

**TITLE V RENEWAL APPLICATION
FOR
KEYSTONE NO. 1
COAL PREPARATION PLANT
PERMIT NO. R30-04700008-2006**

Prepared for:

Second Sterling Corporation

PO Box 1085
Beckley, West Virginia 25802

Prepared by:

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Project No. 0101-11-0196

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POTESTA

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SECTION I
GENERAL FORMS



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF AIR QUALITY

601 57th Street SE
Charleston, WV 25304
Phone: (304) 926-0475

www.dep.wv.gov/daq

INITIAL/RENEWAL TITLE V PERMIT APPLICATION - GENERAL FORMS

Section 1: General Information

Form with 10 numbered sections: 1. Name of Applicant, 2. Facility Name or Location, 3. DAQ Plant ID No., 4. Federal Employer ID No. (FEIN), 5. Permit Application Type, 6. Type of Business Entity, 7. Is the Applicant the, 8. Number of onsite employees, 9. Governmental Code, 10. Business Confidentiality Claims.

11. Mailing Address		
Street or P.O. Box: P.O. Box 1085		
City: Beckley	State: WV	Zip: 25802-
Telephone Number: (304) 252-8528	Fax Number: (304) 252-6283	

12. Facility Location		
Street: Route 52	City: Keystone	County: McDowell
UTM Easting: 460.328 km	UTM Northing: 4141.305 km	Zone: <input checked="" type="checkbox"/> 17 or <input type="checkbox"/> 18
Directions: Take I64E/ I77S to Princeton, WV. Turn west on Route 260 to Bluefield, WV. Turn west on Route 52 and go to Keystone, WV. At Keystone, turn right on Bridge Street, cross railroad tracks, then turn right towards plant.		
Portable Source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Is facility located within a nonattainment area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, for what air pollutants?	
Is facility located within 50 miles of another state? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, name the affected state(s). Virginia Kentucky	
Is facility located within 100 km of a Class I Area ¹ ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, name the area(s).	
If no, do emissions impact a Class I Area ¹ ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
¹ 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.		

13. Contact Information		
Responsible Official: Frank Kirby		Title: Director of Engineering, Acquisitions, and Development
Street or P.O. Box: P.O. Box 1085		
City: Beckley	State: WV	Zip: 25802
Telephone Number: (304) 252-8528	Fax Number: (304) 252-6283	
E-mail address: fkirby@bluestoneindustries.com		
Environmental Contact: Butch Stallard		Title: Chief Environmental Engineer
Street or P.O. Box: P.O. Box 1085		
City: Beckley	State: WV	Zip: 25802
Telephone Number: (304) 252-8528	Fax Number: (304) 252-6283	
E-mail address: bstallard@bluestoneindustries.com		
Application Preparer: Christopher Schultz		Title: Scientist
Company: Potesta & Associates, Inc.		
Street or P.O. Box: 7012 MacCorkle Avenue, S.E.		
City: Charleston	State: WV	Zip: 25304
Telephone Number: (304) 342-1400	Fax Number: (304) 343-9031	
E-mail address: ccschultz@potesta.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 Plant with Thermal Dryer.	Cleaned/ Processed Coal.	212111	1221

Provide a general description of operations.

The Keystone No. 1 Preparation Plant has the ability to screen, crush/ size, wash, store and load in/ out coal.

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 type="checkbox"/> SIP	<input type="checkbox"/> FIP
<input checked="" type="checkbox"/> Minor source NSR (45CSR13)	<input type="checkbox"/> PSD (45CSR14)
<input type="checkbox"/> NESHAP (45CSR15)	<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 _x Annual Trading Program (45CSR39)	<input type="checkbox"/> CAIR NO _x Ozone Season Trading Program (45CSR40)
<input type="checkbox"/> CAIR SO ₂ 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>45CSR§10-5 The thermal dryer is not defined as a refinery process gas stream or any other process gas stream that contains hydrogen sulfides to be combusted.</p>
<input checked="" type="checkbox"/> 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).

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement
1	45CSR§6-3.1.	3.1.1.	Open Burning	The open burning of refuse by any person, firm, corporation, association or public agency is prohibited except as noted in 45CSR§6-3.1.
2	45CSR§6-3.2.	3.1.2.	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, suffer, allow or permit 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.
3	40CFR61 and 45CSR15	3.1.3.	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). A copy of this notice is required to be sent to the USEPA, the Division of Waste Management and the Bureau for Public Health -Environmental Health.
4	45CSR§4-3.1 State Enforceable only.	3.1.4.	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.
5	45CSR§11-5.2.	3.1.5.	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.
6	WV Code §22-5-4(a)(14)	3.1.6.	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.
7	40CFR82 Subpart F	3.1.7.	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.
8	40CFR68	3.1.8.	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.
9	45CSR§5-3.4; 45CSR13, R13-0308D, B.1, B.2	3.1.9.	Opacity	No person shall cause, suffer, allow or permit emission of particulate matter into the open air from any fugitive dust control system which is twenty percent (20%) opacity or greater.

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).

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement
10	45CSR§5-6.1; 45CSR13, R13-0308D, B.1, B.2	3.1.10.	Fugitive Dust Control	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. All fugitive dust control systems shall remain functional year-round, to the maximum extent practicable, including winter months and cold weather.
11	45CSR§5-6.2; 45CSR13, R13-0308D, B.1, B.2	3.1.11.	Dust Control, Good Operating Practices	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.
12	45CSR13, R13-0308D, C.3.	3.1.12.	Facility Constructed and Operated in Accordance with Permit Application	The permitted facility shall be constructed and operated in accordance with information filed in Permit Application R13-0308, R13-0308A, R13-0308B, R13-0308C, R13-0308D, and any 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.
13	45CSR13, R13-1142, General Requirements (2)	3.1.13.	Facility Constructed and Operated in Accordance with Permit Application	The permitted facility shall be constructed and operated in accordance with information filed in WVACC Permit Application No. 1142. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to.
14	45CSR§30-5.1.c.	3.2.1.	Monitoring, Recordkeeping, Reporting	<p>The permittee shall conduct monitoring/recordkeeping/reporting as follows [Not required for open stockpile (ST-1, ST-8, ST-9, ST-10), Refuse Disposal Area and haulroads (HRA, HRB, and HRC)]: (NOTE: See Section 4.0. for the Thermal Dryer Unit Requirements).</p> <p>a. Visible emissions evaluation shall be conducted for each affected source at least once every consecutive 12-month period in accordance with 40 C.F.R. 60 Appendix A, Method 9. This annual evaluation shall consist of a minimum of 24 consecutive observations for each emission unit.</p> <p>b. Each emissions unit with a visible emissions limit contained in this permit shall be observed visually at least each calendar week during periods of normal facility operation for a sufficient time interval determined by conducting 40 C.F.R. 60 Appendix A Method 22-like visible emission checks. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 C.F.R. Part 60, Appendix A, Method 22 or from the lecture portion of the 40 C.F.R. Part 60, Appendix A, Method 9 certification course.</p> <p>If visible emissions from any of the emissions units are observed during these weekly observations, or at any other time, that appear to exceed 50 percent of the allowable visible emission requirement for the emission unit, visible emissions evaluations in accordance with 40 C.F.R. 60 Appendix A, Method 9 shall be conducted as soon as practicable, but no later than one (1) month from the time of the observation. A Method 9 evaluation shall not be required under condition Section 3.2.1.a. if the visible emissions condition is corrected in a timely manner; the emissions unit is operating at normal operating conditions; and, the cause and corrective measures taken are recorded.</p>

Permit Shield

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	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement
14	45CSR§30-5.1.c. CONTINUED	3.2.1.	Monitoring, Recordkeeping, Reporting	<p>c. If the visible emissions evaluation indicates visible emissions in excess of 50 percent of the allowable visible emissions requirement for a given emission unit, a visible emissions evaluation shall be performed for that unit at least once every consecutive 14-day period in accordance with 40 C.F.R. 60 Appendix A, Method 9. If subsequent visible emissions evaluations indicate visible emissions less than or equal to 50 percent of the allowable visible emissions requirement for the emission unit for 3 consecutive evaluation periods, the emission unit may comply with the visible emissions testing requirements of condition 3.2.1.b. in lieu of those established in this condition.</p> <p>d. A record of each visible emissions observation shall be maintained, including any data required by 40 C.F.R. 60 Appendix A, Method 22 or Method 9, whichever is appropriate. The record shall include, at a minimum, the date, time, name of the emission unit, the applicable visible emissions requirement, the results of the observation, and the name of the observer. Records shall be maintained on site for a period of no less than five (5) years stating any maintenance or corrective actions taken as a result of the weekly inspections, and the times the fugitive dust control system(s) are inoperable and any corrective actions taken.</p>
15	45CSR§30-5.1.c.	3.2.2.	Inspection of Fugitive Dust Control Systems	The permittee shall 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 nonscheduled maintenance. 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 monthly inspections, and the times the fugitive dust control system(s) are inoperable and any corrective actions taken.
16	WV Code § 22-5-4(a)(15) and 45CSR13	3.3.1.	Stack Testing	<p>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:</p> <p>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.</p> <p>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.</p>

Permit Shield

20. Facility-Wide Applicable Requirements

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	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement
16	WV Code § 22-5-4(a)(15) and 45CSR13 CONTINUED	3.3.1.	Stack Testing	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.
17	45CSR§30-5.1.c.2.A.	3.4.1.	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.
18	45CSR§30-5.1.c.2.B.	3.4.2.	Records Retention	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.
19	45CSR§30-5.1.c. State-Enforceable only.	3.4.3.	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.
20	45CSR§30-5.1.c	3.4.4.	Dust Suppressants	The permittee shall maintain daily records indicating the use of any dust suppressants or any other suitable dust control measures applied at the facility. These records shall be maintained on site for a period of no less than five (5) years.
21	45CSR§§30-4.4. and 5.1.c.3.D.	3.5.1.	Responsible Official	Any application form, report, or compliance certification required by this permit to be submitted to the 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.
22	45CSR§30-5.1.c.3.E.	3.5.2.	Confidential Information	A permittee may request confidential treatment for the submission of reporting required under 45CSR§30-5.1.c.3. pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.

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).

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement
23	NA	3.5.3.	Addresses	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 57th Street SE Charleston, WV 25304 Phone: 304/926-0475 FAX: 304/926-0478 If to the US EPA: Associate Director Office of Enforcement and Permits Review (3AP12) U. S. Environmental Protection Agency Region III 1650 Arch Street Philadelphia, PA 19103-2029
24	45CSR§30-8.	3.5.4.	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.
25	45CSR§30-5.3.e	3.5.5.	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 permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification.
26	45CSR§30-5.1.c.3.A	3.5.6.	Semi Annual Monitoring Reports	The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before 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 45CSR§30-4.4.
27	NA	3.5.7.	Emergencies	For reporting emergency situations, refer to Section 2.17 of this permit.
28	45CSR§30-5.1.c.3.C. 45CSR§30-5.1.c.3.B.	3.5.8.	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: 1. Any deviation resulting from an emergency or upset condition, as defined in 45CSR§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 45CSR§30-5.7. 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 deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.

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).

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement
28	45CSR§30-5.1.c.3.C. 45CSR§30-5.1.c.3.B. CONTINUED	3.5.8.	Deviations	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. b. The permittee shall, in the reporting of deviations from permit requirements, including those attributable to upset conditions as defined in this permit, report the probable cause of such deviations and any corrective actions or preventive measures taken in accordance with any rules of the Secretary.
29	45CSR§30-4.3.h.1.B.	3.5.9.	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 requirement.
30	NA	3.6.1.	Compliance Plan	None
31	NA	3.7.1.	Permit Shield	The permittee is hereby granted a permit shield in accordance with 45CSR§30-5.6. The permit shield applies provided the permittee operates in accordance with the information contained within this permit.
32	NA	3.7.2	Permit Shield	The following requirements specifically identified are not applicable to the source based on the determinations set forth below. The permit shield shall apply to the following requirements provided the conditions of the determinations are met. 45CSR§10-5. (08/31/2000) The thermal dryer is not defined as a refinery process gas stream or any other process gas stream that contains hydrogen sulfides to be combusted

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.)

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Method of Compliance
1	45CSR§6-3.1.	3.1.1.	Open Burning	NA. Facility does not conduct open burning.
2	45CSR§6-3.2.	3.1.2.	Open Burning Exemptions	NA
3	40CFR61 and 45CSR15	3.1.3.	Asbestos	Inspection will occur as required.
4	45CSR§4-3.1 State Enforceable only.	3.1.4.	Odor	Recordkeeping of complaints.
5	45CSR§11-5.2.	3.15.	Standby Plan for Reducing Emissions	When requested.
6	WV Code §22-5-4(a)(14)	3.1.6.	Emission Inventory	Reporting.
7	40CFR82 Subpart F	3.1.7.	Ozone-depleting Substances	Requirement to follow: a. 40CFR §§ 82.154 & 82.156; b. 40CFR § 82.158; c. 40CFR § 82.161.
8	40CFR68	3.1.8.	Risk Management Plan	Submission if required.
9	45CSR§5-3.4; 45CSR13, R13-0308D, B.1, B.2	3.1.9.	Opacity	Opacity testing and monitoring will be conducted as required to maintain compliance with the applicable standard.
10	45CSR§5-6.1; 45CSR13, R13-0308D, B.1, B.2	3.1.10.	Fugitive Dust Control	Fugitive dust will be controlled in accordance with the information contained within the permit applications and required by the permit.
11	45CSR§5-6.2; 45CSR13, R13-0308D, B.1, B.2	3.1.11.	Dust Control, Good Operating Practices	Dust control will be maintained. Good operating practices will be followed.
12	45CSR13, R13-0308D, C.3.	3.1.12.	Facility Constructed and Operated in Accordance with Permit Application	Facility will be constructed and operated in accordance with the permit applications.
13	45CSR13, R13-1142, General Requirements (2)	3.1.13.	Facility Constructed and Operated in Accordance with Permit Application	Facility will be constructed and operated in accordance with the permit application.
14	45CSR§30-5.1.c.	3.2.1.	Monitoring, Recordkeeping, Reporting	The facility will monitor, keep records, and report as required by this section.
15	45CSR§30-5.1.c.	3.2.2.	Inspection of Fugitive Dust Control Systems	Inspections shall be conducted and records kept ensuring compliance with this section.
16	WV Code § 22-5-4(a)(15) and 45CSR13	3.3.1.	Stack Testing	Facility will stack test as required by the permit.
17	45CSR§30-5.1.c.2.A.	3.4.1.	Monitoring Information	Records of monitoring will include the required information.
18	45CSR§30-5.1.c.2.B.	3.4.2.	Records Retention	Monitoring records and support information will be kept for 5 years.
19	45CSR§30-5.1.c. State-Enforceable only.	3.4.3.	Odors	A record of odor complaints, investigations, and responses will be kept.
20	45CSR13, R13-0308D, A.5; 45 CSR§30.5.1.c	3.4.4.	Dust Suppressants	A record of dust suppressant use will be kept.

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.)

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Method of Compliance
21	45CSR§§30-4.4. and 5.1.c.3.D.	3.5.1.	Responsible Official	Certifications will be by a Responsible Official.
22	45CSR§30-5.1.c.3.E.	3.5.2.	Confidential Information	Confidential requests will be made as required by this section.
23	NA	3.5.3.	Addresses	NA
24	45CSR§30-8.	3.5.4.	Certified Emissions Statement	Facility will submit a Certified Emissions Statement and pay fees.
25	45CSR§30-5.3.e	3.5.5.	Compliance Certification	Compliance certifications will be submitted.
26	45CSR§3c.5.1.c.3.A	3.5.6.	Semi Annual Monitoring Reports	Semi annual monitoring reports will be submitted.
27	NA	3.5.7.	Emergencies	The facility will refer to Section 2.17 for reporting emergencies.
28	45CSR§30-5.1.c.3.C. 45CSR§30-5.1.c.3.B.	3.5.8.	Deviations	The facility will promptly submit supplemental reports and notices as required.
29	45CSR§30-4.3.h.1.B.	3.5.9.	New Applicable Requirements	The facility will comply with new applicable requirements.
30	NA	3.6.1.	Compliance Plan	NA
31	NA	3.7.1.	Permit Shield	NA
32	NA	3.7.2.	Permit Shield	NA

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>
R13-0308E	Pending	
CO-R30-E-2010-4	03/25/2010	
R13-0308D	07/14/2006	
R30-04700008-2006	10/17/2006	
CO-R13-E-2003-21	06/13/2003	
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22. Inactive Permits/Obsolete Permit Conditions

Permit Number	Date of Issuance	Permit Condition Number
R13-0308C	10/21/2004	
R13-0308B	12/03/2003	
R13-0308A	08/27/2002	
G10-B015	09/22/1999	
R13-1142	09/21/1989	
R13-0308	06/16/1977	
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Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year]	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	43.5
Nitrogen Oxides (NO _x)	140.1
Lead (Pb)	NA
Particulate Matter (PM _{2.5}) ^{1,3}	40.90 (40.62)
Particulate Matter (PM ₁₀) ¹	272.64 (270.77)
Total Particulate Matter (TSP)	572.53 (568.62)
Sulfur Dioxide (SO ₂)	44.1
Volatile Organic Compounds (VOC)	103.5
Hazardous Air Pollutants ²	Potential Emissions
Total HAP (See Attachment I for speciated list)	0.06
Regulated Pollutants other than Criteria and HAP	Potential Emissions

¹PM_{2.5} and PM₁₀ are components of TSP.
²For 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

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

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 checked="" type="checkbox"/>	22. Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.
<input type="checkbox"/>	23. Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.
<input checked="" type="checkbox"/>	24. Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
<input checked="" type="checkbox"/>	25. Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
<input checked="" type="checkbox"/>	26. Fire suppression systems.
<input checked="" type="checkbox"/>	27. Firefighting equipment and the equipment used to train firefighters.
<input checked="" type="checkbox"/>	28. Flares used solely to indicate danger to the public.
<input checked="" type="checkbox"/>	29. Fugitive emission related to movement of passenger vehicle provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.
<input type="checkbox"/>	30. Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.
<input checked="" type="checkbox"/>	31. Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.
<input type="checkbox"/>	32. Humidity chambers.
<input checked="" 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 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.
<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

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

25. Equipment Table
Fill out the Title V Equipment Table and provide it as ATTACHMENT D .
26. Emission Units
For each emission unit listed in the Title V Equipment Table , fill out and provide an Emission Unit Form as ATTACHMENT E .
For each emission unit not in compliance with an applicable requirement, fill out a Schedule of Compliance Form as ATTACHMENT F .
27. Control Devices
For each control device listed in the Title V Equipment Table , fill out and provide an Air Pollution Control Device Form as ATTACHMENT G .
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 Compliance Assurance Monitoring (CAM) Form(s) for CAM applicability. Fill out and provide these forms, if applicable, for each Pollutant Specific Emission Unit (PSEU) as ATTACHMENT H .

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: Frank Kirby

Title: Director of Engineering, Acquisitions, and Development

Responsible official's signature:

Signature: _____

Signature Date: _____

4/14/11

(Must be signed and dated in blue ink)

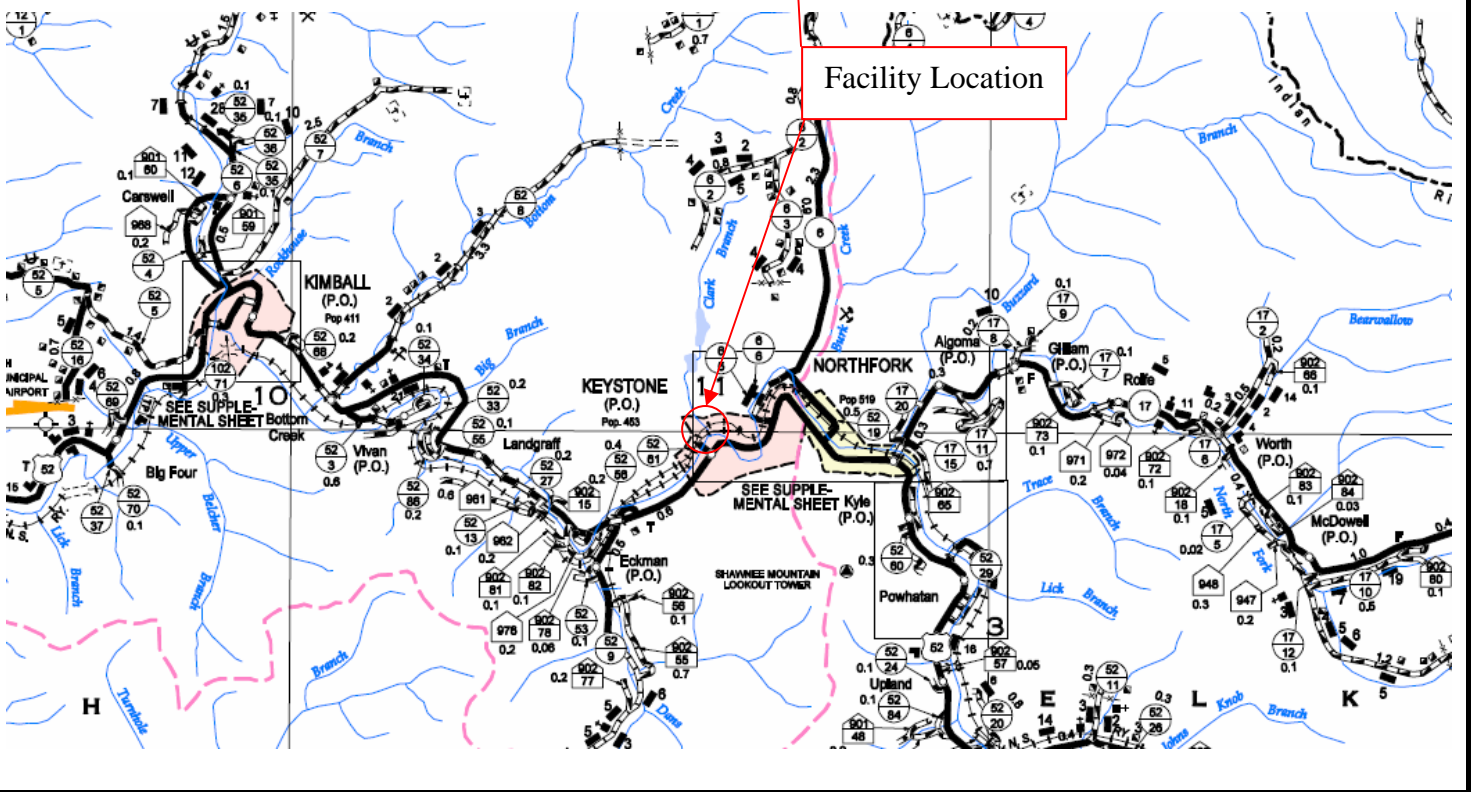
Note: Please check all applicable attachments included with this permit application:

<input checked="" type="checkbox"/>	ATTACHMENT A: Area Map
<input checked="" type="checkbox"/>	ATTACHMENT B: Plot Plan(s)
<input checked="" type="checkbox"/>	ATTACHMENT C: Process Flow Diagram(s)
<input checked="" type="checkbox"/>	ATTACHMENT D: Equipment Table
<input checked="" type="checkbox"/>	ATTACHMENT E: Emission Unit Form(s)
<input type="checkbox"/>	ATTACHMENT F: Schedule of Compliance Form(s)
<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/daq, requested by phone (304) 926-0475, and/or obtained through the mail.

ATTACHMENT A

AREA MAP



7012 MacCorkle Avenue, S.E
 Charleston, West Virginia 25304
 Phone: (304) 342-1400
 Fax: (304) 343-9031

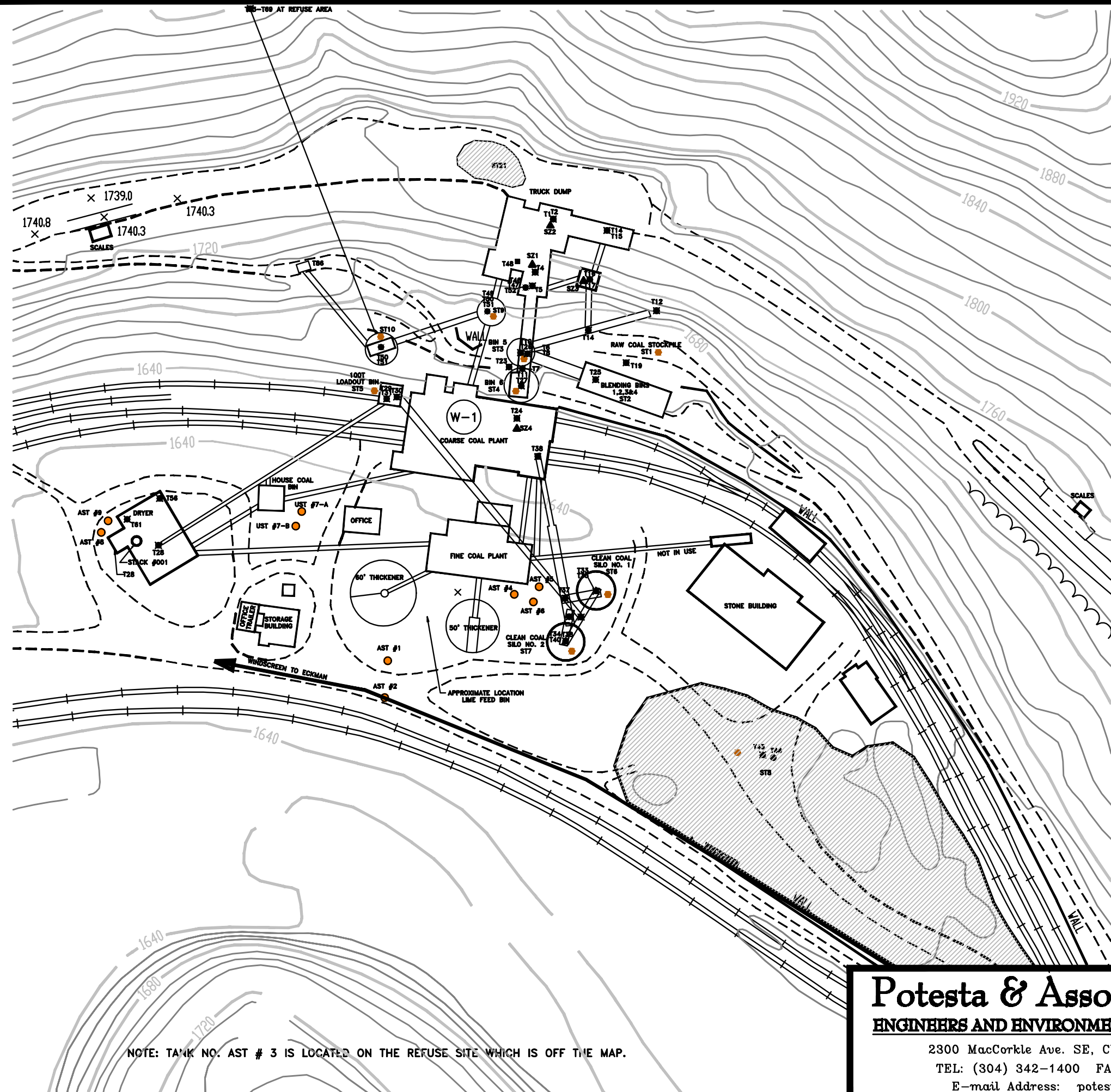
Second Sterling Corporation
Keystone No. 1 Coal Preparation Plant
 State Route 52 Keystone, West Virginia

ATTACHMENT B

PLOT PLAN

File: S:\C3D-Projects\09-0308-KEYSTONE\09-0308-02.dwg
 Plot Date/Time: Apr 08, 2010 - 2:56pm
 Plotted By: MBSankorf

09-0308
 B09-0308-02



- LEGEND**
- TRANSFER POINTS (COAL)
 - TRANSFER POINTS (REFUSE)
 - STORAGE STRUCTURES
 - ▲ SCREENS
 - CRUSHER
 - STORAGE TANKS
 - ▨ CLEAN COAL STOCKPILE

NOTE: TANK NO. AST # 3 IS LOCATED ON THE REFUSE SITE WHICH IS OFF THE MAP.

Potesta & Associates, Inc.
ENGINEERS AND ENVIRONMENTAL CONSULTANTS

2300 MacCorkle Ave. SE, Charleston, WV 25304
 TEL: (304) 342-1400 FAX: (304) 343-9031
 E-mail Address: potesta@potesta.com

Project
 PLOT PLAN- PREPARATION PLANT
 SECOND STERLING CORPORATION
 KEYSTONE NO.1 PREPARATION PLANT
 KEYSTONE, WEST VIRGINIA

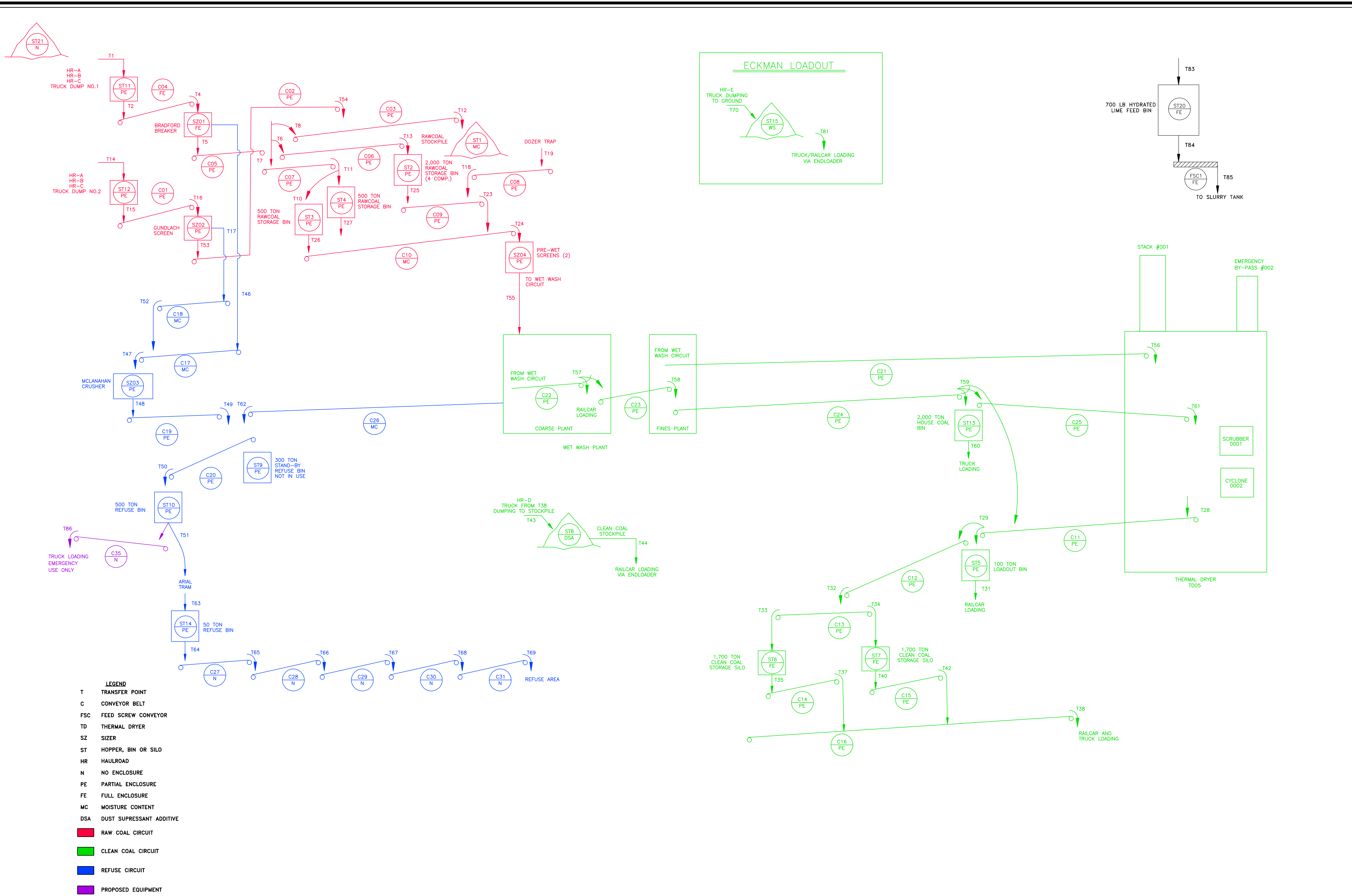
Scale NO SCALE
 Date DEC. 2009

Dwg. No.
 SS-T5-02

ATTACHMENT C

PROCESS FLOW DIAGRAM

File: \\S:\Projects\2011\09-0308-01\Process Flow Diagram.dwg
 Plot Date: 11/15/2011 10:51:11 AM
 Plotter: HP DesignJet 5000



Revision	
Date	
No.	
01	CAD File No.
MBS	Drawn
PEW	Checked
PEW	Approved
NOT TO SCALE	Scale:
DEC. 2009	Date:
09-0308	Project No.
Owner SECOND STERLING CORPORATION KEYSTONE NO. 1 PREPARATION PLANT KEYSTONE, WEST VIRGINIA	
Title PROCESS FLOW DIAGRAM	
Drawing No. 1	

Potesta & Associates, Inc.
 ENGINEERS AND ENVIRONMENTAL CONSULTANTS
 2300 MacCorkle Ave. SE, Charleston, WV 25304
 TEL: (804) 342-1400 FAX: (804) 343-9031
 E-Mail Address: potesta@potesta.com

ATTACHMENT D
EMISSION UNITS 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)
For R13-0308E Modification – RED = Modified, Gray = Removed

Emission Point ID ¹	Control Device ¹	Emission Unit ID ¹	Emission Unit Description	Design Capacity	Year Installed/ Modified
1E	PE	C01	Belt Conveyor	200 TPH	1952
2E	PE	C02	Belt Conveyor	200 TPH	1952
3E	PE	C03	Belt Conveyor	470 TPH	1952
4E	FE	C04	Belt Conveyor	450 TPH	1952
5E	PE	C05	Belt Conveyor	450 TPH	1952
6E	PE	C06	Belt Conveyor	450 TPH	1952
7E	PE	C07	Belt Conveyor	450 TPH	1952
8E	PE	C08	Belt Conveyor	350 (470) TPH	1952
9E	PE	C09	Belt Conveyor	350 (470) TPH	1952
10E	Moisture Content	C10	Belt Conveyor	350 (470) TPH	1952
11E	PE	C11	Belt Conveyor	290 TPH	1952
12E	PE	C12	Belt Conveyor	290 TPH	1990
13E	PE	C13	Belt Conveyor	290 TPH	1990
14E	PE	C14	Belt Conveyor	290 TPH	1990
15E	PE	C15	Belt Conveyor	290 TPH	1990
16E	PE	C16	Belt Conveyor	290 TPH	1990
17E	Moisture Content	C17	Belt Conveyor	200 TPH	1952
18E	Moisture Content	C18	Belt Conveyor	75 TPH	1952
19E	PE	C19	Belt Conveyor	200 TPH	1952
20E	PE	C20	Belt Conveyor	200 (400) TPH	1952
21E	PE	C21	Belt Conveyor	318.7 TPH	1997
22E	PE	C22	Belt Conveyor	40 TPH	1997
23E	PE	C23	Belt Conveyor	40 TPH	1997
24E	PE	C24	Belt Conveyor	40 TPH	1997

¹For 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 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 ¹	Control Device ¹	Emission Unit ID ¹	Emission Unit Description	Design Capacity	Year Installed/ Modified
25E	PE	C25	Belt Conveyor	40 TPH	1997
26E	Moisture	C26	Belt Conveyor	200 (300) TPH	2010
27E	N	C27	Belt Conveyor	400 TPH	1997
28E	N	C28	Belt Conveyor	400 TPH	1997
29E	N	C29	Belt Conveyor	400 TPH	1997
30E	N	C30	Belt Conveyor	400 TPH	1997
31E	N	C31	Belt Conveyor	400 TPH	1997
32E	N	C32	Belt Conveyor	1,000 TPH	2004
33E	N	C33	Belt Conveyor	1,000 TPH	2004
34E	N	C34	Belt Conveyor	1,000 TPH	2004
62E	FE	FSC1	Feed Screw Conveyor	0.025 TPH	2004
35E	FE	SZ01	Bradford Breaker	450 TPH	1952
36E	PE	SZ02	Gundlach Screen	200 TPH	1952
37E	PE	SZ03	McLanahan Crusher	200 TPH	1952
38E	PE	SZ04	Pre-Wet Wash Plant Screens (2)	350 (470) TPH	1952
#001 #002	Wet Cyclone Scrubber	TD05	Thermal Dryer	318.7 TPH	1977
40E	Moisture Content	ST1	Raw Coal Open Stockpile	5000 sq ft/ 5000 Ton	1952
41E	PE	ST2	Raw Coal Storage Bin	2000 Ton	1952
42E	PE	ST3	Raw Coal Storage Bin	500 Ton	1952
43E	PE	ST4	Raw Coal Storage Bin	500 Ton	1952
44E	PE	ST5	Rail Loadout Bin	100 Ton	1977
45E	FE	ST6	Clean Coal Storage Silo	1,700 Ton	1990
46E	FE	ST7	Clean Coal Storage Silo	1,700 Ton	1990
47E	Dust Suppressant Additive	ST8	Clean Coal Open Stockpile	52,605 sq ft/ 100,000 Ton	1984
48E	PE	ST9	Stand-By Refuse Bin	300 Ton	1952

¹For 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 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 ¹	Control Device ¹	Emission Unit ID ¹	Emission Unit Description	Design Capacity	Year Installed/Modified
49E	PE	ST10	Refuse Bin	500 Ton	1952
50E	PE	ST11	Truck Dump Hopper #1	80 Ton	1952
51E	PE	ST12	Truck Dump Hopper #2	30 Ton	1952
52E	PE	ST13	House Coal Bin	2,000 Ton	1952
53E	PE	ST14	Refuse Bin	50 Ton	1952
54E	WS	ST15	Eckman Loadout Open Stockpile	348,480 sq ft/	2004
55E	PE	ST16	Endloader Hopper	1,000,000 TPY	2004
56E	PE	ST17	Endloader Hopper	1,000,000 TPY	2004
57E	PE	ST18	Endloader Hopper	1,000,000 TPY	2004
58E	PE	ST19	Endloader Hopper	1,000,000 TPY	2004
59E	FE	ST20	Hydrated Lime Bin	0.35 Ton	2004
60E	WT	HR-A	Haulroad Activity	NA	1950
60E	WT	HR-B	Haulroad Activity	NA	1950
60E	WT	HR-C	Haulroad Activity	NA	1950
60E	WT	HR-D	Haulroad Activity	NA	1950
61E	Water	HR-E	Haulroad Activity	NA	2004
61E	Water	HR-F	Haulroad Activity	NA	2004
60E	WT	FE	Front Endloader Activity	NA	1950
63E	N	C35	Belt Conveyor	Emergency Use Only	2007
64E	N	ST21	Raw Coal Overflow Stockpile	1,000 tons	2007
65E	WT	HR-G	Emergency Refuse Trucking	NA	2007

¹For 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

Emission unit ID number: 001	Emission unit name: Transfer Points	List any control devices associated with this emission unit: Various
--	---	--

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Various transfers of raw coal, clean coal, and refuse.

Manufacturer: NA	Model number: NA	Serial number: NA
----------------------------	----------------------------	-----------------------------

Construction date: Various	Installation date: Various	Modification date(s): Various
--------------------------------------	--------------------------------------	---

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
Various. See Attachments D and I.

Maximum Hourly Throughput: Various. See Attachments D and I.	Maximum Annual Throughput: Various. See Attachments D and I.	Maximum Operating Schedule: 8,760 hours per year
--	--	--

Fuel Usage Data (fill out all applicable fields)

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

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

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

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})	0.80 (0.67)	1.34 (1.22)
Particulate Matter (PM ₁₀)	5.33 (4.45)	8.94 (8.13)
Total Particulate Matter (TSP)	11.18 (9.35)	18.78 (17.08)
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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

See Attachment I.

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.

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement
1	45CSR13, R13-0308D, B.1. and B.5., 45CSR16, 40 C.F.R § 60.11 (d), Transfer Points: T30, T32, T33, T34, T35, T36, T37, T38, T39, T40, T42	6.1.1.	Good air pollution control practice	At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility 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 Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
2	45CSR13, R13-0308D, A.5.	6.1.2.	Throughput	The throughput of coal into the wet wash system shall not exceed 350 (470) tons per hour nor 3,066,000 tons per year. Compliance with the annual throughput limit shall be determined using a rolling yearly total.
3	45CSR16, 40 C.F.R § 60.252 (c), 45CSR13, R13-0308D, B.1. and B.5.	6.1.5.	Opacity	On and after the date on which the performance test required to be conducted by 40 C.F.R. § 60.8 is completed, an owner or operator subject to the provisions of 40 C.F.R. Part 60 Subpart Y 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, gases which exhibit 20 percent opacity or greater.
4	45CSR13, R13-0308D, A.9.	6.1.6.	Throughputs	In accordance with the information filed in Permit Application R13-0308B and its amendments, the following maximum throughputs shall not be exceeded, and the following control equipment shall be installed, maintained, and operated so as to minimize emissions of pollutants: see Attachment I.
5	45CSR13, R13-0308D, B.1. and B.5., 45CSR16, 40 CFR §§ 60.11 (b) & (e) (1), Transfer Points: T30, T32, T33, T34, T35, T36, T37, T38, T39, T40, T42	6.3.1.	Opacity Testing	Compliance testing shall be determined by conducting observations in accordance with Reference Method 9 Appendix A of 40 CFR 60, any alternative method that is approved by the Administrator, or as provided in 40 CFR § 60.11. The minimum total time of the 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).
6	45CSR§30-5.1.c., 45CSR13, R13-0308D, B.9.	6.3.2.	Recordkeeping	For the purpose of determining compliance with the maximum limit set forth in Section 6.1.2. the applicant shall maintain certified daily and monthly records of the amount of coal throughput to the wet wash plant. Compliance with the hourly throughput limit shall be demonstrated by dividing the daily total throughput by the number of hours operated in the same day to obtain an hourly average. Compliance with all yearly throughput limits shall be determined using a rolling yearly total. A rolling yearly total shall mean the sum of raw coal throughput at any given time for the previous twelve (12) months. By the fifteenth day of each calendar month, the permittee shall calculate the rolling yearly total. Such records shall be retained by the permittee for at least five (5) years. Certified records shall be made available to the Director or his/her duly authorized representative upon request.

Permit Shield

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

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Method of Compliance
1	45CSR13, R13-0308D, B.1. and B.5., 45CSR16, 40 C.F.R § 60.11 (d), Transfer Points: T30, T32, T33, T34, T35, T36, T37, T38, T39, T40, T42	6.1.1.	Good air pollution control practice	Facility will use good air pollution control practices.
2	45CSR13, R13-0308D, A.5.	6.1.2.	Throughput	Facility will keep records as required by 6.3.2.
3	45CSR16, 40 C.F.R § 60.252 (c), 45CSR13, R13-0308D, B.1. and B.5.	6.1.5.	Opacity	Facility will conduct opacity observations as required by the permit.
4	45CSR13, R13-0308D, A.9.	6.1.6.	Throughputs	Compliance with the requirement of 6.1.2. by the method listed in 6.3.2 ensures compliance of 6.1.6.
5	45CSR13, R13-0308D, B.1. and B.5., 45CSR16, 40 CFR §§ 60.11 (b) & (e) (1), Transfer Points: T30, T32, T33, T34, T35, T36, T37, T38, T39, T40, T42	6.3.1.	Opacity Testing	Facility will opacity test as required.
6	45CSR§30-5.1.c., 45CSR13, R13-0308D, B.9.	6.3.2.	Recordkeeping	Records will be kept and calculations performed as required.

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

Emission unit ID number: 002	Emission unit name: SZ02 Single Deck Screen SZ04 2 Pre-Wet Wash Screens	List any control devices associated with this emission unit: PE PE
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Typical coal screening operations.

Manufacturer: Gundlach/ Pre-Wet	Model number: NA	Serial number: NA
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Construction date: 1952	Installation date: 1952	Modification date(s): NA
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 200/350 (470) tph

Maximum Hourly Throughput: 200/350 (470) tph	Maximum Annual Throughput: 1,752,000 tpy/ 3,066,000 tpy	Maximum Operating Schedule: 8,760 hours per year
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Fuel Usage Data (fill out all applicable fields)

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

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})	1.96 (2.39)	5.48
Particulate Matter (PM ₁₀)	13.10 (15.95)	36.50
Total Particulate Matter (TSP)	27.50 (33.50)	76.65
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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

See Attachment I.

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.

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement
2	45CSR13, R13-0308D, A.9.	6.1.6.	Throughputs	In accordance with the information filed in Permit Application R13-0308B and its amendments, the following maximum throughputs shall not be exceeded, and the following control equipment shall be installed, maintained, and operated so as to minimize emissions of pollutants: see Attachment I.

Permit Shield

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

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Method of Compliance
2	45CSR13, R13-0308D, A.9.	6.1.6.	Throughputs	Compliance with the requirement of 6.1.2. by the method listed in 6.3.2. ensures compliance of 6.1.6.

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 003	Emission unit name: SZ01 Bradford Breaker SZ03 Crusher	List any control devices associated with this emission unit: FE PE
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Typical coal breaking and crushing operations.

Manufacturer: Bradford/ McLanahan	Model number: NA	Serial number: NA
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Construction date: 1952	Installation date: 1952	Modification date(s): NA
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 450/200 tph

Maximum Hourly Throughput: 450/200 tph	Maximum Annual Throughput: 3,942,000 TPH/ 1,752,000 tpy	Maximum Operating Schedule: 8,760 hours per year
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Fuel Usage Data (fill out all applicable fields)

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

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})	0.56	2.47
Particulate Matter (PM ₁₀)	3.71	16.48
Total Particulate Matter (TSP)	7.80	34.60
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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

See Attachment I.

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.

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement
1	45CSR13, R13-0308D, A.9.	6.1.6.	Throughputs	In accordance with the information filed in Permit Application R13-0308B and its amendments, the following maximum throughputs shall not be exceeded, and the following control equipment shall be installed, maintained, and operated so as to minimize emissions of pollutants: see Attachment I.

Permit Shield

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

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Method of Compliance
1	45CSR13, R13-0308D, A.9.	6.1.6.	Throughputs	Compliance with the requirement of 6.1.2. by the method listed in 6.3.2. ensures compliance of 6.1.6.

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 004	Emission unit name: Stockpiles ST1,ST8, ST15, ST21	List any control devices associated with this emission unit: Varies
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Typical coal stockpiling operations.

Manufacturer: NA	Model number: NA	Serial number: NA
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Construction date: Varies	Installation date: Varies	Modification date(s): Varies
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Varies. See Attachments D and I.

Maximum Hourly Throughput: Varies. See Attachments D and I.	Maximum Annual Throughput: Varies. See Attachments D and I.	Maximum Operating Schedule: 8,760 hours per year
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Fuel Usage Data (fill out all applicable fields)

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

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})	0.006	0.025
Particulate Matter (PM ₁₀)	0.038	0.165
Total Particulate Matter (TSP)	0.080	0.346
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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

See Attachment I.

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.

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement
1	45CSR13, R13-0308D, A.8.	6.1.4.	Fugitive Dust Control	The permittee shall install, operate and maintain a fugitive dust control system to prevent the generation of fugitive dust and to eliminate tracking of material from the site through the town of Keystone. This system shall include but not be limited to a new section of windscreen shall be installed at the former Loadout site, from Bridge Street to the nearby overpass bridge on Route US52. Said windscreen should be properly maintained including but not limited to the timely replacement or repair of any missing or damaged sections. Consistent with its status as a county road, the road leading from the bridge to the plant will not be considered to be part of the haulroad.
2	45CSR13, R13-0308D, A.9.	6.1.6.	Throughputs	In accordance with the information filed in Permit Application R13-0308B and its amendments, the following maximum throughputs shall not be exceeded, and the following control equipment shall be installed, maintained, and operated so as to minimize emissions of pollutants: see Attachment I.

Permit Shield

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

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Method of Compliance
1	45CSR13, R13-0308D, A.8.	6.1.4.	Fugitive Dust Control	Facility will operate and maintain fugitive dust control equipment.
2	45CSR13, R13-0308D, A.9.	6.1.6.	Throughputs	Compliance with the requirement of 6.1.2. by the method listed in 6.3.2 ensures compliance of 6.1.6.

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description			
Emission unit ID number: 005	Emission unit name: Haulroads	List any control devices associated with this emission unit: Varies	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Typical preparation plant haulroad activities.			
Manufacturer: NA	Model number: NA	Serial number: NA	
Construction date: Varies	Installation date: Varies	Modification date(s): Varies	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Varies. See Attachments D and I.			
Maximum Hourly Throughput: Varies. See Attachments D and I.	Maximum Annual Throughput: Varies. See Attachments D and I.	Maximum Operating Schedule: 8,760 hours per year	
Fuel Usage Data (fill out all applicable fields)			
Does this emission unit combust fuel? ___Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
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

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})	9.98	29.68
Particulate Matter (PM ₁₀)	66.55	197.85
Total Particulate Matter (TSP)	139.76	415.48
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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

See Attachment I.

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.

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement
1	45CSR13, R13-0308D, A.7.	6.1.3.	Water Truck	The permittee shall maintain a water truck on site (the term "on site" includes all areas subject to vehicular traffic at the plant site including the county road from the former "Eckman Loadout" site to Route US 52) and in good operating condition, and shall utilize same to apply 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 open stockpiles and 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 surface being treated. A freeze protection plan to insure the wet suppression system remains operational 8,760 hours a year shall be incorporated. The pump delivering the solution, shall be of sufficient size and capacity so as to be capable of delivering to the spray nozzle(s) an adequate quantity of solution, and at a sufficient pressure.
2	45CSR13, R13-0308D, A.8.	6.1.4.	Fugitive Dust Control	The permittee shall install, operate and maintain a fugitive dust control system to prevent the generation of fugitive dust and to eliminate tracking of material from the site through the town of Keystone. This system shall include but not be limited to a new section of windscreen shall be installed at the former Loadout site, from Bridge Street to the nearby overpass bridge on Route US52. Said windscreen should be properly maintained including but not limited to the timely replacement or repair of any missing or damaged sections. Consistent with its status as a county road, the road leading from the bridge to the plant will not be considered to be part of the haulroad.

Permit Shield

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

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Method of Compliance
1	45CSR13, R13-0308D, A.7.	6.1.3.	Water Truck	Recordkeeping as required in 3.4.4.
2	45CSR13, R13-0308D, A.8.	6.1.4.	Fugitive Dust Control	Facility will operate and maintain fugitive dust control equipment.

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

Emission unit ID number: 006	Emission unit name: TD05 Thermal Dryer	List any control devices associated with this emission unit: 0001 Flex Kleen Venturi Scrubber 0002 Flex Kleen Cyclone
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Unit thermally dries coal from the wet wash plant.

Manufacturer: ENI Engineering Company	Model number: Coal Flo # 7.5	Serial number: NA
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Construction date: 1977	Installation date: 1977	Modification date(s): NA
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 318.7 tph

Maximum Hourly Throughput: 318.7 tph	Maximum Annual Throughput: 2,199,030 tpy	Maximum Operating Schedule: 6,900 hours per year
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
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Maximum design heat input and/or maximum horsepower rating: 65,000,000 Btu/hour	Type and Btu/hr rating of burners: Bigelow Liptak Hot Air Furnace- 65,000,000 Btu/ hour
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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.
1 1/2 x 3/8 Stoker Coal at 2.5 tph.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
1 1/2 x 3/8 Stoker Coal	0.85%	10%	20,681,000 Btu/ Ton

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	12.6	43.5
Nitrogen Oxides (NO _x)	40.6	140.1
Lead (Pb)	NA	NA
Particulate Matter (PM _{2.5})	0.66	2.26
Particulate Matter (PM ₁₀)	4.38	15.10
Total Particulate Matter (TSP)	7.23	24.9
Sulfur Dioxide (SO ₂)	12.8	44.1
Volatile Organic Compounds (VOC)	30	103.5
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total HAPs	0.018	0.06
For speciated HAPs see Attachment I		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>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.).</p> <p>See Attachment I.</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.

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement																		
1	45CSR13, R13-0308D, A.1.	4.1.1.	Coal Sulfur	The sulfur content of the coal being used to fire the thermal dryer shall not exceed 0.85% on an as received basis.																		
2	45CSR13, R13-0308D, A.2.	4.1.2.	Coal Ash	The ash content of the coal being used to fire the thermal dryer shall not exceed 10% on an as received basis.																		
3	45CSR13, R13-0308D, A.3.	4.1.3.	Emission Limits	Emissions from the thermal dryer shall not exceed the following amounts: <table style="margin-left: auto; margin-right: auto;"> <tr> <td></td> <td>lb/hr</td> <td>tpy</td> </tr> <tr> <td>Carbon Monoxide</td> <td>12.6</td> <td>43.5</td> </tr> <tr> <td>Oxides of Nitrogen</td> <td>40.6</td> <td>140.1</td> </tr> <tr> <td>Particulate Matter</td> <td>7.23</td> <td>24.9</td> </tr> <tr> <td>Sulfur Dioxide</td> <td>12.8</td> <td>44.1</td> </tr> <tr> <td>Volatile Organic Compounds</td> <td>30</td> <td>103.5</td> </tr> </table>		lb/hr	tpy	Carbon Monoxide	12.6	43.5	Oxides of Nitrogen	40.6	140.1	Particulate Matter	7.23	24.9	Sulfur Dioxide	12.8	44.1	Volatile Organic Compounds	30	103.5
	lb/hr	tpy																				
Carbon Monoxide	12.6	43.5																				
Oxides of Nitrogen	40.6	140.1																				
Particulate Matter	7.23	24.9																				
Sulfur Dioxide	12.8	44.1																				
Volatile Organic Compounds	30	103.5																				
4	45CSR13, R13-0308D, A.4.	4.1.4.	Throughputs	Throughput into the thermal dryer shall not exceed 2,199,030 tons per year nor 318.7 tons per hour. Compliance with the annual throughput limit shall be determined using a rolling yearly total.																		
5	45CSR13, R13-0308D, A.6.	4.1.5.	Scrubber Influent	Emissions from the thermal dryer shall be controlled by a cyclone and a venturi scrubber. The rate of hydrated lime injected into the SO2 control system shall be sufficient so as to maintain the scrubber influent at a pH of at least 5.0.																		
6	45CSR16, 40 C.F.R. § 252 (a), 45CSR13, R13-0308D, B.1. and B.5.	4.1.6.	Particulate and Opacity	On and after the date on which the performance test required to be conducted by 40 C.F.R. § 60.8 is completed, an owner or operator subject to the provisions of 40 C.F.R. Part 60 Subpart Y shall not cause to be discharged into the atmosphere from any thermal dryer gases which: (1) Contain particulate matter in excess of 0.070 g/dscm (0.031 gr/dscf). (2) Exhibit 20 percent opacity or greater. Compliance with this streamlined limit assures compliance with the corresponding provisions of 45CSR§5-3.1 (Section 4.1.7.) and Section 4.1.3.																		
7	45CSR§5-3.1., 45CSR13, R13-0308D, B.1.	4.1.7.	Opacity	No person shall cause, suffer, allow or permit emission of particulate matter into the open air from any stack which is twenty percent (20%) opacity or greater.																		
8	45CSR§5-4.2. 45CSR13, R13-0308D, B.1.	4.1.8.	45CSR5 Circumvention	No person shall circumvent 45CSR5 by adding additional gas to any dryer exhaust or group of dryer exhausts for the purpose of reducing the grain loading.																		
9	45CSR§5-4.3., 45CSR13, R13-0308D, B.1.	4.1.9.	Stack Height	No person shall cause, suffer, allow or permit the exhaust gases from a thermal dryer to 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 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.																		
10	45CSR§10-4.1., 45CSR13, R13-0308D, B.1. and B.3.	4.1.10.	SO2 Stack Limit	No person shall cause, suffer, allow or permit the emission into the open air from any source operation an in-stack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in 45CSR§§10-4.1.a through 4.1.e.																		
11	45CSR13, R13-1142, A.1.	4.1.11.	Thermally Dried Coal	All thermally dried coal shall be loaded directly to railroad car or sent to fully enclosed storage bins for later loading into railroad car.																		
12	45CSR13, R13-1142, A.2.	4.1.12.	Thermally Dried Coal	No open stockpiling of thermally dried coal shall take place.																		

Permit Shield

Applicable Requirements CONTINUED

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	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement
13	45CSR§30-5.1.c.	4.2.1.	Monitoring, Recordkeeping, Reporting	<p>The permittee shall conduct monitoring/recordkeeping/reporting for the thermal dryer as follows</p> <p>a. A visible emissions evaluation shall be conducted for the thermal dryer unit(s) at least once every consecutive 12-month period in accordance with 40 C.F.R. 60 Appendix A, Method 9. This annual evaluation shall consist of a minimum of 24 consecutive observations for the thermal dryer unit(s).</p> <p>b. The thermal dryer unit(s) included in this permit shall be observed visually on a monthly basis during periods of normal facility operation for a sufficient time interval to determine if the unit has any visible emissions by conducting monthly Method 22-like visible emission checks. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 C.F.R. Part 60, Appendix A, Method 22 or from the lecture portion of the 40 C.F.R. Part 60, Appendix A, Method 9 certification course. If visible emissions from the thermal dryer unit(s) is observed during these monthly observations, or at any other time, that appear to exceed 50 percent of the allowable visible emission requirement for the thermal dryer unit(s), visible emissions evaluations in accordance with 40 C.F.R. 60 Appendix A, Method 9 shall be conducted as soon as practicable, but no later than fourteen (14) days from the time of the observation. A Method 9 evaluation shall not be required under condition Section 4.2.1.b if the visible emissions condition is corrected in a timely manner; the thermal dryer unit(s) is operating at normal operating conditions; and, the cause and corrective measures taken are recorded.</p> <p>c. If any visible emissions evaluation indicates visible emissions in excess of 50 percent of the allowable visible emissions requirement for a thermal dryer unit, a visible emissions evaluation shall be performed for that unit at least once every consecutive seven (7) day period in accordance with 40 C.F.R. 60 Appendix A, Method 9. If subsequent visible emissions evaluations indicate visible emissions less than or equal to 50 percent of the allowable visible emissions requirement for the thermal dryer unit for 3 consecutive evaluation periods, the thermal dryer may comply with the visible emissions testing requirements of Section 4.2.1.b in lieu of those established in this condition.</p> <p>d. 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.</p> <p>e. If any visible emissions evaluation performed in accordance with 40C.F.R.60 Appendix A, Method 9 indicates a visible emissions observation of twenty percent (20%) or greater, the minimum total time of the observations for that emission unit shall be sixty (60) minutes. This Section e. shall not apply if any visible emissions observation is sixty percent (60%) or greater.</p> <p>f. The thermal dryer unit(s) included in this permit shall be observed visually during periods of building a fire of operating quality and minimization efforts taken to ensure particulate matter emissions of sixty percent (60 %) opacity for a period of up to 8 minutes in any operating day is not exceeded during such activities.</p>

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Applicable Requirements CONTINUED

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	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement
14	45CSR§10-8.2.a.	4.2.2.	Director's Request for Monitoring	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 45CSR10. 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.
15	45CSR§10-8.2.b.	4.2.3.	SO2 Emission Rate	Prior to the installation of calibrated stack gas monitoring devices, sulfur dioxide emission rates shall be calculated on an equivalent fuel sulfur content basis.
16	45CSR§10-8.2.c.2.	4.2.4.	SO2 Monitoring Plan	The permittee shall follow the monitoring plan pursuant to 45CSR§10-8.2.c. See Appendix A.
17	45CSR16, 40 C.F.R. § 60.253 (a), 45CSR13, R13-0308D, B.1. and B.5.	4.2.5.	Monitoring Devices	The owner or operator of any thermal dryer shall install, calibrate, maintain, and continuously operate monitoring devices as follows: (1) A monitoring device for the measurement of the temperature of the gas stream at the exit of the thermal dryer on a continuous basis. The monitoring device is to be certified by the manufacturer to be accurate within $\pm 1.7^{\circ}\text{C}$ ($\pm 3^{\circ}\text{F}$). (2) For affected facilities that use venturi scrubber emission control equipment: (i) A monitoring device for the continuous measurement of the pressure loss through the venturi constriction of the control equipment. The monitoring device is to be certified by the manufacturer to be accurate within ± 1 inch water gauge. (ii) A monitoring device for the continuous measurement of the water supply pressure to the control equipment. The monitoring device is to be certified by the manufacturer to be accurate within ± 5 percent of design water supply pressure. The pressure sensor or tap must be located close to the water discharge point. The Administrator may be consulted for approval of alternative locations.
18	45CSR16, 40 C.F.R. § 60.253 (b), 45CSR13, R13-0308D, B.1. and B.5.	4.2.6.	Calibration of Monitoring Devices	All monitoring devices under 40 C.F.R. § 60.253 (a) [Section 4.2.5.] are to be recalibrated annually in accordance with procedures under 40 C.F.R. § 60.13(b).
19	45CSR§5-12.6.	4.3.1.	Stacks	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.
20	45CSR§30-5.1.c.	4.3.2.	Stack Testing	The permittee shall conduct tests to determine compliance with the particulate matter (PM) emission limitations in Section 4.1.6 (1) within 365 days of the effective date of this permit. If the Thermal Dryer is inactive on the effective date of this permit, the permittee shall conduct tests to determine compliance with the particulate matter (PM) emission limitations in Section 4.1.6 (1) within 180 days after resuming activity. As outlined in 40 C.F.R. § 60.254 (b) (1), the permittee shall use Method 5 or an alternative method approved by the Director for such testing. The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf). Sampling shall begin no less than 30 minutes after startup and shall terminate before shutdown procedures begin. If an alternative testing method were approved which effectively replaces Method 5, a permit revision would be required in accordance with 45CSR§30-6.4 or 45CSR§30-6.5 as applicable. Parameter indicator ranges shall be established 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 establish 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.

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Applicable Requirements CONTINUED

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	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement																														
20	45CSR§30-5.1.c. CONTINUED	4.3.2.	Stack Testing	<p>The permittee shall conduct a stack test, establish parameter indicator ranges, and furnish the Director a written report of the results of such testing and established indicator ranges. The permittee shall also record the following parameters during such testing:</p> <p>a. Opacity readings on the exhaust stack following the procedures of Method 9;</p> <p>b. Amount of coal burned and the amount of coal dried;</p> <p>c. Coal drying temperature and residence time in the dryer;</p> <p>d. Temperature of the gas stream at the exit of the thermal dryer;</p> <p>e. Flow rate through the dryer and converted to dry standard cubic feet;</p> <p>f. Water pressure to the control equipment; and</p> <p>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.</p> <p>Subsequent testing to determine compliance with the particulate loading limitations of Sections 4.1.6 (1) shall be conducted in accordance with the schedule set forth in the following table:</p> <table border="1"> <thead> <tr> <th>Test</th> <th>Test Results</th> <th>Testing Frequency</th> </tr> </thead> <tbody> <tr> <td>Initial</td> <td>≤50% of particulate loading limit</td> <td>Once/5 years</td> </tr> <tr> <td>Initial</td> <td>between 50% and 90 % of particulate loading limit</td> <td>Once/3 years</td> </tr> <tr> <td>Initial</td> <td>≥90% of particulate loading limit</td> <td>Annual</td> </tr> <tr> <td>Annual</td> <td>If annual testing is required, after two successive tests indicate mass emission rates between 50% and 90 % of particulate loading limit</td> <td>Once/3 years</td> </tr> <tr> <td>Annual</td> <td>If annual testing is required, after three successive tests indicate mass emission rates ≤50% of particulate loading limit</td> <td>Once/5 years</td> </tr> <tr> <td>Once/3 years</td> <td>If testing is required once/3 years, after two successive tests indicate mass emission rates 50% of particulate loading limit</td> <td>Once/5 years</td> </tr> <tr> <td>Once/3 years</td> <td>If testing is required once/3 years and any test indicates a mass emission rate ≥90% of particulate loading limit</td> <td>Annual</td> </tr> <tr> <td>Once/5 years</td> <td>If testing is required once /5 years and any test indicates mass emission rates between 50% and 90 % of particulate loading limit</td> <td>Once/3 years</td> </tr> <tr> <td>Once/5 years</td> <td>If testing is required once/5 years and any test indicates a mass emission rate ≥90% of particulate loading limit</td> <td>Annual</td> </tr> </tbody> </table>	Test	Test Results	Testing Frequency	Initial	≤50% of particulate loading limit	Once/5 years	Initial	between 50% and 90 % of particulate loading limit	Once/3 years	Initial	≥90% of particulate loading limit	Annual	Annual	If annual testing is required, after two successive tests indicate mass emission rates between 50% and 90 % of particulate loading limit	Once/3 years	Annual	If annual testing is required, after three successive tests indicate mass emission rates ≤50% of particulate loading limit	Once/5 years	Once/3 years	If testing is required once/3 years, after two successive tests indicate mass emission rates 50% of particulate loading limit	Once/5 years	Once/3 years	If testing is required once/3 years and any test indicates a mass emission rate ≥90% of particulate loading limit	Annual	Once/5 years	If testing is required once /5 years and any test indicates mass emission rates between 50% and 90 % of particulate loading limit	Once/3 years	Once/5 years	If testing is required once/5 years and any test indicates a mass emission rate ≥90% of particulate loading limit	Annual
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21	45CSR§10-8.1.a.	4.3.3.	45CSR10 Compliance Testing	<p>At such reasonable times as the Director may designate, the owner or operator of any fuel burning unit(s), manufacturing process source(s) or combustion source(s) may be required to conduct or have conducted tests to determine the compliance of such source(s) with the emission limitations of 45CSR§§10-3, 4 or 5. Such tests shall be conducted in accordance with the appropriate test method set forth in 40 CFR Part 60, Appendix A, Method 6, Method 15 or other equivalent EPA testing method approved by the Director. The Director, or his or her duly authorized representative, may at his or her option witness or conduct such tests. Should the Director exercise his or her option to conduct such tests, the operator will provide all necessary sampling connections and sampling ports to be located in such manner as the Director 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.</p>																														

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Applicable Requirements CONTINUED

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	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement
22	45CSR§10-8.1.b.	4.3.4.	Other Testing	The Director, or his duly authorized representative, may conduct such other tests as he or she may deem necessary to evaluate air pollution emissions other than those noted in 45CSR§10-3.
23	45CSR16, 40 C.F.R. § 60.254 (b) (2), 45CSR13, R13-0308D, B.1. and B.5.	4.3.5.	Opacity	The owner or operator shall determine compliance with the opacity standards in Section 4.1.6 (2) [40C.F.R. § 60.252] as follows: (1) Method 9 and the procedures in 40 C.F.R. § 60.11 shall be used to determine opacity.
24	45CSR13, R13-0308D, B.7.	4.3.6.	SO2 Testing	Tests that may be required by the Director to determine compliance with the emission limitations set forth in Section 4.1.3 shall be conducted in accordance with the methods as set forth below. The Director may require a different test method or approve an alternative method in light of any new technology advancements that may occur. Compliance testing shall be conducted at 100% of the peak load unless otherwise specified by the Director. a. Tests to determine compliance with SO2 emission limits shall be conducted in accordance with Method 6, 6A, 6B, or 6C, as set forth in 40 CFR 60, Appendix A.
25	45CSR13, R13-0308D, B.8.	4.3.7.	Test Protocols	With regard to any testing required by the Director, the permittee shall submit to the Director of Air Quality 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 no less than thirty (30) days prior to the date the testing is to take place. Test results shall be submitted to the Director no more than sixty (60) days after the date the testing takes place.
26	45CSR§30-5.1.c., 45CSR13, R13-0308D, B.9.	4.3.8.	Throughput Records	For the purpose of determining compliance with the maximum limit set forth in Section 4.1.4 the applicant shall maintain certified daily and monthly records of the amount of coal throughput to the thermal dryer. Compliance with the hourly throughput limit shall be demonstrated by dividing the daily total throughput by the number of hours operated in the same day to obtain an hourly average. Compliance with all yearly throughput limits shall be determined using a rolling yearly total. A rolling yearly total shall mean the sum of raw coal throughput at any given time for the previous twelve (12) months. By the fifteenth day of each calendar month, the permittee shall calculate the rolling yearly total. Such records shall be retained by the permittee for at least five (5) years. Certified records shall be made available to the Director or his/her duly authorized representative upon request.
27	45CSR§30-5.1.c.	4.3.9.	Test Methods	Tests that may be required by the Director to determine compliance with the CO, NOx, and VOC emission limitations set forth in Sections 4.1.3 shall be conducted in accordance with the methods as set forth below. The Director may require a different test method or approve an alternative method in light of any new technology advancements that may occur. Compliance testing shall be conducted at maximum achievable load unless otherwise specified by the Director. a. Tests to determine compliance with CO emission limits shall be conducted in accordance with Method 10 or 10B as set forth in 40 C.F.R. 60, Appendix A. b. Tests to determine compliance with NOx emission limits shall be conducted in accordance with Method 7, 7A, 7B, 7C, 7D, or 7E as set forth in 40 C.F.R. 60, Appendix A. c. Tests to determine compliance with VOC emission limits shall be conducted in accordance with Method 25, or 25A as set forth in 40 C.F.R. 60, Appendix A.
28	45CSR§30-5.1.c.	4.4.1.	Compliance with 45CSR10	The permittee shall demonstrate compliance with Section 4.1.10 [45CSR§10-4.1.] 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:

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Applicable Requirements CONTINUED

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	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Requirement
28	45CSR§30-5.1.c. CONTINUED	4.4.1.	Compliance with 45CSR10	<p>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.</p> <p>2. Coal shall be sampled at least three (3) times per day and at least once per eight (8) hour period.</p> <p>3. Minimum sample size shall be five hundred (500) grams.</p> <p>4. Samples shall be composited and analyzed at the end of each calendar month</p> <p>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."</p> <p>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 Isoperibol Bomb Calorimeter."</p> <p>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."</p> <p>e. The owner or operator of a thermal dryer shall calculate the SO2 emissions for each month based on the design 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: $SO_2 \text{ (LB/hr)} = 2 \times (\text{MFR} / \text{HV}) \times S$ Where: MFR = Design heat input of 105,000,000 Btu/hr HV = Heating value of fuel in Btu/LB S = Percent sulfur content of fuel divided by 100 $2 = 2 \text{ LB } SO_2 \text{ per } 1 \text{ LB } S$ Equation 2: $SO_2 \text{ (ppmv)} = SO_2 \text{ (LB/hr)} \times (385/64) \times (1/89,000) \times (1/60) \times 106$ Where: SO2 (ppmv) = Sulfur dioxide concentration by volume SO2 (LB/hr) = Sulfur dioxide weight rate 385 = Molar volume in scf/LB-mole 64 = Molecular weight of Sulfur dioxide in LB/LB-mole 89,000 = Exhaust fan volumetric exhaust flow rate in scfm 60 = Minutes per hour The measurement of fuel flow on this particular thermal dryer is not easily accomplished. Therefore by using the equations in this section, the maximum design heat input, and minimum volumetric gas flow rate, if compliance with 45CSR§10-4.1 is shown with these "worse case" conditions then compliance at lower heat inputs and/or higher stack gas flow rates will be ensured.</p> <p>f. These records shall be maintained on site for a period of no less than five (5) years.</p>
29	45CSR§30-5.1.c.	4.4.2.	Monitoring Device Recordkeeping	Recordkeeping for the monitoring devices in Section 4.2.5 shall be recorded at least once every 12 hours during periods of normal operation. These records shall be maintained on site for a period of no less than five (5) years.
30	45CSR§30	4.5.1.	Reporting	See Section 3.4.
31	45CSR§30	4.6.1.	Compliance Plan	None.

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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.)

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Method of Compliance
1	45CSR13, R13-0308D, A.1.	4.1.1.	Coal Sulfur	Coal testing
2	45CSR13, R13-0308D, A.2.	4.1.2.	Coal Ash	Coal testing
3	45CSR13, R13-0308D, A.3.	4.1.3.	Emission Limits	Compliance with throughputs and fuel coal testing.
4	45CSR13, R13-0308D, A.4.	4.1.4.	Throughputs	Records.
5	45CSR13, R13-0308D, A.6.	4.1.5.	Scrubber Influent	Cyclone and scrubber will operate. pH will be monitored.
6	45CSR16, 40 C.F.R. § 252 (a), 45CSR13, R13-0308D, B.1. and B.5.	4.1.6.	Particulate and Opacity	Testing and monitoring as required.
7	45CSR§5-3.1., 45CSR13, R13-0308D, B.1.	4.1.7.	Opacity	Monitoring as required.
8	45CSR§5-4.2. 45CSR13, R13-0308D, B.1.	4.1.8.	45CSR5 Circumventure	Gas will not be added to the dryer exhaust.
9	45CSR§5-4.3., 45CSR13, R13-0308D, B.1.	4.1.9.	Stack Height	Engineering and construction.
10	45CSR§10-4.1., 45CSR13, R13-0308D, B.1. and B.3.	4.1.10.	SO2 Stack Limit	Meet the fuel sulfur limit.
11	45CSR13, R13-1142, A.1.	4.1.11.	Thermally Dried Coal	Work practice.
12	45CSR13, R13-1142, A.2.	4.1.12.	Thermally Dried Coal	Work practice.
13	45CSR§30-5.1.c.	4.2.1.	Monitoring, Recordkeeping, Reporting	Monitoring, Recordkeeping, Reporting as required by permit.
14	45CSR§10-8.2.a.	4.2.2.	Director's Request for Monitoring	Monitoring if requested.
15	45CSR§10-8.2.b.	4.2.3.	SO2 Emission Rate	Calculations.
16	45CSR§10-8.2.c.2.	4.2.4.	SO2 Monitoring Plan	Monitoring Plan will be followed.
17	45CSR16, 40 C.F.R. § 60.253 (a), 45CSR13, R13-0308D, B.1. and B.5.	4.2.5.	Monitoring Devices	Monitoring devices installed.
18	45CSR16, 40 C.F.R. § 60.253 (b), 45CSR13, R13-0308D, B.1. and B.5.	4.2.6.	Calibration of Monitoring Devices	Monitoring devices recalibrated annually.
19	45CSR§5-12.6.	4.3.1.	Stack Testing	Stack tests conducted as required.
20	45CSR§30-5.1.c.	4.3.2.	Stack Testing	Stack tests conducted as required.
21	45CSR§10-8.1.a.	4.3.3.	45CSR10 Compliance Testing	Testing if required.
22	45CSR§10-8.1.b.	4.3.4.	Other Testing	Testing if required.
23	45CSR16, 40 C.F.R. § 60.254 (b) (2), 45CSR13, R13-0308D, B.1. and B.5.	4.3.5.	Opacity	Method 9 will be used.
24	45CSR13, R13-0308D, B.7.	4.3.6.	SO2 Testing	Testing will use designated methods.
25	45CSR13, R13-0308D, B.8.	4.3.7.	Test Protocols	Test protocols will be submitted.
26	45CSR§30-5.1.c., 45CSR13, R13-0308D, B.9.	4.3.8.	Throughput Records	Recordkeeping.
27	45CSR§30-5.1.c.	4.3.9.	Test Methods	Testing if required.

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.

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.)

	Rule/ Regulation/ R13 Permit	Existing R30 Permit Condition	Name	Method of Compliance
28	45CSR§30-5.1.c. CONTINUED	4.4.1.	Compliance with 45CSR10	Testing and recordkeeping.
29	45CSR§30-5.1.c.	4.4.2.	Monitoring Device Recordkeeping	Recordkeeping.
30	45CSR§30	4.5.1.	Reporting	Reporting.
31	45CSR§30	4.6.1.	Compliance Plan	NA.

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 G

AIR POLLUTION CONTROL DEVICE FORMS

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 0001	List all emission units associated with this control device. TD05 Thermal Dryer
--	---

Manufacturer: Flex-Kleen	Model number: Flooded Cone Venturi #60	Installation date: NA
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Type of Air Pollution Control Device:

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

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

Pollutant	Capture Efficiency	Control Efficiency
TSP	100	N/A
SO ₂	100	2000 ppmv

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Scrubbing Liquor- 39.7 psia; Pressure Drop- 25 inches H₂O; Gas Flow 80,630 ACF @ 140 °F and 16 psia.

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

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Continuously measure the exit temperature of the thermal dryer; continuously measure the pressure of water supply to scrubber; continuously measure pressure loss through the scrubber. Applicant proposes to record pH set-point of the scrubber influent (5.0), which will serve as proof that Keystone is meeting its emission limit for SO₂ from the thermal dryer. This operational parameter can easily be monitored and proven by continuously recording the pH of the scrubber influent.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 0002	List all emission units associated with this control device. TD05 Thermal Dryer
--	---

Manufacturer: Flex-Kleen	Model number: NA	Installation date: NA
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Type of Air Pollution Control Device:

<input type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input checked="" type="checkbox"/> Single Cyclone (2 dry cyclones)
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	

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

Pollutant	Capture Efficiency	Control Efficiency
TSP	90%	95%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

82" diameter involute dry cyclones guaranteed to remove 90% of the minus 28 mesh fines entrained in the air stream. The cyclones are designed for 5" H₂O pressure drop. The fine coal is discharged from the cyclones through 16" diameter rotary air locks.

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

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Visual inspection recordkeeping of $\leq 20\%$ opacity; stack testing and recordkeeping ≤ 0.031 gr/dscf.

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 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) ^a 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	^b EMISSION LIMITATION or STANDARD	^c MONITORING REQUIREMENT
TD05	Thermal Dryer	TSP and SO ₂	Venturi Scrubber	CSR 45-10-4.1 2000 ppm maximum allowable loading	Continuously measure the exit temperature of the thermal dryer; continuously measure the pressure of water supply to scrubber; continuously measure pressure loss through the scrubber. Applicant proposes to record pH set-point of the scrubber influent (5.0), which will serve as proof that Keystone is meeting its emission limit for SO ₂ from the thermal dryer. This operational parameter can easily be monitored and proven by continuously recording the pH of the scrubber influent.

^a 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).

^b 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).

^c 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.

4a) PSEU Designation: TD05	4b) Pollutant: TSP/SO2	4c) ^a Indicator No. 1: Wet scrubber effluent.	4d) ^a Indicator No. 2: Monitoring and Recording the scrubber effluent.
5a) GENERAL CRITERIA Describe the <u>MONITORING APPROACH</u> used to measure the indicators:		The wet scrubber effluent is monitored with a pH probe.	Lime feed rate shall be set to maintain sufficient speed for the scrubber effluent pH set point of 5.0 to consistently meet the effluent minimum limitation of pH 4.
^b 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 when the scrubber effluent pH is less than 4.0.	Continuously monitoring and recording of the scrubber effluent.
5b) PERFORMANCE CRITERIA Provide the <u>SPECIFICATIONS FOR OBTAINING REPRESENTATIVE DATA</u> , such as detector location, installation specifications, and minimum acceptable accuracy:		Continuously recording the pH of the scrubber effluent.	Continuously recording the pH of the scrubber effluent.
^c 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:		Stack testing.	Stack testing.
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.):		The calibration of equipment shall be conducted as required.	Personnel perform inspections and maintenance.
^d Provide the <u>MONITORING FREQUENCY</u> :		Once per shift (10-12 hours).	Once every shift (10-12 hours).
Provide the <u>DATA COLLECTION PROCEDURES</u> that will be used:		Manual log entries.	Manual log entries.
Provide the <u>DATA AVERAGING PERIOD</u> for the purpose of determining whether an excursion or exceedance has occurred:		None.	Once per shift (10-12 hours).

^a 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.

^b 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.

^c 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.

^d 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:
TD05

6b) Regulated Air Pollutant:
TSP and SO2

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):

The indicators identified provide that the control equipment is functioning 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:

Compliance testing.

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

- f. The PSEU is located at a major source that is required to obtain a Title V permit;
- g. 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 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).
- h. The PSEU uses an add-on control device (as defined in 40 CFR §64.1) to achieve compliance with an emission limitation or standard;
- i. 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
- j. 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) ^a 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	^b EMISSION LIMITATION or STANDARD	^c MONITORING REQUIREMENT
TD05	Thermal Dryer	TSP and SO ₂	Cyclone	CSR 45-10-4.1 2000 ppm maximum allowable loading	Continuously measure the exit temperature of the thermal dryer; continuously measure the pressure of water supply to scrubber; continuously measure pressure loss through the scrubber. Applicant proposes to record pH set-point of the scrubber influent (5.0), which will serve as proof that Keystone is meeting its emission limit for SO ₂ from the thermal dryer. This operational parameter can easily be monitored and proven by continuously recording the pH of the scrubber influent.

^a 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).

^b 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).

^c 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.

4a) PSEU Designation: TD05	4b) Pollutant: TSP/SO2	4c) ^a Indicator No. 1: Differential Pressure Drop Across Cyclone System	4d) ^a Indicator No. 2: Inspection and Maintenance of Cyclone System
5a) GENERAL CRITERIA Describe the <u>MONITORING APPROACH</u> used to measure the indicators:		An excursion is defined when the minimum drop pressure is less than 4.0 or greater 7.0 inches H ₂ O.	An excursion is defined as a 6 minute block average of 15-second readings greater than 20% opacity.
^b Establish the appropriate <u>INDICATOR RANGE</u> or the procedures for establishing the indicator range which provides a reasonable assurance of compliance:		4.0 to 7.0 inches H ₂ O. 110 to 250 °F.	20% opacity.
5b) PERFORMANCE CRITERIA Provide the <u>SPECIFICATIONS FOR OBTAINING REPRESENTATIVE DATA</u> , such as detector location, installation specifications, and minimum acceptable accuracy:		The indicator ranges falls within the manufacturer’s recommendations. The temperature range is from 110 to 250 °F. Lower temperature values do not pose an emission issue with dryer. During normal operations, the presence of opacity shall be investigated and corrected as soon as practicable. All excursions shall be documented and maintained for a period of not less than five (5) years and shall be made available to the Director or his authorized representative.	A record of the number, duration and cause(s) of all excursions or exceedances, and the corrective actions will be maintained. A record of the number, duration, and cause for the downtime of the monitor itself shall be kept. This excludes downtime for calibration checks. This document should also include the measures taken to correct the excursion.
^c 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:		Stack testing.	Stack testing.
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.):		The calibration of equipment shall be conducted as required.	Personnel perform inspections and maintenance.
^d Provide the <u>MONITORING FREQUENCY</u> :		Monthly VE readings.	Monthly VE readings.
Provide the <u>DATA COLLECTION PROCEDURES</u> that will be used:		Manual log entries.	Manual log entries.
Provide the <u>DATA AVERAGING PERIOD</u> for the purpose of determining whether an excursion or exceedance has occurred:		None.	Six minute block average, based on 15- second readings unless a 60 minute is required.

^a 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.

^b 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.

^c 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.

^d 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:
TD05

6b) Regulated Air Pollutant:
TSP and SO2

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):

The indicators identified provide that the control equipment is functioning 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:

Compliance testing.

ATTACHMENT I

SUPPORTING EMISSIONS CALCULATIONS

By: CCS
Date: 04/13/11

Checked By: PEW
Date: 04/13/11

Change in Potential to Emit

Emissions Source Description	Regulated Air Pollutant	Uncontrolled Emissions		Controlled Emissions	
		Hourly (LB/HR)	Annual (TPY)	Hourly (LB/HR)	Annual (TPY)
Transfer Points	PM	-5.41	-4.34	-1.83	-1.70
	PM ₁₀	-2.58	-2.06	-0.88	-0.81
Material Sizing	PM	32.00	0	16.00	0
	PM ₁₀	15.23	0	7.62	0
Open Stockpiles	PM	-2.07	-9.04	-0.50	-2.21
	PM ₁₀	-0.98	-4.31	-0.24	-1.06
Haulroads	PM	0	0	0	0
	PM ₁₀	0	0	0	0
Thermal Dryer	PM	N/A	N/A	0	0
	PM ₁₀	N/A	N/A	0	0
	SO ₂	N/A	N/A	0	0
	NO _x	N/A	N/A	0	0
	CO	N/A	N/A	0	0
	VOC	N/A	N/A	0	0
	HAPs	N/A	N/A	0.0175	0.0603
Facility Totals	PM	24.52	-13.38	13.67	-3.91
	PM ₁₀	11.67	-6.37	6.50	-1.87
	SO ₂	N/A	N/A	0	0
	NO _x	N/A	N/A	0	0
	CO	N/A	N/A	0	0
	VOC	N/A	N/A	0	0
	HAPs	N/A	N/A	0.0175	0.0603

Emissions from Proposed Physical Changes

Equipment ID	Description	Status	Emissions (TPY)	
			PM	PM10
ST21	Raw Stockpile	New	0.003	0.001
Total =			0.003	0.001

By: CCS
Date: 04/13/11

Checked By: PEW
Date: 04/13/11

Proposed PTE

Emissions Source Description	Regulated Air Pollutant	Uncontrolled Emissions		Controlled Emissions	
		Hourly (LB/HR)	Annual (TPY)	Hourly (LB/HR)	Annual (TPY)
Transfer Points	PM	13.13	29.14	9.35	17.08
	PM ₁₀	6.25	13.88	4.45	8.13
	PM _{2.5}	0.94	2.08	0.67	1.22
Material Sizing	PM	88.00	245.28	41.30	110.81
	PM ₁₀	41.90	116.80	19.67	52.77
	PM _{2.5}	6.29	17.52	2.95	7.92
Open Stockpiles	PM	0.26	1.14	0.08	0.35
	PM ₁₀	0.12	0.54	0.04	0.17
	PM _{2.5}	0.02	0.08	0.01	0.02
Haulroads	PM	594.83	1446.82	139.76	415.48
	PM ₁₀	283.25	688.96	66.55	197.85
	PM _{2.5}	42.49	103.34	9.98	29.68
Thermal Dryer ⁽¹⁾	PM	N/A	N/A	7.23	24.90
	PM ₁₀	N/A	N/A	3.44	11.86
	PM _{2.5}	N/A	N/A	0.52	1.78
	SO ₂	N/A	N/A	12.8	44.10
	NO _x	N/A	N/A	40.6	140.10
	CO	N/A	N/A	12.6	43.50
	VOC	N/A	N/A	30	103.50
	HAPs	N/A	N/A	0.0175	0.0603
Facility Totals	PM	696.22	1,722.38	197.72	568.62
	PM ₁₀	331.53	820.18	94.15	270.77
	PM _{2.5}	49.73	123.03	14.12	40.62
	SO ₂	N/A	N/A	12.8	44.1
	NO _x	N/A	N/A	40.6	140.10
	CO	N/A	N/A	12.6	43.50
	VOC	N/A	N/A	30	103.50
	HAPs	N/A	N/A	0.0175	0.0603

1. Permitted limits (except HAPs).

TSP to PM2.5 conversion:

Particle Size Multipliers from AP42 13.2.4-4.

PM (TSP) 0.74

PM2.5 0.053

PM2.5 = PM/ 14

By: CCS
Date: 04/13/11

Checked By: PEW
Date: 04/13/11

Existing Emissions

Emissions Source Description	Regulated Air Pollutant	Uncontrolled Emissions		Controlled Emissions	
		Hourly (LB/HR)	Annual (TPY)	Hourly (LB/HR)	Annual (TPY)
Transfer Points	PM	18.54	33.48	11.18	18.78
	PM10	8.83	15.94	5.33	8.94
Material Sizing	PM	56.00	245.28	25.30	110.81
	PM10	26.67	116.8	12.05	52.77
Open Stockpiles	PM	2.33	10.18	0.582	2.56
	PM10	1.108	4.85	0.277	1.22
Haulroads	PM	594.83	1,446.82	139.76	415.48
	PM10	283.25	688.96	66.55	197.85
Thermal Dryer ⁽¹⁾	PM	N/A	N/A	7.23	24.90
	PM10	N/A	N/A	3.44	11.86
	SO2	N/A	N/A	12.8	44.10
	NOx	N/A	N/A	40.6	140.10
	CO	N/A	N/A	12.6	43.50
	VOC	N/A	N/A	30	103.50
Facility Totals	PM	671.70	1735.76	186.02	572.53
	PM10	319.86	826.55	88.58	272.64
	SO2	N/A	N/A	12.77	44.05
	NOx	N/A	N/A	51.59	178.00
	CO	N/A	N/A	15.94	55.00
	VOC	N/A	N/A	36.81	127.00

1. Permitted limits.

By: CCS
Date: 04/13/11

Checked By: PEW
Date: 04/13/11

Transfer Points 1

Defining transfer point empirical expression variables, where:

	Raw Coal	Clean-Wet	Clean-Dry	Refuse	
e =	?	?	?	?	lb/ton
k =	0.74	0.74	0.74	0.74	dimensionless
U =	10	10	10	10	mph
M =	10	20	6	20	%
e =	0.0006	0.0002	0.0013	0.0002	lb/ton

Transfer Point ID	Maximum Throughput		Emission Factor (lb/ton)	Uncontrolled TSP		Control Device	Control Efficiency (%)	Controlled TSP	
	Hourly (TPH)	Annual (TPY)		Hourly (LB/HR)	Annual (TPY)			Hourly (LB/HR)	Annual (TPY)
T1	450	3,942,000	0.0006	0.27	1.18	N	0	0.27	1.18
T2	450	3,942,000	0.0006	0.27	1.18	PE	50	0.14	0.59
T4	450	3,942,000	0.0006	0.27	1.18	PE	50	0.14	0.59
T5	450	3,942,000	0.0006	0.27	1.18	PE	50	0.14	0.59
T6	450	3,942,000	0.0006	0.27	1.18	PE	50	0.14	0.59
T7	See Note 2								
T8	450								
T10	450	3,942,000	0.0006	0.27	1.18	PE	50	0.14	0.59
T11	See Note 2								
T12	470	100,000	0.0006	0.28	0.03	N	0	0.28	0.03
T13	450		0.0006	0.27	0.00	FE	80	0.05	0.00
T14	200	1,752,000	0.0006	0.12	0.53	N	0	0.12	0.53
T15	200	1,752,000	0.0006	0.12	0.53	PE	50	0.06	0.27
T16	200	1,752,000	0.0006	0.12	0.53	PE	50	0.06	0.27
T17	75	657,000	0.0002	0.02	0.07	PE	50	0.01	0.04
T18	470	100,000	0.0006	0.28	0.03	PE	50	0.14	0.02
T19	470	100,000	0.0006	0.28	0.03	N	0	0.28	0.03
T23	470	3,066,000	0.0006	0.28	0.92	PE	50	0.14	0.46
T24	470	3,066,000	0.0006	0.28	0.92	PE	50	0.14	0.46
T25	470	3,066,000	0.0006	0.28	1	PE	50	0.14	0
T26	470	3,066,000	0.0006	0.28	1	PE	50	0.14	0
T27	470		0.0006	0.28	0	PE	50	0.14	0
T28	290	2,001,000	0.0013	0.38	1.30	FE	80	0.08	0.26
T29	290	2,001,000	0.0013	0.38	1.30	PE	50	0.19	0.65
T31	See Note 2								
T32	290	2,001,000	0.0013	0.38	1.30	PE	50	0.19	0.65
T33	290	2,001,000	0.0013	0.38	1.30	PE	50	0.19	0.65
T34	See Note 2								
T35	290	2,001,000	0.0013	0.38	1.30	PE	50	0.19	0.65
T37	290	2,001,000	0.0013	0.38	1.30	PE	50	0.19	0.65
T38	290	2,001,000	0.0013	0.38	1.30	PE	50	0.19	0.65
T40	See Note 2								
Uncontrolled Total =				7.17	21.61	Controlled Total =		3.89	11.32

Notes:

- Transfer points T3, T9, T20, T21, T22, T36, T39, T41 and T45 are being reserved.
- Determining particulate matter generated from these transfer points would double-count emissions.
- Calculations on this page represent emissions at previously permitted throughputs on existing sources with no change in existing controls. Any increase in emissions over the previous PTE is not due to modifications, but is due instead to the use of updated emission factors. Therefore, an increase indicated by these calculations does not equate an actual increase in emissions.

Emissions Estimating Method/Reference:

Emission Equation AP-42 Section 13.2.4, Aggregate Handling and Storage Piles (January 1995):

$$e = k * (0.0032)[(U/5)^{1.3} / (M/2)^{1.4}] \quad (\text{lbs/ton})$$

e = Emissions factor (lb/ton)

k = Particle size multiplier from AP-42 for particle size < 30 microns

U = Mean wind speed (mph)

M = Material moisture content (%)

By: CCS
Date: 04/13/11

Checked By: PEW
Date: 04/13/11

Transfer Points (Continued)

Transfer point emission factors:

e = **Raw Coal 0.0006** **Clean-Wet 0.0002** **Clean-Dry 0.0013** **Refuse 0.0002** lb/ton

Transfer Point ID	Maximum Throughput		Emission Factor (lb/ton)	Uncontrolled TSP		Control Device	Control Efficiency (%)	Controlled TSP	
	Hourly (TPH)	Annual (TPY)		Hourly (LB/HR)	Annual (TPY)			Hourly (LB/HR)	Annual (TPY)
T42	See Note 2								
T43	290	1,000,000	0.0013	0.38	0.65	N	0	0.38	0.65
T44	290	1,000,000	0.0013	0.38	0.65	N	0	0.38	0.65
T46	200	1,752,000	0.0002	0.04	0.18	PE	50	0.02	0.09
T47	200	1,752,000	0.0002	0.04	0.18	PE	50	0.02	0.09
T48	200	1,752,000	0.0002	0.04	0.18	PE	50	0.02	0.09
T49	200	1,752,000	0.0002	0.04	0.18	PE	50	0.02	0.09
T50	400	1,752,000	0.0002	0.08	0.18	PE	50	0.04	0.09
T51	400	1,752,000	0.0002	0.08	0.18	PE	50	0.04	0.09
T52	75	657,000	0.0002	0.02	0.07	PE	50	0.01	0.04
T53	200	1,752,000	0.0006	0.12	0.53	PE	50	0.06	0.27
T54	200	1,752,000	0.0006	0.12	0.53	PE	50	0.06	0.27
T55	470	3,066,000	0.0002	0.09	0.31	FE	80	0.02	0.06
T56	318.7	2,199,030	0.0002	0.06	0.22	FE	80	0.01	0.04
T57	40	350,400	0.0002	0.01	0.04	FE	80	0.002	0.01
T58	40	350,400	0.0002	0.01	0.04	PE	50	0.01	0.02
T59	40	350,400	0.0002	0.01	0.04	PE	50	0.01	0.02
T60	40	333,150	0.0002	0.01	0.03	N	0	0.01	0.03
T61	40	17,250	0.0002	0.01	0.00	FE	80	0.002	0.00
T62	300	1,752,000	0.0002	0.06	0.18	PE	50	0.03	0.09
T63	400	1,752,000	0.0002	0.08	0.18	PE	50	0.04	0.09
T64	400	1,752,000	0.0002	0.08	0.18	N	0	0.08	0.18
T65	400	1,752,000	0.0002	0.08	0.18	N	0	0.08	0.18
T66	400	1,752,000	0.0002	0.08	0.18	N	0	0.08	0.18
T67	400	1,752,000	0.0002	0.08	0.18	N	0	0.08	0.18
T68	400	1,752,000	0.0002	0.08	0.18	N	0	0.08	0.18
T69	400	1,752,000	0.0002	0.08	0.18	N	0	0.08	0.18
T86	See page N14 for emissions from this transfer point.								
Uncontrolled Total =				2.16	5.63	Controlled Total =		1.66	3.86

Notes:

1. Transfer points T3, T9, T20, T21, T22, T36, T39, T41 and T45 are being reserved.
2. Determining particulate matter generated from these transfer points would double-count emissions.
3. Calculations on this page represent emissions at previously permitted throughputs on existing sources with no change in existing controls. Any increase in emissions over the previous PTE is not due to modifications, but is due instead to the use of updated emission factors. Therefore, an increase indicated by these calculations does not equate an actual increase in emissions.

Emissions Estimating Method/Reference:

Emission Equation AP-42 Section 13.2.4, Aggregate Handling and Storage Piles (January 1995):

$$e = k * (0.0032)[(U/5)^{1.3} / (M/2)^{1.4}] \text{ (lbs/ton)}$$

e = Emissions factor (lb/ton)

k = Particle size multiplier from AP-42 for particle size < 30 microns

U = Mean wind speed (mph)

M = Material moisture content (%)

By: CCS
Date: 04/13/11

Checked By: PEW
Date: 04/13/11

Transfer Points

Defining transfer point empirical expression variables, where:

	Synfuel/Coal	Lime	
e =	?	?	lb/ton
k =	0.74	0.74	dimensionless
U =	10	10	mph
M =	4.5	1	%
e =	0.0019	0.0154	lb/ton

Transfer Point ID	Maximum Throughput		Emission Factor (lb/ton)	Uncontrolled TSP		Control Device	Control Efficiency (%)	Controlled TSP	
	Hourly (TPH)	Annual (TPY)		Hourly (LB/HR)	Annual (TPY)			Hourly (LB/HR)	Annual (TPY)
T70	1,000	1,000,000	0.0019	1.90	0.95	N	0	1.90	0.95
T71	Not Constructed								
T72	Not Constructed								
T73	Not Constructed								
T74	Not Constructed								
T75	Not Constructed								
T76	Not Constructed								
T77	Not Constructed								
T78	Not Constructed								
T79	Not Constructed								
T80	Not Constructed								
T81	1,000	1,000,000	0.0019	1.90	0.95	N	0	1.90	0.95
T82	Not Constructed								
T83	0.025	175	0.0154	0.0004	0.0013	N	0	0.0004	0.0013
T84	0.025	175	0.0154	0.0004	0.0013	FE	80	0.0001	0.0003
T85	0.025	175	0.0154	0.0004	0.0013	PE	50	0.0002	0.0007
Uncontrolled Total =				3.80	1.90	Controlled Total =		3.80	1.90

Notes:

1. Determining particulate matter generated from these transfer points would double-count emissions. Emissions are calculated for those points that represent the worst-case emissions scenario.

Emissions Estimating Method/Reference:

Emission Equation AP-42 Section 13.2.4, Aggregate Handling and Storage Piles (January 1995):

$$e = k * (0.0032)[(U/5)^{1.3} / (M/2)^{1.4}] \quad (\text{lbs/ton})$$

e = Emissions factor (lb/ton)

k = Particle size multiplier from AP-42 for particle size < 30 microns

U = Mean wind speed (mph)

M = Material moisture content (%)

By: CCS
Date: 04/13/11

Checked By: PEW
Date: 04/13/11

Material Sizing (Breaking, Crushing and Screening) - Existing Equipment

Material sizing emission factors:

Primary Crushing = **0.02** lb/ton processed (maximum raw coal input)
 Secondary Crushing = **0.06** lb/ton processed (maximum raw coal input)
 Screening = **0.10** lb/ton processed (maximum raw coal input)

Sizer ID Number	Maximum Throughput		Emission Factor (lb/ton)	Uncontrolled TSP		Control Device	Control Efficiency (%)	Controlled TSP	
	Hourly (TPH)	Annual (TPY)		Hourly (LB/HR)	Annual (TPY)			Hourly (LB/HR)	Annual (TPY)
Primary Crushing SZ01	450	3,942,000	0.02	9.00	39.42	FE	80	1.80	7.88
Secondary Crushing SZ03	200	1,752,000	0.06	12.00	52.56	PE	50	6.00	26.28
Screening SZ02	200	0	0.10	20.00	0	PE	50	10.00	0.00
	470	3,066,000	0.10	47.00	153.30	PE	50	23.50	76.65
Uncontrolled Total =				88.00	245.28	Controlled Total =		41.30	110.81

Emissions Estimating Method/Reference:
Air Pollution Engineering Manual and References

7.80 34.16

By: CCS
Date: 04/13/11

Checked By: PEW
Date: 04/13/11

Open Stockpiles (Wind Erosion)

Defining open stockpile empirical expression variables, where:

	Raw Coal	Clean Coal	
e =	?	?	lb/day/acre
s =	1	1	%
p =	157	157	days
f =	10	10	%
e =	0.67	0.67	lb/day/acre

Open Stockpile ID Number	Description	Stockpile Base Area (acres)	Emission Factor (lb/day/acre)	Uncontrolled TSP		Control Device	Control Efficiency (%)	Controlled TSP	
				Hourly (LB/HR)	Annual (TPY)			Hourly (LB/HR)	Annual (TPY)
ST1	Raw Coal	0.11	0.67	0.003	0.01	N	0	0.003	0.01
ST21	Raw Coal ⁽²⁾	0.02	0.67	0.001	0.003	N	0	0.001	0.003
ST8	Clean Coal	1.21	0.67	0.034	0.15	DSA	75	0.009	0.04
ST15	Clean Coal	8.00	0.67	0.223	0.978	WS	70	0.067	0.293
Total =				0.261	1.141	Total =		0.080	0.346
PM10 Total =				0.124	0.543	PM10 Total =		0.038	0.165

Notes:

1. Calculations on this page represent emissions at previously permitted throughputs on existing sources with no change in existing controls. Any increase in emissions over the previous PTE is not due to modifications, but is due instead to the use of updated emission factors. Therefore, an increase indicated by these calculations does not equate an actual increase in emissions.
2. Stockpile ST2 is a small overflow raw coal stockpile used when there is a backup at the truck dump bins.

Emissions Estimating Method/Reference

Emission Equation AP-42 Section 11.2.3, Aggregate Handling and Storage Piles (May 1983):

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

e = Emissions factor (lb/day/acre)

s = Silt content of open stockpile (%)

p = Number of days with at least 0.01 in. of precipitation per year

f = Percentage of time where unobstructed wind speed > 12 mph (%)

By: CCS
Date: 04/13/11

Checked By: PEW
Date: 04/13/11

Thermal Dryer (Coal Drying) - Existing Equipment

Thermal Dryer Pollutant	Hourly Permit Limit (LB/HR)	Operational Hours Restriction (Hours)	Annual Permit Limit (TPY)
Particulate Matter	7.23	6,900	24.9
Sulfur Dioxide	12.8	6,900	44.10
Nitrogen Oxides	40.6	6,900	140.10
Carbon Monoxide	12.6	6,900	43.50
Volatile Organic Compounds	30	6,900	103.50

Notes:

1. Annual emissions of particulate matter, nitrogen oxides, carbon monoxide and volatile organic compounds remain unchanged from Regulation 13 permit, R13-0308A, issued on August 27, 2002.

By: CCS
Date: 04/13/11

Checked By: PEW
Date: 04/13/11

Thermal Dryer (Coal Drying) - Hazardous Air Pollutants

Hazardous Air Pollutant	CAS Number	Emission Factor (lb/ton)	Coal Combusted (TPY)	Emissions		
				(lb/hr)	(TPY)	
Acetaldehyde	75070	5.70E-04	22,000	0.0018	0.0063	
Acetophenone	98862	1.50E-05		0.0001	0.0002	
Acrolein	107028	2.90E-04		0.0009	0.0032	
Antimony (Sb2O5)	1327339	1.80E-05		0.0001	0.0002	
Arsenic (AS2O5)	1303282	4.10E-04		0.0013	0.0045	
Benzene	71432	1.30E-03		0.0041	0.0143	
Beryllium (BeO)	1304569	2.10E-05		0.0001	0.0002	
Cadmium (CdO)	1306190	5.10E-05		0.0002	0.0006	
Chromium	7440473	2.60E-04		0.0008	0.0029	
Cobalt (CoO)	1307966	1.00E-04		0.0003	0.0011	
Formaldehyde	50000	2.40E-04		0.0008	0.0026	
Manganese (MnO2)	1313139	4.90E-04		0.0016	0.0054	
Mercury (HgO)	7439976	8.30E-05		0.0003	0.0009	
Naphthalene	91203	1.30E-05		0.0000	0.0001	
Nickel (NiO)	1313991	2.80E-04		0.0009	0.0031	
Selenium (SeO2)	7782492	1.30E-03		0.0041	0.0143	
Xylene	1330207	3.70E-05		0.0001	0.0004	
Total HAPs				0.0175	0.0603	

Notes:

1. Emission factors are from AP-42, Section 1.1, dated September 1998.

By: CCS
Date: 04/13/11

Checked By: PEW
Date: 04/13/11

Vehicular Traffic (Unpaved Haulroads)

Defining unpaved haulroads empirical expression variables, where:

	Plant Trucks	
e =	?	lb/VMT
k =	10	dimensionless, particle size multiplier
s =	9	%, surface material silt content
W =	41.625	tons, mean vehicle weight
M =	0.2	% dry, surface material moisture content
a =	0.8	constant
b =	0.5	constant
c =	0.4	constant
p =	157	# days/year with 0.1 in of rain
e =	16.86	lb/VMT

Source Description	Number of Vehicles		Miles Per Trip (miles)	Uncontrolled TSP		Uncontrolled PM10		Control Device	Control Efficiency (%)	Controlled TSP		Controlled PM10	
	Hourly	Annual		Hourly (LB/HR)	Annual (TPY)	Hourly (LB/HR)	Annual (TPY)			Hourly (LB/HR)	Annual (TPY)	Hourly (LB/HR)	Annual (TPY)
HR-A	2	15,494	0.53	17.87	69.23	8.51	32.97	WT	70	5.36	20.77	2.55	9.89
HR-B	15	123,952	0.64	161.86	668.75	77.08	318.45	WT	70	48.56	200.63	23.12	95.54
HR-C	4	30,988	1.86	125.44	485.89	59.73	231.38	WT	70	37.63	145.77	17.92	69.41
HR-D	8	27,211	0.11	14.84	25.23	7.07	12.01	WT	70	4.45	7.57	2.12	3.6
Endloader	1	8760	1.00	16.86	73.85	8.03	35.17	WT	70	5.06	22.16	2.41	10.55
			Uncontrolled Subtotal:	336.87	1,322.95	160.42	629.98		Controlled Subtotal:	101.06	396.90	48.12	188.99

	HR-A	HR-B	HR-C	HR-D	PM10 is assumed to be TSP/	2.1
Hourly =	65	520	130	290		
Annual =	569,400	4,555,200	1,138,800	1,000,000		
Load per truck =	36.75	36.75	36.75	36.75		
Trucks per hour =	2	15	4	8		
Trucks per year =	15,494	123,952	30,988	27,211		

Notes:

- HR-A is a 1,400 ft section of unpaved haulroad from the mainline railroad tracks up Clark Branch to the Y intersection. It is assumed that 10% of the raw coal total coming to the plant travels this section of haulroad.
- HR-B is a 1,700 ft section of unpaved haulroad from the Y intersection to the plant truck dump. It is assumed that 80% of the raw coal total coming to the plant travels this section of haulroad. HR-B includes traffic from HR-A.
- HR-C is a 4,900 ft section of unpaved haulroad from County Route 6 at the Keystone No. 1 mine yard along the old tram road to the plant truck dump. It is assumed that 20% of the raw coal total coming to the plant travels this section of haulroad.
- HR-D is a 300 ft section of unpaved haulroad from the preparation plant rail loadout (T38) to open stockpile ST8.
- The endloader is used to load trucks and railcars only and its travel is estimated as one vehicle traveling one mile every hour; therefore, 8,760 hrs/yr. This is a rough estimate to include endloader emissions.
- Maximum raw coal input to the facility is 650 tons/hr and 5,694,000 tons/yr.
- Clean coal is transported to open stockpile ST8 at the maximum rate of 290 tons/yr and 1,000,000 tons/yr.
- Maximum loaded truck weight is 120,000 lbs.
- Calculations on this page represent emissions at previously permitted throughputs on existing sources with no change in existing controls. Any increase in emissions over the previous PTE is not due to modifications, but is due instead to the use of updated emission factors. Therefore, an increase indicated by these calculations does not equate an actual increase in emissions.

Emissions Estimating Method/Reference

Emission Equation AP-42 Section 13.2.2, Unpaved Roads (September 1998):

$$e = k [(s/12)^a (W/3)^b / (M_{dry}/0.2)^c] [(365-p)/365]$$

e = Emission factor, pounds per vehicle-mile-traveled, (lb/VMT)

k, a, b, & c = Constants for equation given in AP-42 Table 13.2.2-2 (dimensionless)

s = Silt content of road surface material (%)

W = Mean vehicle weight, ton

p = Number of days with at least 0.254 mm (0.01 in.) of precipitation per year

By: CCS
Date: 04/13/11

Checked By: PEW
Date: 04/13/11

Vehicular Traffic (Unpaved Haulroads) - Eckman

Defining unpaved haulroads empirical expression variables, where:

	Plant Trucks	
e =	?	lb/VMT
k =	10	dimensionless, particle size multiplier
s =	9	% , surface material silt content
W =	41.625	tons, mean vehicle weight
M =	0.2	% dry, surface material moisture content
a =	0.8	constant
b =	0.5	constant
c =	0.4	constant
p =	157	# days/year with 0.1 in of rain
e =	16.86	lb/VMT

Source Description	Number of Vehicles		Miles Per Trip (miles)	Uncontrolled TSP		Uncontrolled PM10		Control Device	Control Efficiency (%)	Controlled TSP		Controlled PM10	
	Hourly	Annual		Hourly (LB/HR)	Annual (TPY)	Hourly (LB/HR)	Annual (TPY)			Hourly (LB/HR)	Annual (TPY)		
HR-E	28	27,211	0.45	212.44	103.22	101.16	49.15	WT	85	31.87	15.48	15.18	7.37
HR-F	6	5,443	0.45	45.52	20.65	21.68	9.83	WT	85	6.83	3.10	3.25	1.48
			Uncontrolled Subtotal:	257.96	123.87	122.84	58.98		Controlled Subtotal:	38.70	18.58	18.43	8.85
			HR-E	HR-F	PM10 is assumed to be TSP/			2.1					
	Hourly =	1,000		200									
	Annual =	1,000,000		200,000									
	Load per truck =	36.75		36.75									
	Trucks per hour =	28		6									
	Trucks per year =	27,211		5,443									

Notes:

- HR-E and HR-F represent a 1,200 ft section of unpaved haulroad from public road to open stockpile ST15 at Eckman Loadout. HR-E is vehicular traffic to Eckman Loadout while HR-F represents trucks that are reloaded to be shipped off site rather than being shipped by railcar.
- Maximum material input to the facility is 1,000 tons/hr and 1,200,000 tons/yr.
- Maximum material output from the facility via trucks is 200 tons/hr and 200,000 tons/yr.
- Maximum loaded truck weight is 120,000 lbs.

Emissions Estimating Method/Reference

Emission Equation AP-42 Section 13.2.2, Unpaved Roads (September 1998):

$$e = k [(s/12)^9 (W/3)^3 / (M_{dry}/0.2)^2] [(365-p)/365]$$

e = Emission factor, pounds per vehicle-mile-traveled, (lb/VMT)

k, a, b, & c = Constants for equation given in AP-42 Table 13.2.2-2 (dimensionless)

s = Silt content of road surface material (%)

W = Mean vehicle weight, ton

p = Number of days with at least 0.254 mm (0.01 in.) of precipitation per year