliance with the SO<sub>2</sub> limit.

# **Attachment I**

## Emissions Calculations

# Attachment I-1

## PTE Emissions Summary

### Uncontrolled Emissions:

	Materials Handling		Crush & Screen		Stockpile		Haulroad		Thermal Dryer		TOTALS	
	(lb/hr)	(TPY)	(lb/hr)	(TPY)	(lb/hr)	(TPY)	(lb/hr)	(TPY)	(lb/hr)	(TPY)	(lb/hr)	(TPY)
NO <sub>x</sub>										245.95		245.95
CO										135.73		135.73
VOC										147.77		147.77
SO <sub>2</sub>										834.93		834.93
PM		44.77		440.75		16.91		321.96		39130.39		39,954.78
PM <sub>10</sub>		21.17		107.14		7.95		79.14		7826.39		8,041.79
PM <sub>con</sub>										164.05		164.05
N <sub>2</sub> O										0.88		0.88
HAPs										29.84		29.84

### Controlled Emissions:

	Materials Handling		Crush & Screen		Stockpile		Haulroad		Thermal Dryer		TOTALS	
	(lb/hr)	(TPY)	(lb/hr)	(TPY)	(lb/hr)	(TPY)	(lb/hr)	(TPY)	(lb/hr)	(TPY)	(lb/hr)	(TPY)
NO <sub>x</sub>										221.36		221.36
CO										135.73		135.73
VOC										147.77		147.77
SO <sub>2</sub>										250.48		250.48
PM		20.44		32.25		16.91		96.59		176.09		342.27
PM <sub>2.5</sub>		3.04		1.62		1.99		5.94		47.54		60.12
PM <sub>10</sub>		9.67		5.16		7.95		23.74		114.46		160.97
PM <sub>con</sub>										164.05		164.05
N <sub>2</sub> O										0.88		0.88
HAPs										29.84		29.84

# Attachment I-2

## Emissions Calculations

### Transfer Points

Calculating Emission Factor:

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

Where e = Emission Factor  
k = Particle Size Multiplier (dimensionless)  
U = Wind Speed (mph)  
M = Moisture Content (%)

Source:  
AP 42, Fifth Edition, Volume 1, Revised 11/2006  
13.2.4 Aggregate Handling and Storage Piles

	k		U	M	e	
	TSP	PM <sub>10</sub>			PM	PM <sub>10</sub>
	dimensionless				mph	%
Raw Coal	0.74	0.35	7	5	0.001	0.000
Clean Coal	0.74	0.35	7	7	0.001	0.000
Refuse	0.74	0.35	7	7	0.001	0.000
Lime	0.74	0.35	7	2.1	0.003	0.002

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	2015	Control		Emission Factor		PM Emissions		PM <sub>10</sub> Emissions	
				Throughput	Device	Efficiency (%)	TSP lb/ton	PM <sub>10</sub> lb/ton	Uncontrolled	Controlled	Uncontrolled	Controlled
				TPY					TPY	TPY	TPY	TPY
T1 (UPR1)	37S	Truck Dump	2013	4,300,000	MC	0	0.0010	0.0005	2.186	2.186	1.034	1.034
T2 (UPR1)	37S	Truck Dump	2013									
T3 (B3)	23S	Raw Coal Bin Outlet	2013	4,300,000	FE	80	0.0010	0.0005	2.186	0.437	1.034	0.207
T4 (B4)	24S	Raw Coal Bin Outlet	2013									
T5 (C-1)	1S	Belt Conveyor	2013	4,300,000	FE/FE	96	0.0010	0.0005	2.186	0.087	1.034	0.041
T6(SC1)	21S	Vibrating Screen Outlet	2013	1,075,000	FE/FE	96	0.0010	0.0005	0.547	0.022	0.258	0.010
T7 (SC1)	21S	Vibrating Screen Outlet	2013	4,300,000	FE	80	0.0010	0.0005	2.186	0.437	1.034	0.207
T8 (RB1)	19S	Rotary Breaker Outlet	2013		Included in T7							
T9 (C-4)	3S	Belt Conveyor	2013	4,300,000	FE	80	0.0010	0.0005	2.186	0.437	1.034	0.207
T10 (C-5)	5S	Belt Conveyor	2013	4,300,000	PE	50	0.0010	0.0005	2.186	1.093	1.034	0.517
T11 (B6)	26S	Raw Coal Bin Outlet	1968	0	PE	50	0.0010	0.0005	0.000	0.000	0.000	0.000
T12 (C-6)	6S	Belt Conveyor	1968	0	PE	50	0.0010	0.0005	0.000	0.000	0.000	0.000
T13 (UPR4)	40S	Endloader Dump	1976	4,300,000	MC	0	0.0010	0.0005	2.186	2.186	1.034	1.034
T14 (T13)		Underground Feed to Belt	1976	4,300,000	FE	80	0.0010	0.0005	2.186	0.437	1.034	0.207
T15 (C-7)	7S	Stockpile Reclaim	1976	4,300,000	PE	50	0.0010	0.0005	2.186	1.093	1.034	0.517
T16 (SC2)	22S	Grate Screen Outlet	1976									
T17 (SC2)	22S	Grate Screen Outlet	1976	4,300,000	FE	80	0.0010	0.0005	2.186	0.437	1.034	0.207
T18 (C-21)	20S	Belt Conveyor	2010	1,075,000	MC	50	0.0006	0.0003	0.341	0.171	0.161	0.081
T19 (C-9)	9S	Belt Conveyor	1997	4,300,000	FE/FE	96	0.0010	0.0005	2.186	0.087	1.034	0.041
T20A (RB1)	19S	Rotary Breaker Outlet	1968	1,075,000	FE	80	0.0006	0.0003	0.341	0.068	0.161	0.032
T21 (C-17)	4S	Belt Conveyor	23013	1,294,000	PE	50	0.0006	0.0003	0.411	0.205	0.194	0.097
T22 (C-2)	10S	Belt Conveyor	2013	1,294,000	FE/FE	96	0.0006	0.0003	0.411	0.016	0.194	0.008
T23 (Wet Wash)		Wet Wash Outlet	1968	956,000	FE	80	0.0006	0.0003	0.303	0.061	0.144	0.029
T26 (C-10)	12S	Belt Conveyor	2013	2,250,000	FE	80	0.0006	0.0003	0.714	0.143	0.338	0.068
T27 (B2)	28S	Included in T54-T41			PE	50	0.0006	0.0003				
T28 (Wet Wash)		Wet Wash Outlet	1968	-960,000	FE/FE	96	0.0006	0.0003	-0.305	-0.012	-0.144	-0.006
T29 (Wet Wash)		Wet Wash Outlet	1968	3,010,000	FE/FE	96	0.0006	0.0003	0.955	0.038	0.452	0.018
T30 (C-12)	15S	Belt Conveyor	1968	3,010,000	FE	80	0.0006	0.0003	0.955	0.191	0.452	0.090
T31 (TD1)	36S	Thermal Dryer Outlet	1968									
T32 (TD1)	36S	Thermal Dryer Outlet	1968	2,966,200	FE	80	0.0006	0.0003	0.942	0.188	0.445	0.089
T33 (C-13B)	17S	Belt Conveyor	1968	3,010,000	FE	80	0.0006	0.0003	0.955	0.191	0.452	0.090
T34 (B1)	30S	Clean Coal Bin Outlet	1968	3,010,000	PE	50	0.0006	0.0003	0.955	0.478	0.452	0.226
T35 (C-14)	18S	Belt Conveyor	1996	0	PE	50	0.0006	0.0003	0.000	0.000	0.000	0.000
T36 (C-13A)	16S	Belt Conveyor	1968	3,010,000	PE	50	0.0006	0.0003	0.955	0.478	0.452	0.226
T36A (C-8)	8S	Belt Conveyor	1996		Not in Use							

Attachment I-2  
Emissions Calculations  
Transfer Points

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	2015	Control		Emission Factor		PM Emissions		PM <sub>10</sub> Emissions		
				Throughput	Device	Efficiency (%)	TSP lb/ton	PM <sub>10</sub> lb/ton	Uncontrolled	Controlled	Uncontrolled	Controlled	
				TPY					TPY	TPY	TPY	TPY	TPY
T37 (UPR1)	37S	Truck Dump	2013	4,300,000	MC	0	0.0010	0.0005	2.186	2.186	1.034	1.034	
T38 (UPR1)	37S	Truck Dump	1968	4,300,000	MC	0	0.0010	0.0005	2.186	2.186	1.034	1.034	
T39 (Endloader OS1)		Endloader Dump	1968	4,300,000	MC	0	0.0010	0.0005	2.186	2.186	1.034	1.034	
T40 (C-15)	13S	Belt Conveyor	2013	2,250,000	FE	80	0.0006	0.0003	0.714	0.143	0.338	0.068	
T41 (B5)	29S	Refuse Bin Outlet	2013	2,250,000	PE	50	0.0006	0.0003	0.714	0.357	0.338	0.169	
T43 (C-3)	2S	Belt Conveyor	2013	Included in T6									
T44 (B7)	27S	Refuse Bin Outlet	2013	2,250,000	FE/FE	96	0.0006	0.0003	0.714	0.029	0.338	0.014	
T45 (C-18)	11S	Belt Conveyor	2013	45,000	PE	50	0.0006	0.0003	0.014	0.007	0.007	0.003	
T46 (B5)	29S	Refuse Bin Outlet	2013	Included in T41			0.0006	0.0003					
T47 (Truck Dump OS4)	33S	Truck Dump	1999	219,000	MC	0	0.0034	0.0016	0.375	0.375	0.177	0.177	
T48 (Truck Dump OS4)		Endloader Dump	1999	219,000	MC	0	0.0034	0.0016	0.375	0.375	0.177	0.177	
T49 (B8)	31S	Lime Bin Outlet	1999	219,000	PE	50	0.0034	0.0016	0.375	0.188	0.177	0.089	
T50 (C-19)	25S	Belt Conveyor	1999	219,000	FE	80	0.0034	0.0016	0.375	0.075	0.177	0.035	
T51 (Endloader OS2)		Endloader Dump	1968	3,010,000	PE	50	0.0006	0.0003	0.955	0.478	0.452	0.226	
T52 (Wet Wash)		Wet Wash Outlet	1968	45,000	FE	80	0.0006	0.0003	0.014	0.003	0.007	0.001	
T53 (Endloader OS5)		Endloader Dump	2010	1,075,000	MC	0	0.0006	0.0003	0.341	0.341	0.161	0.161	
T54 (C10)		Belt Conveyor	2013	2,250,000	PE	50	0.0006	0.0003	0.714	0.357	0.338	0.169	
T55 (C23)		Belt Conveyor	2013	Included in T54-T41			0.0006	0.0003					
									TOTALS	44.769	20.443	21.175	9.669

Attachment I-3  
Emissions Calculations  
Crushing and Screening

Emission Factors:

	e	
	PM	PM <sub>10</sub>
	lb/ton	lb/ton
Primary Crushing	0.0200	0.0094
Tertiary Crushing	0.0600	0.0282
Screening	0.1000	0.047

Source:  
Air Pollution Engineering Manual and References  
G10-C Emissions Calculations

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Maximum Throughput	Control		Emission Factor		PM Emissions		PM <sub>10</sub> Emissions	
					Device	Efficiency (%)	TSP lb/ton	PM <sub>10</sub> lb/ton	Uncontrolled	Controlled	Uncontrolled	Controlled
				TPY					TPY	TPY	TPY	TPY
RB1	19S	Rotary Breaker	1968	1,075,000	FE	80	0.0200	0.0094	10.75	2.15	5.05	1.01
HMCR1	29S	Hammermill Crusher	Removed									
SC1	21S	Vibrating Screen	2013	4,300,000	FE/FE	96	0.1000	0.0470	215.00	8.60	101.05	4.04
SC2	22S	Vibrating Screen	2010	4,300,000	FE/WS	90	0.1000	0.0005	215.00	21.50	1.03	0.10
TOTALS									440.75	32.25	107.14	5.16

Attachment I-4  
Emissions Calculations  
Stockpiles

Calculating Emission Factor:

e = 1.7\*(s/1.5)\*(365-p/235)\*(f/15)

Source:  
AP 42, Fifth Edition, Volume 1, Revised 11/2006  
13.2.4 Aggregate Handling and Storage Piles

Where  
s = material silt content  
p = number of days with ≥ 0.01 in of precipitation per year  
f = percentage of time unobstructed wind speed > 12 mph at mean pile height

	s	p	f	e	
	dimensionless	mph	%	PM	PM <sub>10</sub>
				lb/ton	lb/ton
Raw Coal	5.5	157	20	7.36	3.46
Clean Coal	32	157	20	42.80	20.12
Refuse	7	157	20	9.36	4.40
Lime	3.9	157	20	5.22	2.45

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Storage Capacity (tons)	Base Area (ft <sup>2</sup> )	Control		Emission Factor		PM Emissions				PM <sub>10</sub> Emissions			
						Device	Efficiency (%)	TSP lb/ton	PM <sub>10</sub> lb/ton	Uncontrolled		Controlled		Uncontrolled		Controlled	
										(lb/hr)	TPY	(lb/hr)	TPY	(lb/hr)	TPY	(lb/hr)	TPY
OS-1	32S	Raw Coal Stockpile	1982	20000	100,000	MC	0	7.36	3.46	0.704	3.082	0.704	3.082	0.331	1.449	0.331	1.449
OS-2	34S	Raw/Clean Coal Stockpile	1996	30000	100,000	MC	0	42.80	20.12	4.094	17.932	4.094	17.932	1.924	8.428	1.924	8.428
OS-3	35S	Emergency Refuse Stockpile	1968	400	200	MC	0	9.36	4.40	0.002	0.008	0.002	0.008	0.001	0.004	0.001	0.004
OS-4	33S	Limestone Stockpile	1999	50	500	MC	0	5.22	2.45	0.002	0.011	0.002	0.011	0.001	0.005	0.001	0.005
OS-5	43S	Refuse Stockpile	2010	500	2,544	MC	0	9.36	4.40	0.023	0.100	0.023	0.100	0.011	0.047	0.011	0.047
PTE										4.825	21.132	4.825	21.132	2.268	9.932	2.268	9.932

Percent Capacity 80%

Potential to Emit		16.91		16.91		7.95		7.95
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Attachment I-5  
Emissions Calculations  
Haulroads

Calculating Emission Factors Paved Roads

$$e = [k * (sL/2)^{0.65} * (W/3)^{1.5} - C] * (1 - (P/4*N))$$

Where: k = Particle size multiplier  
sL = Road surface silt loading, (g/ft^2)  
W = Vehicle weight  
P = Number of days per year with precipitation >0.01 inch  
N = Number of days in averaging period  
C= Factor for exhaust, brake wear and tire wear

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

	k		sL	W	P	N	C		e	
	PM	PM <sub>10</sub>					PM	PM <sub>10</sub>	PM	PM <sub>10</sub>
	Dimensionless		(g/ft <sup>2</sup> )	(tons)	(days)	(days)	Dimensionless		(lb/VMT)	(lb/VMT)
Truck	0.082	0.016	70	30	157	365	0.00047	0.00047	23.34	4.55

Unpaved Roads

$$e = k*((s/12)^a)*((W/3)^b)*((365-P)/365)$$

Where: k = Particle size multiplier  
a = Empirical constant  
b = Empirical constant  
s = Surface material silt content (%)  
W = Mean vehicle weight (tons)  
P = Number of days per year with precipitation >0.01 inch

Source:  
AP 42, Fifth Edition, Volume 1, Revised 11/2006  
13.2.2 Unpaved Roads

	k		a		b		s	W	P	e	
	PM	PM <sub>10</sub>	PM	PM <sub>10</sub>	PM	PM <sub>10</sub>				PM	PM <sub>10</sub>
	Dimensionless		Dimensionless		Dimensionless		(g/ft <sup>2</sup> )	(tons)	(days)	(lb/VMT)	(lb/VMT)
Yard Haulroad	4.9	1.5	0.7	0.9	0.45	0.45	5	38.5	157	4.77	1.23
To Refuse Dump	4.9	1.5	0.7	0.9	0.45	0.45	5	47	157	5.22	1.34
Endloader	4.9	1.5	0.7	0.9	0.45	0.45	5	150	157	8.80	2.26
Lime	4.9	1.5	0.7	0.9	0.45	0.45	5	33	157	4.45	1.14

Emission Unit ID	Description	Trips per Hour	Tons per Truck	Trips per Year	VMT per Trip	Control		Emission Factor		PM Emissions		PM <sub>10</sub> Emissions	
						Device	Efficiency (%)	PM	PM <sub>10</sub>	Uncontrolled	Controlled	Uncontrolled	Controlled
								(lb/VMT)	(lb/VMT)	TPY	TPY	TPY	TPY
UPR1	Yard Haulroad	20	33	130303	1	WS	70	4.77	1.23	155.41	46.62	39.93	11.98
UPR2	Refuse	10	50	45000	0.5	WS	70	5.22	1.34	58.71	17.61	15.09	4.53
UPR3	Refuse	Included in UPR2			1								
UPR4	Endloader	1	--	8760	1	WS	70	8.80	2.26	38.53	11.56	9.90	2.97
UPR5	Limestone	2	22	9955	0.5	WS	70	4.45	1.14	11.08	3.32	2.85	0.85
UPR6	Refuse	1	80	125	0.5	WS	70	5.22	1.34	0.16	0.05	0.04	0.01
PVD1	Limestone	2.27	22	9955	0.5	WS	70	23.34	4.55	58.08	17.42	11.33	3.40
									TOTALS	321.96	96.59	79.14	23.74



# Attachment I-6

## Emissions Calculations

### Thermal Dryer

#### Thermal Dryer Burning Natural Gas:

Pollutant	Natural Gas Annual Usage (1000 ft3)	Control		Emission Factor (lb/MCF)	Emissions	
		Device	Efficiency (%)		Uncontrolled	Controlled
					TPY	TPY
NO <sub>x</sub>	103,059	MC+WS	10	0.1	5.15	4.64
CO	103,059	MC+WS	0	0.084	4.33	4.33
VOC	103,059	MC+WS	0	0.0055	0.28	0.28
Methane	103,059	MC+WS	0	0.0023	0.12	0.12
SO <sub>2</sub>	103,059	MC+WS	70	0.0006	0.03	0.009
PM <sub>10</sub>	103,059	MC+WS	99.55	0.0076	0.39	0.0018
PM	103,059	MC+WS	99.55	0.0076	0.39	0.0018

#### Source:

AP 42, Fifth Edition, Volume 1, Revised 11/2006

1.4.3 Emissions from Natural Gas Combustion

#### Thermal Dryer Burning Coal:

#### Combustion emissions + dryer emissions:

Pollutant	Coal Actual Feed Rate (ton/yr)	Control		Emission Factor (lb/ton)	Emissions	
		Device	Efficiency (%)		Uncontrolled	Controlled
	TPY			TPY		
NO <sub>x</sub>	3,010,000	MC+WS	10	0.16	240.80	216.72
CO	See below					
VOC	3,010,000	MC+WS	0	0.098	147.49	147.49
PM <sub>con</sub>	3,010,000	MC+WS	0	0.109	164.05	164.05
PM	3,010,000	MC+WS	99.55	26	39130	176.09
PM <sub>10</sub>	3,010,000	MC+WS	1	1	7826	114.46
PM <sub>2.5</sub>	3,010,000	MC+WS	1	1	2739	47.54

#### Source:

AP 42, Fifth Edition, Volume 1, Revised 11/2006

11.10 Coal Cleaning, Tables 11.10-1 and 11.10-2

# **Attachment I-6** **Emissions Calculations** **Thermal Dryer**

## **Combustion emissions:**

Pollutant	Coal Actual Burn Rate (ton/yr)	Control		Emission Factor (lb/ton)	Emissions	
		Device	Efficiency (%)		Uncontrolled TPY	Controlled TPY
CO	43,800	MC+WS	0	6	131.40	131.40
SO <sub>2</sub>	43,800	MC+WS	*	See Below	834.90	250.47
N <sub>2</sub> O	43,800	MC+WS	0	0.04	0.88	0.88

<sup>1</sup> PM Emissions based on Table 1.1-9 for particle size distribution for controlled and uncontrolled spreader stoker.

<sup>2</sup> Maximum design burn rate calculated from permit limit of 105 mmBtu/hr as:

$$105 \text{ mmBtu/hr} * (1 \text{ lb}/0.013 \text{ MMBtu}) * (1 \text{ ton}/2000 \text{ lb}) = 4 \text{ ton/hr}$$

Where Btu content of coal = 0.013 MMBtu/lb

## **Source:**

AP 42, Fifth Edition, Volume 1, Revised 11/2006

1.1 Bituminous and Subbituminous Coal Combustion

## **SO<sub>2</sub> Calculation Based on Analysis:**

Month	Operating Schedule (hours)	Coal Usage (tons)	Percent Control (%)	Percent Sulfur (%)	BTU Content (Btu/lb)	Emissions Uncontrolled (ppmv)	Emissions		Emissions	
							Uncontrolled (lb/hr)	Controlled (lb/hr)	Uncontrolled TPY	Controlled TPY
<b>Limit</b>						2000		56.85		249.00
Annual	8,760	43800	70	1.18%	13,000	143.03	190.62	57.18	834.90	250.47
							<b>TOTALS</b>		<b>834.90</b>	<b>250.47</b>

# Attachment I-7

## Emissions Calculations

### Thermal Dryer - HAP Emissions

#### Thermal Dryer Burning Natural Gas:

Pollutant	Natural Gas Annual Usage (1000 ft3)	Control		Emission Factor (lb/MCF)	Emissions	
		Device	Efficiency (%)		Uncontrolled	Controlled
					TPY	TPY
Formaldehyde	103,059	MC+WS	0	7.50E-05	0.0039	0.0039
Benzene	103,059	MC+WS	0	2.10E-06	1.08E-04	1.08E-04

#### Source:

AP 42, Fifth Edition, Volume 1, Revised 11/2006  
1.4.3 Emissions from Natural Gas Combustion

#### Thermal Dryer Burning Coal:

Pollutant	Coal Annual Usage (ton/yr)	Control		Emission Emission (lb/ton)	Emissions	
		Device	Efficiency (%)		Uncontrolled TPY	Controlled TPY
	PAH Haps					
Acenaphthene	43,800	MC+WS	0	5.10E-07	1.12E-05	1.12E-05
Acenaphthylene	43,800	MC+WS	0	2.50E-07	5.48E-06	5.48E-06
Acetaldehyde	43,800	MC+WS	0	5.70E-04	1.25E-02	1.25E-02
Acetophenone	43,800	MC+WS	0	1.50E-05	3.29E-04	3.29E-04
Acrolein	43,800	MC+WS	0	2.90E-04	6.35E-03	6.35E-03
Anthracene	43,800	MC+WS	0	2.10E-07	4.60E-06	4.60E-06
Benz(a)anthracene	43,800	MC+WS	0	8.00E-08	1.75E-06	1.75E-06
Benzene	43,800	MC+WS	0	1.30E-03	2.85E-02	2.85E-02
Benzo(a)pyrene	43,800	MC+WS	0	3.80E-08	8.32E-07	8.32E-07
Benzo(b,j,k)fluoranthene	43,800	MC+WS	0	1.10E-07	2.41E-06	2.41E-06
Benzo(g,h,i)perylene	43,800	MC+WS	0	2.70E-08	5.91E-07	5.91E-07
Biphenyl	43,800	MC+WS	0	1.70E-06	3.72E-05	3.72E-05
Chrysene	43,800	MC+WS	0	1.00E-07	2.19E-06	2.19E-06
Fluoranthene	43,800	MC+WS	0	7.10E-07	1.55E-05	1.55E-05
Fluorene	43,800	MC+WS	0	9.10E-07	1.99E-05	1.99E-05
Formaldehyde	43,800	MC+WS	0	2.40E-04	5.26E-03	5.26E-03
Hexane	43,800	MC+WS	0	6.70E-05	1.47E-03	1.47E-03
Indeno(1,2,3-cd)pyrene	43,800	MC+WS	0	6.10E-08	1.34E-06	1.34E-06
Naphthalene	43,800	MC+WS	0	1.30E-05	2.85E-04	2.85E-04
Phenanthrene	43,800	MC+WS	0	2.70E-06	5.91E-05	5.91E-05
Pyrene	43,800	MC+WS	0	3.30E-07	7.23E-06	7.23E-06
VOC HAPs						
Benzyl chloride	43,800	MC+WS	0	7.00E-04	1.53E-02	1.53E-02
Bis(2-ethylhexyl)phthalate	43,800	MC+WS	0	7.30E-05	1.60E-03	1.60E-03
Bromoform	43,800	MC+WS	0	3.90E-05	8.54E-04	8.54E-04
Carbon disulfide	43,800	MC+WS	0	1.30E-04	2.85E-03	2.85E-03
2-Chloroacetophenone	43,800	MC+WS	0	7.00E-06	1.53E-04	1.53E-04
Chlorobenzene	43,800	MC+WS	0	2.20E-05	4.82E-04	4.82E-04
Chloroform	43,800	MC+WS	0	5.90E-05	1.29E-03	1.29E-03
Cumene	43,800	MC+WS	0	5.30E-06	1.16E-04	1.16E-04
Cyanide	43,800	MC+WS	0	2.50E-03	5.48E-02	5.48E-02
2,4-Dinitroluene	43,800	MC+WS	0	2.80E-07	6.13E-06	6.13E-06
Dimethyl sulfate	43,800	MC+WS	0	4.80E-05	1.05E-03	1.05E-03
Ethyl benzene	43,800	MC+WS	0	9.40E-05	2.06E-03	2.06E-03
Ethyl chloride	43,800	MC+WS	0	4.20E-05	9.20E-04	9.20E-04
Ethylene dichloride	43,800	MC+WS	0	4.00E-05	8.76E-04	8.76E-04

**Attachment I-7**  
**Emissions Calculations**  
**Thermal Dryer - HAP Emissions**

Pollutant	Coal Annual Usage (ton/yr)	Control		Emission	Emissions	
		Device	Efficiency (%)	Emission (lb/ton)	Uncontrolled	Controlled
	TPY				TPY	
Etyhlene dibromide	43,800	MC+WS	0	1.20E-06	2.63E-05	2.63E-05
Isophorone	43,800	MC+WS	0	5.80E-04	1.27E-02	1.27E-02
Methyl bromide	43,800	MC+WS	0	1.60E-04	3.50E-03	3.50E-03
Methyl chloride	43,800	MC+WS	0	5.30E-04	1.16E-02	1.16E-02
Methyl hydrazine	43,800	MC+WS	0	1.70E-04	3.72E-03	3.72E-03
Methyl methacrylate	43,800	MC+WS	0	2.00E-05	4.38E-04	4.38E-04
Methyl tert butyl ether	43,800	MC+WS	0	3.50E-05	7.67E-04	7.67E-04
Methylene chloride	43,800	MC+WS	0	2.90E-04	6.35E-03	6.35E-03
Phenol	43,800	MC+WS	0	1.60E-05	3.50E-04	3.50E-04
Propionaldehyde	43,800	MC+WS	0	3.80E-04	8.32E-03	8.32E-03
Styrene	43,800	MC+WS	0	2.50E-05	5.48E-04	5.48E-04
Tetrachloroethylene	43,800	MC+WS	0	4.30E-05	9.42E-04	9.42E-04
1,1,1 - Trichloroethane	43,800	MC+WS	0	2.00E-05	4.38E-04	4.38E-04
Toluene	43,800	MC+WS	0	2.40E-04	5.26E-03	5.26E-03
Xylenes	43,800	MC+WS	0	3.70E-05	8.10E-04	8.10E-04
Vinyl aceate	43,800	MC+WS	0	7.60E-06	1.66E-04	1.66E-04
Metal HAPs						
Antimony	43,800	MC+WS	0	1.80E-05	3.94E-04	3.94E-04
Arsenic	43,800	MC+WS	0	4.10E-04	8.98E-03	8.98E-03
Beryllium	43,800	MC+WS	0	2.10E-05	4.60E-04	4.60E-04
Cadmium	43,800	MC+WS	0	5.10E-05	1.12E-03	1.12E-03
Chromium	43,800	MC+WS	0	2.60E-04	5.69E-03	5.69E-03
Chromium (VI)	43,800	MC+WS	0	7.90E-05	1.73E-03	1.73E-03
Cobalt	43,800	MC+WS	0	1.00E-04	2.19E-03	2.19E-03
Lead	43,800	MC+WS	0	4.20E-04	9.20E-03	9.20E-03
Manganese	43,800	MC+WS	0	4.90E-04	1.07E-02	1.07E-02
Mercury	43,800	MC+WS	0	8.30E-05	1.82E-03	1.82E-03
Nickel	43,800	MC+WS	0	2.80E-04	6.13E-03	6.13E-03
Selenium	43,800	MC+WS	0	1.30E-03	2.85E-02	2.85E-02
Others HAPs						
Hydrofluoric Acid	43,800	MC+WS		0.15	3.29	3.29
Hydrochloric Acid	43,800	MC+WS		1.2	26.28	26.28
Total PCDD/PCDF	43,800	MC+WS		1.76E-09	3.85E-08	3.85E-08
			TOTAL HAPS		29.84	29.84

Maximum Potential Throughputs

	Operating Schedule	Raw Coal Conveyor C-1 T5	Lime Conveyor C-19 T50	Coal Usage	Gas Usage	Raw Coal to Prep Plant T19	Clean Coal to Thermal Dryer T30	Clean Coal to Loadout T36	Refuse to Loadout/ Embankment T44	Refuse Generated at Rotary Breaker (T20A)	Raw Coal Placed in Stockpile Clean Coal Side (T37)	Raw Coal Placed in Stockpile OS1 (T38)	Raw Coal Fed to Crusher from Clean Coal Stockpile Area (T15)	Clean Coal Reclaimed from Clean Coal Stockpile Area (T51)	Clean Coal Loaded Directly to Railcar (T34)
	(hours)	(tons)	(tons)	(tons)	(1000 ft3)	(tons)	(tons)	(tons)	(tons)	(tons)	(tons)	(tons)	(tons)	(tons)	(tons)
Totals	8,760	4,300,000	219,000	43,800	103,059	4,300,000	3,010,000	3,010,000	2,250,000	1,075,000	4,300,000	4,300,000	4,300,000	3,010,000	3,010,000