

Morgantown Energy Facility

# Title V Permit Renewal Application

Permit No. R30-06100027-2008

**Prepared for:**

Morgantown Energy Associates  
555 Beechurst Avenue  
Morgantown, WV 26505

**Prepared by:**

Birchrun Environmental Consulting, LLC  
P.O. Box 70  
Birchrunville, PA 19425  
(484) 200-7540

**May 2013**

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- Attachment B** Plot Plan
- Attachment C** Process Flow Diagrams
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- Appendix 1** Emission Calculations
- Appendix 2** Proposed Permit Changes

## 1. INTRODUCTION

Morgantown Energy Associates (MEA) operates a bituminous coal and coal refuse fired power plant in Morgantown, West Virginia referred to as the Morgantown Energy Facility. The Morgantown Energy Facility is currently operating in accordance with West Virginia Department of Environmental Protection (WVDEP) Division of Air Quality Title V operating permit R30-06100027-2008, last issued on April 2, 2009, as well as Rule 13 and 14 Permits R13-1085B/R14-7B, last issued on April 20, 1993.

The current Title V permit expires on December 9, 2013. MEA is submitting this timely and complete permit renewal application by the renewal submission deadline of June 9, 2013 (i.e., six months before the expiration of the current permit) in accordance with Series 30, Section 4.1.a.3 of the West Virginia Department of Environmental Protection Division of Air Quality Code of State Rules (C.S.R.) §45-30-4.1.a.3. Presuming WVDEP finds this application administratively complete, MEA may continue to operate the Morgantown Energy Facility under an application shield in accordance with the terms of the existing Title V permit until the renewed permit is issued, even if this issuance would occur after the current permit's expiration date.

MEA was recently issued a Consent Order (CO-R13,14,16,30-E-2013-6) to resolve issues that were self-disclosed to WVDEP concerning inadequate fuel sampling methodology and periodic excursions wherein fuel sulfur content was not representatively entered when calculating the sulfur reduction efficiency. While all of the issues have been corrected and the facility is compliant with all the terms and conditions of the permit, the consent order has not yet been formally closed. However, we anticipate closure well before the expiration of the existing Title V permit and completion of the renewal process.

No significant physical changes or modifications have occurred at the Morgantown Energy Facility during the last five years. However, one minor change was accomplished pertaining to Emission Unit ID S004F, which until recently represented the transfer of Baghouse 3 dust to the Elevating Conveyor 2—Bottom Half (S004G). During April 2013, the dust discharged from Baghouse 3 was re-routed from Elevating Conveyor 2 to the Mill Collecting Conveyor 1 (S004D). The purpose of this change was to consolidate the fuel prior to entrance into the new coal sampler, which was installed on the Mill Collecting Conveyor to address the fuel sampling issue referenced above. The Baghouse 3 effluent continues to be controlled by Enclosed System 3 with no associated impact to particulate emissions from this source. This change is reflected in the following locations within this application: the Fuel Handling Facility Sketch in Attachment C, the Equipment Table in Attachment D, the Emission Unit Form for the Vent 4 sources in Attachment E, and the proposed permit changes in Appendix 2.

Lastly, several new significant applicable regulations have been promulgated since the current permit was issued. These regulations are discussed in Section 2 of this application. In addition, with this Title V renewal application MEA is requesting clarification of monitoring requirements that apply to the CFB

boilers. A detailed discussion of this request and information in support of the proposed change can be found in Section 3 of this application.

## 2. NEW APPLICABLE REQUIREMENTS

A key objective of a Title V operating permit application is to compile all applicable Clean Air Act-derived requirements into one document. These requirements can be categorized as either: (1) emission limits and work practice standards; or (2) testing, monitoring, recordkeeping, and reporting requirements. To compile a list of the requirements applicable to a facility, it is first necessary to determine which Federal and State air regulations apply to the facility as a whole, or to individual emission units. Applicability determinations have previously been made for Federal and State air quality regulations that were in effect during the last Title V permit renewal in 2008. However, during the past five years new regulations have been promulgated that apply to the Morgantown Energy Facility or to specific emission units at the facility. MEA is currently subject to these regulations, and has proposed new conditions implementing these regulations for incorporation into the Title V permit. The following sections are intended to supplement and/or add clarification to the information provided in the WVDEP Title V application forms regarding these new applicable requirements.

### 2.1 40 C.F.R. Part 63, Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters

This regulation, also known as the “Boiler MACT” rule, applies to existing, new, or reconstructed industrial, commercial, or institutional boilers or process heaters located at a major source of hazardous air pollutants (HAP). The Boiler MACT rule establishes national emission limitations and work practice standards for HAP, as well as requirements to demonstrate initial and continuous compliance with the emission limitations and work practice standards. Existing affected sources must comply with the requirements of Subpart DDDDD no later than January 31, 2016.

Morgantown Energy Facility is a major source of HAP because it has potential emissions in excess of 25 tpy for total HAP and/or potential emissions in excess of 10 tpy for any individual HAP. Therefore, 40 CFR Part 63, Subpart DDDDD potentially applies to both the CFB boilers and the auxiliary boilers. The CFB boilers are not subject to the Boiler MACT rule per 40 C.F.R. §63.7491(a) because they are electric utility steam generating units (EGUs) covered by Subpart UUUUU of Part 63 (see Section 2.2 below). The aux boilers are considered existing affected units under Subpart DDDDD because construction commenced on these units prior to June 4, 2010 and they have never been reconstructed. It should be noted that MEA has submitted a timely initial notification to WVDEP in accordance with 40 C.F.R. §63.7545(b) indicating that the auxiliary boilers are subject to the Boiler MACT rule.

The aux boilers fire only natural gas fuel and thus are considered to be part of the “*Units designed to burn gas 1 fuels*” subcategory of affected units as defined in 40 C.F.R. §63.7575. Gas 1 units are subject to a work practice standard under Subpart DDDDD that requires an annual tune-up in lieu of emission limits. An annual compliance report must be submitted to EPA and/or WVDEP documenting results of

the tune-up. In addition, the facility must conduct a one-time Energy Assessment of the auxiliary boilers in accordance with Table 3 of the rule. Specific language for new Title V permit conditions implementing the above applicable requirements have been proposed in the permit markup in Appendix 2.

## **2.2 40 C.F.R. Part 63, Subpart UUUUU - National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units**

This regulation, also known as the “Utility Mercury and Air Toxics (MATS)” rule, applies to coal- and oil-fired EGUs as defined in §63.10042 of 40 C.F.R. Part 63. The Utility MATS rule establishes national emission limitations and work practice standards for HAP, as well as requirements to demonstrate initial and continuous compliance with the emission limitations and work practice standards. Existing affected sources must comply with the requirements of Subpart UUUUU no later than April 16, 2015.

The auxiliary boilers are not fired by coal or oil and do not generate electricity; therefore these units do not meet the applicability criteria of the Utility MATS rule. The CFB boilers at Morgantown Energy Facility cogenerate steam and electricity and supply more than one-third of their potential electric output capacity and more than 25 MWe output to a utility power distribution system for sale. Hence, the CFB boilers meet the definition of EGU and are subject to Subpart UUUUU. The CFB boilers are considered existing affected units under Subpart UUUUU because construction commenced on these units prior to May 3, 2011 and they have never been reconstructed. It should be noted that MEA has submitted a timely initial notification to WVDEP in accordance with 40 C.F.R §63.10030(b) indicating that the CFB boilers are subject to the Utility MATS rule.

The CFB boilers do not fire non-agglomerating virgin coal and hence by definition these units are considered part of the “*Unit designed for coal > 8,300 Btu/lb*” subcategory of affected units as defined in 40 C.F.R. §63.10042. This subcategory is subject to emission limits for the following pollutants per Table 3 of Subpart UUUUU:

- Particulate matter or total non-mercury HAP metals or individual HAP metals
- Hydrogen chloride or sulfur dioxide
- Mercury

In addition to emission limits, the rule also mandates work practice standards that require a periodic tune-up of the burner and combustion controls and impose certain startup and shutdown requirements. A semi-annual report must be submitted to EPA and/or WVDEP documenting compliance with the requirements and containing other information as specified in the rule. To the extent possible, specific language for new Title V permit conditions implementing the above applicable requirements has been proposed in the permit markup in Appendix 2. However, MEA is currently finalizing their compliance strategy for Subpart UUUUU, so in some cases the proposed language has been worded so as not to preclude any compliance options.

### **2.3 40 C.F.R. Part 98 – Mandatory Greenhouse Gas Reporting**

This regulation, which was promulgated in 2009, applies to owners and operators of certain facilities that directly emit greenhouse gases (GHG) as well as to certain fossil fuel suppliers and industrial GHG suppliers. The rule requires submittal of annual GHG reports that are generally due no later than March 31 of each calendar year for GHG emissions in the previous calendar year. MEA has been submitting reports covering GHG emissions from the Morgantown Energy Facility since 2010, which was the first calendar year that reporting was required under the rule.

There are two types of source categories defined by 40 C.F.R. Part 98: 1) “all in” source categories that are subject to the rule regardless of their annual GHG emissions, and 2) “threshold” source categories that are subject to the rule if they emit 25,000 tons CO<sub>2</sub>e/year or more. Many electricity generating facilities are subject to GHG reporting under Subpart D of Part 98 because they are either subject to the Acid Rain Program or are otherwise required to monitor and report to EPA CO<sub>2</sub> mass emissions year-round according to 40 CFR Part 75. Electricity-generating units at MEA (i.e., the CFB boilers) do not meet either of these criteria. However, MEA does meet the applicability criteria for being a “threshold” source as defined in § 98.2(a)(3) because:

- It does not meet definition for any of the “all in” source categories;
- The aggregate maximum rated heat input capacity of the stationary fuel combustion units at the facility is 30 mmBtu/hr or greater; and
- The facility emits 25,000 metric tons CO<sub>2</sub>e or more per year in combined emissions from all stationary fuel combustion sources.

Consequently, MEA must report GHG emissions annually in accordance with Subpart C of Part 98. GHG emissions from both the CFB boilers and auxiliary boilers must be included in the report. MEA has satisfied this requirement using measurements from a CO<sub>2</sub> continuous emissions monitoring system (CEMS). Because emissions from all four boilers pass through a common stack, the CEMS can capture emissions from all Part 98-affected sources at the facility. Specific language for new Title V permit conditions implementing the GHG reporting requirements has been proposed in the permit markup in Appendix 2.

### 3. REQUESTED PERMIT CHANGES

The following subsections refer to current Title V operating permit conditions that MEA is proposing to modify.

#### 3.1 Condition 3.1.9. – NO<sub>x</sub> Budget Trading Program

This condition is proposed for deletion because the NO<sub>x</sub> Budget Trading Program was replaced by the Clean Air Interstate Rule (CAIR). The underlying applicable regulation for this permit condition is 45CSR26, which no longer exists. Condition 3.1.9. is listed in Section 22 of the General Form in the “Inactive Permits/Obsolete Permit Conditions” table.

#### 3.2 Condition 3.1.10. – CAMR Mercury Budget Trading Program

This condition is proposed for deletion because the Clean Air Mercury Rule was vacated by the D.C. Circuit Court on February 8, 2008. U.S. EPA subsequently replaced CAMR with the Utility MATS rule (see MATS discussion in Section 2.2). The underlying applicable regulation for this permit condition is 45CSR37, which no longer exists. Condition 3.1.10. is listed in Section 22 of the General Form in the “Inactive Permits/Obsolete Permit Conditions” table.

#### 3.3 Condition 4.1.5. – Fuel Sulfur and Ash Limits

MEA requests that this permit condition be modified in order to clarify that the fuel sulfur and ash content limitations are each subject to a 30-day averaging period.

The following changes to the language of this condition are being proposed:

4.1.5. The <del>coal</del> <u>fuel</u> to be fired in CFB boilers 1 & 2 shall have a percent maximum sulfur content of 3.5 and a percent maximum ash content of 51.7 <u>based on a 30-day rolling average of the daily as-fired fuel samples (determined on an as-received basis).</u>
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#### 3.4 Condition 4.1.6. – SO<sub>2</sub> Removal Efficiency

MEA requests that this permit condition be modified in order to clarify that the sulfur dioxide removal efficiency limitation is subject to a 30-day averaging period.

The following changes to the language of this condition are being proposed:

4.1.6. The sulfur dioxide reduction efficiency from each of the two (2) circulating fluidized bed boilers shall be no less than 94.6% <u>on a 30-day rolling average basis in accordance with 40 C.F.R. §60.49Da(b).</u> <i>[Compliance with this streamlined limit ensures compliance with 70 percent reduction requirement in 40 C.F.R. §60.43Da(a)(2).]</i>
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### 3.5 Condition 4.1.7 – CFB Boiler Emission Limits

MEA requests that the emission limit table be modified in order to clarify the averaging periods for SO<sub>2</sub> and NO<sub>x</sub> in units of lbm/hr and lbm/mmBtu.

The following changes to the language of this condition are being proposed:

Pollutant	lbm/hr	lbm/mmBtu	Concentration
Sulfur Dioxide	285 (24-hr average)	0.40 <sup>(3)</sup> (30-day average)	215 ppmvd @ 3.0% O <sub>2</sub> (24-hr average)
Nitrogen Oxides (NO <sub>2</sub> )	300 (24-hr average)	0.40 (30-day average)	293 ppmvd @ 3.0% O <sub>2</sub> (24-hr average)

### 3.6 Condition 4.1.9 – CFB and Aux Boiler Combined Emission Limits

MEA requests that the emission limit table be modified in order to clarify the averaging periods for SO<sub>2</sub> and NO<sub>x</sub> in units of lbm/hr and lbm/mmBtu. The following changes to the language of this condition are being proposed:

Pollutant	lbm/hr	lbm/mmBtu
Sulfur Dioxide <sup>(1)</sup>	285 (24-hr average) <sup>(3)</sup>	0.40 (30-day average) <sup>(4)</sup>
Nitrogen Oxides (NO <sub>2</sub> ) <sup>(1)</sup>	300 (24-hr average)	0.40 (30-day average) <sup>(3)</sup>

### 3.7 Condition 4.2.1. – CEMS Requirements

This condition currently requires that the SO<sub>2</sub>, NO<sub>x</sub>, and CO<sub>2</sub> continuous emission monitoring systems (CEMS) at Morgantown Energy Facility be compliant with the relevant requirements in 40 C.F.R. Part 60. However, the CEMS are also subject to the requirements of 40 CFR Part 75 including the quality assurance and quality control requirements of §75.21 and Appendix B. The Part 75 requirements are sometimes in conflict with those in Part 60, which can sometimes create confusion when trying to satisfy both sets of applicable regulations.

The U.S. Environmental Protection Agency has recognized this issue and responded by allowing sources to follow only Part 75 CEMS requirements for those monitoring systems subject to both rules. For sources subject to 40 C.F.R. Part 60 Subpart Da monitoring requirements, this option is identified in §§60.49(b)(4), (c)(2), and (d) for SO<sub>2</sub>, NO<sub>x</sub>, and diluent CEMS respectively. The two significant restrictions on the use of data from Part 75 CEMS to meet the requirements of Subpart Da are that: 1) substitute data values derived from the missing data procedures in Subpart D of Part 75 cannot be used, and 2) the data cannot be adjusted for bias according to the procedures of Part 75.

MEA requests that the wording of Condition 4.2.1 be modified to clarify that Morgantown Energy Facility has the flexibility to follow only Part 75 requirements for the SO<sub>2</sub>, NO<sub>x</sub> and CO<sub>2</sub> CEMS. The following changes to the language of this condition are being proposed:

4.2.1. The owner or operator shall install, calibrate, certify, operate, maintain, and record the output of continuous monitoring systems that measure all Opacity, SO<sub>2</sub>, NO<sub>x</sub>, and O<sub>2</sub> or CO<sub>2</sub> emissions from emission point Stack 1 as specified in 40 C.F.R. Part 60, Subpart Da for the CFB boilers; and NO<sub>x</sub> as specified in 40 C.F.R. Part 60, Subpart Db for the auxiliary boilers. Alternatively, the SO<sub>2</sub>, NO<sub>x</sub> and O<sub>2</sub> or CO<sub>2</sub> CEMS shall be certified, operated, and maintained in accordance with the requirements of 40 C.F.R. Part 75, provided that the relevant requirements of 40 CFR §§60.49(b)(4), (c)(2), and (d) are met. Compliance with this streamlined provision assures compliance 45CSR13/14 - Permit No. R13-1085B/R14-7B "Other Requirement (B)(1)(d)".

### 3.8 Condition 4.3.2. – SO<sub>2</sub> Compliance Determination

MEA requests that this permit condition be modified in order to clarify that compliance with the SO<sub>2</sub> limit in units of lbm/hr is demonstrated based on a 24-hour average and that compliance with the SO<sub>2</sub> lb/mmBtu and percent reduction limitations is demonstrated based on a 30-day average.

The following changes to the language of this condition are being proposed:

4.3.2. Compliance with the sulfur dioxide emission limitation and sulfur dioxide reduction requirements under conditions 4.1.7., ~~and 4.1.6., and 4.1.9.,~~ and as required by 40 C.F.R. §60.43Da(a), shall be demonstrated in accordance with 40 C.F.R. §60.8, 40 C.F.R. §60.48Da, 40 C.F.R. §60.49Da and 40 C.F.R. §60.50Da, except that compliance with the maximum SO<sub>2</sub> emission limitation in terms of ppm and lb/hr shall be demonstrated for each and all fixed twenty-four hour periods. Compliance with the SO<sub>2</sub> emission limitations in terms of lb/mmBtu and SO<sub>2</sub> percent reduction shall be demonstrated based on the average for each successive 30 boiler operating days.

### 3.9 Condition 4.4.1.b. – Fuel Recordkeeping

MEA requests that this permit condition be modified in order to clarify that fuel sampling is performed based on daily as-fired samples rather than sampling each shipment. This change is necessary in order to align the permit language with the applicable regulatory requirement in 40 C.F.R. §60.49(b)(3) to maintain an "as fired" fuel monitoring system meeting the requirements of Method 19 of Part 60 Appendix A. For the purpose of as-fired fuel sampling under Method 19, sources must collect fuel samples that are representative of the fuel bunkered or consumed during each steam generating unit operating day. This can only be accomplished through daily sampling of the as-fired fuel, not through sampling of each shipment that is delivered to the facility.

The following changes to the language of this condition are being proposed:

4.4.1 b. Coal – Ash and BTU analysis from daily as-fired fuel samples required per condition 4.1.5. for each shipment and the quantity of fuel consumed on a daily basis.

#### 4. PERMIT APPLICATION

This section of the application contains the Title V Checklist for Administrative Completeness form followed by the completed General Forms that are required to be included with each Title V permit renewal application. The application has been signed and dated by the Title V Responsible Official. The following required attachments have been placed behind the General Forms:

- **Attachment A** Area Map
- **Attachment B** Plot Plan
- **Attachment C** Process Flow Diagrams
- **Attachment D** Equipment Table
- **Attachment E** Emission Unit Forms
- **Attachment G** Air Pollution Control Device Forms

Note that Attachment H, the Compliance Assurance Monitoring (CAM) Plan Form, is not included with this application because the current MEA Title V permit contains CAM Plan conditions covering all Pollutant-Specific Emissions Units that are required to have a CAM Plan under the provisions of 40 CFR Part 64.

In addition to the required attachments, the following additional appendices have been included with the application:

- **Appendix 1** contains emission calculations that were utilized for emission estimates that are based on emission factors rather than permit limits.
- **Appendix 2** contains a markup of the current Title V permit with all of the proposed changes discussed previously in Sections 2 and 3.

**TITLE V PERMIT APPLICATION CHECKLIST  
FOR ADMINISTRATIVE COMPLETENESS**

<p>A complete application is demonstrated when all of the information required below is properly prepared, completed and attached. The items listed below are required information which must be submitted with a Title V permit application. Any submittal will be considered incomplete if the required information is not included.*</p>	
<input checked="" type="checkbox"/>	Two signed copies of the application (at least one <u>must</u> contain the original “ <i>Certification</i> ” page signed and dated in blue ink)
<input checked="" type="checkbox"/>	Correct number of copies of the application on separate CDs or diskettes, (i.e. at least one disc per copy)
<input checked="" type="checkbox"/>	*Table of Contents (needs to be included but not for administrative completeness)
<input checked="" type="checkbox"/>	Facility information
<input checked="" type="checkbox"/>	Description of process and products, including NAICS and SIC codes, and including alternative operating scenarios
<input checked="" type="checkbox"/>	Area map showing plant location
<input checked="" type="checkbox"/>	Plot plan showing buildings and process areas
<input checked="" type="checkbox"/>	Process flow diagram(s), showing all emission units, control equipment, emission points, and their relationships
<input checked="" type="checkbox"/>	Identification of all applicable requirements with a description of the compliance status, the methods used for demonstrating compliance, and a Schedule of Compliance Form (ATTACHMENT F) for all requirements for which the source is not in compliance
<input checked="" type="checkbox"/>	Listing of all active permits and consent orders (if applicable)
<input checked="" type="checkbox"/>	Facility-wide emissions summary
<input checked="" type="checkbox"/>	Identification of Insignificant Activities
<input checked="" type="checkbox"/>	ATTACHMENT D - Title V Equipment Table completed for all emission units at the facility except those designated as insignificant activities
<input checked="" type="checkbox"/>	ATTACHMENT E - Emission Unit Form completed for each emission unit listed in the Title V Equipment Table (ATTACHMENT D) and a Schedule of Compliance Form (ATTACHMENT F) for all requirements for which the emission unit is not in compliance
<input checked="" type="checkbox"/>	ATTACHMENT G - Air Pollution Control Device Form completed for each control device listed in the Title V Equipment Table (ATTACHMENT D)
<input type="checkbox"/>	ATTACHMENT H – Compliance Assurance Monitoring (CAM) Plan Form completed for each control device for which the “Is the device subject to CAM?” question is answered “Yes” on the Air Pollution Control Device Form (ATTACHMENT G)
<input checked="" type="checkbox"/>	General Application Forms signed by a Responsible Official
<input type="checkbox"/>	Confidential Information submitted in accordance with 45CSR31



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., 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.

<b>11. Mailing Address</b>		
Street or P.O. Box: 555 Beechurst Ave.		
City: Morgantown	State: WV	Zip: 26505-
Telephone Number: (304) 284-2500	Fax Number: (304) 284-2509	

<b>12. Facility Location</b>		
Street: 555 Beechurst Ave.	City: Morgantown	County: Monongalia
UTM Easting: 589.20 km	UTM Northing: 4,388.10 km	Zone: <input checked="" type="checkbox"/> 17 or <input type="checkbox"/> 18
<p><b>Directions:</b> From Charleston take Interstate 79 North to Exit 152. Bear right onto Fairmont Rd (US-19) approximately 1.9 miles. Turn right onto Holland Ave. (US-19) approximately 1.4 miles to University Avenue. Turn left on Beechurst Ave. Facility is located on the left approximately 0.8 miles.</p>		
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). Maryland Pennsylvania	
Is facility located within 100 km of a Class I Area <sup>1</sup> ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, name the area(s).	
If no, do emissions impact a Class I Area <sup>1</sup> ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
<p><sup>1</sup> Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.</p>		

<b>13. Contact Information</b>		
<b>Responsible Official:</b> Todd Shirley		<b>Title:</b> Projects General Manager
<b>Street or P.O. Box:</b> 555 Beechurst Ave.		
<b>City:</b> Morgantown	<b>State:</b> WV	<b>Zip:</b> 26505-
<b>Telephone Number:</b> (704) 815-8022	<b>Fax Number:</b> (704) 815-8062	
<b>E-mail address:</b> tshirley@ppmsllc.com		
<b>Environmental Contact:</b> David Dieringer		<b>Title:</b> Compliance Technician
<b>Street or P.O. Box:</b> 555 Beechurst Ave.		
<b>City:</b> Morgantown	<b>State:</b> WV	<b>Zip:</b> 26505-
<b>Telephone Number:</b> (304) 284-2518	<b>Fax Number:</b> (304) 284-2509	
<b>E-mail address:</b> david.dieringer@morgantownenergy.com		
<b>Application Preparer:</b> Bart Vince		<b>Title:</b> President
<b>Company:</b> Birchrun Environmental Consulting LLC		
<b>Street or P.O. Box:</b> P.O. Box 70		
<b>City:</b> Birchrunville	<b>State:</b> PA	<b>Zip:</b> 19421-
<b>Telephone Number:</b> (484) 200-7540	<b>Fax Number:</b> ( ) -	
<b>E-mail address:</b> bart.vince@birchrunenvironmental.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
Fossil fuel fired cogeneration facility	Electricity/Steam	221112	4911

**Provide a general description of operations.**

The Morgantown Energy Facility is a fossil fuel fired cogeneration facility and operates under Standard Industrial Classification (SIC) code 4911. The facility consists of two 375 mmBtu/hr waste coal and coal fired circulating fluidized bed (CFB) boilers and related facilities, including a steam transmission line and two 132 mmBtu/hr auxiliary natural gas fired boilers. Combined operation of the CFB and auxiliary boilers occurs occasionally. Typically, combined operation occurs when one CFB boiler is taken off-line for maintenance causing one or both auxiliary boilers to be brought on-line. Combined operation may also occur during periods of high steam demand from West Virginia University. When this occurs, combined operation consists of both CFBs being on-line as well as one or both auxiliary boilers. It is also occasionally necessary to take both CFBs off-line. The auxiliary boilers are brought on-line in this situation to meet the steam demand for West Virginia University. Other supporting operations include coal handling, limestone handling, and ash handling, as well as various tanks with insignificant emissions. The facility has the potential to operate seven days per week, twenty-four hours per day and fifty-two weeks per year.

- 15. Provide an **Area Map** showing plant location as **ATTACHMENT A**.
- 16. Provide a **Plot Plan(s)**, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is located as **ATTACHMENT B**. For instructions, refer to "Plot Plan - Guidelines."
- 17. Provide a detailed **Process Flow Diagram(s)** showing each process or emissions unit as **ATTACHMENT C**. Process Flow Diagrams should show all emission units, control equipment, emission points, and their relationships.

**Section 2: Applicable Requirements**

<b>18. Applicable Requirements Summary</b>	
Instructions: Mark all applicable requirements.	
<input checked="" type="checkbox"/> SIP	<input type="checkbox"/> FIP
<input checked="" type="checkbox"/> Minor source NSR (45CSR13)	<input checked="" type="checkbox"/> PSD (45CSR14)
<input checked="" type="checkbox"/> NESHAP (45CSR15)	<input type="checkbox"/> Nonattainment NSR (45CSR19)
<input checked="" type="checkbox"/> Section 111 NSPS	<input checked="" 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 checked="" type="checkbox"/> CAIR NO <sub>x</sub> Annual Trading Program (45CSR39)	<input checked="" type="checkbox"/> CAIR NO <sub>x</sub> Ozone Season Trading Program (45CSR40)
<input checked="" type="checkbox"/> CAIR SO <sub>2</sub> Trading Program (45CSR41)	

<b>19. Non Applicability Determinations</b>
<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>a. <b>40 CFR 60 Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units:</b> Heat input capacity of the CFB and auxiliary boilers &gt; 100 MMBtu/hr [Not applicable per 40 CFR 60.40c(a)]</p> <p>b. <b>40 CFR 60 Subpart K - Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978:</b> No tanks with capacity &gt; 40,000 gallons [Not applicable per 40 CFR 60.110(a)]</p> <p>c. <b>40 CFR 60 Subpart Ka - Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984:</b> No tanks with capacity &gt; 40,000 gallons [Not applicable per 40 CFR 60.110a(a)]</p> <p>d. <b>40 CFR 60 Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984:</b> No tanks with capacity &gt; 75 m<sup>3</sup> (19,812.9 gallons) [Not applicable per 40 CFR 60.110b(a)]</p>
<input checked="" type="checkbox"/> Permit Shield

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

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.

- e. **40 CFR 60 Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants:** The facility utilizes limestone, a nonmetallic mineral, but it does not meet the definition of a “nonmetallic mineral processing plant” in §60.671 because the limestone is not crushed or ground onsite. [Not applicable per 40 CFR 60.670(a)(1)]
- f. **40 CFR 60 Subpart CCCC - Standards of Performance for Commercial and Industrial Solid Waste Incineration Units:** The CFB Boilers are not commercial and industrial solid waste incineration (CISWI) units as defined in §60.2265. This is due the fact that they are fired by a blend of virgin bituminous coal and coal refuse as well as natural gas for startup purposes. All of these fuels meet the definition of “traditional fuels” in 40 CFR §241.2 and hence are not considered solid wastes.
- g. **40 CFR 63 Subpart Q - National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers:** Facility does not include an “industrial process cooling tower” as defined in §63.401. [Not applicable per 40 CFR 63.400(a)]
- h. **40 CFR 63 Subpart T - National Emission Standards for Halogenated Solvent Cleaning:** The batch cold solvent cleaning machine at the facility does not utilize any solvent containing methylene chloride (CAS No. 75-09-2), perchloroethylene (CAS No. 127-18-4), trichloroethylene (CAS No. 79-01-6), 1,1,1-trichloroethane (CAS No. 71-55-6), carbon tetrachloride (CAS No. 56-23-5) or chloroform (CAS No. 67-66-3), or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent. [Not applicable per 40 CFR 63.460(a)]
- i. **40 CFR 63 Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources:** The facility is not an area source of HAP emissions. [Not applicable per 40 CFR 63.11193]
- j. **40 CFR 72, Permits Regulation & 45CSR33, Acid Rain Provisions and Permits:** The facility 1) meets the definition of a “Qualifying Facility” in 40 CFR §72.2; 2) has, as of November 15, 1990, one or more qualifying power purchase commitments to sell at least 15 percent of its total planned net output capacity; and 3) consists of one or more units designated by the owner or operator with total installed net output capacity not exceeding 130 percent of the total planned net output capacity. [Exempt per 40 CFR 72.6(b)(5)]
- k. **40 CFR 98 Subpart D - Electricity Generation:** Facility is not subject to the Acid Rain Program and is not required to monitor and report CO<sub>2</sub> mass emissions year-round according to 40 CFR 75. [Not applicable per § 98.40(a)]
- l. **45CSR5 - To Prevent and Control Air Pollution from the Operation of Coal Preparation Plants, Coal Handling Operations and Coal Refuse Disposal Areas:** The facility does not meet the definition of “coal preparation plant” in 45CSR§5-2.4 because it is subject to 45CSR2. [Exempt per 45CSR§5-2.4b]
- m. **45CSR7 - To Prevent and Control Particulate Matter Air Pollution from Manufacturing Processes and Associated Operations:** The facility is subject to 45CSR2. [Exempt per 45CSR§7-10.1]
- n. **45CSR17 - To Prevent and Control Particulate Matter Air Pollution from Material Handling, Preparation, Storage and Other Sources of Fugitive Particulate Matter:** The facility is subject to 45CSR2. [exempt per 45CSR§17-6.1]

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).**

Note: All references to a Title V (T5) permit condition in this section refer to Permit No. R30-06100027-2008.

- FWAR-1
- FWAR-2
- FWAR-3
- FWAR-4
- FWAR-5
- FWAR-6
- FWAR-7
- FWAR-8
- FWAR-9
- FWAR-10
- FWAR-11
- FWAR-12
- FWAR-13
- FWAR-14

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.)**

Facility-wide monitoring / testing / recordkeeping / reporting (FWTRR) requirements are listed below by number. The numbers are linked to detailed information contained in Table 20B. FWTRR requirements are also referenced for each applicable requirement from the last column of Table 20A (applicable requirements)

- FWTRR-1
- FWTRR-2
- FWTRR-3
- FWTRR-4
- FWTRR-5
- FWTRR-6
- FWTRR-7
- FWTRR-8
- FWTRR-9
- FWTRR-10
- FWTRR-11
- FWTRR-12
- FWTRR-13
- FWTRR-14
- FWTRR-15

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

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

<b>Table 20.A Facility-Wide Applicable Requirements (FWAR)</b>				
<b>List all facility-wide applicable requirements. For each applicable requirement, include the rule citation and/or permit with the condition number.</b>				
<b>Link from General Form, Item 20</b>	<b>Applicable Requirement Citation</b>	<b>Permit Condition No. from Permit R30-06100027-2008</b>	<b>Requirement Summary</b>	<b>Monitoring Testing Recordkeeping Reporting Requirement Links</b>
FWAR-1	45CSR§6-3.1	3.1.1	<b>Open burning.</b> The open burning of refuse by any person is prohibited except as noted in 45CSR§6-3.1.	FWTRR-10
FWAR-2	45CSR§6-3.1	3.1.2	<b>Open burning exemptions.</b> 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.	FWTRR-10
FWAR-3	40 C.F.R. 61 and 45CSR34	3.1.3	<b>Asbestos.</b> Thoroughly inspect the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and comply with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. Notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal.	FWTRR-8 FWTRR-10
FWAR-4	45CSR§4-3.1 State Enforceable Only	3.1.4	<b>Odor.</b> 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.	FWTRR-4
FWAR-5	45CSR§11-5.2	3.1.5	<b>Standby plan for reducing emissions.</b> 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 when requested by the Secretary.	FWTRR-8 FWTRR-10
FWAR-6	W.Va. Code § 22-5-4(a)(14)	3.1.6	<b>Emission inventory.</b> Submit, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality.	FWTRR-3 FWTRR-6 FWTRR-8 FWTRR-9 FWTRR-10
FWAR-7	40 C.F.R. 82 Subpart F	3.1.7	<b>Ozone-depleting substances.</b> For those facilities performing maintenance, service, repair or disposal of appliances, 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.	FWTRR-10
FWAR-8	40 C.F.R. 68	3.1.8	<b>Risk Management Plan.</b> 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	FWTRR-10

<b>Table 20.A Facility-Wide Applicable Requirements (FWAR)</b>				
<b>List all facility-wide applicable requirements. For each applicable requirement, include the rule citation and/or permit with the condition number.</b>				
<b>Link from General Form, Item 20</b>	<b>Applicable Requirement Citation</b>	<b>Permit Condition No. from Permit R30-06100027-2008</b>	<b>Requirement Summary</b>	<b>Monitoring Testing Recordkeeping Reporting Requirement Links</b>
			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.	
FWAR-9	45CSR§2-5	3.1.11	<p><b>Fugitive Particulate Matter Control.</b> No person shall cause, suffer, allow, or permit any source of fugitive particulate matter to operate that is not equipped with a fugitive particulate matter control system. This system shall be operated and maintained in such a manner as to minimize the emission of fugitive particulate matter. Sources of fugitive particulate matter associated with fuel burning units shall include, but not be limited to, the following:</p> <ul style="list-style-type: none"> <li>a. Stockpiling of ash or fuel either in the open or in enclosures such as silos;</li> <li>b. Transport of ash in vehicles or on conveying systems, to include spillage, tracking, or blowing of particulate matter from or by such vehicles or equipment; and</li> <li>c. Ash or fuel handling systems and ash disposal areas.</li> </ul>	FWTRR-5 FWTRR-10
FWAR-10	45CSR13/14-Permit No. R13-1085B/R14-7B Specific Requirement (A) (7)	3.1.12	All plant roads and haulways shall be paved and shall be kept clean by appropriate measurements to minimize the emission or entrainment of fugitive particulate matter.	FWTRR-5 FWTRR-10
FWAR-11	45CSR§§ 39-6.1.b, 39-20.1, 39-23.2, & 39-24.1	3.1.13	<p><b>CAIR NO<sub>x</sub> Annual Trading Program.</b> The permittee shall comply with the standard requirements set forth in the attached CAIR Permit Application (see Appendix C) and the CAIR permit requirements set forth in 45CSR39 for each CAIR NO<sub>x</sub> Annual source. The complete CAIR Permit Application shall be the CAIR Permit portion of the Title V permit administered in accordance with 45CSR30.</p> <ul style="list-style-type: none"> <li>a. The CAIR Permit portion of this permit is deemed to incorporate automatically the definitions of terms under 45CSR§39-2 and, upon recordation by the Administrator under sections 51 through 57, or 60 through 62 of 45CSR39, every allocation, transfer, or deduction of a CAIR NO<sub>x</sub> Annual allowance to or from the compliance account of the CAIR NO<sub>x</sub> Annual source covered by the permit.</li> <li>b. Except as provided in 45CSR§39-23.2, the Secretary will revise the CAIR Permit portion of this permit, as necessary, in accordance with the operating permit revision requirements set forth in 45CSR30.</li> </ul>	45CSR§ 39-6.2
FWAR-12	45CSR§§ 40-6.1.b, 40-20.1,	3.1.14	<p><b>CAIR NO<sub>x</sub> Ozone Season Trading Program.</b> The permittee shall comply with the standard requirements set forth in the attached CAIR Permit Application (see Appendix C) and the CAIR permit requirements set forth in 45CSR40 for each CAIR NO<sub>x</sub> Ozone Season source. The complete</p>	45CSR§ 40-6.2

<b>Table 20.A Facility-Wide Applicable Requirements (FWAR)</b>				
<b>List all facility-wide applicable requirements. For each applicable requirement, include the rule citation and/or permit with the condition number.</b>				
<b>Link from General Form, Item 20</b>	<b>Applicable Requirement Citation</b>	<b>Permit Condition No. from Permit R30-06100027-2008</b>	<b>Requirement Summary</b>	<b>Monitoring Testing Recordkeeping Reporting Requirement Links</b>
	40-23.2, & 40-24.1		<p>CAIR Permit Application shall be the CAIR Permit portion of the Title V permit administered in accordance with 45CSR30.</p> <p>a. The CAIR Permit portion of this permit is deemed to incorporate automatically the definitions of terms under 45CSR§40-2 and, upon recordation by the Administrator under sections 51 through 57, or 60 through 62 of 45CSR40, every allocation, transfer, or deduction of a CAIR NO<sub>x</sub> Ozone Season allowance to or from the compliance account of the CAIR NO<sub>x</sub> Ozone Season source covered by the permit.</p> <p>b. Except as provided in 45CSR§40-23.2, the Secretary will revise the CAIR Permit portion of this permit, as necessary, in accordance with the operating permit revision requirements set forth in 45CSR30.</p>	
FWAR-13	45CSR§§ 41-6.1.b., 41-20.1, 41-23.2, & 41-24.1	3.1.15	<p><b>CAIR SO<sub>2</sub> Trading Program.</b> The permittee shall comply with the standard requirements set forth in the attached CAIR Permit Application (see Appendix C) and the CAIR permit requirements set forth in 45CSR41 for each CAIR SO<sub>2</sub> source. The complete CAIR Permit Application shall be the CAIR Permit portion of the Title V permit administered in accordance with 45CSR30.</p> <p>a. The CAIR Permit portion of this permit is deemed to incorporate automatically the definitions of terms under 45CSR§41-2 and, upon recordation by the Administrator under sections 51 through 57, or 60 through 62 of 45CSR41, every allocation, transfer, or deduction of a CAIR SO<sub>2</sub> allowance to or from the compliance account of the CAIR SO<sub>2</sub> source covered by the permit.</p> <p>b. Except as provided in 45CSR§41-23.2, the Secretary will revise the CAIR Permit portion of this permit, as necessary, in accordance with the operating permit revision requirements set forth in 45CSR30.</p>	45CSR§ 41-6.2
FWAR-14	40 C.F.R. 98	None	<p><b>Greenhouse Gas Reporting.</b> Follow the mandatory greenhouse gas (GHG) reporting requirements of 40 C.F.R. Part 98 including all applicable subparts if the facility meets the applicability requirements of either §§ 98.2(a)(1), 98.2(a)(2), or 98.2(a)(3).</p>	FWTRR-15

**Table 20B. Facility-Wide Testing , Recordkeeping and Reporting Requirements (FWTRR)**

**For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If method is based on a permit or rule, include the conditions 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.)**

Link from Table 20A	Applicable Requirement Citation	Permit Condition Number from Permit R30-06100027-2008	Requirement Summary
FWTRR-1	WV Code§22-5-4(a)(15) and 45CSR13/14	3.3.1	<p><b>Stack testing.</b> 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> <ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>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.</li> </ul>
FWTRR-2	45CSR§30-5.1.c.2.A.	3.4.1	<p><b>Recordkeeping - Monitoring Information.</b> Maintain records of monitoring information that include the following:</p> <ul style="list-style-type: none"> <li>a. The date, place as defined in this permit and time of sampling or measurements;</li> <li>b. The date(s) analyses were performed;</li> </ul>

**Table 20B. Facility-Wide Testing , Recordkeeping and Reporting Requirements (FWTRR)**

**For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If method is based on a permit or rule, include the conditions 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.)**

Link from Table 20A	Applicable Requirement Citation	Permit Condition Number from Permit R30-06100027-2008	Requirement Summary
			<ul style="list-style-type: none"> <li>c. The company or entity that performed the analyses;</li> <li>d. The analytical techniques or methods used;</li> <li>e. The results of the analyses; and</li> <li>f. The operating conditions existing at the time of sampling or measurement.</li> </ul>
FWTRR-3	45CSR§30-5.1.c.2.B.	3.4.2	<p><b>Recordkeeping - Retention of records.</b> 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.</p>
FWTRR-4	45CSR§30-5.1.c. State-Enforceable only	3.4.3	<p><b>Recordkeeping - Odors.</b> For the purposes of 45CSR4, maintain a record of all odor complaints received. Such record shall contain an assessment of the validity of the complaints as well as any corrective actions taken.</p>
FWTRR-5	45CSR§30-5.1.c.	3.4.4	<p><b>Recordkeeping – Dust Control.</b> Maintain records indicating the use of any dust suppressants or any other suitable dust control measures applied at the facility. Inspect all fugitive dust control systems weekly from May 1 through September 30 and monthly from October 1 through April 30 to ensure that they are operated and maintained in conformance with their designs. Maintain records of all scheduled and non-scheduled maintenance and record any maintenance or corrective actions taken as a result of the weekly and/or monthly inspections, the times the fugitive dust control system(s) were inoperable and any corrective actions taken.</p>
FWTRR-6	45CSR§30-4.4. and 5.1.c.3.D.	3.5.1	<p><b>Responsible official.</b> 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.</p>
FWTRR-7	45CSR§30-5.1.c.3.E.	3.5.2	<p><b>Reporting - Confidential Information.</b> Confidential treatment for the submission of reporting required under 45CSR§30-5.1.c.3. may be requested pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.</p>
FWTRR-8	Not Applicable	3.5.3	<p><b>Reporting – Delivery Addresses.</b> 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, or mailed first class with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of</p>

**Table 20B. Facility-Wide Testing , Recordkeeping and Reporting Requirements (FWTRR)**

**For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If method is based on a permit or rule, include the conditions 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.)**

Link from Table 20A	Applicable Requirement Citation	Permit Condition Number from Permit R30-06100027-2008	Requirement Summary
			Environmental Protection may designate:  <b>If to the DAQ:</b> Director WVDEP Division of Air Quality 601 57 <sup>th</sup> Street SE Charleston, WV 25304-2943 Phone: 304/926-0475 FAX: 304/926-0479  <b>If to the US EPA:</b> Associate Director Office of Enforcement and Permits Review (3AP10) U. S. Environmental Protection Agency Region III 1650 Arch Street Philadelphia, PA 19103-2029
FWTRR-9	45CSR§30-8.	3.5.4	<b>Reporting - Certified emissions statement.</b> Submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality.
FWTRR-10	45CSR§30-5.3.e.	3.5.5	<b>Reporting - Compliance certification.</b> Annually certify compliance with the conditions of this permit on the forms provided by the DAQ. Submit certifications more frequently if required 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. Maintain a copy of the certification on site for five (5) years from submittal of the certification.
FWTRR-11	45CSR§30-5.1.c.3.A.	3.5.6	<b>Reporting - Semi-annual monitoring reports.</b> Submit reports of any required monitoring on September 15 for the reporting period January 1 to June 30 and March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4.
FWTRR-12	45CSR§30-5.7	3.5.7	<b>Recordkeeping and Reporting - Emergencies.</b> The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that: <ol style="list-style-type: none"> <li>An emergency occurred and that the permittee can identify the cause(s) of the emergency;</li> <li>The permitted facility was at the time being properly operated;</li> <li>During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and</li> <li>Subject to the requirements of 45CSR§30-5.1.c.3.C.1, the permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice, report, and variance request fulfills the requirement of 45CSR§30-5.1.c.3.B. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions</li> </ol>

**Table 20B. Facility-Wide Testing , Recordkeeping and Reporting Requirements (FWTRR)**

**For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If method is based on a permit or rule, include the conditions 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.)**

Link from Table 20A	Applicable Requirement Citation	Permit Condition Number from Permit R30-06100027-2008	Requirement Summary
			taken.
FWTRR-13	45CSR§30-5.1.c.3.C.	3.5.8	<p><b>Reporting – Deviations.</b> In addition to monitoring reports required by this permit, promptly submit supplemental reports and notices in accordance with the following:</p> <ol style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.</li> <li>4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken.</li> </ol> <p>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.</p>
FWTRR-14	45CSR§30-4.3.h.1.B.	3.5.9	<p><b>New applicable requirements.</b> 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.</p>
FWTRR-15	40 C.F.R. 98.3	None	<p><b>Recordkeeping and Reporting – Greenhouse Gas (GHG) Emissions.</b> Report GHG emissions</p> <p>§98.3(a) – Except as provided in paragraph (d) of §98.3, follow the procedures for emission calculation, monitoring, quality assurance, missing data, recordkeeping, and reporting that are specified in each relevant subpart of Part 98.</p> <p>§98.3(b) – The annual report must be submitted no later than March 31 of each calendar year for GHG emissions in the previous calendar year, except as provided in paragraph (b)(1) of §98.3.</p>

**Table 20B. Facility-Wide Testing , Recordkeeping and Reporting Requirements (FWTRR)**

**For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If method is based on a permit or rule, include the conditions 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.)**

Link from Table 20A	Applicable Requirement Citation	Permit Condition Number from Permit R30-06100027-2008	Requirement Summary
			<p>98.3(g) – Retain all required records for at least 3 years from the date of submission of the annual GHG report for the reporting year in which the record was generated. Upon request by the Administrator, the records required under this section must be made available to EPA.</p> <p>98.3(h) – Submit a revised annual GHG report within 45 days of discovering that an annual GHG report that was previously submitted contains one or more substantive errors. The revised report must correct all substantive errors.</p>

**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>
CO-R13,14,16,30-E-2013-6	05/01/2013	
R30-06100027-2008 (MM01)	12/09/2008	
CAIR Permit (Appendix C to Permit No. R30-06100027-2008)	06/21/2007	
R13-1085B/R14-7B	04/20/1993	
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**Section 3: Facility-Wide Emissions**

<b>23. Facility-Wide Emissions Summary [Tons per Year]</b>	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	558.5
Nitrogen Oxides (NO <sub>x</sub> )	1,314
Lead (Pb)	0.57
Particulate Matter (PM <sub>2.5</sub> ) <sup>1</sup>	66.6
Particulate Matter (PM <sub>10</sub> ) <sup>1</sup>	72.8
Total Particulate Matter (TSP)	101.0
Sulfur Dioxide (SO <sub>2</sub> )	1,248
Volatile Organic Compounds (VOC)	32.9
Hazardous Air Pollutants <sup>2</sup>	Potential Emissions
Hydrogen Chloride (HCl)	24.0
Hydrogen Fluoride (HF)	1.752
Antimony (Sb)	0.0049
Arsenic (As)	0.0088
Beryllium (Be)	0.0009
Cadmium (Cd)	0.0006
Chromium (Cr)	0.0043
Cobalt (Co)	0.0007
Manganese (Mn)	0.0091
Mercury (Hg)	0.0920
Nickel (Ni)	0.0026
Selenium (Se)	0.0015
Total Organic HAP	2.1
Regulated Pollutants other than Criteria and HAP	Potential Emissions
Radionuclides	0.0039
<sup>1</sup> PM <sub>2.5</sub> and PM <sub>10</sub> totals include condensable particulate matter. <sup>2</sup> For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.	

**Section 4: Insignificant Activities**

<b>24. Insignificant Activities (Check all that apply)</b>	
<input checked="" type="checkbox"/>	1. Air compressors and pneumatically operated equipment, including hand tools.
<input checked="" type="checkbox"/>	2. Air contaminant detectors or recorders, combustion controllers or shutoffs.
<input checked="" type="checkbox"/>	3. Any consumer product used in the same manner as in normal consumer use, provided the use results in a duration and frequency of exposure which are not greater than those experienced by consumer, and which may include, but not be limited to, personal use items; janitorial cleaning supplies, office supplies and supplies to maintain copying equipment.
<input checked="" type="checkbox"/>	4. Bathroom/toilet vent emissions.
<input checked="" type="checkbox"/>	5. Batteries and battery charging stations, except at battery manufacturing plants.
<input checked="" type="checkbox"/>	6. Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents. Many lab fume hoods or vents might qualify for treatment as insignificant (depending on the applicable SIP) or be grouped together for purposes of description.
<input type="checkbox"/>	7. Blacksmith forges.
<input checked="" type="checkbox"/>	8. Boiler water treatment operations, not including cooling towers.
<input checked="" type="checkbox"/>	9. Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
<input type="checkbox"/>	10. CO <sub>2</sub> lasers, used only on metals and other materials which do not emit HAP in the process.
<input checked="" type="checkbox"/>	11. Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
<input type="checkbox"/>	12. Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
<input checked="" type="checkbox"/>	13. Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
<input checked="" type="checkbox"/>	14. Demineralized water tanks and demineralizer vents.
<input type="checkbox"/>	15. Drop hammers or hydraulic presses for forging or metalworking.
<input checked="" type="checkbox"/>	16. Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.
<input type="checkbox"/>	17. Emergency (backup) electrical generators at residential locations.
<input type="checkbox"/>	18. Emergency road flares.
<input checked="" type="checkbox"/>	<p>19. Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO<sub>x</sub>, SO<sub>2</sub>, VOC and PM) into the atmosphere at a rate of less than 1 pound per hour and less than 10,000 pounds per year aggregate total for each criteria pollutant from all emission units.</p> <p>Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis:</p> <p><u>One (1) Parts Washer (cold cleaner)</u>  <u>- Potential to emit VOC = 0.075 lb/hr &amp; 0.33 tpy (AP-42, Table 4.6-2)</u></p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>

<b>24. Insignificant Activities (Check all that apply)</b>	
<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 type="checkbox"/>	25. Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
<input checked="" type="checkbox"/>	26. Fire suppression systems.
<input checked="" type="checkbox"/>	27. Firefighting equipment and the equipment used to train firefighters.
<input type="checkbox"/>	28. Flares used solely to indicate danger to the public.
<input checked="" type="checkbox"/>	29. Fugitive emission related to movement of passenger vehicle provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.
<input type="checkbox"/>	30. Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.
<input checked="" type="checkbox"/>	31. Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.
<input type="checkbox"/>	32. Humidity chambers.
<input type="checkbox"/>	33. Hydraulic and hydrostatic testing equipment.
<input checked="" type="checkbox"/>	34. Indoor or outdoor kerosene heaters.
<input checked="" type="checkbox"/>	35. Internal combustion engines used for landscaping purposes.
<input type="checkbox"/>	36. Laser trimmers using dust collection to prevent fugitive emissions.
<input type="checkbox"/>	37. Laundry activities, except for dry-cleaning and steam boilers.
<input checked="" type="checkbox"/>	38. Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
<input checked="" 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 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.

<b>24. Insignificant Activities (Check all that apply)</b>	
<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 checked="" type="checkbox"/>	52. Steam leaks.
<input type="checkbox"/>	53. Steam sterilizers.
<input checked="" type="checkbox"/>	54. Steam vents and safety relief valves.
<input type="checkbox"/>	55. Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.
<input checked="" type="checkbox"/>	56. Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP. Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.
<input type="checkbox"/>	57. Such other sources or activities as the Director may determine.
<input type="checkbox"/>	58. Tobacco smoking rooms and areas.
<input checked="" type="checkbox"/>	59. Vents from continuous emissions monitors and other analyzers.

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

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

**Section 6: Certification of Information**

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

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

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

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

**b. Compliance Certification**

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

**Responsible official (type or print)**

Name: Todd Shirley	Title: Projects General Manager
--------------------	---------------------------------

**Responsible official's signature:**

Signature: \_\_\_\_\_ Signature Date: \_\_\_\_\_  
(Must be signed and dated in blue ink)

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

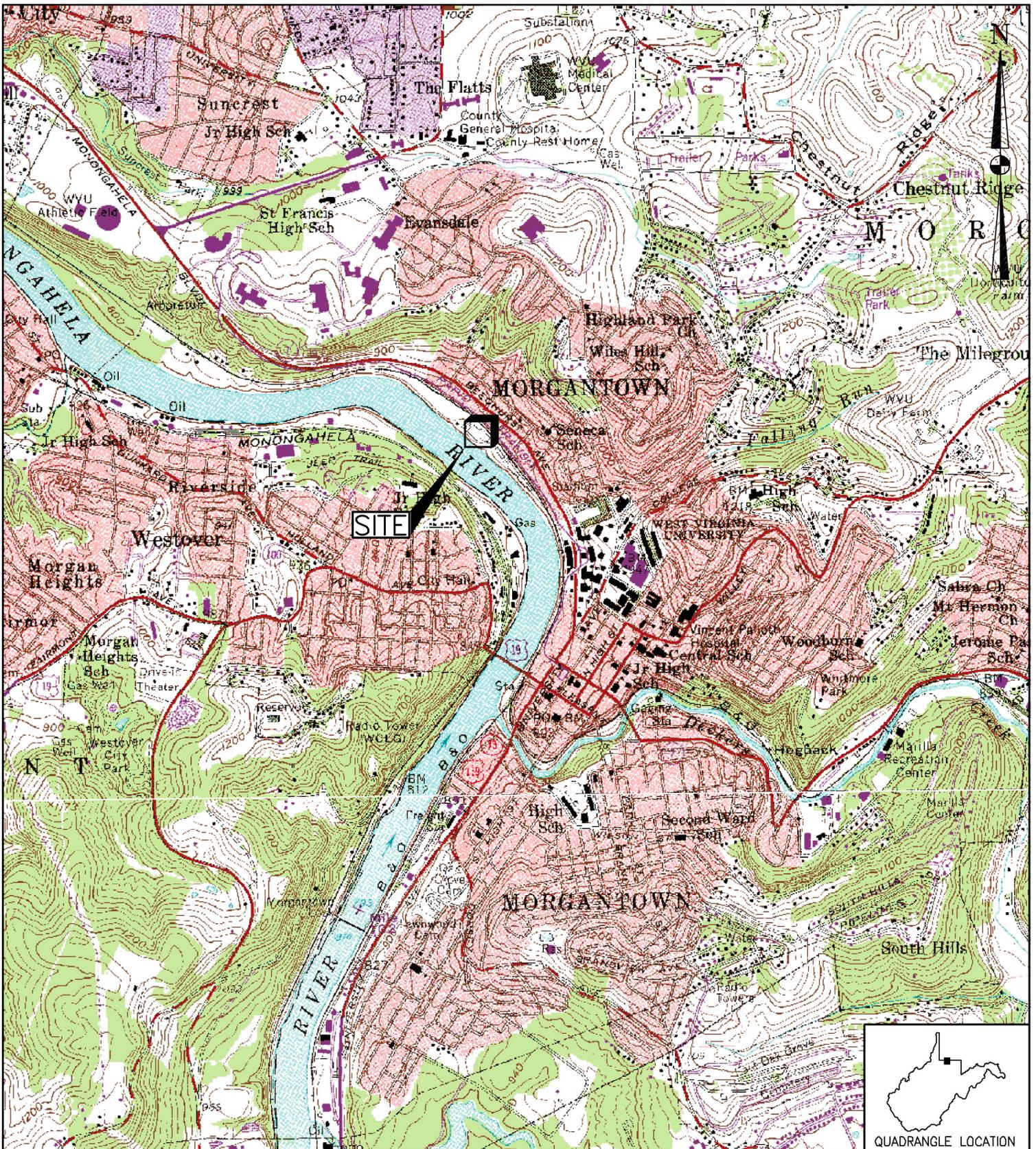
<input checked="" type="checkbox"/>	ATTACHMENT A: Area Map
<input checked="" type="checkbox"/>	ATTACHMENT B: Plot Plan(s)
<input checked="" type="checkbox"/>	ATTACHMENT C: Process Flow Diagram(s)
<input checked="" type="checkbox"/>	ATTACHMENT D: Equipment Table
<input checked="" type="checkbox"/>	ATTACHMENT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

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

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**ATTACHMENT A**  
**Area Map**

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REFERENCE: USGS 7.5' QUADRANGLE MAP OF: MORGANTOWN NORTH, WEST VIRGINIA; DATED 1957, PHOTOREVISED 1976.

DRAWN BY	DJF
DATE	1/2/13
CHECKED BY	RAD
SET JOB NO.	212067
SET DWG FILE	MORGANTOWNm01.dwg
DRAWING SCALE	1"=2000'



98 Vanadium Road Bridgeville, PA 15017 (412) 221-1100

MORGANTOWN ENERGY ASSOCIATES

MORGANTOWN ENERGY FACILITY  
MORGANTOWN, WEST VIRGINIA  
SITE LOCATION MAP

DRAWING NO.

FIGURE 1

REV.

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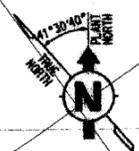
**ATTACHMENT B**  
**Plot Plan**

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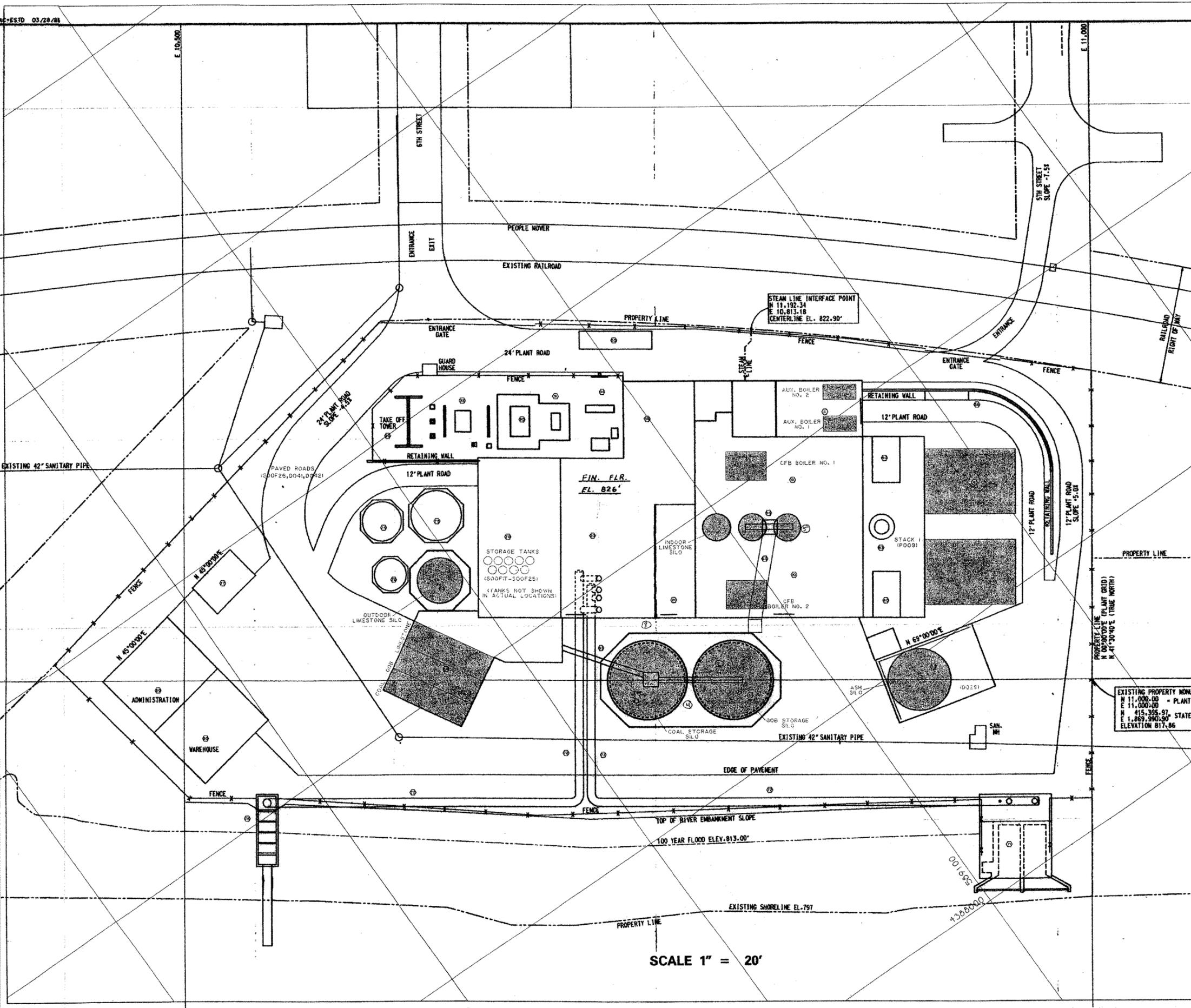
LEGEND

CONTRIBUTING EMISSION SOURCE  
 UTM GRID (50 METERS)

NOTES:  
 1. ABOVEGROUND STORAGE TANKS MAY NOT BE SPECIFICALLY LOCATED.  
 2. PARTS CLEANERS MAY NOT BE SPECIFICALLY LOCATED.



LEGEND		
DESCRIPTION	COORDINATES	LOCATION
	NORTH	EAST
10 BOILER BUILDING	11,036.00	10,784.25
11 AUXILIARY BOILER BUILDING	-	-
20 TURBINE ROOM	-	-
21 HEATER & PUMP BAY	-	-
30 CONTROL BUILDING	-	-
40 I-D. FANS	-	-
41 BAGHOUSE	-	-
43 STACK	11,084.00	10,885.00
44 DUCT WORK	-	-
50 ASH STORAGE SILO	11,010.00	10,883.50
60 TRUCK UNLOADING BUILDING	-	-
61 FUEL SILOS	11,000.17	10,756.25
62 LIMESTONE SILO	11,054.50	10,642.25
63 CONVEYOR	-	-
64 COAL STORAGE SILOS	-	-
65 SCALE	-	-
66 GAS METERING STATION	-	-
70 WATER TREATMENT BUILDING	-	-
71 CIRC. WATER INTAKE STRUCTURE	10,919.68	10,961.85
72 CIRCULATING WATER PIPES	SEE DRAWING	COG 0108
73 CONDENSATE STORAGE TANK	11,090.50	10,640.25
74 CONDENSATE RETURN TANK	11,087.50	10,610.08
75 WASTE NEUTRALIZATION TANK	11,057.92	10,614.75
76 CIRC. WATER DISCHARGE CHUTE	10,932.54	10,546.00
77 FIREWATER PUMP HOUSE	11,050.68	10,506.36
80 OFFICE & WAREHOUSE	10,989.16	10,500.93
89 MAIN TRANSFORMER	-	-
91 AUXILIARY TRANSFORMER	-	-
92 SWITCHYARD	-	-
93 138 KV TRANSMISSION LINE	-	-
94 CONSTR. POWER TRANSF. YARD	-	-



SCALE 1" = 20'

MORGANTOWN ENERGY ASSOCIATES  
 MORGANTOWN ENERGY FACILITY  
 MORGANTOWN, WEST VIRGINIA  
 AREA PLAN

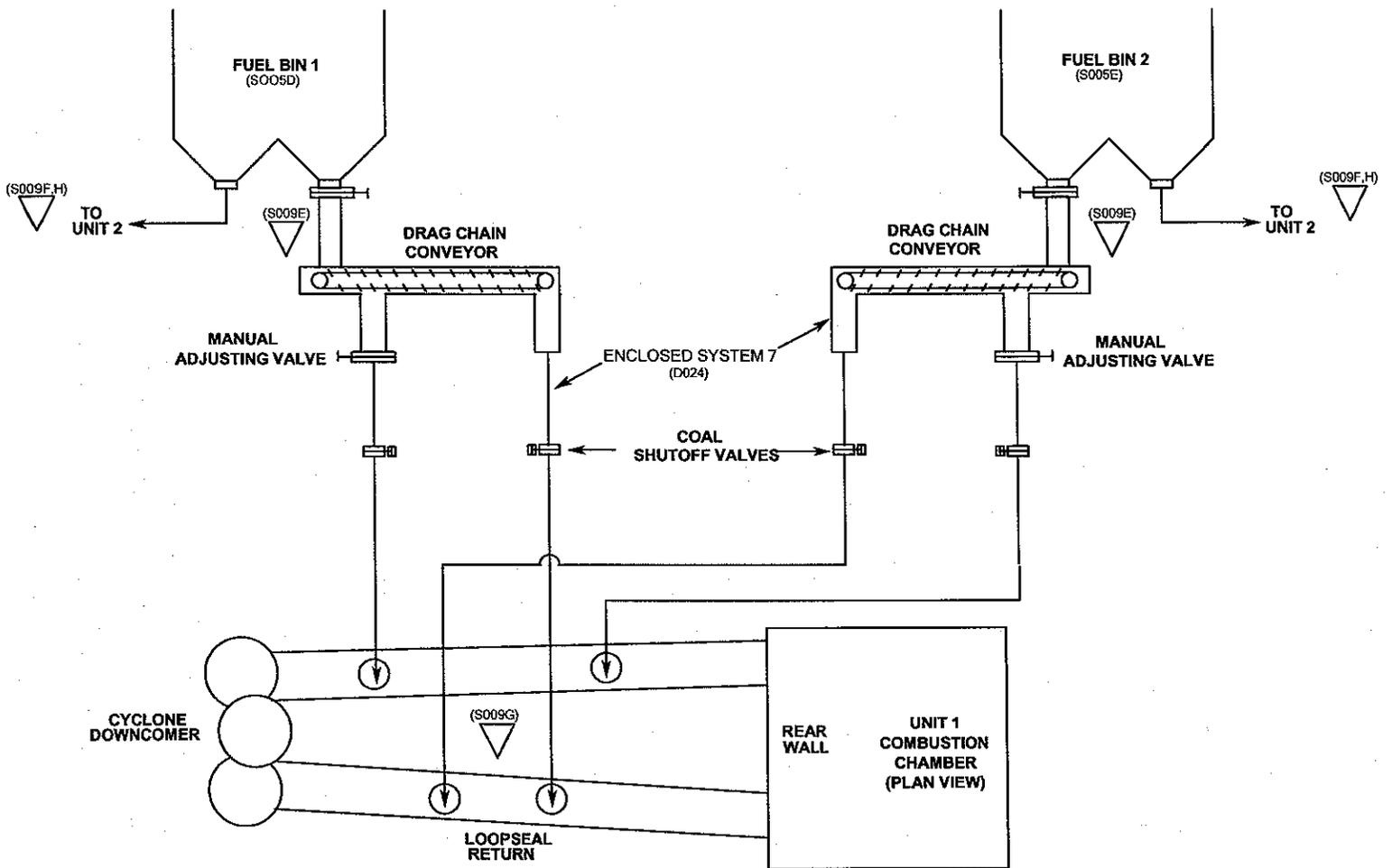
CONTRIBUTING EMISSION SOURCE /  
 POLLUTION CONTROL DEVICE /  
 EMISSION POINT  
 PLANT LAYOUT

SCALE: AS NOTED  
 DATE: AUGUST 11, 1995  
 PREPARED BY: SE TECHNOLOGIES

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**ATTACHMENT C**  
**Process Flow Diagrams**

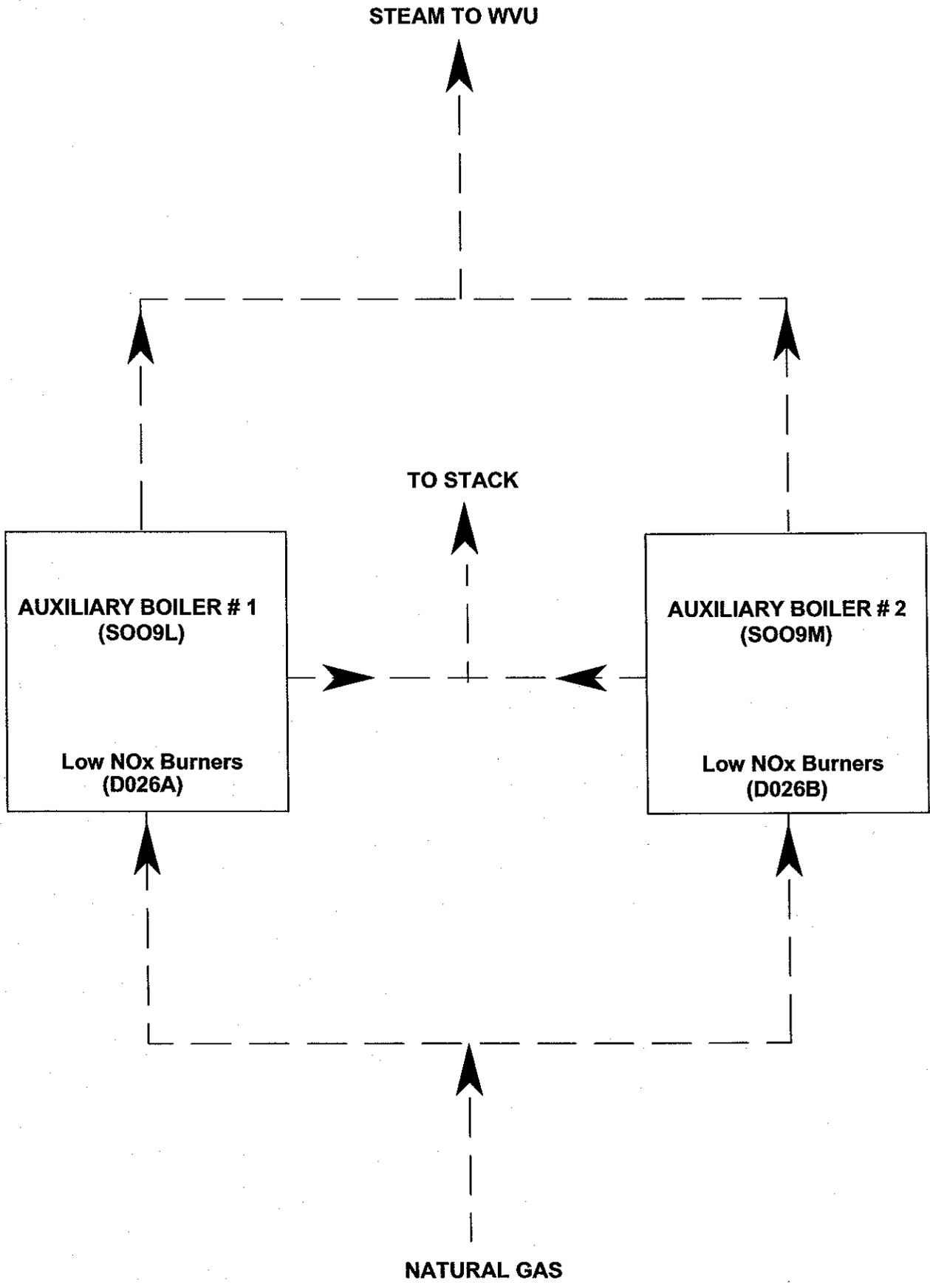
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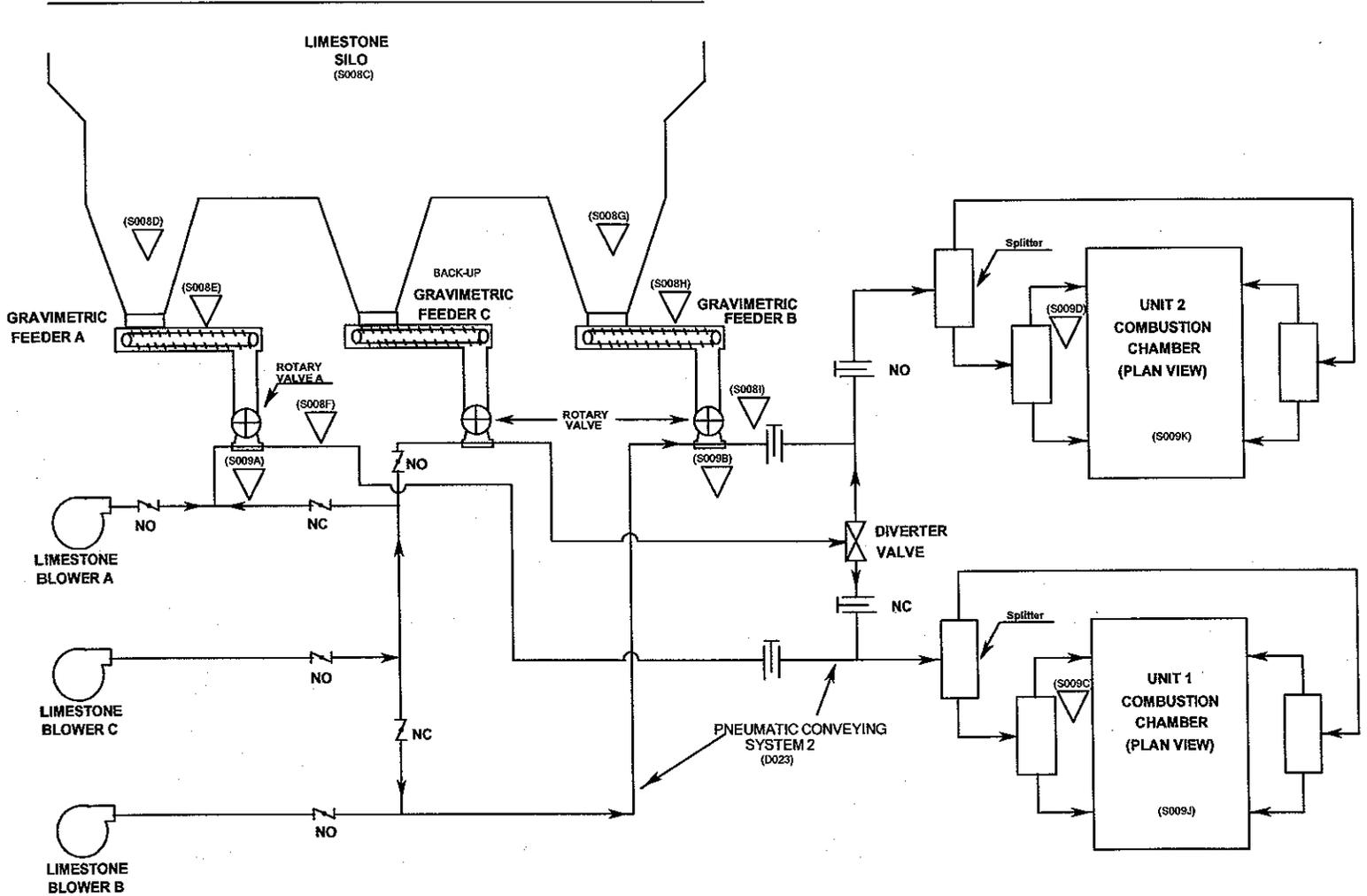
**MORGANTOWN ENERGY ASSOCIATES  
COAL FEED SYSTEM  
EMISSION SOURCES**

SCALE: NONE

DATE: FEBRUARY 15, 2008



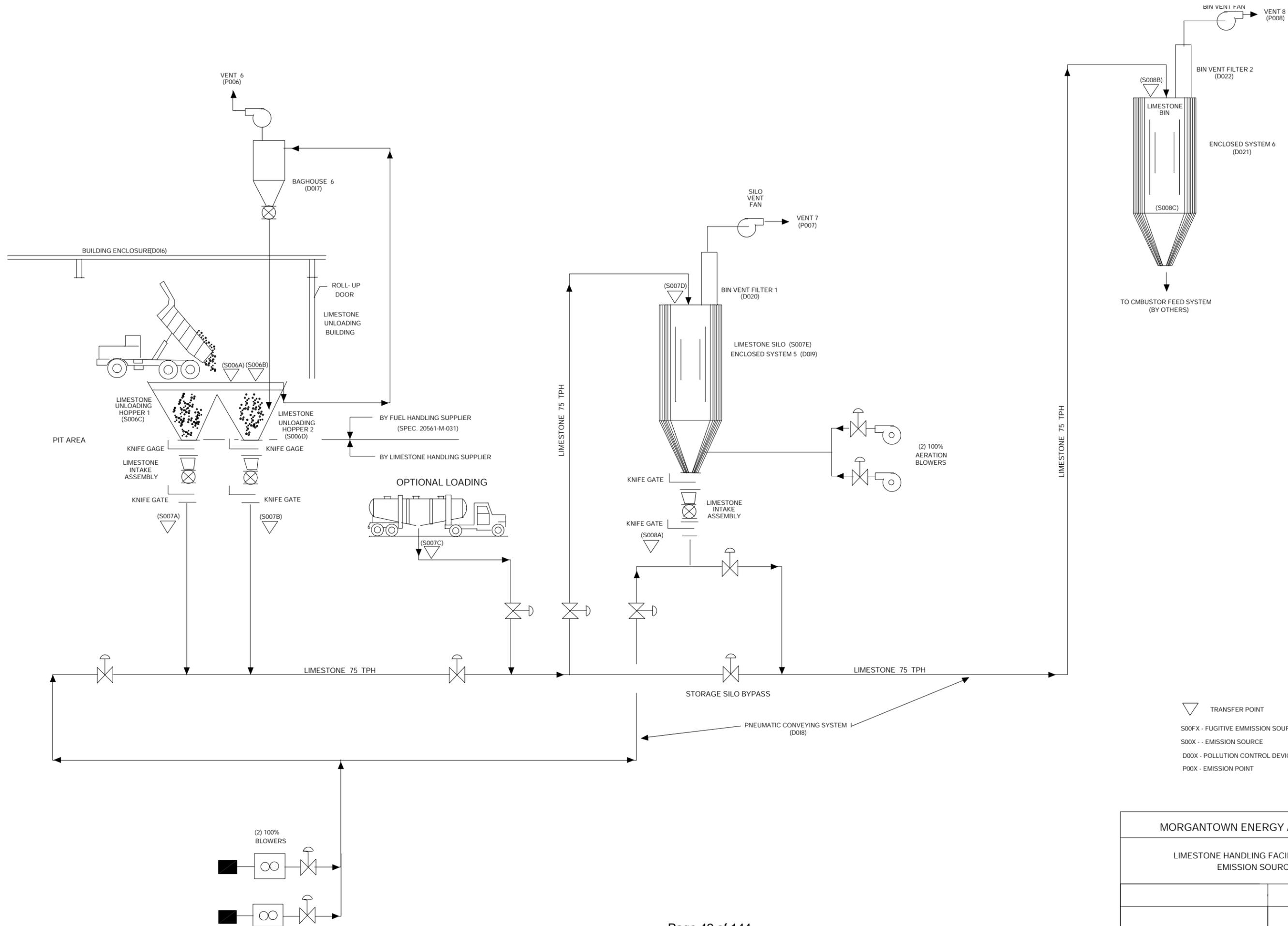
**MORGANTOWN ENERGY ASSOCIATES**  
**AUXILIARY BOILERS SYSTEM EMISSION SOURCES**



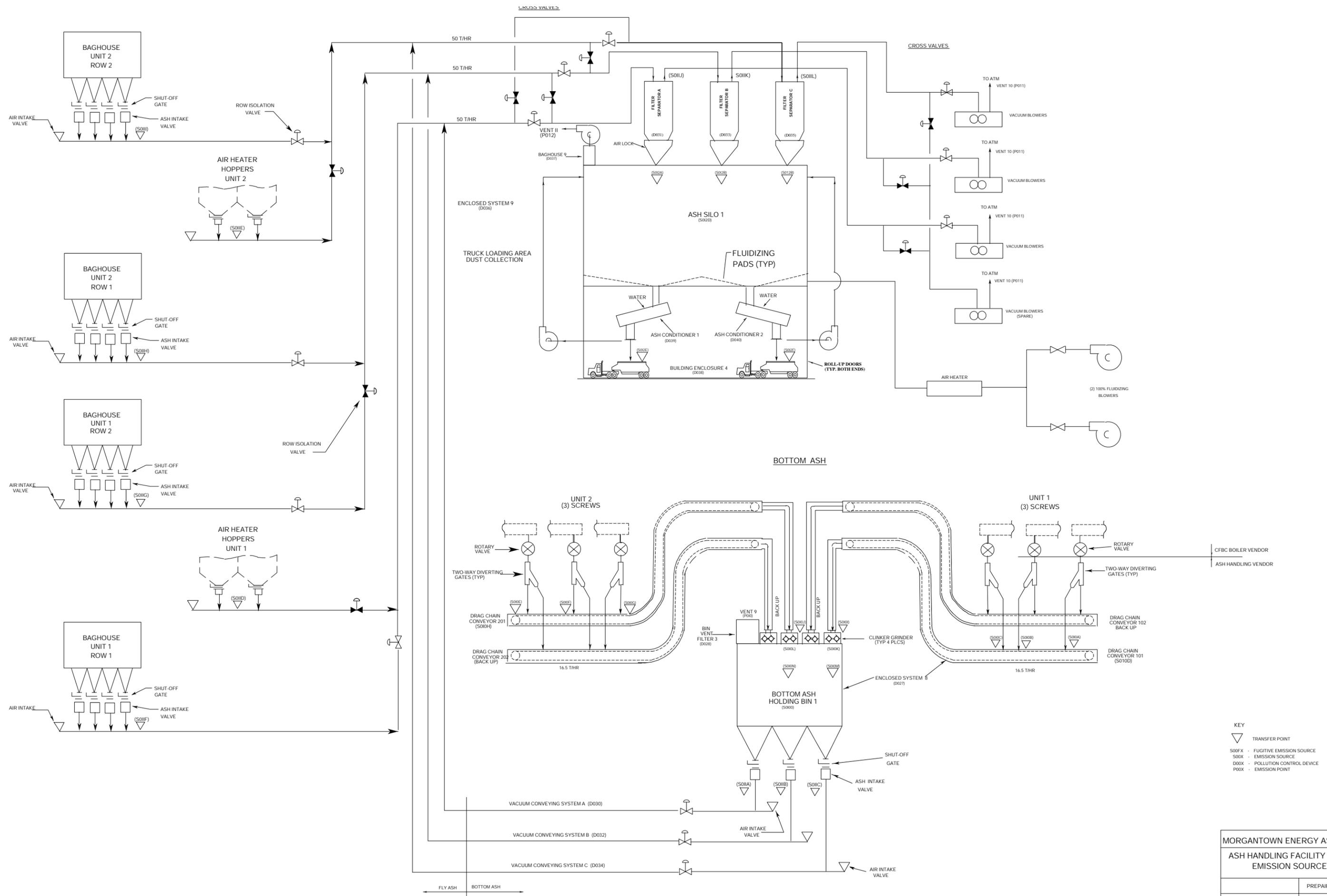
**MORGANTOWN ENERGY ASSOCIATES  
LIMESTONE FEED SYSTEM  
EMISSION SOURCES**

SCALE: NONE

DATE: FEBRUARY 15, 2008

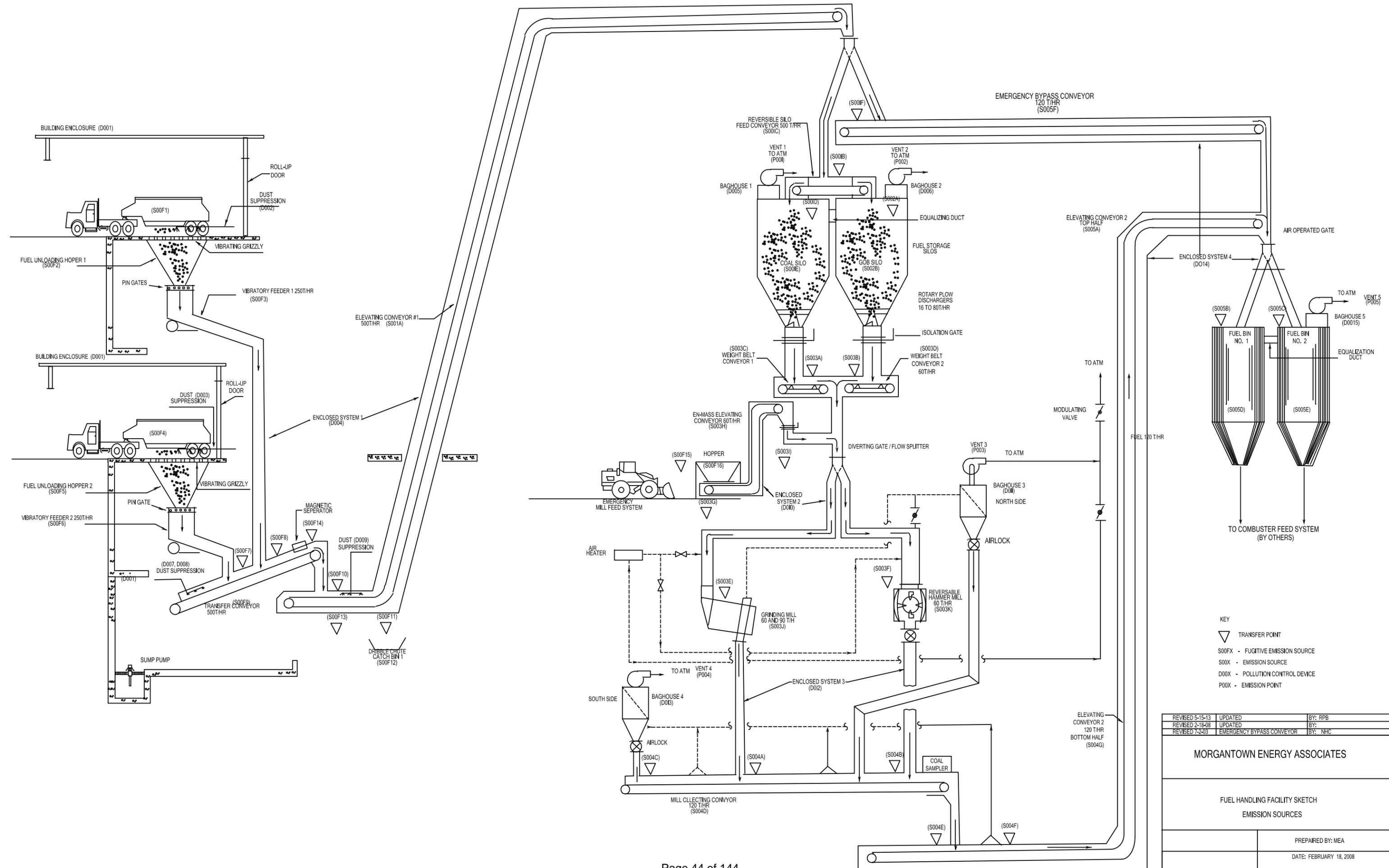


MORGANTOWN ENERGY ASSOCIATES	
LIMESTONE HANDLING FACILITY SKETCH EMISSION SOURCES	
	PREPARED BY: MEA
	DATE: 02/20/08



MORGANTOWN ENERGY ASSOCIATES  
 ASH HANDLING FACILITY SKETCH  
 EMISSION SOURCES

PREPARED BY: MEA
DATE: FEBRUARY 18, 2008



- KEY
- ▽ TRANSFER POINT
  - S00FX - FUGITIVE EMISSION SOURCE
  - S00X - EMISSION SOURCE
  - D00X - POLLUTION CONTROL DEVICE
  - P00X - EMISSION POINT

REVISED 5-15-13	UPDATED	BY: RPB
REVISED 2-18-08	UPDATED	BY:
REVISED 7-2-03	EMERGENCY BYPASS CONVEYOR	BY: NHC

**MORGANTOWN ENERGY ASSOCIATES**

FUEL HANDLING FACILITY SKETCH  
EMISSION SOURCES

PREPARED BY: MEA

DATE: FEBRUARY 18, 2008



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**ATTACHMENT D**  
**Equipment Table**

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

Emission Point ID <sup>1</sup>	Control Device <sup>1</sup>	Emission Unit ID <sup>1</sup>	Emission Unit Description	Design Capacity	Year Installed/ Modified
<b>Fuel Handling</b>					
Vents 1 & 2	ES 1 BH 1 & 2	S001A	Elevating Conveyor 1	500 TPH	1989
Vents 1 & 2	ES 1 BH 1 & 2	S001B	TP001B - Elevating Conveyor 1 to Reversible Feed Conveyor 1	500 TPH	1989
Vents 1 & 2	ES 1 BH 1 & 2	S001C	Reversible Feed Conveyor 1	500 TPH	1989
Vent 1	ES 1 BH 1	S001D	TP001D - Reversible Feed Conveyor 1 to Coal Silo 1	500 TPH	1989
Vent 1	ES 1 BH 1	S001E	Coal Silo 1	2,100 Tons	1989
Vents 1 & 2	ES 1/ BH 1 & 2	S001F	TP001F - Elevating Conveyor 1 to Emergency Bypass Conveyor	120 TPH	2001
Vent 2	ES 1 BH 2	S002A	TP002A - Reversible Feed Conveyor 1 to Gob Storage Silo 1	500 TPH	1989
Vent 2	ES 1 BH 2	S002B	Gob Storage Silo 1	2,100 Tons	2001
Vent 3	ES 2 BH 3	S003A	TP003A - Coal Silo 1 to Weigh Belt Conveyor 1	60 TPH	1989
Vent 3	ES 2 BH 3	S003B	TP003B - Gob Storage Silo 1 to Weigh Belt Conveyor 2	60 TPH	1989
Vent 3	ES 2 BH 3	S003C	Weigh Belt Conveyor 1	60 TPH	1989
Vent 3	ES 2 BH 3	S003D	Weigh Belt Conveyor 2	60 TPH	2001
Vent 3	ES 2 BH 3	S003E	TP003E - Weigh Belt Conveyor 1 & 2 to Grinding Mill	60 TPH	1989
Vent 3	ES 2 BH 3	S003F	TP003F - Weigh Belt Conveyor 1 & 2 to Hammer Mill	60 TPH	1989
Vent 3	ES 2 BH 3	S003G	TP003G - Emergency Mill Feed System Hopper 1 to En-mass Elevating Conveyor 1	60 TPH	1989
Vent 3	ES 2 BH 3	S003H	En-mass Elevating Conveyor 1	60 TPH	1989
Vent 3	ES 2 BH 3	S003I	TP003I - En-mass Elevating Conveyor 1 to Mill Inlet Chute System	60 TPH	1989

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

Emission Point ID <sup>1</sup>	Control Device <sup>1</sup>	Emission Unit ID <sup>1</sup>	Emission Unit Description	Design Capacity	Year Installed/Modified
Vent 3	ES 2 BH 3	S003J	Grinding Mill 1	60 & 90 TPH	1989
Vent 3	ES 2 BH 3	S003K	Hammer Mill 1	60 TPH	1989
Vent 4	ES 3 BH 4	S004A	TP004A - Grinding Mill 1 to Mill Collecting Conveyor 1	60 & 90 TPH	1989
Vent 4	ES 3 BH 4	S004B	TP004B - Hammer Mill 1 to Mill Collecting Conveyor 1	60 TPH	1989
Vent 4	ES 3 BH 4	S004C	TP004C - Baghouse 4 Dust Discharge to Mill Collecting Conveyor 1	5 TPH (est.)	1989
Vent 4	ES 3 BH 4	S004D	Mill Collecting Conveyor 1	120 TPH	2001
Vent 4	ES 3 BH 4	S004E	TP004E - Mill Collecting Conveyor 1 to Elevating Conveyor 2	120 TPH	1989
Vent 4	ES 3 BH 4	S004F	TP004F - Baghouse 3 Dust Discharge to Mill Collecting Conveyor 1	12 TPH	1989
Vent 4	ES 3 BH 4	S004G	Elevating Conveyor 2 (Bottom Half)	120 TPH	2001
Vent 5	ES 4 BH 5	S005A	Elevating Conveyor 2 (Top Half)	120 TPH	1989
Vent 5	ES 4 BH 5	S005B	TP005B – Elevating Conveyor 2 to Fuel Bin 1	120 TPH	1989
Vent 5	ES 4 BH 5	S005C	TP005C – Elevating Conveyor 2 to Fuel Bin 2	120 TPH	1989
Vent 5	ES 4 BH 5	S005D	Fuel Bin 1	375 Tons	1989
Vent 5	ES 4 BH 5	S005E	Fuel Bin 2	375 Tons	1989
Vent 5	ES 4 BH 5	S005F	Emergency Bypass Conveyor	120 TPH	2001

**Limestone Handling**

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

Emission Point ID <sup>1</sup>	Control Device <sup>1</sup>	Emission Unit ID <sup>1</sup>	Emission Unit Description	Design Capacity	Year Installed/ Modified
Vent 6	BE 2 BH 6	S006A	TP006A – Transfer from Truck to Limestone Unloading Hopper 1	37.5 TPH	1989
Vent 6	BE 2 BH 6	S006B	TP006B – Transfer from Truck to Limestone Unloading Hopper 2	37.5 TPH	1989
Vent 6	BE 2 BH 6	S006C	Limestone Unloading Hopper 1	75 TPH	1989
Vent 6	BE 2 BH 6	S006D	Limestone Unloading Hopper 2	75 TPH	1989
Vent 7 & 8	PCS 1	S007A	TP007A – Transfer from Limestone Unloading Hopper 1 to Pneumatic Conveying System 1	75 TPH	1989
Vent 7 & 8	PCS 1	S007B	TP007B – Transfer from Limestone Unloading Hopper 2 to Pneumatic Conveying System 1	75 TPH	1989
Vent 7 & 8	PCS 1	S007C	TP007C – Transfer from Truck to Pneumatic Conveying System 1	75 TPH	1989
Vent 7	ES 5 BVF 1	S007D	TP007D – Transfer from Pneumatic Conveying System 1 to Limestone Silo 1	75 TPH	1989
Vent 7	ES 5 BVF 1	S007E	Limestone Silo 1	1,160 Tons	1989
Vent 8	PCS 1	S008A	TP008A – Transfer from Limestone Silo 1 to Pneumatic Conveying System 1	75 TPH	1989
Vent 8	ES 6 BVF 2	S008B	TP008B – Transfer from Pneumatic Conveying System 1 to Limestone Bin 1	75 TPH	1989
Vent 8	ES 6 BVF 2	S008C	Limestone Bin 1	250 Tons	1989
Vent 8	ES 6 BVF 2	S008D	TP008D– Limestone Bin 1 to Gravimetric Feeder/Conveyor A	10 TPH	1989
Vent 8	ES 6 BVF 2	S008E	Gravimetric Feeder/Conveyor A	10 TPH	1989
Vent 8	ES 6 BVF 2	S008F	TP008F– Gravimetric Feeder/Conveyor A to Rotary Valve A	10 TPH	1989
Vent 8	ES 6 BVF 2	S008G	TP008G– Limestone Bin 1 to Gravimetric Feeder/Conveyor B	10 TPH	1989
Vent 8	ES 6 BVF 2	S008H	Gravimetric Feeder/Conveyor B	10 TPH	1989

Title V Equipment Table (equipment\_table.doc)

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Revised 4/11/05

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

Emission Point ID <sup>1</sup>	Control Device <sup>1</sup>	Emission Unit ID <sup>1</sup>	Emission Unit Description	Design Capacity	Year Installed/ Modified
Vent 8	ES 6 BVF 2	S008I	TP008I– Gravimetric Feeder/Conveyor B to Rotary Valve B	10 TPH	1989
<b>Boiler &amp; Associated Equipment</b>					
STACK1	PCS BH 7 & 8	S009A	TP009A - Limestone Feeder Rotary Valve A to Pneumatic Conveying System 2	10 TPH	1989
STACK1	PCS BH 7 & 8	S009B	TP009B - Limestone Feeder Rotary Valve B to Pneumatic Conveying System 2	10 TPH	1989
STACK1	PCS BH 7 & 8	S009C	TP009C - Pneumatic Conveying System 2 to CFB Boiler 1	10 TPH	1989
STACK1	PCS BH 7 & 8	S009D	TP009D - Pneumatic Conveying System 2 to CFB Boiler 2	10 TPH	1989
STACK1	ES BH 7 & 8	S009E	TP009E – Fuel Bin 1 to Enclosed Conveying System 7	46 TPH	1989
STACK1	ES BH 7 & 8	S009F	TP009F – Fuel Bin 2 to Enclosed Conveying System 7	46 TPH	1989
STACK1	ES BH 7 & 8	S009G	Enclosed Conveying System 7 to CFB Boiler 1	46 TPH	1989
STACK1	ES BH 7 & 8	S009H	Enclosed Conveying System 7 to CFB Boiler 2	46 TPH	1989
STACK1	Limestone Injection, BH 8	S009J	Ahlstrom Pyroflow CFB Boiler/Cyclone #1	375 mmBtu/hr	1989
STACK1	Limestone Injection, BH 8	S009K	Ahlstrom Pyroflow CFB Boiler/Cyclone #2	375 mmBtu/hr	1989
STACK1	LNB	S009L	Zurn Auxiliary Boiler #1	132 mmBtu/hr	1989
STACK1	LNB	S009M	Zurn Auxiliary Boiler #2	132 mmBtu/hr	1989
<b>Ash Handling</b>					
Vent 9	ES 8, BVF 3	S010A	TP010A – CFB Boiler 1 Bottom Ash Screw A to Drag Chain Conveyor 101	16.5 TPH	1989
Vent 9	ES 8, BVF 3	S010B	TP010C – CFB Boiler 1 Bottom Ash Screw B to Drag Chain Conveyor 101	16.5 TPH	1989
Vent 9	ES 8, BVF 3	S010C	TP010E – CFB Boiler 1 Bottom Ash Screw C to Drag Chain Conveyor 101	16.5 TPH	1989

**ATTACHMENT D - Title V Equipment Table**  
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insignificant activities in Section 4, Item 24 of the General Forms)

Emission Point ID <sup>1</sup>	Control Device <sup>1</sup>	Emission Unit ID <sup>1</sup>	Emission Unit Description	Design Capacity	Year Installed/ Modified
Vent 9	ES 8, BVF 3	S010D	Drag Chain Conveyor 101	16.5 TPH	1989
Vent 9	ES 8, BVF 3	S010E	TP010I – CFB Boiler 2 Bottom Ash Screw A to Drag Chain Conveyor 201	16.5 TPH	1989
Vent 9	ES 8, BVF 3	S010F	TP010K – CFB Boiler 2 Bottom Ash Screw B to Drag Chain Conveyor 201	16.5 TPH	1989
Vent 9	ES 8, BVF 3	S010G	TP010M – CFB Boiler 2 Bottom Ash Screw C to Drag Chain Conveyor 201	16.5 TPH	1989
Vent 9	ES 8, BVF 3	S010H	Drag Chain Conveyor 201	16.5 TPH	1989
Vent 9	ES 8, BVF 3	S010I	TP010Q – Drag Chain Conveyor 101 to Clinker Grinder 1	16.5 TPH	1989
Vent 9	ES 8, BVF 3	S010J	TP010S – Drag Chain Conveyor 201 to Clinker Grinder 3	16.5 TPH	1989
Vent 9	ES 8, BVF 3	S010K	Clinker Grinder 1	16.5 TPH	1989
Vent 9	ES 8, BVF 3	S010L	Clinker Grinder 3	16.5 TPH	1989
Vent 9	ES 8, BVF 3	S010M	TP010Y – Clinker Grinder 1 to Bottom Ash Holding Bin 1	16.5 TPH	1989
Vent 9	ES 8, BVF 3	S010N	TP010AA – Clinker Grinder 3 to Bottom Ash Holding Bin 1	16.5 TPH	1989
Vent 9	ES 8, BVF 3	S010O	Bottom Ash Holding Bin	76.5 Tons	1989
Vent 10	ES 3 VCS A FS A	S011A	TP011A – Bottom Ash Holding Bin Discharge A to Vacuum Conveying System A	50 TPH	1989
Vent 10	ES 3 VCS B FS B	S011B	TP011B – Bottom Ash Holding Bin Discharge B to Vacuum Conveying System B	50 TPH	1989
Vent 10	ES 3 VCS C FS C	S011C	TP011C – Bottom Ash Holding Bin Discharge C to Vacuum Conveying System C	50 TPH	1989
Vent 10	ES 3 VCS A FS A	S011D	TP011D – CFB No. 1 Air Heater Hopper to Vacuum Conveying System A	50 TPH	1989

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

Emission Point ID <sup>1</sup>	Control Device <sup>1</sup>	Emission Unit ID <sup>1</sup>	Emission Unit Description	Design Capacity	Year Installed/ Modified
Vent 10	ES 3 VCS C FS C	S011E	TP011E – CFB No. 2 Air Heater Hopper to Vacuum Conveying System C	50 TPH	1989
Vent 10	ES 3 VCS A FS A	S011F	TP011F – CFB No. 1 Baghouse Row 1 Discharge to Vacuum Conveying System A	50 TPH	1989
Vent 10	ES 3 VCS B FS B	S011G	TP011G – CFB No. 1 Baghouse Row 2 Discharge to Vacuum Conveying System B	50 TPH	1989
Vent 10	ES 3 VCS B FS B	S011H	TP011H – CFB No. 2 Baghouse Row 1 Discharge to Vacuum Conveying System B	50 TPH	1989
Vent 10	ES 3 VCS C FS C	S011I	TP011I – CFB No. 2 Baghouse Row 2 Discharge to Vacuum Conveying System C	50 TPH	1989
Vent 10	ES 3 VCS A FS A	S011J	Filter/Separator A Exhaust	50 TPH	1989
Vent 10	ES 3 VCS B FS B	S011K	Filter/Separator B Exhaust	50 TPH	1989
Vent 10	ES 3 VCS C FS C	S011L	Filter/Separator C Exhaust	50 TPH	1989
Vent 11	ES 9 BH 9	S012A	TP012A – Filter/Separator A to Ash Silo1	50 TPH	1989
Vent 11	ES 9 BH 9	S012B	TP012B – Filter/Separator B to Ash Silo1	50 TPH	1989
Vent 11	ES 9 BH 9	S012C	TP012C – Filter/Separator A to Ash Silo1	50 TPH	1989
Vent 11	ES 9 BH 9	S012D	Ash Silo1	1,300 Tons	1989
Vent 11	BH 9 BE 4 AC 1	S012E	TP012E – Ash Silo to Truck	300 TPH	1989
Vent 11	BH 9 BE 4 AC 2	S012F	TP012FE – Ash Silo to Truck	300 TPH	1989

**ATTACHMENT D - Title V Equipment Table**  
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insignificant activities in Section 4, Item 24 of the General Forms)

Emission Point ID <sup>1</sup>	Control Device <sup>1</sup>	Emission Unit ID <sup>1</sup>	Emission Unit Description	Design Capacity	Year Installed/ Modified
<b>Fuel Receiving &amp; Emergency Fuel Feed Fugitives</b>					
S00F1	BE 1 WS 1	Fugitive Emission 1	TP00F1 – Transfer from Truck to Fuel Unloading Hopper/Vibratory Feeder 1	250 TPH	1989
S00F2	BE 1 WS 1	Fugitive Emission 2	Fuel Unloading Hopper 1	250 TPH	1989
S00F3	BE 1 ES 1	Fugitive Emission 3	Vibratory Feeder 1	250 TPH	1989
S00F4	BE 1 WS 2	Fugitive Emission 4	TP00F4 – Transfer from Truck to Fuel Unloading Hopper/Vibratory Feeder 2	250 TPH	1989
S00F5	BE 1 WS 2	Fugitive Emission 5	Fuel Unloading Hopper 2	250 TPH	1989
S00F6	BE 1 ES 1	Fugitive Emission 6	Vibratory Feeder 2	250 TPH	1989
S00F7	BE 1 ES 1 WS 3	Fugitive Emission 7	TP00F7 – Vibratory Feeder 2 to Transfer Conveyor 1	250 TPH	1989
S00F8	BE 1 ES 1 WS 4	Fugitive Emission 8	TP00F8 – Vibratory Feeder 1 to Transfer Conveyor 1	250 TPH	1989
S00F9	BE 1 ES 1	Fugitive Emission 9	Transfer Conveyor 1	500 TPH	1989
S00F10	BE 1 ES 1 WS 5	Fugitive Emission 10	TP00F10 – Transfer Conveyor 1 to Elevating Conveyor 1	500 TPH	1989
S00F11	BE 1	Fugitive Emission 11	TP00F11 – Dribble Chute 1 to Dribble Chute Catch Bin 1	N/A	1989
S00F12	BE 1	Fugitive Emission 12	Dribble Chute Catch Bin 1	N/A	1989
S00F13	BE 1	Fugitive Emission 13	TP00F13 – Dribble Chute Catch Bin 1 to Dribble Chute Conveyor 1	N/A	1989
S00F14	BE 1	Fugitive Emission 14	TP00F14 – Dribble Chute Conveyor 1 to Transfer Conveyor 1	N/A	1989

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

Emission Point ID <sup>1</sup>	Control Device <sup>1</sup>	Emission Unit ID <sup>1</sup>	Emission Unit Description	Design Capacity	Year Installed/Modified
S00F15	N/A	Fugitive Emission 15	TP00F15 – Front End Loader to Emergency Mill Feed System Hopper 1	60 TPH	1989
S00F16	N/A	Fugitive Emission 16	Emergency Mill Feed System Hopper 1	60 TPH	1989
<b>Storage Tank Fugitives</b>					
S00F17	N/A	Fugitive Emission 17	A.S.T. 01 Acid Tank	5,800 Gallons	1989
S00F18	N/A	Fugitive Emission 18	A.S.T. 02 Caustic Tank	5,800 Gallons	1989
S00F21	N/A	Fugitive Emission 21	A.S.T. 05 Turbine Oil Tank	2,378 Gallons	1989
S00F22	N/A	Fugitive Emission 22	A.S.T. 06 EHC Oil Storage Tank	105 Gallons	1989
S00F23	N/A	Fugitive Emission 23	A.S.T. 07 Water Treatment Phosphate Tank	1,600 Gallons	1989
S00F24	N/A	Fugitive Emission 24	A.S.T. 08 Water Treatment Corrosion Inhibitor Tank	400 Gallons	1989
S00F25	N/A	Fugitive Emission 25	A.S.T. 09 Water Treatment Oxygen Scavenger Tank	400 Gallons	1989
<b>Paved Roadway Fugitives</b>					
S00F26	Paved, Water Cleaning	Fugitive Emission 26	Plant Roadway	N/A	1989

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

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**ATTACHMENT E**  
**Emission Unit Forms**

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## ATTACHMENT E - Emission Unit Form

<b>Emission Unit Description</b>			
<b>Emission unit ID number:</b> S009J and S009K	<b>Emission unit name:</b> Sources for Stack 1: S009J is CFB #1 Boiler/Cyclone #1 S009K is CFB #2 Boiler/Cyclone #2	<b>List any control devices associated with this emission unit:</b>  Baghouses 7 & 8	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b> The Emission Units S009J and S009K are the main boilers at the Morgantown Energy Facility. Each boiler is designed to combust a blend of coal and gob (waste coal) with a minimum 65% waste coal. Each boiler is designed on a heat input of 375 mmBtu/hr which will produce steam at a rate of 280,000 lbs./hr.			
<b>Manufacturer:</b> Ahlstrom Pyropower	<b>Model number:</b> Pyroflow CFB	<b>Serial number:</b> CFB #1: National Board # is 26 CFB #2: National Board # is 27	
<b>Construction date:</b> 1989	<b>Installation date:</b> 1989	<b>Modification date(s):</b>	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b> S009J is designed to produce 280,000 lbs/hr of steam at 1500 psi and 950°F. S009K is designed to produce 280,000 lbs/hr of steam at 1500 psi and 950°F.			
<b>Maximum Hourly Throughput:</b> S009J - 280,000 lbs/hr of steam at 1500 psi and 950°F S009K - 280,000 lbs/hr of steam at 1500 psi and 950°F	<b>Maximum Annual Throughput:</b> S009J - 2,452,500,000 lbs/yr of steam S009K - 2,452,500,000 lbs/yr of steam	<b>Maximum Operating Schedule:</b> 8760 hours per year	
<b>Fuel Usage Data (fill out all applicable fields)</b>			
<b>Does this emission unit combust fuel?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<b>If yes, is it?</b>  <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired	
<b>Maximum design heat input and/or maximum horsepower rating:</b> The maximum design heat input for each boiler is 375 mmBtu/hr.		<b>Type and Btu/hr rating of burners:</b> N/A	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b> The fuel for the CFBs is a blend of at least 65% gob (waste coal) and not more than 35% coal. Each boiler consumes blended fuel at a maximum hourly rate of 23.35 TPH. Thus, each boiler would have a maximum annual fuel usage of 204,546 tons based on 8760 hours of operation in a year. Each CFB boiler also contains 3 natural gas fired burners; however, the burners are only used for startup purposes and for stabilizing steam output during load changes.			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Blended Fuel (as-received basis)	3.5%	51.7%	7775 Btu/lb

<b><i>Emissions Data</i></b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY <sup>5</sup>
Carbon Monoxide (CO) <sup>1</sup>	117.5	514.65
Nitrogen Oxides (NO <sub>x</sub> ) <sup>1</sup>	300	1314
Lead (Pb) <sup>1</sup>	0.13	0.57
Particulate Matter (PM <sub>2.5</sub> ) <sup>2,3</sup>	15.0	65.70
Particulate Matter (PM <sub>10</sub> ) <sup>2,3</sup>	16.4	71.94
Total Particulate Matter (TSP) <sup>1</sup>	22.5	98.55
Sulfur Dioxide (SO <sub>2</sub> ) <sup>1</sup>	285	1248
Volatile Organic Compounds (VOC) <sup>1</sup>	5.55	24.31
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Hydrogen Chloride <sup>2</sup>	5.475	24.0
Hydrogen Fluoride <sup>1</sup>	0.4	1.8
Antimony <sup>2</sup>	0.001125	0.0049
Arsenic <sup>1</sup>	0.002	0.0088
Beryllium <sup>1</sup>	0.0002	0.0009
Cadmium <sup>2</sup>	0.000112	0.0005
Chromium <sup>2</sup>	0.000953	0.0042
Cobalt <sup>2</sup>	0.000150	0.0007
Manganese <sup>2</sup>	0.002070	0.0091
Mercury <sup>1</sup>	0.021	0.0920
Nickel <sup>2</sup>	0.000542	0.0024
Selenium <sup>2</sup>	0.000350	0.0015
Total Organic HAP <sup>4</sup>	0.43	1.9
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
Radionuclides <sup>1</sup>	0.0009	0.0039
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b>		
<sup>1</sup> PPH emissions based on permit limit.		
<sup>2</sup> PPH emissions based on stack testing conducted in 2010. Refer to emission calculations in Appendix 1.		
<sup>3</sup> PPH and TPY emissions for PM <sub>10</sub> and PM <sub>2.5</sub> include condensable particulate matter. Refer to Appendix 1.		
<sup>4</sup> PPH emissions based on summation of HAP factors in AP-42 (5 <sup>th</sup> Edition, 9/1998), Table 1.1-1. Refer to Appendix 1.		
<sup>5</sup> TPY emissions based on 8,760 hours of operation per year.		

***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.

**Limitations and Standards**

Visible Emissions from each stack shall not exceed ten (10) percent opacity based on a six minute block average. *Compliance with this streamlined limit ensures compliance with 40 C.F.R. §60.42Da(b) for the CFB boilers.*

[45CSR§2-3.1.; 40 C.F.R. §60.42Da(b); 45CSR16] (Title V permit condition 4.1.1)

The addition of sulfur oxides to a combustion unit exit gas stream for the purpose of improving emissions control equipment is prohibited unless written approval for such addition is provided by the Secretary.

[45CSR§2-4.4.] (Title V permit condition 4.1.2)

The visible emission standards of condition 4.1.1., shall apply at all times except in periods of start-ups, shutdowns and malfunctions.

[45CSR§2-9.1.] (Title V permit condition 4.1.3)

Any fuel burning unit(s) including associated air pollution control equipment, shall at all times, including periods of start-up, shutdowns, and malfunctions, to the extent practicable, be maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions.

[45CSR§2-9.2., 45CSR16, 40 C.F.R. §60.11(d)] (Title V permit condition 4.1.4)

Rule 13/14 Permit

The coal to be fired in CFB boilers 1 & 2 shall have a percent maximum sulfur content of 3.5 and a percent maximum ash content of 51.7.

[45CSR13/14- Permit No. R13-1085B/R14-7B Modification Application Volume 1 Section 5.0 “Affected Source Sheet” page 46 Item 2.A.(4)] (Title V permit condition 4.1.5)

The sulfur dioxide reduction efficiency from each of the two (2) circulating fluidized bed boilers shall be no less than 94.6%. *[Compliance with this streamlined limit ensures compliance with 70 percent reduction requirement in 40 C.F.R. §60.43Da(a)(2).]*

[45CSR13/14 - Permit No. R13-1085B/R14-7B Specific Requirement (A)(6); 45CSR16; 40 C.F.R. §60.43Da(a)(2)] (Title V permit condition 4.1.6)

Air pollutant emissions from the stack serving the two permitted circulating fluidized bed boilers shall not exceed any of the following limitations during which either or both of the subject boilers are in operation:

Pollutant	lbm/hr	lbm/mmBtu	Concentration
Particulate Matter	22.5 <sup>(1)</sup>	0.03 <sup>(2)</sup>	0.016 gr/dscf @ 3.5% O <sub>2</sub>
Sulfur Dioxide	285 (24-hr average)	0.40 <sup>(3)</sup> (30-day rolling average)	215 ppmvd @ 3.0% O <sub>2</sub> (24-hr average)
Nitrogen Oxides (NO <sub>2</sub> )	300 (24-hr average)	0.40 (30-day rolling average)	293 ppmvd @ 3.0% O <sub>2</sub> (24-hr average)
Volatile Organic Compounds	5.55	0.0074	N/A
Carbon Monoxide	117.5	0.157	188 ppmvd @ 3.0% O <sub>2</sub> (24-hr average)
Lead	0.13	N/A	N/A
Mercury	0.021	N/A	N/A
Fluorides	0.4	N/A	N/A
Beryllium	0.0002	N/A	N/A

Arsenic	0.002	N/A	N/A
Radionuclides	0.0009	N/A	N/A

<sup>(1)</sup> Compliance with this streamlined PM mass rate limit assures compliance with 45CSR§2-4.1.a.

<sup>(2)</sup> Compliance with the above R13/R14 permit PM emission limitation of 0.03 lb/mmBtu constitutes compliance with the 0.03 lb/mmBtu limit under 40 C.F.R. §60.42Da(a)(1), and also with the 99 percent PM reduction requirement under 40 C.F.R. §60.42Da(a)(2).

<sup>(3)</sup> Compliance with the above R13/R14 permit SO<sub>2</sub> limit assures compliance with 40 C.F.R. §60.43Da(a)(2).

**[45CSR13/14 - Permit No. R13-1085B/R14-7B Specific Requirement (A)(1); 45CSR16; 40 C.F.R. §§60.42Da(a)(1), 60.42Da(a)(2), and 60.48Da(a)] (Title V permit condition 4.1.7)**

**Emission Limits for 40 C.F.R. Part 63 Subpart UUUUU (Utility MATS rule) – Applicable after April 15, 2015**

On and after April 16, 2015, emissions of filterable particulate matter (PM) from the CFB boilers shall not exceed 0.030 lb/MMBtu. This limit shall apply at all times except during periods of startup and shutdown. Initial compliance with the PM limit shall be demonstrated through performance testing in accordance with 40 C.F.R. §63.10005(h).

- a. If results of the initial performance test indicate that the CFB boilers qualify for low emitting EGU (LEE) status, then the permittee must conduct a performance test at least once every 36 calendar months to demonstrate continued LEE status. Should subsequent emissions testing results show the CFB boilers do not meet the LEE eligibility requirements, then the permittee must conduct emissions testing quarterly, except as otherwise provided in § 63.10021(d)(1).
- b. If the CFB boilers do not qualify as LEE for PM, then compliance with the PM limit must be demonstrated through an initial performance test and the permittee must monitor continuous performance through either use of a particulate matter continuous parametric monitoring system (PM CPMS), a PM CEMS, or, a compliance performance testing repeated quarterly.

**[45CSR34; 40 C.F.R. §63.9991, §63.10000, §63.10005(h), and §63.10006(b); Table 2 to Subpart UUUUU of Part 63] (Proposed New Title V Permit Condition)**

On and after April 16, 2015, emissions of sulfur dioxide (SO<sub>2</sub>) from the CFB boilers shall not exceed 0.20 lb/MMBtu based on a thirty boiler operating day rolling average. This limit shall apply at all times except during periods of startup and shutdown. Initial and continuous compliance with the SO<sub>2</sub> limit shall be demonstrated using an SO<sub>2</sub> CEMS in accordance with Table 5 and Table 7 to Subpart UUUUU.

**[45CSR34; 40 C.F.R. §63.9991, §63.10000, §§63.10005(a)-(b), §63.10007(b), and §63.10021(a); Table 2, Table 5, and Table 7 to Subpart UUUUU of Part 63] (Proposed New Title V Permit Condition)**

On and after April 16, 2015, emissions of mercury (Hg) from the CFB boilers shall not exceed 1.2 lb/TBtu. This limit shall apply at all times except during periods of startup and shutdown. Initial compliance with the mercury limit shall be demonstrated through performance testing in accordance with 40 C.F.R. §63.10005(h).

- a. If results of the initial performance test indicate that the CFB boilers qualify for low emitting EGU (LEE) status, then the permittee must conduct a 30-day performance test using EPA Method 30B at least once every 12 calendar months to demonstrate continued LEE status. Should subsequent emissions testing results show the CFB boilers do not meet the LEE eligibility requirements, then the permittee must install, certify, maintain, and operate a Hg CEMS or a sorbent trap monitoring system in accordance with appendix A to Subpart UUUUU within 6 calendar months of losing LEE eligibility. Until the Hg CEMS or sorbent trap monitoring system is installed, certified, and operating, the permittee must conduct Hg emissions testing quarterly, except as otherwise provided in §63.10021(d)(1).
- b. If the CFB boilers do not qualify as a LEE for Hg, then initial and continuous compliance with the Hg limit shall be demonstrated through use of a Hg CEMS or a sorbent trap monitoring system, in accordance with Appendix A to Subpart UUUUU of Part 63.

**[45CSR34; 40 C.F.R. §63.9991, §63.10000, §63.10005(h), and §63.10006(b); Table 2 and Appendix A to Subpart UUUUU of Part 63] (Proposed New Title V Permit Condition)**

**Work Practice Standards for 40 C.F.R. Part 63 Subpart UUUUU (Utility MATS rule) – Applicable after April 15, 2015**

The permittee must conduct a tune-up of the CFB boiler burners and combustion controls at least each 36 calendar months as specified in §63.10021(e). The initial tune-up must be completed no later than October 12, 2015.

**[45CSR34; 40 C.F.R. § 63.9991(a)(1); Table 3 to Subpart UUUUU of Part 63] (Proposed New Title V Permit Condition)**

On and after April 16, 2015, the permittee must operate all continuous monitoring systems for the CFB boilers during periods of startup and shutdown as those terms are defined in 40 C.F.R. §63.10042. During startup of a CFB boiler, natural gas must be used for ignition. Once coal (including waste coal) is fired, all of the applicable control technologies must be engaged. During shutdown of a CFB boiler, operate all applicable control technologies while firing coal. The permittee must comply with all applicable emissions limits at all times except for periods that meet the definitions of startup and shutdown.

**[45CSR34; 40 C.F.R. § 63.9991(a)(1); Table 3 to Subpart UUUUU of Part 63] (Proposed New Title V Permit Condition)**

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.)**

### **Monitoring Requirements**

The owner or operator shall install, calibrate, certify, operate, maintain, and record the output of continuous monitoring systems that measure all Opacity, SO<sub>2</sub>, NO<sub>x</sub>, and O<sub>2</sub> or CO<sub>2</sub> emissions from emission point *Stack 1* as specified in 40 C.F.R. Part 60, Subpart Da for the CFB boilers and NO<sub>x</sub>, as specified in 40 C.F.R. Part 60, Subpart Db for the auxiliary boilers.

*Compliance with this streamlined provision assures compliance 45CSR13/14 - Permit No. R13-1085B/R14-7B "Other Requirement (B)(1)(d)".*

**[45CSR16, 40 C.F.R. § 60.49Da, 40 C.F.R. § 60.48b, 40 C.F.R. § 60.13; 45CSR13/14 - Permit No. R13-1085B/R14-7B Specific Requirement (B)(1)(d); 40 C.F.R. §§ 64.3(a), 64.3(b), 64.3(d)(1), and 64.6(c)(1)] (Title V permit condition 4.2.1)**

Compliance with the visible emission requirements of 45CSR§2-3.1. (condition 4.1.1.) shall be determined in accordance with 40 C.F.R. Part 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems and as described in the approved monitoring plan. Compliance with the weight emission limit (4.1.7.) shall be demonstrated by periodic particulate matter stack testing (4.3.1. and 4.3.12.), conducted in accordance with the appropriate test method set forth in the Appendix to 45CSR2 or other equivalent EPA approved method approved by the Director. Such testing shall be conducted at a frequency to be established by the Director. *[Permit R13-1085/R14-7B serves as the approved monitoring plan.]*

**[45CSR§§2-3.2. and 8.1.a., 45CSR§2A-6] (Title V permit condition 4.2.2)**

Compliance with the visible emissions limit (4.1.1.) shall be monitored as set forth in the approved monitoring plan for each emission unit. *[Permit R13-1085/R14-7B serves as the approved monitoring plan.]*

**[45CSR§2-8.2.a.] (Title V permit condition 4.2.3)**

**Commencement of operation.** The permittee shall conduct the monitoring required under 40 C.F.R. Part 64 upon issuance of this permit that includes such monitoring.

**[40 C.F.R. § 64.7(a); 45CSR§30-5.1.c.] (Title V permit condition 4.2.4)**

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

**[40 C.F.R. § 64.7(b); 45CSR§30-5.1.c.] (Title V permit condition 4.2.5)**

**Continued Operation** - Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of 40 C.F.R. Part 64, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

**[40 C.F.R. § 64.7(c); 45CSR§30-5.1.c.] (Title V permit condition 4.2.6)**

**Documentation of Need for Improved Monitoring** - After approval of monitoring under 40 C.F.R. Part 64, if the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the Director and, if necessary, submit a proposed modification to the permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

**[40 C.F.R. § 64.7(e); 45CSR§30-5.1.c.] (Title V permit condition 4.2.7)**

**Quality Improvement Plan (QIP)** - Based on the results of a determination made under permit condition 4.4.3.(2), the Administrator or the Director may require the permittee to develop and implement a QIP. Consistent with 40 C.F.R. §64.6(c)(3), the permittee is limited to an accumulation of exceedances or excursions no greater than five (5) percent of the operating time for the boilers during a reporting period, prior to requiring the implementation of a QIP. If a QIP is required, then it shall be

developed, implemented, and modified as required according to 40 C.F.R. §§ 64.8(b) through (e). Refer to permit condition 4.5.6.(2)(iii) for the reporting required when a QIP is implemented.

**[40 C.F.R. § 64.8; 45CSR§30-5.1.c.] (Title V permit condition 4.2.8)**

**Supplementary Actions prior to an Excursion** - For CAM purposes, normal operation shall be between 0% and 6% opacity on a six-minute block basis during any one-hour period. Opacity greater than 6% (six-minute block) triggers the following supplementary actions.

- a. Monitor the opacity as the baghouses (which are dedicated to either CFB#1 or CPB#2) go through a manually initiated cleaning cycle. The opacity will increase when the compartment with the problem or leaking bag goes through the cleaning cycle.
- b. Once the problem compartment is identified, the compartment will be isolated and appropriate corrective measures will be taken.

**[40 C.F.R. § 64.3(a); 45CSR§§30-5.1.c. and 12.7.] (Title V permit condition 4.2.9)**

**Excursions** - An excursion shall be defined as opacity greater than eight (8) percent during any six-minute period during any one-hour period after supplementary action (as defined in condition 4.2.9.) has been taken. An excursion will not be deemed to have occurred if the opacity exceeds 8% during the cleaning cycle specified in condition 4.2.9.a. If the opacity exceeds 8% before the permittee has time to perform the supplementary actions in condition 4.2.9., an excursion will be deemed to have occurred. Refer to conditions 4.4.3., 4.4.4., and 4.5.6. for recordkeeping and reporting requirements for excursions.

**[40 C.F.R. § 64.6(c)(2); 45CSR§30-5.1.c.] (Title V permit condition 4.2.10)**

**Monitoring Requirements for 40 C.F.R. Part 63 Subpart UUUUU (Utility MATS rule) – Applicable after April 15, 2015**

In addition to meeting the requirements of 40 C.F.R. Part 75, on and after April 16, 2015 the existing SO<sub>2</sub> and O<sub>2</sub> or CO<sub>2</sub> CEMS shall also meet the requirements of §§63.10010(a), (b), and (f) as applicable.

**[45CSR34; 40 C.F.R. §63.10010; Table 7 to Subpart UUUUU]**

### **Testing Requirements**

Compliance with the particulate matter emission limitations under condition 4.1.7. and 40 C.F.R. §60.42Da(a) shall be demonstrated in accordance with 40 C.F.R. §60.8, 40 C.F.R. §60.48Da, 40 C.F.R. §60.50Da, and 45CSR2 Appendix - Compliance Test Procedures for 45CSR2.

**[45CSR13/14 - Permit No. R13-1085B/R14-7B Other Requirement (B)(1)] (Title V permit condition 4.3.1)**

Compliance with the sulfur dioxide emission limitation and sulfur dioxide reduction requirements under conditions 4.1.7. and 4.1.6., and as required by 40 C.F.R. §60.43Da(a), shall be demonstrated in accordance with 40 C.F.R. §60.8, 40 C.F.R. §60.48Da, 40 C.F.R. §60.49Da and 40 C.F.R. §60.50Da, except that compliance with the maximum SO<sub>2</sub> emission limitation shall be demonstrated for each and all fixed twenty-four hour periods.

**[45CSR13/14 - Permit No. R13-1085B/R14-7B Other Requirement (B)(1)(c)] (Title V permit condition 4.3.2)**

Compliance with the nitrogen oxides emission limitation under condition 4.1.7. shall be demonstrated in accordance with 40 C.F.R. §60.8, 40 C.F.R. §60.48Da, 40 C.F.R. §60.49Da, and 40 C.F.R. §60.50Da.

**[45CSR13/14 - Permit No. R13-1085B/R14-7B Other Requirement (B)(2)] (Title V permit condition 4.3.3)**

Compliance with the nitrogen oxides emission limitations under condition 4.1.8. shall be demonstrated in accordance with 40 C.F.R. §60.8, 40 C.F.R. §60.46b, 40 C.F.R. §60.48b and 40 C.F.R. §60.49b.

**[45CSR13/14 - Permit No. R13-1085B/R14-7B Other Requirement (B)(3)] (Title V permit condition 4.3.4)**

Compliance with the volatile organic compound emission limitation under conditions 4.1.7., 4.1.8., and 4.1.9. shall be demonstrated in accordance with 40 C.F.R. 60, Appendix A - Method 25 or 25A.

**[45CSR13/14 - Permit No. R13-1085B/R14-7B Other Requirement (B)(4)] (Title V permit condition 4.3.5)**

Compliance with the carbon monoxide emission limitations under conditions 4.1.7., 4.1.8., and 4.1.9. shall be demonstrated in accordance with 40 C.F.R. 60 Appendix A - Method 10.

**[45CSR13/14 - Permit No. R13-1085B/R14-7B Other Requirement (B)(5)] (Title V permit condition 4.3.6)**

The owner or operator shall conduct a test at least once every five (5) years to determine the compliance of the CFB Boilers 1 & 2 with the carbon monoxide (CO) limits of condition 4.1.7. Such tests shall be conducted in accordance with 40 CFR 60 Appendix

A - Method 10. A compliance test shall be conducted no later than eighteen (18) months of the issuance date of this permit. An emission factor shall be determined from the test results and updated from the results of each subsequent test. The emission factor shall be used for compliance demonstration for periods between tests.

**[45CSR§30-5.1.c.] (Title V permit condition 4.3.7)**

Compliance with the emission limitation for lead under condition 4.1.7. shall be demonstrated in accordance with 40 CFR 60 Appendix A - Method 12.

**[45CSR13/14 - Permit No. R13-1085B/R14-7B Other Requirement (B)(6)] (Title V permit condition 4.3.8)**

Compliance with the emission limitation for mercury under condition 4.1.7. shall be demonstrated in accordance with 40 C.F.R. Part 60, Appendix A, Method 30B.

**[45CSR13/14 - Permit No. R13-1085B/R14-7B Other Requirement (B)(7)] (Title V permit condition 4.3.9)**

Compliance with the emission limitation for fluorides under condition 4.1.7. shall be demonstrated in accordance with 40 C.F.R. 60, Appendix A - Method 13.

**[45CSR13/14 - Permit No. R13-1085B/R14-7B Other Requirement (B)(8)] (Title V permit condition 4.3.10)**

Compliance with the emission limitation for beryllium under condition 4.1.7. shall be demonstrated in accordance with 40 C.F.R. 61, Appendix B - Method 104.

**[45CSR13/14 - Permit No. R13-1085B/R14-7B Other Requirement (B)(9)] (Title V permit condition 4.3.11)**

The owner or operator shall conduct, or have conducted, tests to determine the compliance of CFB Boilers 1 & 2 with the particulate matter mass emission limitations. Such tests shall be conducted in accordance with the appropriate method set forth in 45CSR2 Appendix - Compliance Test Procedures for 45CSR2 or other equivalent EPA approved method approved by the Director. Such tests shall be conducted in accordance with the schedule set forth in the following table.

Test	Test Results	Testing Frequency
Initial Baseline	≤50% of weight emission standard	Once/3 years
Initial Baseline	between 50% and 80% of weight emission standard	Once/2 years
Initial Baseline	≥80% of weight emission standard	Annual
Annual	after three successive tests indicate mass emission rates ≤50% of weight emission standard	Once/3 years
Annual	after two successive tests indicate mass emission rates between 50% and 80% of weight emission standard	Once/2 years
Annual	any tests indicates a mass emission rate ≥80% of weight emission standard	Annual
Once/2 years	after two successive tests indicate mass emission rates ≤50% of weight emission standard	Once/3 years
Once/2 years	any tests indicates a mass emission rate between 50% and 80% of weight emission standard	Once/2 years
Once/2 years	any tests indicates a mass emission rate ≥80% of weight emission standard	Annual
Once/3 years	any tests indicates a mass emission rate ≤50% of weight emission standard	Once/3 years
Once/3 years	any test indicates mass emission rates between 50% and 80% of weight emission standard	Once/2 years
Once/3 years	any test indicates a mass emission rate ≥80% of weight emission standard	Annual

**[45CSR§2-8.1., 45CSR§2A-5.2.] (Title V permit condition 4.3.12)**

## Recordkeeping Requirements

Records of the operating schedule and quantity and quality of fuel consumed shall be maintained on site for each fuel burning unit and made available to the Director or his duly authorized representative upon request. Such records shall include, but not be limited to the date and time of start-up and shutdown and for:

- a. *Pipeline quality natural gas*, - the quantity of fuel consumed on a monthly basis,
- b. *Coal* - Ash and BTU analysis for each shipment and the quantity of fuel consumed on a daily basis.

### [45CSR§2-8.3.c., 45CSR§2A-7.1.a.] (Title V permit condition 4.4.1)

Records of monitored data established in the monitoring plan shall be maintained on site and shall be made available to the Director or his duly authorized representative upon request.

### [45CSR§2-8.3.a.] (Title V permit condition 4.4.2)

## Response to Excursions or Exceedances

- (1) Upon detecting an excursion or exceedance, the permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (2) Determination of whether the permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

### [40 C.F.R. § 64.7(d); 45CSR§30-5.1.c.] (Title V permit condition 4.4.3)

## General recordkeeping requirements for 40 C.F.R. Part 64 (CAM)

The permittee shall comply with the recordkeeping requirements specified in permit conditions 3.4.1. and 3.4.2. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 (4.2.8.) and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40 C.F.R. Part 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

### [40 C.F.R. §64.9(b); 45CSR§30-5.1.c.] (Title V permit condition 4.4.4)

## Recordkeeping Requirements for 40 C.F.R. Part 63 Subpart UUUUU (Utility MATS rule) – Applicable after April 15, 2015

The permittee shall maintain the following records as specified in 40 C.F.R. §63.10032:

- a. A copy of each notification and report submitted to comply with 40 C.F.R. Subpart UUUUU, including all documentation supporting any Initial Notification or Notification of Compliance Status or annual compliance report that was submitted, according to the requirements in §63.10(b)(2)(xiv).
- b. Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in §63.10(b)(2)(viii).
- c. For each CEMS and CPMS, keep the records specified in paragraphs (b)(1) through (4) of §63.10032.
- d. Records required in Table 7 to Subpart UUUUU of Part 63 including records of all monitoring data and calculated averages for applicable PM CPMS operating limits to show continuous compliance with each emission limit and operating limit that applies to the CFB boilers.
- e. Records of monthly fuel use including the type(s) of fuel and amount(s) used..
- f. Records of the occurrence and duration of each startup and/or shutdown.
- g. Records of the occurrence and duration of each malfunction of an operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment.

- h. Records of actions taken during periods of malfunction to minimize emissions in accordance with § 63.10000(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
- i. Records of the type(s) and amount(s) of fuel used during each startup or shutdown.

**[45CSR34; 40 C.F.R. §§63.10(b)(2) and 63.10032] (Proposed New Title V Permit Condition)**

### **Reporting Requirements**

The permittee shall comply with the reporting requirements under 40 C.F.R. §60.51Da except that all required reports shall be certified to the USEPA Administrator and to the Department of Environmental Protection, Division of Air Quality Director in accordance with 40 C.F.R. §60.51Da(j).

**[45CSR13/14 - Permit No. R13-1085B/R14-7B Other Requirement (B)(1)(f)] (Title V permit condition 4.5.1)**

Compliance with the periodic exception reporting of permit condition 4.5.5. shall be demonstrated by quarterly reports in accordance with 40 C.F.R. §60.7(c).

**[45CSR16, 40 C.F.R. §60.7] (Title V permit condition 4.5.2)**

Excess opacity periods meeting the following conditions may be reported on a quarterly basis unless otherwise required by the Director:

- a. The excess opacity period does not exceed thirty (30) minutes within any twenty-four (24) hour period; and
- b. Excess opacity does not exceed forty percent (40%).

**[45CSR§2-9.3.a.] (Title V permit condition 4.5.3)**

Except as provided in permit condition 4.5.3. above, the owner or operator shall report to the Director by telephone, telefax, or e-mail any malfunction of CFB #1 or CFB #2 or their associated air pollution control equipment, which results in any excess particulate matter or excess opacity, by the end of the next business day after becoming aware of such condition. The owner or operator shall file a certified written report concerning the malfunction with the Director within thirty (30) days providing the following information:

- a. A detailed explanation of the factors involved or causes of the malfunction;
- b. The date, and time of duration (with starting and ending times) of the period of excess emissions;
- c. An estimate of the mass of excess emissions discharged during the malfunction period;
- d. The maximum opacity measured or observed during the malfunction;
- e. Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction; and
- f. A detailed explanation of the corrective measures or program that will be implemented to prevent a recurrence of the malfunction and a schedule for such implementation.

**[45CSR§2-9.3.b.] (Title V permit condition 4.5.4)**

A periodic exception report shall be submitted to the Director, in a manner and at a frequency to be established by the Director.

**[45CSR§2-8.3.b.] (Title V permit condition 4.5.5)**

### **General reporting requirements for 40 C.F.R. Part 64 (CAM)**

- (1) On and after the date specified in 40 C.F.R. §64.7(a) by which the permittee must use monitoring that meets the requirements of 40 C.F.R. 64, the permittee shall submit CAM monitoring reports with the quarterly excess emissions reports. A copy of the CAM monitoring reports generated within the semiannual monitoring report period shall be included with the semi-annual monitoring report under permit condition 3.5.6. Incorporation by reference within the semi-annual monitoring report is not acceptable.

- (2) A report for monitoring under 40 C.F.R. 64 shall include, at a minimum, the information required under permit condition 3.5.8. and the following information, as applicable:
- (i) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
  - (ii) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
  - (iii) A description of the actions taken to implement a QIP during the reporting period as specified in 40 C.F.R. §64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

**[40 C.F.R. §64.9(a); 45CSR§30-5.1.c.] (Title V permit condition 4.5.6)**

**Reporting Requirements for 40 C.F.R. Part 63 Subpart UUUUU (Utility MATS rule) – Applicable after April 15, 2015**

The permittee shall submit a Notification of Intent to conduct a MATS-required performance test to the Secretary at least 30 days before the performance test is scheduled to begin.

**[45CSR34; 40 C.F.R. §63.10030(d)] (Proposed New Title V Permit Condition)**

Before conducting a MATS-required performance test, the owner or operator shall develop and, if requested by the Secretary, shall submit a site-specific test plan for approval in accordance with 40 C.F.R. §63.7(c)(2). The test plan shall include a test program summary, the test schedule, data quality objectives, and both an internal and external quality assurance (QA) program. Data quality objectives are the pretest expectations of precision, accuracy, and completeness of data.

**[45CSR34; 40 C.F.R. §63.7(c)(2)] (Proposed New Title V Permit Condition)**

Following completion of the MATS initial compliance demonstration for the CFB boilers, a Notification of Compliance Status shall be submitted to the Secretary before the close of business on the 60th day following the completion of the relevant compliance demonstration activity specified in 40 C.F.R. Part 63 Subpart UUUUU. The Notification of Compliance Status must contain all of the information specified in §63.10030(e)(1) through (7).

**[45CSR34; 40 C.F.R. §§63.9(h)(2)(ii) and 63.10030(e)] (Proposed New Title V Permit Condition)**

A MATS semiannual compliance report for the CFB boilers shall be submitted to the Secretary according to the requirements in §63.10031(b). The first compliance report must be postmarked or submitted electronically no later than January 31, 2016, and cover the period beginning on April 16, 2015 and ending on December 31, 2015. Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31 and must be postmarked or submitted electronically no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. Each compliance report must contain the following information:

- a. The applicable information specified in §63.10031(c)(1) through (4).
- b. If there was a deviation from any applicable emission limitation (emission limit and operating limit) or work practice standard during the reporting period, the report must contain the information in §63.10031(d). Otherwise, include a statement that there were no deviations from the emission limitations and work practice standards during the reporting period.
- c. If there were periods during which the CMSs, including continuous emissions monitoring systems and continuous parameter monitoring systems, were out-of-control, as specified in §63.8(c)(7), the report must contain the information in § 63.10031(e). Otherwise, include a statement that there were no periods during which the CMSs were out-of-control during the reporting period.

**[45CSR34; 40 C.F.R. §63.10031(a) and Table 8] (Proposed New Title V Permit Condition)**

The owner or operator of the affected source experiencing an exceedance of its MATS emission limit(s) during a malfunction shall notify the Secretary by telephone or facsimile (FAX) transmission as soon as possible, but no later than two business days after the initial occurrence of the malfunction or, if it is not possible to determine within two business days whether the malfunction caused or contributed to an exceedance, no later than two business days after the owner or operator knew or should have known that the malfunction caused or contributed to an exceedance, but, in no event later than two business days after the end of the averaging period, if it wishes to avail itself of an affirmative defense to civil penalties for that malfunction. The owner or operator seeking to assert an affirmative defense shall also submit a written report to the Secretary within 45 days of the initial occurrence of the exceedance of the standard in § 63.9991 to demonstrate, with all necessary supporting documentation, that it has met the requirements set forth in paragraph (a) of this section. The owner or operator may seek an extension of this deadline for up to 30 additional days by submitting a written request to the Secretary before the expiration of the 45 day period. Until a request for an extension has been approved by the Secretary, the owner or operator is subject to the requirement to submit such report within 45 days of the initial occurrence of the exceedance.

**[45CSR34; 40 C.F.R. § 63.10001(b)] (Proposed New Title V Permit Condition)**

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

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

## ATTACHMENT E - Emission Unit Form

**Emission Unit Description**

<b>Emission unit ID number:</b> S009L and S009M	<b>Emission unit name:</b> Sources for Stack 1: S009L is Auxiliary Boiler #1 S009M is Auxiliary Boiler #2	<b>List any control devices associated with this emission unit:</b>  Low NO <sub>x</sub> Burners
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 The Emissions Units S009L and S009M are the auxiliary boilers at the Morgantown Energy Facility. Each boiler is designed to combust natural gas, and is equipped with a low NO<sub>x</sub> burner. Each boiler has a design heat input of 132 mmBtu/hr and will produce steam at a maximum rate of 85,000 lbs/hr. Normally, operation of the boilers only occurs when the CFBs are off line, during the start up of the CFBs, or for testing purposes. However, there are periods when the steam demand for West Virginia University requires the combined operation of the circulating fluidized bed boilers and the auxiliary boiler.

<b>Manufacturer:</b> Zurn Industries	<b>Model number:</b> Keystone	<b>Serial number:</b> AUX #1: National Board # is 19482 AUX #2: National Board # is 19481
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<b>Construction date:</b> 1989	<b>Installation date:</b> 1989	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 S009L is designed to produce 85,000 lbs/hr of steam at 300 psi and 500°F.  
 S009M is designed to produce 85,000 lbs/hr of steam at 300 psi and 500°F.

<b>Maximum Hourly Throughput:</b> S009L - 85,000 lbs/hr S009M - 85,000 lbs/hr	<b>Maximum Annual Throughput:</b> S009L – 744,600,000 lbs/yr S009M – 744,600,000 lbs/yr	<b>Maximum Operating Schedule:</b> 8760 hours per year (Typically less than 876 hours)
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**Fuel Usage Data (fill out all applicable fields)**

<b>Does this emission unit combust fuel?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>If yes, is it?</b>  <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
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<b>Maximum design heat input and/or maximum horsepower rating:</b> The maximum design heat input for each boiler is 132 mmBtu/hr.	<b>Type and Btu/hr rating of burners:</b> One Coen DAF-32 burner per boiler with a rating of 132 mmBtu/hr. (Low NO <sub>x</sub> Burner)
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**List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.**  
 The fuel for the Auxiliary Boilers is Natural Gas. Each boiler can consume fuel at a maximum hourly rate of 132 MCF/hr. Thus, each boiler would have a maximum annual fuel usage of 1,156,320 MCF based on 8760 hours of operation in a year. Note that annual operating time has not exceeded 811 hours during the period 2008-12, so typical fuel usage is much less than this amount.

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	1.71 grains/MCF	~ 0	1093 Btu/CF

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY <sup>5</sup>
Carbon Monoxide (CO) <sup>1</sup>	10	43.8
Nitrogen Oxides (NO <sub>x</sub> ) <sup>1</sup>	50	219
Lead (Pb) <sup>2</sup>	0.000132	0.000578
Particulate Matter (PM <sub>2.5</sub> ) <sup>3</sup>	2.006	8.79
Particulate Matter (PM <sub>10</sub> ) <sup>3</sup>	2.006	8.79
Total Particulate Matter (TSP) <sup>1</sup>	1.2	5.26
Sulfur Dioxide (SO <sub>2</sub> ) <sup>1</sup>	0.14	0.61
Volatile Organic Compounds (VOC) <sup>1</sup>	1.95	8.54
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Arsenic <sup>2</sup>	0.000053	0.000231
Beryllium <sup>2</sup>	0.000003	0.000014
Cadmium <sup>2</sup>	0.000290	0.001272
Chromium <sup>2</sup>	0.000370	0.001619
Cobalt <sup>2</sup>	0.000022	0.000097
Manganese <sup>2</sup>	0.000100	0.000439
Mercury <sup>2</sup>	0.000069	0.000301
Nickel <sup>2</sup>	0.000554	0.002428
Selenium <sup>2</sup>	0.000006	0.000028
Total Organic HAP <sup>4</sup>	0.496320	2.17
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A

**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.).**

<sup>1</sup> PPH emissions based on permit limit.

<sup>2</sup> PPH emissions based on factors from AP-42 (5<sup>th</sup> Edition, 9/1998), Section 1.4, Table 1.4-4. Refer to Appendix 1.

<sup>3</sup> PPH emissions based on factors from AP-42 (5<sup>th</sup> Edition, 9/1998), Section 1.4, Table 1.4-2 and include condensable particulate. Refer to Appendix 1.

<sup>4</sup> PPH emissions based on summation of HAP factors from AP-42 (5<sup>th</sup> Edition, 7/1998), Section 1.4, Table 1.4-3. Refer to Appendix 1.

<sup>5</sup> TPY emissions based on 8,760 hours of operation per year.

**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.

**Limitations and Standards**

Visible Emissions from each stack shall not exceed ten (10) percent opacity based on a six minute block average. *Compliance with this streamlined limit ensures compliance with 40 C.F.R. §60.42Da(b) for the CFB boilers.*  
[45CSR§2-3.1.; 40 C.F.R. §60.42Da(b); 45CSR16] (Title V permit condition 4.1.1)

The visible emission standards of condition 4.1.1., shall apply at all times except in periods of start-ups, shutdowns and malfunctions.  
[45CSR§2-9.1.] (Title V permit condition 4.1.3)

Any fuel burning unit(s) including associated air pollution control equipment, shall at all times, including periods of start-up, shutdowns, and malfunctions, to the extent practicable, be maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions.  
[45CSR§2-9.2., 45CSR16, 40 C.F.R. §60.11(d)] (Title V permit condition 4.1.4)

During those periods when neither of the two fluidized bed boilers are in operation but steam demand for West Virginia University requires operation of either or both of the gas-fired auxiliary boilers, air pollutant emissions from the main stack venting the two natural gas-fired boilers shall not exceed the following:

Pollutant	lbm/hr	lbm/mmBtu
Particulate Matter	1.2	.0045
Sulfur Dioxide	.14	5.3 x10 <sup>-4</sup>
Nitrogen Oxides	50.0	.189
Volatile Organic Compounds	1.95	.0074
Carbon Monoxide	10.0	.038

*Compliance with these streamlined PM and SO<sub>2</sub> time-rate limits assures compliance with 45CSR§2-4.1.b. and 45CSR§10-3.3.f., respectively. Compliance with this streamlined NO<sub>x</sub> heat-rate limit assures compliance with 40 C.F.R. §60.44b(a)(1)(ii).*

[45CSR13/14 - Permit No. R13-1085B/R14-7B Specific Requirement (A)(2); 45CSR§2-4.1.b.; 45CSR§10-3.3.f.; 40 C.F.R. §60.44b(a)(1)(ii); 45CSR16] (Title V permit condition 4.1.8)

**Work Practice Standards for 40 C.F.R. Part 63 Subpart DDDDD (Major Source Boiler MACT) – Applicable after January 30, 2016**

The permittee shall conduct a tune-up of the auxiliary boilers annually as specified in §63.7540. The first annual tune-up must be completed no later than January 31, 2016.

**[45CSR34; 40 C.F.R. §§63.7500(a)(1) and 63.7510(e), and Table 3 to Subpart DDDDD of Part 63] (Proposed New Title V Permit Condition)**

The permittee shall conduct a one-time energy assessment of the auxiliary boilers no later than January 31, 2016. The energy assessment must be performed by a qualified energy assessor and be 8 on-site technical labor hours in length maximum for both boilers combined, but may be longer at the discretion of the owner or operator. The boiler system(s) and any on-site energy use system(s) accounting for at least 50 percent of the affected boiler(s) energy (e.g., steam, hot water, process heat, or electricity) production, as applicable, will be evaluated to identify energy savings opportunities, within the limit of performing an 8-hour on-site energy assessment. The energy assessment must include an evaluation of the items listed in Table 3 to Subpart DDDDD of Part 63.

**[45CSR34; 40 C.F.R. §§63.7500(a)(1) and 63.7510(e), Table 3 to Subpart DDDDD of Part 63] (Proposed New Title V Permit Condition)**

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.)**

### **Monitoring Requirements**

The owner or operator shall install, calibrate, certify, operate, maintain, and record the output of continuous monitoring systems that measure all Opacity, SO<sub>2</sub>, NO<sub>x</sub>, and O<sub>2</sub> or CO<sub>2</sub> emissions from emission point *Stack 1* as specified in 40 C.F.R. Part 60, Subpart Da for the CFB boilers and NO<sub>x</sub>, as specified in 40 C.F.R. Part 60, Subpart Db for the auxiliary boilers.

*Compliance with this streamlined provision assures compliance 45CSR13/14 - Permit No. R13-1085B/R14-7B "Other Requirement (B)(1)(d)".*

**[45CSR16, 40 C.F.R. § 60.49Da, 40 C.F.R. § 60.48b, 40 C.F.R. § 60.13; 45CSR13/14 - Permit No. R13-1085B/R14-7B Specific Requirement (B)(1)(d); 40 C.F.R. §§ 64.3(a), 64.3(b), 64.3(d)(1), and 64.6(c)(1)] (Title V permit condition 4.2.1)**

Compliance with the visible emission requirements of 45CSR§2-3.1. (condition 4.1.1.) shall be determined in accordance with 40 C.F.R. Part 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems and as described in the approved monitoring plan. Compliance with the weight emission limit (4.1.7.) shall be demonstrated by periodic particulate matter stack testing (4.3.1. and 4.3.12.), conducted in accordance with the appropriate test method set forth in the Appendix to 45CSR2 or other equivalent EPA approved method approved by the Director. Such testing shall be conducted at a frequency to be established by the Director. *[Permit R13-1085/R14-7B serves as the approved monitoring plan.]*

**[45CSR§§2-3.2. and 8.1.a., 45CSR§2A-6] (Title V permit condition 4.2.2)**

Compliance with the visible emissions limit (4.1.1.) shall be monitored as set forth in the approved monitoring plan for each emission unit. *[Permit R13-1085/R14-7B serves as the approved monitoring plan.]*

**[45CSR§2-8.2.a.] (Title V permit condition 4.2.3)**

### **Testing Requirements**

Compliance with the nitrogen oxides emission limitations under condition 4.1.8. shall be demonstrated in accordance with 40 C.F.R. §60.8, 40 C.F.R. §60.46b, 40 C.F.R. §60.48b and 40 C.F.R. §60.49b.

**[45CSR13/14 - Permit No. R13-1085B/R14-7B Other Requirement (B)(3)] (Title V permit condition 4.3.4)**

Compliance with the volatile organic compound emission limitation under conditions 4.1.7., 4.1.8., and 4.1.9. shall be demonstrated in accordance with 40 C.F.R. 60, Appendix A - Method 25 or 25A.

**[45CSR13/14 - Permit No. R13-1085B/R14-7B Other Requirement (B)(4)] (Title V permit condition 4.3.5)**

Compliance with the carbon monoxide emission limitations under conditions 4.1.7., 4.1.8., and 4.1.9. shall be demonstrated in accordance with 40 C.F.R. 60 Appendix A - Method 10.

**[45CSR13/14 - Permit No. R13-1085B/R14-7B Other Requirement (B)(5)] (Title V permit condition 4.3.6)**

### **Recordkeeping Requirements**

Records of the operating schedule and quantity and quality of fuel consumed shall be maintained on site for each fuel burning unit and made available to the Director or his duly authorized representative upon request. Such records shall include, but not be limited to the date and time of start-up and shutdown and for:

- a. *Pipeline quality natural gas*, - the quantity of fuel consumed on a monthly basis,
- b. *Coal*, - ash and BTU analysis for each shipment and the quantity of fuel consumed on a daily basis.

**[45CSR§2-8.3.c., 45CSR§2A-7.1.a.] (Title V permit condition 4.4.1)**

Records of monitored data established in the monitoring plan shall be maintained on site and shall be made available to the Director or his duly authorized representative upon request.

**[45CSR§2-8.3.a.] (Title V permit condition 4.4.2)**

**Recordkeeping Requirements for 40 C.F.R. Part 63 Subpart DDDDD (Major Source Boiler MACT) – Applicable after January 30, 2016**

The permittee shall maintain the following records as specified in 40 C.F.R. §63.7555:

- a. A copy of each notification and report submitted to comply with 40 C.F.R. Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or annual compliance report that was submitted, according to the requirements in § 63.10(b)(2)(xiv).
- b. Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in § 63.10(b)(2)(viii).
- c. For each auxiliary boiler, records of the calendar date, time, occurrence and duration of each startup and shutdown.
- d. For each auxiliary boiler, records of the type(s) and amount(s) of fuels used during each startup and shutdown.

**[45CSR34; 40 C.F.R. §§63.10(b)(2) and 63.7555] (Proposed New Title V Permit Condition)**

**Reporting Requirements**

Compliance with the periodic exception reporting of permit condition 4.5.5. shall be demonstrated by quarterly reports in accordance with 40 C.F.R. §60.7(c).

**[45CSR16, 40 C.F.R. §60.7] (Title V permit condition 4.5.2)**

Excess opacity periods meeting the following conditions may be reported on a quarterly basis unless otherwise required by the Director:

- a. The excess opacity period does not exceed thirty (30) minutes within any twenty-four (24) hour period; and
- b. Excess opacity does not exceed forty percent (40%).

**[45CSR§2-9.3.a.] (Title V permit condition 4.5.3)**

A periodic exception report shall be submitted to the Director, in a manner and at a frequency to be established by the Director.

**[45CSR§2-8.3.b.] (Title V permit condition 4.5.5)**

**Reporting Requirements for 40 C.F.R. Part 63 Subpart DDDDD (Major Source Boiler MACT) – Applicable after January 30, 2016**

A Notification of Compliance Status for the auxiliary boilers shall be submitted to the Secretary before the close of business on the 60th day following the completion both the one-time energy assessment and initial tune up of the auxiliary boilers. The Notification of Compliance Status must contain the information specified in §63.7545(e)(1) and (8).

**[40 C.F.R. §§63.9(h)(2)(ii) and 63.7545(e)] (Proposed New Title V Permit Condition)**

An annual compliance report for the auxiliary boilers shall be submitted to the Secretary according to the requirements in §63.7550(b). The first compliance report must cover the period specified in §63.7550(b)(1) and must be postmarked or submitted no later than the date specified in §63.7550(b)(2). Subsequent compliance reports must be postmarked or submitted no later than January 31 and must cover the period from January 1 through December 31 of the preceding year. Each compliance report must contain the applicable information specified in § 63.7550(c).

**[45CSR34; 40 C.F.R. §63.7550] (Proposed New Title V Permit Condition)**

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

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

## ATTACHMENT E - Emission Unit Form

### *Emission Unit Description*

<b>Emission unit ID number:</b> S009J-K and S009L-M (Combined Operation of CFB and AUX Boilers)	<b>Emission unit name:</b> Sources for Stack 1: S009J is CFB #1 Boiler/Cyclone #1 S009K is CFB #2 Boiler/Cyclone #2 S009L is Auxiliary Boiler #1 S009M is Auxiliary Boiler #2	<b>List any control devices associated with this emission unit:</b> Baghouses 7 & 8 / Low NO <sub>x</sub> Burners	
<b>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</b> Occasionally, combined operation of the CFB and AUX Boilers will occur due to high steam flow demands from West Virginia University. Otherwise, combined operation only occurs during the start up of the CFB Boilers after they have been off line. See Attachment E for S009J-K for specific CFB Boiler information. See Attachment E for S009L-M for specific AUX Boiler information.			
<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>	
<b>Construction date:</b> 1989	<b>Installation date:</b> 1989	<b>Modification date(s):</b>	
<b>Design Capacity (examples: furnaces - tons/hr, tanks - gallons):</b> See Attachment E for S009J-K for specific CFB Boiler information. See Attachment E for S009L-M for specific AUX Boiler information.			
<b>Maximum Hourly Throughput:</b> See Attachment E for S009J-K for specific CFB Boiler information.  See Attachment E for S009L-M for specific AUX Boiler information.	<b>Maximum Annual Throughput:</b> See Attachment E for S009J-K for specific CFB Boiler information.  See Attachment E for S009L-M for specific AUX Boiler information.	<b>Maximum Operating Schedule:</b> 8760 hours per year (Typically less than 876 hours)	
<b>Fuel Usage Data (fill out all applicable fields)</b>			
<b>Does this emission unit combust fuel?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<b>If yes, is it?</b> <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired	
<b>Maximum design heat input and/or maximum horsepower rating:</b> See Attachment E for S009J-K for specific CFB Boiler information. See Attachment E for S009L-M for specific AUX Boiler information		<b>Type and Btu/hr rating of burners:</b>	
<b>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</b> See Attachment E for S009J-K for specific CFB Boiler information. See Attachment E for S009L-M for specific AUX Boiler information.			
<b>Describe each fuel expected to be used during the term of the permit.</b>			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Blended Fuel (as received) (CFBs)	3.5%	51.7%	7775 Btu/lb
Natural Gas (AUXs)	1.71 grains/MCF	~ 0	1093 Btu/CF

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO) <sup>1</sup>	127.5	558.45
Nitrogen Oxides (NO <sub>x</sub> ) <sup>1</sup>	300	1314
Lead (Pb) <sup>1</sup>	0.13	0.57
Particulate Matter (PM <sub>2.5</sub> ) <sup>2</sup>	17.0	74.49
Particulate Matter (PM <sub>10</sub> ) <sup>2</sup>	18.4	80.73
Total Particulate Matter (TSP) <sup>1</sup>	22.5	98.55
Sulfur Dioxide (SO <sub>2</sub> ) <sup>1</sup>	285	1248
Volatile Organic Compounds (VOC) <sup>1</sup>	7.5	32.85
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Hydrogen Chloride <sup>2</sup>	5.475	24.0
Hydrogen Fluoride <sup>1</sup>	0.4	1.8
Antimony <sup>2</sup>	0.001125	0.0049
Arsenic <sup>1</sup>	0.002	0.0088
Beryllium <sup>1</sup>	0.0002	0.0009
Cadmium <sup>2</sup>	0.000402	0.0018
Chromium <sup>2</sup>	0.001322	0.0058
Cobalt <sup>2</sup>	0.000172	0.0008
Manganese <sup>2</sup>	0.002170	0.0095
Mercury <sup>1</sup>	0.021	0.0920
Nickel <sup>2</sup>	0.001097	0.0048
Selenium <sup>2</sup>	0.000357	0.0016
Total Organic HAP <sup>2</sup>	0.927	4.1
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
Radionuclides <sup>1</sup>	0.0009	0.0039
<b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b> <sup>1</sup> PPH emissions based on permit limit. TPY emission = PPH x 8760 hrs/yr <sup>2</sup> PPH emissions = PPH <sub>CFB</sub> + PPH <sub>AUX</sub> (values obtained from Emission Unit Forms for Units S009J-K and S009L-M) TPY emissions = TPY <sub>CFB</sub> + TPY <sub>AUX</sub> (values obtained from Emission Unit Forms for Units S009J-K and S009L-M)		

**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.

All applicable limitations and standards for combined operation of the CFB and AUX boilers are the same as those presented in the Attachment E Emission Unit forms for Emission Unit IDs S009J-K and S009L-M except that the emission limit tables in Title V permit conditions 4.1.7. and 4.1.8. do not apply during combined operation. The emission limitations below apply instead.

During periods when the steam demand for West Virginia University requires the combined operation of the circulating fluidized bed boilers and the auxiliary boilers, air pollutant emissions from the main stack venting those operations shall not exceed the following:

Pollutant	lbm/hr	lbm/mmBtu
Particulate Matter	22.5 <sup>(2)</sup>	0.022 <sup>(4)</sup>
Sulfur Dioxide <sup>(1)</sup>	285 <sup>(3)</sup> (24-hr average)	0.40 <sup>(4)</sup> (30-day rolling average)
Nitrogen Oxides (NO <sub>2</sub> ) <sup>(1)</sup>	300 (24-hr average)	0.40 <sup>(5)</sup> (30-day rolling average)
Volatile Organic Compounds	7.5	0.0074
Carbon Monoxide	127.5	0.1257
Lead	0.13	N/A
Mercury	0.021	N/A
Fluorides	0.4	N/A
Beryllium	0.0002	N/A
Arsenic	0.002	N/A
Radionuclides	0.0009	N/A

<sup>(1)</sup> Compliance shall be demonstrated via continuous emissions monitoring.

<sup>(2)</sup> Compliance with this streamlined PM limit assures compliance with 45CSR§2-4.1.a. for the CFB boilers (S009I, S009K).

<sup>(3)</sup> Compliance with this streamlined SO<sub>2</sub> limit assures compliance with 45CSR§10-3.3.f. for the auxiliary boilers (S009L, S009M).

<sup>(4)</sup> Compliance with these streamlined PM and SO<sub>2</sub> limits assures compliance with 40 C.F.R. §60.42Da(a)(1) and 60.43Da(a)(2), respectively.

<sup>(5)</sup> Compliance with this streamlined NO<sub>x</sub> limit assures compliance with 40 C.F.R. §60.44b(a)(1)(ii) for the auxiliary boilers (S009L, S009M).

**[45CSR13/14 - Permit No. R13-1085B/R14-7B Specific Requirement (A)(3); 45CSR§2-4.1.a.; 45CSR§10-3.3.f.; 40 C.F.R. §§60.42Da(a)(1) and 60.43Da(a)(2); 40 C.F.R. §60.44b(a)(1)(ii); 45CSR16] (Title V permit condition 4.1.9)**

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.)**

**Monitoring Requirements**

All applicable monitoring, testing, recordkeeping, and reporting requirements for combined operation of the CFB and AUX boilers are the same as those presented in the Attachment E Emission Unit forms for Emission Unit IDs S009J-K and S009L-M.

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

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

## ATTACHMENT E - Emission Unit Form

***Emission Unit Description***

<b>Emission unit ID number:</b> S009A thru S009H	<b>Emission unit name:</b> Sources for Stack 1 (The units provide Fuel and Limestone to the CFBs)	<b>List any control devices associated with this emission unit:</b> Pneumatic Conveying System 2/ Baghouses 7 & 8/ Enclosed System 7
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 The Emission Units S009A thru S009D pneumatically conveys limestone to CFB #1 and CFB #2 for injection. The limestone is used to control SO<sub>2</sub> emissions. The Emission Units S009E thru S009H conveys blended fuel to CFB #1 and CFB #2 for combustion.

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b> 1989	<b>Installation date:</b> 1989	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 S009A-D have a design capacity of 10 TPH/unit  
 S009E-H have a design capacity of 46 TPH/unit

<b>Maximum Hourly Throughput:</b> S009A-D - 10 TPH/unit S009E-H - 46 TPH/unit	<b>Maximum Annual Throughput:</b> S009A-D - 87,600 TPY S009E-H - 402,960 TPY	<b>Maximum Operating Schedule:</b> 8760 hours per year
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***Fuel Usage Data (fill out all applicable fields)***

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

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

<b><i>Emissions Data</i></b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO <sub>x</sub> )	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter (PM <sub>2.5</sub> )	N/A	N/A
Particulate Matter (PM <sub>10</sub> )	N/A	N/A
Total Particulate Matter (TSP)	0.175	0.77
Sulfur Dioxide (SO <sub>2</sub> )	N/A	N/A
Volatile Organic Compounds (VOC)	N/A	N/A
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>See Emission Calculations in 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.

No emissions unit-specific applicable requirements for this source.

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.*)

No emissions unit-specific testing, recordkeeping, reporting requirements for this source.

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

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

## ATTACHMENT E - Emission Unit Form

**Emission Unit Description**

<b>Emission unit ID number:</b> S00F1 thru S00F14	<b>Emission unit name:</b> Sources for Fugitive Emissions 1 thru 14	<b>List any control devices associated with this emission unit:</b> Building Enclosure 1/ Enclosed System 1/ Water Spray 1, 2, 3, 4, & 5
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 The Emission Units S00F1 thru S00F3 transfers coal or gob from the truck to the Fuel Unloading Hopper 1 (S00F2) and Vibratory Feeder 1 (S00F3). The Emission Units S00F4 thru S00F6 transfers coal or gob (waste coal) from the truck to the Fuel Unloading Hopper 2 (S00F5) and Vibratory Feeder 2 (S00F6). The Emission Units S00F7 thru S00F10 transfers coal or gob from Vibratory Feeders 1 & 2 to the Transfer Conveyor 1 (S00F9) which transfers coal or gob to Elevating Conveyor 1 (S00F10). The Emission Units S00F11 thru S00F14 catches coal/gob transfer spillage, [via the Dribble Chute 1 (S00F11), the Dribble Chute Catch Bin (S00F12), and the Dribble Chute Conveyor (S00F13-14)], and returns the spilled coal/gob to Transfer Conveyor 1.

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
<b>Construction date:</b> 1989	<b>Installation date:</b> 1989	<b>Modification date(s):</b>

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 S00F1-8 have a design capacity of 250 TPH/unit  
 S00F9-10 have a design capacity of 500 TPH/unit  
 S00F11-14 the design capacity for these units is not applicable (N/A)

<b>Maximum Hourly Throughput:</b> S00F1-8 – 250 TPH/unit S00F9-10 - 500 TPH/unit S00F11-14 - N/A	<b>Maximum Annual Throughput:</b> S00F1-8 – 2,190,000 TPY S00F9-10 – 4,380,000 TPY S00F11-14 – N/A	<b>Maximum Operating Schedule:</b> 8760 hours per year
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**Fuel Usage Data (fill out all applicable fields)**

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

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

<b><i>Emissions Data</i></b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO <sub>x</sub> )	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter (PM <sub>2.5</sub> )	N/A	N/A
Particulate Matter (PM <sub>10</sub> )	N/A	N/A
Total Particulate Matter (TSP)	0.0009	0.0041
Sulfur Dioxide (SO <sub>2</sub> )	N/A	N/A
Volatile Organic Compounds (VOC)	N/A	N/A
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>See Emission Calculations in Appendix A</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.

Coal/coal refuse and limestone handling/storage facilities shall consist of the following, and particulate emissions shall be controlled as specified with maximum particulate emissions not to exceed the following:

	Type/Identity of Particulate Matter Control Equipment	Particulate Emission Limitation for Control Equipment Discharge lb/hr
Coal/Gob Receiving Hoppers (Truck)	Enclosure and Water/Chemical Dust Suppression System	
Coal/Gob Receiving Hopper (Emergency Use)	Minimize Drop Height	
Elevating Transfer Conveyor No. 1, Two Fuel Silos, Reversible Silo Feed Conveyor, Hopper Transfer Conveyor, and Transfer Points	Enclosure and Evacuation to Baghouse	.0002
Elevating (Tripper) Conveyor No. 2 (top), Two Fuel Day Bins, and Transfer Points	Enclosure and Evacuation to Baghouse	.0002
Mill Collecting Conveyor, Elevating Conveyor No. 2 base	Enclosure and Evacuation to Baghouse	.0002
Two Coal/Gob Crushers (Grinding Mill, Hammer Mill), Emergency Fuel Feed Conveyor, Weigh Belt Conveyor	Enclosure and Evacuation to Baghouse	.099
One 1,160 Ton Limestone Storage Silo	Baghouse	.014
Limestone Truck Unloading Hopper	Enclosure and Evacuation to Baghouse	.027
One Limestone Day Bin	Baghouse	.005

**[45CSR13/14 - Permit No. R13-1085B/R14-7B Specific Requirement (A)(4)] (Title V condition 5.1.1)**

At all times, including periods of startup, shutdown, and malfunction, any affected facility [coal processing and conveying equipment as defined in 40 C.F.R. Subpart Y] including associated air pollution control equipment shall, to the extent practicable, be maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions. Determination that acceptable operating and maintenance procedures are being used, will be based on information available to the Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

**[40 C.F.R. § 60.11(d)] (Title V condition 5.1.3)**

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.)**

No emission unit-specific testing, recordkeeping, reporting requirements for this source.

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

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

## ATTACHMENT E - Emission Unit Form

***Emission Unit Description***

<b>Emission unit ID number:</b> S00F15 and S00F16	<b>Emission unit name:</b> Sources for Fugitive Emissions 15 & 16	<b>List any control devices associated with this emission unit:</b> N/A
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
The Emission Units S00F15 and S00F16 handle the transfer of pre-blended fuel from a Front End Loader to the Emergency Mill Feed System Hopper (S00F16). These units are not intended for use unless there is an emergency situation.

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b> 1989	<b>Installation date:</b> 1989	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
S00F15-16 have a design capacity of 60 TPH/unit

<b>Maximum Hourly Throughput:</b> S00F15-16 – 60 TPH/unit	<b>Maximum Annual Throughput:</b> S00F15-16 – 525,600 TPY	<b>Maximum Operating Schedule:</b> 8760 hours per year
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***Fuel Usage Data (fill out all applicable fields)***

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

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

<b><i>Emissions Data</i></b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO <sub>x</sub> )	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter (PM <sub>2.5</sub> )	N/A	N/A
Particulate Matter (PM <sub>10</sub> )	N/A	N/A
Total Particulate Matter (TSP)	0	0
Sulfur Dioxide (SO <sub>2</sub> )	N/A	N/A
Volatile Organic Compounds (VOC)	N/A	N/A
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>See Emission Calculations in Appendix A</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.

Coal/coal refuse and limestone handling/storage facilities shall consist of the following, and particulate emissions shall be controlled as specified with maximum particulate emissions not to exceed the following:

	Type/Identity of Particulate Matter Control Equipment	Particulate Emission Limitation for Control Equipment Discharge lb/hr
Coal/Gob Receiving Hoppers (Truck)	Enclosure and Water/Chemical Dust Suppression System	
Coal/Gob Receiving Hopper (Emergency Use)	Minimize Drop Height	
Elevating Transfer Conveyor No. 1, Two Fuel Silos, Reversible Silo Feed Conveyor, Hopper Transfer Conveyor, and Transfer Points	Enclosure and Evacuation to Baghouse	.0002
Elevating (Tripper) Conveyor No. 2 (top), Two Fuel Day Bins, and Transfer Points	Enclosure and Evacuation to Baghouse	.0002
Mill Collecting Conveyor, Elevating Conveyor No. 2 base	Enclosure and Evacuation to Baghouse	.0002
Two Coal/Gob Crushers (Grinding Mill, Hammer Mill), Emergency Fuel Feed Conveyor, Weigh Belt Conveyor	Enclosure and Evacuation to Baghouse	.099
One 1,160 Ton Limestone Storage Silo	Baghouse	.014
Limestone Truck Unloading Hopper	Enclosure and Evacuation to Baghouse	.027
One Limestone Day Bin	Baghouse	.005

**[45CSR13/14 - Permit No. R13-1085B/R14-7B Specific Requirement (A)(4)]**

At all times, including periods of startup, shutdown, and malfunction, any affected facility [coal processing and conveying equipment as defined in 40 CFR Subpart Y] including associated air pollution control equipment shall, to the extent practicable, be maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions. Determination that acceptable operating and maintenance procedures are being used, will be based on information available to the Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

**[40 C.F.R. § 60.11(d)] (Title V condition 5.1.3)**

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.)**

No emission unit-specific testing, recordkeeping, reporting requirements for this source.

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

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

## ATTACHMENT E - Emission Unit Form

***Emission Unit Description***

<b>Emission unit ID number:</b> S00F17 thru S00F18 and S00F21 thru S00F25  Note: S00F19-20 are no longer used	<b>Emission unit name:</b> Sources for Fugitive Emissions 17, 18, and 21 thru 25	<b>List any control devices associated with this emission unit:</b>  N/A
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 The Emission Units S00F17 and S00F18 are the Acid and Caustic Storage Tanks which are used for Water Treatment in the Demineralizer Trains. The Emission Units S00F21 and S00F22 are the Turbine Oil and EHC Oil Storage Tanks used for the Turbine Generator. The Emission Units S00F23 thru S00F25 are water treatment tanks that contain Phosphate, Corrosion Inhibitor, and Oxygen Scavenger.

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b> 1989	<b>Installation date:</b> 1989	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 S00F17-18 have a design capacity of 5800 gal./unit  
 S00F21 has a design capacity of 2378 gal.  
 S00F22 has a design capacity of 105 gal.  
 S00F23 has a design capacity of 1600 gal.  
 S00F24-25 have a design capacity of 400 gal./unit

<b>Maximum Hourly Throughput:</b> N/A	<b>Maximum Annual Throughput:</b> N/A	<b>Maximum Operating Schedule:</b> 8760 hours per year
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***Fuel Usage Data (fill out all applicable fields)***

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

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

<b><i>Emissions Data</i></b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO <sub>x</sub> )	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter (PM <sub>2.5</sub> )	N/A	N/A
Particulate Matter (PM <sub>10</sub> )	N/A	N/A
Total Particulate Matter (TSP)	N/A	N/A
Sulfur Dioxide (SO <sub>2</sub> )	N/A	N/A
Volatile Organic Compounds (VOC)	N/A	N/A
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>See Emission Calculations in Appendix A</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.

No emissions unit-specific applicable requirements for this source.

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.)

No emissions unit-specific testing, recordkeeping, reporting requirements for this source.

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

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

## ATTACHMENT E - Emission Unit Form

***Emission Unit Description***

<b>Emission unit ID number:</b> S00F26	<b>Emission unit name:</b> Source for Fugitive Emissions 26	<b>List any control devices associated with this emission unit:</b> Paved/Water Cleaning
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
Emission Unit S00F26 consists of the paved roadways areas around the facility and is maintained by water cleaning.

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b> 1989	<b>Installation date:</b> 1989	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
S00F26 design capacity is N/A

<b>Maximum Hourly Throughput:</b> N/A	<b>Maximum Annual Throughput:</b> N/A	<b>Maximum Operating Schedule:</b> 4848 hours per year
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***Fuel Usage Data (fill out all applicable fields)***

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

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

<b><i>Emissions Data</i></b>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO <sub>x</sub> )	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter (PM <sub>2.5</sub> )	N/A	N/A
Particulate Matter (PM <sub>10</sub> )	N/A	N/A
Total Particulate Matter (TSP)	0.015	0.069
Sulfur Dioxide (SO <sub>2</sub> )	N/A	N/A
Volatile Organic Compounds (VOC)	N/A	N/A
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p>See Emission Calculations in Appendix A</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.

All plant roads and haulways shall be paved and shall be kept clean by appropriate measures to minimize the emission or entrainment of fugitive particulate matter.

[45CSR13/14 - Permit No. R13-1085B/R14-7B Specific Requirement (A)(7)] (Title V condition 3.1.12)

All trucks delivering coal or coal refuse and trucks removing ash from the plant shall be fully covered or enclosed.

[45CSR13/14 - Permit No. R13-1085B/R14-7B Specific Requirement (A)(9)] (Title V condition 5.1.6)

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.)

There are no emissions unit-specific monitoring, testing, recordkeeping or reporting requirements for this emissions unit.

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

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

## ATTACHMENT E - Emission Unit Form

**Emission Unit Description**

<b>Emission unit ID number:</b> S001A thru S002B	<b>Emission unit name:</b> Sources for Vent 1 & Vent 2	<b>List any control devices associated with this emission unit:</b> Enclosed System 1/Baghouse 1 & 2
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 The Emission Units S001A thru S002B moves coal and gob to the respective silos with the exception of S001F. In and emergency situation, S001A (Elevating Conveyor #1) can transfer pre-sized and pre-blended fuel directly to S001F (Emergency Bypass Conveyor). Each conveyor in this set of emission units is enclosed.

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b> 1989	<b>Installation date:</b> 1989	<b>Modification date(s):</b> 2001 for S001F and 2002B
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 S001A-D & S002A have a design capacity of 500 TPH/unit  
 S001F has a design capacity of 120 TPH/unit  
 S001E & S002B have a design capacity of 2100 tons each

<b>Maximum Hourly Throughput:</b> S001A-D & S002A – 500 TPH/unit S001F – 120 TPH/unit S001E & S002B – 2100 tons each	<b>Maximum Annual Throughput:</b> S001A-D & S002A – 4,380,000 TPY S001F – 1,051,200 TPY S001E & S002B – 4,380,000 TPY	<b>Maximum Operating Schedule:</b> 8760 hours per year
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**Fuel Usage Data (fill out all applicable fields)**

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

**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.**  
 N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

<b><i>Emissions Data</i></b>		
Criteria Pollutants	Potential Emissions	
	PPH <sup>1</sup>	TPY <sup>2</sup>
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO <sub>x</sub> )	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter (PM <sub>2.5</sub> )	N/A	N/A
Particulate Matter (PM <sub>10</sub> )	N/A	N/A
Total Particulate Matter (TSP)	0.0002	0.0009
Sulfur Dioxide (SO <sub>2</sub> )	N/A	N/A
Volatile Organic Compounds (VOC)	N/A	N/A
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p><sup>1</sup> PPH emissions based on permit limit.</p> <p><sup>2</sup> TPY emissions = (PPH permit limit x 8760 hr/yr) ÷ 2000 lb/ton</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.

Coal/coal refuse and limestone handling/storage facilities shall consist of the following, and particulate emissions shall be controlled as specified with maximum particulate emissions not to exceed the following:

	Type/Identity of Particulate Matter Control Equipment	Particulate Emission Limitation for Control Equipment Discharge lb/hr
Coal/Gob Receiving Hoppers (Truck)	Enclosure and Water/Chemical Dust Suppression System	
Coal/Gob Receiving Hopper (Emergency Use)	Minimize Drop Height	
Elevating Transfer Conveyor No. 1, Two Fuel Silos, Reversible Silo Feed Conveyor, Hopper Transfer Conveyor, and Transfer Points	Enclosure and Evacuation to Baghouse	.0002
Elevating (Tripper) Conveyor No. 2 (top), Two Fuel Day Bins, and Transfer Points	Enclosure and Evacuation to Baghouse	.0002
Mill Collecting Conveyor, Elevating Conveyor No. 2 base	Enclosure and Evacuation to Baghouse	.0002
Two Coal/Gob Crushers (Grinding Mill, Hammer Mill), Emergency Fuel Feed Conveyor, Weigh Belt Conveyor	Enclosure and Evacuation to Baghouse	.099
One 1,160 Ton Limestone Storage Silo	Baghouse	.014
Limestone Truck Unloading Hopper	Enclosure and Evacuation to Baghouse	.027
One Limestone Day Bin	Baghouse	.005

**[45CSR13/14 - Permit No. R13-1085B/R14-7B Specific Requirement (A)(4)] (Title V condition 5.1.1)**

Visible Emissions from coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal (*Vents 1-5*) shall not exceed twenty (20) percent opacity except during periods of startup, shutdown, or malfunction.

**[45CSR16, 40 C.F.R. §§60.252(c) and 60.11(c)] (Title V condition 5.1.2)**

At all times, including periods of startup, shutdown, and malfunction, any affected facility [*coal processing and conveying equipment as defined in 40 C.F.R. Subpart Y*] including associated air pollution control equipment shall, to the extent practicable, be maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions. Determination that acceptable operating and maintenance procedures are being used, will be based on information available to the Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

**[40 C.F.R. § 60.11(d); 45CSR16] (Title V condition 5.1.3)**

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.)**

The permittee shall conduct visible emission evaluations as follows for “affected facility” *Baghouse Vents (Vents 1-5)*:

- a. A visible emissions evaluation shall be conducted for each affected facility at least once every consecutive 12-month period in accordance with 40 C.F.R. Part 60 Appendix A, Method 9, or as provided in 40 C.F.R. §60.11. This annual evaluation shall consist of a minimum of 24 consecutive observations for each affected facility.  
**[45CSR16; 40 C.F.R. §§60.11(b) and (e)(1); 40 C.F.R. §60.254(b)(2)] (Title V condition 5.3.1)**
- b. Each emissions unit with a visible emissions limit contained in this permit section shall be observed visually by a trained Method 22 observer at least each calendar week during periods of normal facility operation for a sufficient time interval to determine if the unit has any visible emissions. 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. Part 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 this sub-section (5.2.1.b.) if the visible emissions condition is corrected within 24 hours; the emissions unit is operating at normal operating conditions; and, the cause and corrective measures taken are recorded.  
**[45CSR§30-5.1.c.] (Title V condition 5.3.1)**
- c. If the initial, or any subsequent, 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. Part 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 sub-section 5.2.1.b. above, in lieu of those established in this condition.  
**[45CSR§30-5.1.c.] (Title V condition 5.3.1)**

Note: The term “Affected Facility” used in this permit means any of the following (NSPS or non-NSPS):

- (1) Coal Processing and conveying equipment (including breakers and crushers)
- (2) Coal Storage Systems.
- (3) Coal Transfer and Loading Systems.

A record of each visible emissions observation shall be maintained on site, including any data required by 40 C.F.R. Part 60 Appendix A, Method 9. 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 state 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.

**[45CSR§30-5.1.c.] (Title V condition 5.4.1)**

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

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

## ATTACHMENT E - Emission Unit Form

**Emission Unit Description**

<b>Emission unit ID number:</b> S003A thru S003K	<b>Emission unit name:</b> Sources for Vent 3	<b>List any control devices associated with this emission unit:</b> Enclosed System 2 / Baghouse 3
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 The Emission Units S003A-F and S003J-K move coal and gob from their respective silos to in proper proportions to either the Grinding Mill (S003J) or the Hammer Mill (S003K) to create blended fuel. In an emergency situation, Emission Units S003G-I will allow us to move pre-blended fuel directly to the Grinding Mill (S003J) or the Hammer Mill (S003K) for sizing. All items in this set of emissions units are enclosed except for S003G (Emergency Mill Feed System Hopper 1 to En-mass Elevating Conveyor 1).

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
<b>Construction date:</b> 1989	<b>Installation date:</b> 1989	<b>Modification date(s):</b> 2001 for S003D

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 S003A-I and S003K have a design capacity of 60 TPH/unit  
 S003J has design capacity of 60 TPH or 90 TPH

<b>Maximum Hourly Throughput:</b> S003A-I & S003K – 60 TPH/unit S003J – 60 TPH or 90 TPH	<b>Maximum Annual Throughput:</b> S003A-I & S003K – 525,600 TPY S003J – 525,600 TPY, 788,400 TPY	<b>Maximum Operating Schedule:</b> 8760 hours per year
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**Fuel Usage Data (fill out all applicable fields)**

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

**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
N/A	N/A	N/A	N/A

<b><i>Emissions Data</i></b>		
Criteria Pollutants	Potential Emissions	
	PPH <sup>1</sup>	TPY <sup>2</sup>
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO <sub>x</sub> )	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter (PM <sub>2.5</sub> )	N/A	N/A
Particulate Matter (PM <sub>10</sub> )	N/A	N/A
Total Particulate Matter (TSP)	0.099	0.43
Sulfur Dioxide (SO <sub>2</sub> )	N/A	N/A
Volatile Organic Compounds (VOC)	N/A	N/A
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p><sup>1</sup> PPH emissions based on permit limit.</p> <p><sup>2</sup> TPY emissions = (PPH permit limit x 8760 hr/yr) ÷ 2000 lb/ton</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.

Coal/coal refuse and limestone handling/storage facilities shall consist of the following and particulate emissions shall be controlled as specified with maximum particulate emissions not to exceed the following:

	Type/Identity of Particulate Matter Control Equipment	Particulate Emission Limitation for Control Equipment Discharge lb/hr
Coal/Gob Receiving Hoppers (Truck)	Enclosure and Water/Chemical Dust Suppression System	
Coal/Gob Receiving Hopper (Emergency Use)	Minimize Drop Height	
Elevating Transfer Conveyor No. 1, Two Fuel Silos, Reversible Silo Feed Conveyor, Hopper Transfer Conveyor, and Transfer Points	Enclosure and Evacuation to Baghouse	.0002
Elevating (Tripper) Conveyor No. 2 (top), Two Fuel Day Bins, and Transfer Points	Enclosure and Evacuation to Baghouse	.0002
Mill Collecting Conveyor, Elevating Conveyor No. 2 base	Enclosure and Evacuation to Baghouse	.0002
Two Coal/Gob Crushers (Grinding Mill, Hammer Mill), Emergency Fuel Feed Conveyor, Weigh Belt Conveyor	Enclosure and Evacuation to Baghouse	.099
One 1,160 Ton Limestone Storage Silo	Baghouse	.014
Limestone Truck Unloading Hopper	Enclosure and Evacuation to Baghouse	.027
One Limestone Day Bin	Baghouse	.005

**[45CSR13/14 - Permit No. R13-1085B/R14-7B Specific Requirement (A)(4)] (Title V condition 5.1.1)**

Visible Emissions from coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal (*Vents 1-5*) shall not exceed twenty (20) percent opacity except during periods of startup, shutdown, or malfunction.

**[45CSR16, 40 C.F.R. §§60.252(c) and 60.11(c)] (Title V condition 5.1.2)**

At all times, including periods of startup, shutdown, and malfunction, any affected facility [*coal processing and conveying equipment as defined in 40 C.F.R. Subpart Y*] including associated air pollution control equipment shall, to the extent practicable, be maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions. Determination that acceptable operating and maintenance procedures are being used, will be based on information available to the Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

**[40 C.F.R. § 60.11(d); 45CSR16] (Title V condition 5.1.3)**

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.)**

The permittee shall conduct visible emission evaluations as follows for “affected facility” *Baghouse Vents (Vents 1-5)*:

- a. A visible emissions evaluation shall be conducted for each affected facility at least once every consecutive 12-month period in accordance with 40 C.F.R. Part 60 Appendix A, Method 9, or as provided in 40 C.F.R. §60.11. This annual evaluation shall consist of a minimum of 24 consecutive observations for each affected facility.  
**[45CSR16; 40 C.F.R. §§60.11(b) and (e)(1); 40 C.F.R. §60.254(b)(2)] (Title V condition 5.3.1)**
- b. Each emissions unit with a visible emissions limit contained in this permit section shall be observed visually by a trained Method 22 observer at least each calendar week during periods of normal facility operation for a sufficient time interval to determine if the unit has any visible emissions. 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. Part 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 this sub-section (5.2.1.b.) if the visible emissions condition is corrected within 24 hours; the emissions unit is operating at normal operating conditions; and, the cause and corrective measures taken are recorded.  
**[45CSR§30-5.1.c.] (Title V condition 5.3.1)**
- c. If the initial, or any subsequent, 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. Part 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 sub-section 5.2.1.b. above, in lieu of those established in this condition.  
**[45CSR§30-5.1.c.] (Title V condition 5.3.1)**

Note: The term “Affected Facility” used in this permit means any of the following (NSPS or non-NSPS):

- (1) Coal Processing and conveying equipment (including breakers and crushers)
- (2) Coal Storage Systems.
- (3) Coal Transfer and Loading Systems.

A record of each visible emissions observation shall be maintained on site, including any data required by 40 C.F.R. Part 60 Appendix A, Method 9. 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 state 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.

**[45CSR§30-5.1.c.] (Title V condition 5.4.1)**

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

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

## ATTACHMENT E - Emission Unit Form

**Emission Unit Description**

<b>Emission unit ID number:</b> S004A thru S004G	<b>Emission unit name:</b> Sources for Vent 4	<b>List any control devices associated with this emission unit:</b> Enclosed System 3/Baghouse 4
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
Emission Units S001A-B and S004D-E move blended fuel to S004G (Elevating Conveyor #2—Bottom Half). Emission Unit S004C transfers Baghouse 4 dust to the Mill Collecting Conveyor (S004D), and Emission Unit S004F transfers Baghouse 3 dust to the Mill Collecting Conveyor (S004D). Each conveyor in this set of emissions units is enclosed.

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b> 1989	<b>Installation date:</b> 1989	<b>Modification date(s):</b> 2001 for S004D & S004G
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
S004A has a design capacity of 60 TPH or 90 TPH  
S004B has a design capacity of 60 TPH  
S004C has an estimated design capacity of 5 TPH  
S004D-E and S004G have a design capacity of 120 TPH/unit  
S004F has a design capacity of 12 TPH

<b>Maximum Hourly Throughput:</b> S004A – 60 TPH, 90 TPH S004B – 60 TPH S004C - 5 TPH S004D-E & S004G - 120 TPH/unit S004F – 12 TPH	<b>Maximum Annual Throughput:</b> S004A – 525,600 tpy, 788,400 tpy S004B – 525,600 tpy S004C - 43,800 tpy S004D-E , S004G – 1,051,200 tpy S004F – 105,120 tpy	<b>Maximum Operating Schedule:</b> 8760 hours per year
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**Fuel Usage Data (fill out all applicable fields)**

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

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

<b><i>Emissions Data</i></b>		
Criteria Pollutants	Potential Emissions	
	PPH <sup>1</sup>	TPY <sup>2</sup>
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO <sub>x</sub> )	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter (PM <sub>2.5</sub> )	N/A	N/A
Particulate Matter (PM <sub>10</sub> )	N/A	N/A
Total Particulate Matter (TSP)	0.0002	0.0009
Sulfur Dioxide (SO <sub>2</sub> )	N/A	N/A
Volatile Organic Compounds (VOC)	N/A	N/A
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p><sup>1</sup> PPH emissions based on permit limit.</p> <p><sup>2</sup> TPY emissions = (PPH permit limit x 8760 hr/yr) ÷ 2000 lb/ton</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.

Coal/coal refuse and limestone handling/storage facilities shall consist of the following and particulate emissions shall be controlled as specified with maximum particulate emissions not to exceed the following:

	Type/Identity of Particulate Matter Control Equipment	Particulate Emission Limitation for Control Equipment Discharge lb/hr
Coal/Gob Receiving Hoppers (Truck)	Enclosure and Water/Chemical Dust Suppression System	
Coal/Gob Receiving Hopper (Emergency Use)	Minimize Drop Height	
Elevating Transfer Conveyor No. 1, Two Fuel Silos, Reversible Silo Feed Conveyor, Hopper Transfer Conveyor, and Transfer Points	Enclosure and Evacuation to Baghouse	.0002
Elevating (Tripper) Conveyor No. 2 (top), Two Fuel Day Bins, and Transfer Points	Enclosure and Evacuation to Baghouse	.0002
Mill Collecting Conveyor, Elevating Conveyor No. 2 base	Enclosure and Evacuation to Baghouse	.0002
Two Coal/Gob Crushers (Grinding Mill, Hammer Mill), Emergency Fuel Feed Conveyor, Weigh Belt Conveyor	Enclosure and Evacuation to Baghouse	.099
One 1,160 Ton Limestone Storage Silo	Baghouse	.014
Limestone Truck Unloading Hopper	Enclosure and Evacuation to Baghouse	.027
One Limestone Day Bin	Baghouse	.005

**[45CSR13/14 - Permit No. R13-1085B/R14-7B Specific Requirement (A)(4)] (Title V condition 5.1.1)**

Visible Emissions from coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal (*Vents 1-5*) shall not exceed twenty (20) percent opacity except during periods of startup, shutdown, or malfunction.

**[45CSR16, 40 C.F.R. §§60.252(c) and 60.11(c)] (Title V condition 5.1.2)**

At all times, including periods of startup, shutdown, and malfunction, any affected facility [*coal processing and conveying equipment as defined in 40 C.F.R. Subpart Y*] including associated air pollution control equipment shall, to the extent practicable, be maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions. Determination that acceptable operating and maintenance procedures are being used, will be based on information available to the Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

**[40 C.F.R. § 60.11(d); 45CSR16] (Title V condition 5.1.3)**

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.)**

The permittee shall conduct visible emission evaluations as follows for “affected facility” *Baghouse Vents (Vents 1-5)*:

- a. A visible emissions evaluation shall be conducted for each affected facility at least once every consecutive 12-month period in accordance with 40 C.F.R. Part 60 Appendix A, Method 9, or as provided in 40 C.F.R. §60.11. This annual evaluation shall consist of a minimum of 24 consecutive observations for each affected facility.  
**[45CSR16; 40 C.F.R. §§60.11(b) and (e)(1); 40 C.F.R. §60.254(b)(2)] (Title V condition 5.3.1)**
- b. Each emissions unit with a visible emissions limit contained in this permit section shall be observed visually by a trained Method 22 observer at least each calendar week during periods of normal facility operation for a sufficient time interval to determine if the unit has any visible emissions. 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. Part 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 this sub-section (5.2.1.b.) if the visible emissions condition is corrected within 24 hours; the emissions unit is operating at normal operating conditions; and, the cause and corrective measures taken are recorded.  
**[45CSR§30-5.1.c.] (Title V condition 5.3.1)**
- c. If the initial, or any subsequent, 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. Part 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 sub-section 5.2.1.b. above, in lieu of those established in this condition.  
**[45CSR§30-5.1.c.] (Title V condition 5.3.1)**

Note: The term “Affected Facility” used in this permit means any of the following (NSPS or non-NSPS):

- (1) Coal Processing and conveying equipment (including breakers and crushers)
- (2) Coal Storage Systems.
- (3) Coal Transfer and Loading Systems.

A record of each visible emissions observation shall be maintained on site, including any data required by 40 C.F.R. Part 60 Appendix A, Method 9. 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 state 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.

**[45CSR§30-5.1.c.] (Title V condition 5.4.1)**

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

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

## ATTACHMENT E - Emission Unit Form

**Emission Unit Description**

<b>Emission unit ID number:</b> S005A thru S005F	<b>Emission unit name:</b> Sources for Vent 5	<b>List any control devices associated with this emission unit:</b> Enclosed System 4/Baghouse 5
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
The Emission Units in this group transfer blended fuel to indoor Fuel Bin 1 or Fuel Bin 2 (S005D/S005E). Each conveyor in this set of emissions units is enclosed.

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
<b>Construction date:</b> 1989	<b>Installation date:</b> 1989	<b>Modification date(s):</b> 2001 for S005F

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
S005A-C and S005F have a design capacity of 120 TPH/unit  
S005D-E have a design capacity of 375 tons each

<b>Maximum Hourly Throughput:</b> S005A-C & S005F - 120 TPH/unit S005D-E – 375 tons	<b>Maximum Annual Throughput:</b> S005A-C & S005F – 1,051,200 TPY S005D-E – 1,051,200 TPY	<b>Maximum Operating Schedule:</b> 8760 hours per year
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**Fuel Usage Data (fill out all applicable fields)**

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

**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.**  
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

<b><i>Emissions Data</i></b>		
Criteria Pollutants	Potential Emissions	
	PPH <sup>1</sup>	TPY <sup>2</sup>
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO <sub>x</sub> )	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter (PM <sub>2.5</sub> )	N/A	N/A
Particulate Matter (PM <sub>10</sub> )	N/A	N/A
Total Particulate Matter (TSP)	0.0002	0.0009
Sulfur Dioxide (SO <sub>2</sub> )	N/A	N/A
Volatile Organic Compounds (VOC)	N/A	N/A
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p><sup>1</sup> PPH emissions based on permit limit.</p> <p><sup>2</sup> TPY emissions = (PPH permit limit x 8760 hr/yr) ÷ 2000 lb/ton</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.

Coal/coal refuse and limestone handling/storage facilities shall consist of the following and particulate emissions shall be controlled as specified with maximum particulate emissions not to exceed the following:

	Type/Identity of Particulate Matter Control Equipment	Particulate Emission Limitation for Control Equipment Discharge lb/hr
Coal/Gob Receiving Hoppers (Truck)	Enclosure and Water/Chemical Dust Suppression System	
Coal/Gob Receiving Hopper (Emergency Use)	Minimize Drop Height	
Elevating Transfer Conveyor No. 1, Two Fuel Silos, Reversible Silo Feed Conveyor, Hopper Transfer Conveyor, and Transfer Points	Enclosure and Evacuation to Baghouse	.0002
Elevating (Tripper) Conveyor No. 2 (top), Two Fuel Day Bins, and Transfer Points	Enclosure and Evacuation to Baghouse	.0002
Mill Collecting Conveyor, Elevating Conveyor No. 2 base	Enclosure and Evacuation to Baghouse	.0002
Two Coal/Gob Crushers (Grinding Mill, Hammer Mill), Emergency Fuel Feed Conveyor, Weigh Belt Conveyor	Enclosure and Evacuation to Baghouse	.099
One 1,160 Ton Limestone Storage Silo	Baghouse	.014
Limestone Truck Unloading Hopper	Enclosure and Evacuation to Baghouse	.027
One Limestone Day Bin	Baghouse	.005

**[45CSR13/14 - Permit No. R13-1085B/R14-7B Specific Requirement (A)(4)] (Title V condition 5.1.1)**

Visible Emissions from coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal (*Vents 1-5*) shall not exceed twenty (20) percent opacity except during periods of startup, shutdown, or malfunction.

**[45CSR16, 40 C.F.R. §§60.252(c) and 60.11(c)] (Title V condition 5.1.2)**

At all times, including periods of startup, shutdown, and malfunction, any affected facility [*coal processing and conveying equipment as defined in 40 C.F.R. Subpart Y*] including associated air pollution control equipment shall, to the extent practicable, be maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions. Determination that acceptable operating and maintenance procedures are being used, will be based on information available to the Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

**[40 C.F.R. § 60.11(d); 45CSR16] (Title V condition 5.1.3)**

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.)**

The permittee shall conduct visible emission evaluations as follows for “affected facility” *Baghouse Vents (Vents 1-5)*:

- a. A visible emissions evaluation shall be conducted for each affected facility at least once every consecutive 12-month period in accordance with 40 C.F.R. Part 60 Appendix A, Method 9, or as provided in 40 C.F.R. §60.11. This annual evaluation shall consist of a minimum of 24 consecutive observations for each affected facility.  
**[45CSR16; 40 C.F.R. §§60.11(b) and (e)(1); 40 C.F.R. §60.254(b)(2)] (Title V condition 5.3.1)**
- b. Each emissions unit with a visible emissions limit contained in this permit section shall be observed visually by a trained Method 22 observer at least each calendar week during periods of normal facility operation for a sufficient time interval to determine if the unit has any visible emissions. 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. Part 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 this sub-section (5.2.1.b.) if the visible emissions condition is corrected within 24 hours; the emissions unit is operating at normal operating conditions; and, the cause and corrective measures taken are recorded.  
**[45CSR§30-5.1.c.] (Title V condition 5.3.1)**
- c. If the initial, or any subsequent, 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. Part 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 sub-section 5.2.1.b. above, in lieu of those established in this condition.  
**[45CSR§30-5.1.c.] (Title V condition 5.3.1)**

Note: The term “Affected Facility” used in this permit means any of the following (NSPS or non-NSPS):

- (1) Coal Processing and conveying equipment (including breakers and crushers)
- (2) Coal Storage Systems.
- (3) Coal Transfer and Loading Systems.

A record of each visible emissions observation shall be maintained on site, including any data required by 40 C.F.R. Part 60 Appendix A, Method 9. 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 state 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.

**[45CSR§30-5.1.c.] (Title V condition 5.4.1)**

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

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

## ATTACHMENT E - Emission Unit Form

***Emission Unit Description***

<b>Emission unit ID number:</b> S006A thru S006D	<b>Emission unit name:</b> Sources for Vent 6	<b>List any control devices associated with this emission unit:</b> Building Enclosure 2/Baghouse 6
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
The Emission Units S006A thru S006D handles transfer of limestone from the trucks to Unloading Hopper 1 (S006C) and Unloading Hopper 2 (S006D).

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b> 1989	<b>Installation date:</b> 1989	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
S006A-B have a design capacity of 37.5 TPH/unit  
S006C-D have a design capacity of 75 TPH/unit

<b>Maximum Hourly Throughput:</b> S006A-B – 37.5 TPH/unit S006C-D – 75 TPY/unit	<b>Maximum Annual Throughput:</b> S006A-B – 328,500 TPY S006C-D – 657,000 TPY	<b>Maximum Operating Schedule:</b> 8760 hours per year
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***Fuel Usage Data (fill out all applicable fields)***

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

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

<b><i>Emissions Data</i></b>		
Criteria Pollutants	Potential Emissions	
	PPH <sup>1</sup>	TPY <sup>2</sup>
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO <sub>x</sub> )	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter (PM <sub>2.5</sub> )	N/A	N/A
Particulate Matter (PM <sub>10</sub> )	N/A	N/A
Total Particulate Matter (TSP)	0.027	0.12
Sulfur Dioxide (SO <sub>2</sub> )	N/A	N/A
Volatile Organic Compounds (VOC)	N/A	N/A
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p><sup>1</sup> PPH emissions based on permit limit.</p> <p><sup>2</sup> TPY emissions = (PPH permit limit x 8760 hr/yr) ÷ 2000 lb/ton</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.

Coal/coal refuse and limestone handling/storage facilities shall consist of the following and particulate emissions shall be controlled as specified with maximum particulate emissions not to exceed the following:

	Type/Identity of Particulate Matter Control Equipment	Particulate Emission Limitation for Control Equipment Discharge lb/hr
Coal/Gob Receiving Hoppers (Truck)	Enclosure and Water/Chemical Dust Suppression System	
Coal/Gob Receiving Hopper (Emergency Use)	Minimize Drop Height	
Elevating Transfer Conveyor No. 1, Two Fuel Silos, Reversible Silo Feed Conveyor, Hopper Transfer Conveyor, and Transfer Points	Enclosure and Evacuation to Baghouse	.0002
Elevating (Tripper) Conveyor No. 2 (top), Two Fuel Day Bins, and Transfer Points	Enclosure and Evacuation to Baghouse	.0002
Mill Collecting Conveyor, Elevating Conveyor No. 2 base	Enclosure and Evacuation to Baghouse	.0002
Two Coal/Gob Crushers (Grinding Mill, Hammer Mill), Emergency Fuel Feed Conveyor, Weigh Belt Conveyor	Enclosure and Evacuation to Baghouse	.099
One 1,160 Ton Limestone Storage Silo	Baghouse	.014
Limestone Truck Unloading Hopper	Enclosure and Evacuation to Baghouse	.027
One Limestone Day Bin	Baghouse	.005

[45CSR13/14 - Permit No. R13-1085B/R14-7B Specific Requirement (A)(4)] (Title V condition 5.1.1)

Permit Shield

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

A record of each visible emissions observation shall be maintained on site, including any data required by 40 C.F.R. Part 60 Appendix A, Method 9. 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 state 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.

**[45CSR§30-5.1.c.] (Title V condition 5.4.1)**

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

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

## ATTACHMENT E - Emission Unit Form

**Emission Unit Description**

<b>Emission unit ID number:</b> S007A thru S008I	<b>Emission unit name:</b> Sources for Vent 7 & Vent 8	<b>List any control devices associated with this emission unit:</b> Pneumatic Conveying System 1/ Enclosed System 5 & 6/ Bin Vent Filter 1 & 2
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 The Emission Units S007A thru S008C transfers limestone from the unloading hoppers to the Limestone Silo (S007E), the Limestone Bin (S008C), or from the Limestone Silo to the Limestone Bin. The Emission Units S008D thru S008I transfers limestone from the Limestone Bin (S008C) to the Gravimetric Feeders/Conveyors A & B (S008E & S008H) and their respective Rotary Valves.

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b> 1989	<b>Installation date:</b> 1989	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 S007A-D & S008A-B have a design capacity of 75 TPH/unit  
 S007E and S008C have design capacities of 1160 tons and 250 tons respectively  
 S008D-I have a design capacity of 10 TPH/unit

<b>Maximum Hourly Throughput:</b> S007A-D & S008A-B - 75 TPH/unit S007E & S008C – 1160 tons & 250 tons S008D – 10 TPH/unit	<b>Maximum Annual Throughput:</b> S007A-D & S008A-B – 657,000 TPY S007E & S008C – 657,000 TPY S008D – 87,600 TPY	<b>Maximum Operating Schedule:</b> 8760 hours per year
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**Fuel Usage Data (fill out all applicable fields)**

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

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

<b><i>Emissions Data</i></b>		
Criteria Pollutants	Potential Emissions	
	PPH <sup>1</sup>	TPY <sup>2</sup>
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO <sub>x</sub> )	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter (PM <sub>2.5</sub> )	N/A	N/A
Particulate Matter (PM <sub>10</sub> )	N/A	N/A
Total Particulate Matter (TSP)	0.019	0.08
Sulfur Dioxide (SO <sub>2</sub> )	N/A	N/A
Volatile Organic Compounds (VOC)	N/A	N/A
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p><sup>1</sup> PPH emissions based on permit limit.</p> <p><sup>2</sup> TPY emissions = (PPH permit limit x 8760 hr/yr) ÷ 2000 lb/ton</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.

Coal/coal refuse and limestone handling/storage facilities shall consist of the following and particulate emissions shall be controlled as specified with maximum particulate emissions not to exceed the following:

	Type/Identity of Particulate Matter Control Equipment	Particulate Emission Limitation for Control Equipment Discharge lb/hr
Coal/Gob Receiving Hoppers (Truck)	Enclosure and Water/Chemical Dust Suppression System	
Coal/Gob Receiving Hopper (Emergency Use)	Minimize Drop Height	
Elevating Transfer Conveyor No. 1, Two Fuel Silos, Reversible Silo Feed Conveyor, Hopper Transfer Conveyor, and Transfer Points	Enclosure and Evacuation to Baghouse	.0002
Elevating (Tripper) Conveyor No. 2 (top), Two Fuel Day Bins, and Transfer Points	Enclosure and Evacuation to Baghouse	.0002
Mill Collecting Conveyor, Elevating Conveyor No. 2 base	Enclosure and Evacuation to Baghouse	.0002
Two Coal/Gob Crushers (Grinding Mill, Hammer Mill), Emergency Fuel Feed Conveyor, Weigh Belt Conveyor	Enclosure and Evacuation to Baghouse	.099
One 1,160 Ton Limestone Storage Silo	Baghouse	.014
Limestone Truck Unloading Hopper	Enclosure and Evacuation to Baghouse	.027
One Limestone Day Bin	Baghouse	.005

[45CSR13/14 - Permit No. R13-1085B/R14-7B Specific Requirement (A)(4)](Title V condition 5.1.1)

Permit Shield

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

A record of each visible emissions observation shall be maintained on site, including any data required by 40 C.F.R. Part 60 Appendix A, Method 9. 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 state 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.

**[45CSR§30-5.1.c.] (Title V condition 5.4.1)**

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

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

## ATTACHMENT E - Emission Unit Form

**Emission Unit Description**

<b>Emission unit ID number:</b> S010A thru S010O	<b>Emission unit name:</b> Sources for Vent 9	<b>List any control devices associated with this emission unit:</b> Enclosed System 8/Bin Vent Filter 3
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 The Emission Units S010A-C (Unit 1 Ash Screws A-C) transfer CFB #1 Bottom Ash to Drag Chain Conveyor 101 (S010D). The Emission Units S010E-G (Unit 2 Ash Screws A-C) transfer CFB #2 Bottom Ash to Drag Chain Conveyor 201 (S010H). Drag Chain 101 and 201 transfer ash to Clinker Grinder 1 (S010K) and Clinker Grinder 3 (S010L) respectively. The Clinker Grinders crush the bottom ash and transfer it to the Bottom Ash Holding Bin (S010O). All emission units are enclosed.

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
<b>Construction date:</b> 1989	<b>Installation date:</b> 1989	<b>Modification date(s):</b>

**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 S010A-N have a design capacity of 16.5 TPH/unit  
 S010O has a design capacity of 76.5 tons

<b>Maximum Hourly Throughput:</b> S010A-N – 16.5 TPH/unit S010O – 76.5 tons	<b>Maximum Annual Throughput:</b> S010A-N – 144,540 TPY S010O – 670,140 TPY	<b>Maximum Operating Schedule:</b> 8760 hours per year
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**Fuel Usage Data (fill out all applicable fields)**

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

**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.**  
 N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

<b><i>Emissions Data</i></b>		
Criteria Pollutants	Potential Emissions	
	PPH <sup>1</sup>	TPY <sup>2</sup>
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO <sub>x</sub> )	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter (PM <sub>2.5</sub> )	N/A	N/A
Particulate Matter (PM <sub>10</sub> )	N/A	N/A
Total Particulate Matter (TSP)	0.028	0.12
Sulfur Dioxide (SO <sub>2</sub> )	N/A	N/A
Volatile Organic Compounds (VOC)	N/A	N/A
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p><sup>1</sup> PPH emissions based on permit limit.</p> <p><sup>2</sup> TPY emissions = (PPH permit limit x 8760 hr/yr) ÷ 2000 lb/ton</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.

Ash transfer, storage and loading facilities shall consist of the following and particulate emissions from the entire system shall be controlled as specified with maximum particulate emissions not to exceed the following:

	Type/Identity of Particulate Matter Control Equipment	Particulate Emission Limitation for Control Equipment Discharge lb/hr
Pneumatic System for Collected Flyash and Bottom Ash Handling, One 1300 Ton Ash Silo, Vacuum Blowers	Enclosure and Evacuation to Baghouse	0.028
Fully Sealed Mechanical System for Bottom Ash/Cooler Rejects, One 85 Ton Bottom Ash Silo	Baghouse	.028
Flyash Transport (Silo Vent)	Baghouse	.184
Wet Ash Loadout (Flyash and Bottom Ash)	Rotary dustless (wet) unloaders shall thoroughly wet ash prior to loading and handling. Ash loadout(s) shall be fully enclosed and evacuated to an ash silo baghouse during all ash loading.	

[45CSR13/14 - Permit No. R13-1085B/R14-7B Specific Requirement (A)(5)] (Title V condition 5.1.4)

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.)**

A record of each visible emissions observation shall be maintained on site, including any data required by 40 C.F.R. Part 60 Appendix A, Method 9. 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 state 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.

**[45CSR§30-5.1.c.] (Title V condition 5.4.1)**

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

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

## ATTACHMENT E - Emission Unit Form

***Emission Unit Description***

<b>Emission unit ID number:</b> S011A thru S011L	<b>Emission unit name:</b> Sources for Vent 10	<b>List any control devices associated with this emission unit:</b> Building Enclosure 3/ Vacuum Conveying System A, B, & C/ Filter Separator A, B, & C
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
 The Emission Units S011A-C discharge bottom ash from the holding bin to Vacuum Conveying Systems A-C. The Emission Units S011D-E transfer fly ash from CFB #1 and CFB #2 Air Heater Hoppers to Vacuum Conveying System A and C respectively. The Emission Units S011F-I transfer fly ash from CFB #1 and CFB #2 Baghouses to Vacuum Conveying Systems A, B, and C. The Emission Units S011J-L are the Filter/Separators A, B, and C for the respective Vacuum Conveying Systems A, B, and C. All emissions units are enclosed.

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b> 1989	<b>Installation date:</b> 1989	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
 S011A-L have a design capacity of 50 TPH/unit

<b>Maximum Hourly Throughput:</b> S011A thru S011L – 50 TPH/unit	<b>Maximum Annual Throughput:</b> S011A thru S011L – 438,000 TPY	<b>Maximum Operating Schedule:</b> 8760 hours per year
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***Fuel Usage Data (fill out all applicable fields)***

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

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH <sup>1</sup>	TPY <sup>2</sup>
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO <sub>x</sub> )	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter (PM <sub>2.5</sub> )	N/A	N/A
Particulate Matter (PM <sub>10</sub> )	N/A	N/A
Total Particulate Matter (TSP)	0.028	0.12
Sulfur Dioxide (SO <sub>2</sub> )	N/A	N/A
Volatile Organic Compounds (VOC)	N/A	N/A
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p><sup>1</sup> PPH emissions based on permit limit.</p> <p><sup>2</sup> TPY emissions = (PPH permit limit x 8760 hr/yr) ÷ 2000 lb/ton</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.

Ash transfer, storage and loading facilities shall consist of the following and particulate emissions from the entire system shall be controlled as specified with maximum particulate emissions not to exceed the following:

	Type/Identity of Particulate Matter Control Equipment	Particulate Emission Limitation for Control Equipment Discharge lb/hr
Pneumatic System for Collected Flyash and Bottom Ash Handling, One 1300 Ton Ash Silo, Vacuum Blowers	Enclosure and Evacuation to Baghouse	0.028
Fully Sealed Mechanical System for Bottom Ash/Cooler Rejects, One 85 Ton Bottom Ash Silo	Baghouse	.028
Flyash Transport (Silo Vent)	Baghouse	.184
Wet Ash Loadout (Flyash and Bottom Ash)	Rotary dustless (wet) unloaders shall thoroughly wet ash prior to loading and handling. Ash loadout(s) shall be fully enclosed and evacuated to an ash silo baghouse during all ash loading.	

[45CSR13/14 - Permit No. R13-1085B/R14-7B Specific Requirement (A)(5)] (Title V condition 5.1.4)

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.)**

A record of each visible emissions observation shall be maintained on site, including any data required by 40 C.F.R. Part 60 Appendix A, Method 9. 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 state 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.

**[45CSR§30-5.1.c.] (Title V condition 5.4.1)**

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

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

## ATTACHMENT E - Emission Unit Form

***Emission Unit Description***

<b>Emission unit ID number:</b> S012A thru S012F	<b>Emission unit name:</b> Sources for Vent 11	<b>List any control devices associated with this emission unit:</b> Enclosed System 9/ Baghouse 9/ Ash Conditioner 1&2/Building Enclosure 4
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**Provide a description of the emission unit (type, method of operation, design parameters, etc.):**  
The Emission Units S012A-C transfer ash from Filter/Separators A, B, and C to the Ash Silo (S012D). The Emission Units S012E-F transfer ash from the Ash Silo, thru Ash Conditioners 1 or 2 (S012E or S012F) where it is mixed with approximately 15% water by weight), to trucks for disposal.

<b>Manufacturer:</b>	<b>Model number:</b>	<b>Serial number:</b>
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<b>Construction date:</b> 1989	<b>Installation date:</b> 1989	<b>Modification date(s):</b>
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**Design Capacity (examples: furnaces - tons/hr, tanks - gallons):**  
S012A-C have a design capacity of 50 TPH/unit  
S012D has a design capacity of 1300 tons  
S012E-F have a design capacity of 300 TPH/unit

<b>Maximum Hourly Throughput:</b> S012A-C 50 TPH/unit S012D – 1300 tons S012E-F – 300 TPH/unit	<b>Maximum Annual Throughput:</b> S012A-C – 438,000 TPY S012D – 2,628,000 TPY S012E-F – 2,628,000 TPY	<b>Maximum Operating Schedule:</b> 8760 hours per year
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***Fuel Usage Data (fill out all applicable fields)***

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

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

<b>Emissions Data</b>		
Criteria Pollutants	Potential Emissions	
	PPH <sup>1</sup>	TPY <sup>2</sup>
Carbon Monoxide (CO)	N/A	N/A
Nitrogen Oxides (NO <sub>x</sub> )	N/A	N/A
Lead (Pb)	N/A	N/A
Particulate Matter (PM <sub>2.5</sub> )	N/A	N/A
Particulate Matter (PM <sub>10</sub> )	N/A	N/A
Total Particulate Matter (TSP)	0.184	0.81
Sulfur Dioxide (SO <sub>2</sub> )	N/A	N/A
Volatile Organic Compounds (VOC)	N/A	N/A
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
N/A	N/A	N/A
<p><b>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</b></p> <p><sup>1</sup> PPH emissions based on permit limit.</p> <p><sup>2</sup> TPY emissions = (PPH permit limit x 8760 hr/yr) ÷ 2000 lb/ton</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.

Ash transfer, storage and loading facilities shall consist of the following and particulate emissions from the entire system shall be controlled as specified with maximum particulate emissions not to exceed the following:

	Type/Identity of Particulate Matter Control Equipment	Particulate Emission Limitation for Control Equipment Discharge lb/hr
Pneumatic System for Collected Flyash and Bottom Ash Handling, One 1300 Ton Ash Silo, Vacuum Blowers	Enclosure and Evacuation to Baghouse	0.028
Fully Sealed Mechanical System for Bottom Ash/Cooler Rejects, One 85 Ton Bottom Ash Silo	Baghouse	.028
Flyash Transport (Silo Vent)	Baghouse	.184
Wet Ash Loadout (Flyash and Bottom Ash)	Rotary dustless (wet) unloaders shall thoroughly wet ash prior to loading and handling. Ash loadout(s) shall be fully enclosed and evacuated to an ash silo baghouse during all ash loading.	

**[45CSR13/14 - Permit No. R13-1085B/R14-7B Specific Requirement (A)(5)] (Title V condition 5.1.4)**

All trucks delivering coal or coal refuse and trucks removing ash from the plant shall be fully covered or enclosed.

**[45CSR13/14 - Permit No. R13-1085B/R14-7B Specific Requirement (A)(9)] (Title V condition 5.1.6)**

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.)**

A record of each visible emissions observation shall be maintained on site, including any data required by 40 C.F.R. Part 60 Appendix A, Method 9. 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 state 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.

**[45CSR§30-5.1.c.] (Title V condition 5.4.1)**

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

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

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**ATTACHMENT G**  
**Air Pollution Control Device Forms**

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## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> D005—Baghouse #1	<b>List all emission units associated with this control device.</b> S001A through S001F
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<b>Manufacturer:</b> W.W. SLY Inc.	<b>Model number:</b> “PC-100” Pactecon	<b>Installation date:</b> 1989
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**Type of Air Pollution Control Device:**

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input 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
Particulate Matter	100 %	> 99 %

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

Baghouse #1 is designed to capture particulate matter from coal receiving operations (EC #1 to Coal Silo). There are five modules in the baghouse, and each module contains six bags. The bags are made out of 16 ounce polyester material, and provide a total cloth area of 666 ft<sup>2</sup>. The baghouse operates at ambient temperature and is designed for flow rate of 4000 CFM. Thus, the Air to Cloth ratio is 6:1. The baghouse cleaning cycle is based on differential pressure across the entire baghouse. When the differential pressure set point is reached, a single module isolates and pulse cleans. This sequence continues through the rest of the modules.

**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.** The unit does not have potential pre-control emissions of regulated pollutants above the Title V major source thresholds.

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

Visible emission checks are performed weekly during periods of normal facility operation.

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> D006—Baghouse #2	<b>List all emission units associated with this control device.</b> S001A-C, S001F, and S002A-B
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<b>Manufacturer:</b> W.W. SLY Inc.	<b>Model number:</b> “PC-100” Pactecon	<b>Installation date:</b> Original in 1989/Replaced in 2001
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**Type of Air Pollution Control Device:**

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input 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
Particulate Matter	100 %	> 99 %

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

Baghouse #2 is designed to capture particulate matter from gob (waste coal) receiving operations (EC #1 to Gob Silo). There are five modules in the baghouse, and each module contains six bags. The bags are made out of 16 ounce polyester material, and provide a total cloth area of 666 ft<sup>2</sup>. The baghouse operates at ambient temperature and is designed for flow rate of 4000 CFM. Thus, the Air to Cloth ratio is 6:1. The baghouse cleaning cycle is based on differential pressure across the entire baghouse. When the differential pressure set point is reached, a single module isolates and pulse cleans. This sequence continues through the rest of the modules.

**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.** The unit does not have potential pre-control emissions of regulated pollutants above the Title V major source thresholds.

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

Visible emission checks are performed weekly during periods of normal facility operation.

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> D011—Baghouse #3	<b>List all emission units associated with this control device.</b> S003A through S003K
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<b>Manufacturer:</b> AMEREX	<b>Model number:</b> RP-12-504 D4	<b>Installation date:</b> Original in 1989/Replaced in 2001
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**Type of Air Pollution Control Device:**

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input 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
Particulate Matter	100 %	> 99 %

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

Baghouse #3 captures raw fuel fugitives from the silo's feed to weigh belts, through either the grinding mill or hammermill and also includes fugitives from the emergency feed system and en-mass elevating conveyor. There are 504 14 oz. polypropylene bags, each 4 5/8" x 145.75". The baghouse is designed to operate at 180 deg. F, with an air flow of 37000 CFM, and a cloth area of 7596 ft<sup>2</sup> giving a 5:1 air to cloth ratio. Maximum DP is 20" WC. The on-line pulse cleaning cycle is initiated by differential pressure.

**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.** The unit does not have potential pre-control emissions of regulated pollutants above the Title V major source thresholds.

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

Visible emission checks are performed weekly during periods of normal facility operation.

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> D013—Baghouse #4	<b>List all emission units associated with this control device.</b> S004A through S004G
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<b>Manufacturer:</b> AMEREX	<b>Model number:</b> RP-12-110 D4	<b>Installation date:</b> Original in 1989/Replaced in 2001
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**Type of Air Pollution Control Device:**

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input 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
Particulate Matter	100 %	> 99 %

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

Baghouse #4 captures fugitives from the discharge of the grinding mill or the hammermill, the mill collecting conveyor and the bottom half of elevating conveyor #2. There are 110 14 oz. polypropylene bags, each 4 5/8" x 145.75". The baghouse is designed to operate at 180 deg. F, with an air flow of 8300 CFM, and a cloth area of 1658 ft<sup>2</sup> giving a 5:1 air to cloth ratio. Maximum DP is 20" WC. The on-line pulse cleaning cycle is initiated by differential pressure.

**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.** The unit does not have potential pre-control emissions of regulated pollutants above the Title V major source thresholds.

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

Visible emission checks are performed weekly during periods of normal facility operation.

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> D015—Baghouse #5	<b>List all emission units associated with this control device.</b> S005A through S005F
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<b>Manufacturer:</b> W.W. SLY Inc.	<b>Model number:</b> “PC-100” Pactecon	<b>Installation date:</b> 1998
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**Type of Air Pollution Control Device:**

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input 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
Particulate Matter	100 %	> 99 %

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

Baghouse #5 is designed to capture particulate matter from blended fuel operations (Top Half of EC #2 to Fuel Day Bins, and Emergency Bypass Conveyor). There are five modules in the baghouse, and each module contains six bags. The bags are made out of 16 ounce polyester material, and provide a total cloth area of 666 ft<sup>2</sup>. The baghouse operates at ambient temperature and is designed for flow rate of 4000 CFM. Thus, the Air to Cloth ratio is 6:1. The baghouse cleaning cycle is based on differential pressure across the entire baghouse. When the differential pressure set point is reached, a single module isolates and pulse cleans. This sequence continues through the rest of the modules.

**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.** The unit does not have potential pre-control emissions of regulated pollutants above the Title V major source thresholds.

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

Visible emission checks are performed weekly during periods of normal facility operation.

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> D017—Baghouse #6	<b>List all emission units associated with this control device.</b> S006A through S006D
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<b>Manufacturer:</b> Flex-Kleen Corporation	<b>Model number:</b> 120 WMWC 495 III	<b>Installation date:</b> 1998
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**Type of Air Pollution Control Device:**

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input 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
Particulate Matter	100 %	> 99 %

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**  
 Baghouse #6 is designed to capture particulate matter from limestone receiving operations (Truck to Unloading Hoppers). The baghouse contains a total of 495 bags. The bags are made out of 16 ounce polyester material, and each bag is 5.75" x 145.75". This provides an approximate total cloth area of 9035 ft<sup>2</sup>. The baghouse operates at ambient temperature and is designed for flow rate of 30000 CFM. Thus, the Air to Cloth ratio is 3.32:1. The on-line cleaning cycle is initiated by differential pressure.

**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.** The unit does not have potential pre-control emissions of regulated pollutants above the Title V major source thresholds.

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

Visible emission checks are performed weekly during NO<sub>x</sub> Ozone Season, and monthly outside of NO<sub>x</sub> Ozone Season during periods of normal facility operation.

## ATTACHMENT G - Air Pollution Control Device Form

**Control device ID number:**  
D025—Baghouse #7

**List all emission units associated with this control device.**  
S009A through S009H and S009K

**Manufacturer:**  
Brandt Environmental Corporation

**Model number:**

**Installation date:**  
1998

**Type of Air Pollution Control Device:**

- |   |  |   |
|---|--|---|
| <input checked="" type="checkbox"/> Baghouse/Fabric Filter    | <input type="checkbox"/> Venturi Scrubber      | <input type="checkbox"/> Multiclone                           |
| <input type="checkbox"/> Carbon Bed Adsorber                  | <input type="checkbox"/> Packed Tower Scrubber | <input type="checkbox"/> Single Cyclone                       |
| <input type="checkbox"/> Carbon Drum(s)                       | <input 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
Particulate Matter	100 %	> 99 %

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

Baghouse #7 (for CFB #2) removes fugitives (fly ash) from the gas created by burning fuel in CFB #2. The baghouse consists of 8 compartments each containing 256 Gortex Sureflex bags for a total of 2048 bags. Each bag is 6' x 16', which provides a total cloth area of 51,472 ft<sup>2</sup>. The average 2006 flow through the baghouse was 87,660 SCFM which yields an air to cloth ratio of 1.7:1. The baghouse operates in a temperature range of 425 to 450 deg. F and has an upset temperature of 550 deg. F. A cleaning cycle begins when a DP reaches a set point. Cleaning then proceeds automatically by pulsing rows of bags in each compartment until the DP drops to a set point.

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

If Yes, **Complete ATTACHMENT H - CAM Plan** was submitted and approved in 2008 and is part of the current Title V Permit in Condition Nos. 4.2.4 through 4.2.10 , 4.4.3, 4.4.4, and 4.5.6.

If No, **Provide justification.**

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

Visible emissions are continuously monitored by a certified Continuous Opacity Monitoring System (COMS). There is a preventive maintenance plan procedure that is performed on the baghouse on a quarterly basis.

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> D026—Baghouse #8	<b>List all emission units associated with this control device.</b> S009A through S009J
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<b>Manufacturer:</b> Brandt Environmental Corporation	<b>Model number:</b>	<b>Installation date:</b> 1998
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**Type of Air Pollution Control Device:**

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input 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
Particulate Matter	100 %	> 99 %

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

Baghouse #8 (for CFB #1) removes fugitives (fly ash) from the gas created by burning fuel in CFB #1. The baghouse consists of 8 compartments each containing 256 Gortex Sureflex bags for a total of 2048 bags. Each bag is 6" x 16', which provides a total cloth area of 51,472 ft<sup>2</sup>. The average 2006 flow through the baghouse was 87,660 SCFM which yields an air to cloth ratio of 1.7:1. The baghouse operates in a temperature range of 425 to 450 deg. F and has an upset temperature of 550 deg. F. A cleaning cycle begins when a DP reaches a set point. Cleaning then proceeds automatically by pulsing rows of bags in each compartment until the DP drops to a set point.

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

If Yes, **Complete ATTACHMENT H - CAM Plan** was submitted and approved in 2008 and is part of the current Title V Permit in Condition Nos. 4.2.4 through 4.2.10 , 4.4.3, 4.4.4, and 4.5.6.

If No, **Provide justification.**

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

Visible emissions are continuously monitored by a certified Continuous Opacity Monitoring System (COMS). There is a preventive maintenance plan procedure that is performed on the baghouse on a quarterly basis.

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> D037—Baghouse #9	<b>List all emission units associated with this control device.</b> S012A through S012F
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<b>Manufacturer:</b> United Conveyor Corporation	<b>Model number:</b> 1965-10-20 TRH	<b>Installation date:</b> 1998
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**Type of Air Pollution Control Device:**

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input 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
Particulate Matter	100 %	> 99 %

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**  
 Baghouse #9 is designed to handle fugitives from ash truck loading and bottom and fly ash fugitives from the filter/separators. There are 196 16 oz. HCE polyester bags, each measuring 4 5/8" x 124". The baghouse is designed to operate at 210 deg. F with a max DP of -20" WC. It is designed to have a flow of 7755 CFM with a cloth area of 2309 ft<sup>2</sup> yielding an air to cloth ratio of 3.36:1. The on-line pulse cleaning cycle is initiated by differential pressure.

**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.** The unit does not have potential pre-control emissions of regulated pollutants above the Title V major source thresholds.

**Describe the parameters monitored and/or methods used to indicate performance of this control device.**  
 Visible emission checks are performed weekly during NO<sub>x</sub> Ozone Season, and monthly outside of NO<sub>x</sub> Ozone Season during periods of normal facility operation.

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> D020—Bin Vent Filter #1	<b>List all emission units associated with this control device.</b> S007D through S007E
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<b>Manufacturer:</b> Flex-Kleen Corporation	<b>Model number:</b> 100 WSBS 121 IIG	<b>Installation date:</b> 1998
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**Type of Air Pollution Control Device:**

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input 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
Particulate Matter	100 %	> 99 %

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**  
 Bin Vent Filter #1 is designed to capture particulate matter from limestone conveying operations (Limestone Pneumatic Conveying System 1 to Limestone Silo). The bin vent filter bags are made out of 16 ounce polyester material, each 5.75" x 103", and the bin vent filter contains a total of 121 bags. This provides a total cloth area of 1537 ft<sup>2</sup>. The bin vent filter operates at ambient temperature and is designed for flow rate of 6700 CFM. Thus, the Air to Cloth ratio is 4.36:1. The on-line cleaning cycle is initiated by differential pressure.

**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.** The unit does not have potential pre-control emissions of regulated pollutants above the Title V major source thresholds.

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

Visible emission checks are performed weekly during NO<sub>x</sub> Ozone Season, and monthly outside of NO<sub>x</sub> Ozone Season during periods of normal facility operation.

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> D022—Bin Vent Filter #2	<b>List all emission units associated with this control device.</b> S008B through S008I
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<b>Manufacturer:</b> Flex-Kleen Corporation	<b>Model number:</b> #30-PSTL-81 IIG	<b>Installation date:</b> 1998
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**Type of Air Pollution Control Device:**

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input 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
Particulate Matter	100 %	> 99 %

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**  
 Bin Vent Filter #2 is designed to capture particulate matter from limestone conveying operations (Limestone Pneumatic Conveying System 1 to Limestone Bin to Gravimetric Feeders). The bin vent filter consists of pleated filter bags, and the bin vent filter contains a total of 81 bags. This provides a total cloth area of 2430 ft<sup>2</sup>. The bin vent filter operates at ambient temperature and is designed for flow rate of 6200 CFM. Thus, the Air to Cloth ratio is 2.6:1. The bin vent filter operates under negative pressure, and the on-line pulse cleaning cycle is initiated by differential pressure.

**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.** The unit does not have potential pre-control emissions of regulated pollutants above the Title V major source thresholds.

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

Visible emission checks are performed weekly during NO<sub>x</sub> Ozone Season, and monthly outside of NO<sub>x</sub> Ozone Season during periods of normal facility operation.

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> D028—Bin Vent Filter #3	<b>List all emission units associated with this control device.</b> S010A through S010O
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<b>Manufacturer:</b> Mikropul Environmental Systems	<b>Model number:</b> Type BB, Model 8BV	<b>Installation date:</b> 1998
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**Type of Air Pollution Control Device:**

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input 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
Particulate Matter	100 %	> 99 %

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**  
 Bin Vent Filter #3 is designed to handle fugitives from the discharge of the two clinker grinders and two backup clinker grinders into the Bottom Ash Holding Bin 1. The bin vent filter contains nine 16 oz. HCE Nomex bags, each bag is 4 5/8" x approx 8'. This provides a cloth area of 85 ft<sup>2</sup>. It is designed to operate at 400 deg. F and a pressure of 30" WC. The on-line cleaning cycle is initiated by a timing card when the ash removal system is in service.

**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.** The unit does not have potential pre-control emissions of regulated pollutants above the Title V major source thresholds.

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

Visible emission checks are performed weekly during NO<sub>x</sub> Ozone Season, and monthly outside of NO<sub>x</sub> Ozone Season during periods of normal facility operation.

## ATTACHMENT G - Air Pollution Control Device Form

<b>Control device ID number:</b> D031, D033, D035—Filter/Separator A, B, C	<b>List all emission units associated with this control device.</b> S011A thru S011L	
<b>Manufacturer:</b> United Conveyor Corporation	<b>Model number:</b> 126-B-82	<b>Installation date:</b> 1998

**Type of Air Pollution Control Device:**

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input 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
Particulate Matter	100 %	> 99 %

**Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).**  
 Ash Filter/Separators capture the bottom ash and fly ash from the vacuum conveying systems and discharge the resultant ash mixture into Ash Silo 1. The filter /separators consist of three units each containing 126 14 oz. NOMEX bags, each 5 3/4" x 83 1/2". Each filter/separator is designed to operate at 425 deg F with a DP of 20" WC. Each filter /separator has a cloth area of 1249 ft<sup>2</sup>. The on-line pulse cleaning cycle is initiated by differential pressure.

**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.** The unit does not have potential pre-control emissions of regulated pollutants above the Title V major source thresholds.

**Describe the parameters monitored and/or methods used to indicate performance of this control device.**  
 Filter Separator A, B, C vent to Baghouse 9. Baghouse 9 has visible emission checks that are performed weekly during NO<sub>x</sub> Ozone Season, and monthly outside of NO<sub>x</sub> Ozone Season during periods of normal facility operation.

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**APPENDIX 1**  
**Emission Calculations**

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Morgantown Energy Associates  
Emission Calculations for Stack 1  
Limestone and Fuel Feed to CFBs

Emission Point ID #	Emission Point Description	Pollution Control ID #	Pollution Control Device Description	Source ID #	Source Description	Full Load Thruput (tph)	Max. Hours	Percent H <sub>2</sub> O	Emission Factor <sup>(1)</sup>	Emission Factor Units	Emission Factor Source	Control Efficiency	Permit Limit (lb/hr)	Potential Emissions (lb/hr)	Potential Emissions (tpy)
P009	Stack 1	D023/ D025/ D026	Pneumatic Conveying System 2 / Baghouse 7 / Baghouse 8	S009A	TP009A--Limestone Feeder Rotary Valve A to Pneumatic Conveying System 2	6.8	8760	1	0	lb/ton	AP-42 §13.2.4.3		N/A	0	0.00
P009	Stack 1	D023/ D025/ D026	Pneumatic Conveying System 2 / Baghouse 7 / Baghouse 8	S009B	TP009B--Limestone Feeder Rotary Valve B to Pneumatic Conveying System 2	6.8	8760	1	0	lb/ton	AP-42 §13.2.4.3		N/A	0	0.00
P009	Stack 1	D023/ D025/ D026	Pneumatic Conveying System 2 / Baghouse 7 / Baghouse 8	S009C	TP009C--Pneumatic Conveying System 2 to CFB Boiler 1	6.8	8760	1	0.008266	lb/ton	AP-42 §13.2.4.3		N/A	0.0562088	0.25
P009	Stack 1	D023/ D025/ D026	Pneumatic Conveying System 2 / Baghouse 7 / Baghouse 8	S009D	TP009D--Pneumatic Conveying System 2 to CFB Boiler 2	6.8	8760	1	0.008266	lb/ton	AP-42 §13.2.4.3		N/A	0.0562088	0.25
P009	Stack 1	D024/ D025/ D026	Enclosed System 7 / Baghouse 7 / Baghouse 8	S009E	TP009E--Fuel Bin 1 ton Enclosed Conveying System 6	23.35	8760	6	0.000673	lb/ton	AP-42 §13.2.4.3		N/A	0.0157146	0.069
P009	Stack 1	D024/ D025/ D026	Enclosed System 7 / Baghouse 7 / Baghouse 8	S009F	TP009F--Fuel Bin 2 to Enclosed Conveying System 6	23.35	8760	6	0.000673	lb/ton	AP-42 §13.2.4.3		N/A	0.0157146	0.069
P009	Stack 1	D024/ D025/ D026	Enclosed System 7 / Baghouse 7 / Baghouse 8	S009G	TP009G--Enclosed Conveying System 7 to CFB Boiler 1	23.35	8760	6	0.000673	lb/ton	AP-42 §13.2.4.3		N/A	0.0157146	0.069
P009	Stack 1	D024/ D025/ D026	Enclosed System 7 / Baghouse 7 / Baghouse 8	S009H	TP009H--Enclosed Conveying System 7 to CFB Boiler 2	23.35	8760	6	0.000673	lb/ton	AP-42 §13.2.4.3		N/A	0.0157146	0.069
<b>Group Total</b>														<b>0.175</b>	<b>0.77</b>

**NOTES**

<sup>(1)</sup> Emission factors were calculated as follows:

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

Where: EF = lb particulate matter / ton of material transferred  
k = particle size multiplier (0.74 for TSP)  
U = mean wind speed (6.2 mph)  
M = material moisture content (% H<sub>2</sub>O)

Morgantown Energy Associates  
Emission Calculations for Stack 1  
CFB #1 CFB #2 Operation

Emission Point ID #	Emission Point Description	Pollution Control ID #	Pollution Control Device Description	Source ID #	Source Description	Full Load Thruput (tph)	Nameplate Heat Input (MMBtu/hr)	Max. Hours	Emission Factor	Emission Factor Units	Emission Factor Source	Permit Limit (lb/hr)	Potential Emissions (lb/hr)	Potential Emissions (tpy)
P009	Stack 1	D025/D026	Baghouse 7 & Baghouse 8	S009J/S009K	CFB Boiler 1 & 2 Exhaust, PM <sub>10</sub> - Filterable + Condensable	46.7	750	8760	0.0219	lb/MMBtu	See Notes	N/A	16.4	71.94
P009	Stack 1	D025/D026	Baghouse 7 & Baghouse 8	S009J/S009K	CFB Boiler 1 & 2 Exhaust, PM <sub>2.5</sub> - Filterable + Condensable	46.7	750	8760	0.02	lb/MMBtu	2010 ICR Stack Test	N/A	15.0	65.70
P009	Stack 1	D025/D026	Baghouse 7 & Baghouse 8	S009J/S009K	CFB Boiler 1 & 2 Exhaust, PM - Condensable	46.7	750	8760	0.0149	lb/MMBtu	2010 ICR Stack Test	N/A	11.2	48.95
P009	Stack 1	D025/D026	Baghouse 7 & Baghouse 8	S009J/S009K	CFB Boiler 1 & 2 Exhaust, HCl	46.7	750	8760	7.30E-03	lb/MMBtu	2010 ICR Stack Test	N/A	5.475	24.0
P009	Stack 1	D025/D026	Baghouse 7 & Baghouse 8	S009J/S009K	CFB Boiler 1 & 2 Exhaust, Antimony	46.7	750	8760	1.50E-06	lb/MMBtu	2010 ICR Stack Test	N/A	0.001125	0.0049
P009	Stack 1	D025/D026	Baghouse 7 & Baghouse 8	S009J/S009K	CFB Boiler 1 & 2 Exhaust, Cadmium	46.7	750	8760	1.49E-07	lb/MMBtu	2010 ICR Stack Test	N/A	0.000112	0.0005
P009	Stack 1	D025/D026	Baghouse 7 & Baghouse 8	S009J/S009K	CFB Boiler 1 & 2 Exhaust, Chromium	46.7	750	8760	1.27E-06	lb/MMBtu	2010 ICR Stack Test	N/A	0.000953	0.0042
P009	Stack 1	D025/D026	Baghouse 7 & Baghouse 8	S009J/S009K	CFB Boiler 1 & 2 Exhaust, Cobalt	46.7	750	8760	2.00E-07	lb/MMBtu	2010 ICR Stack Test	N/A	0.000150	0.0007
P009	Stack 1	D025/D026	Baghouse 7 & Baghouse 8	S009J/S009K	CFB Boiler 1 & 2 Exhaust, Manganese	46.7	750	8760	2.76E-06	lb/MMBtu	2010 ICR Stack Test	N/A	0.002070	0.0091
P009	Stack 1	D025/D026	Baghouse 7 & Baghouse 8	S009J/S009K	CFB Boiler 1 & 2 Exhaust, Nickel	46.7	750	8760	7.23E-07	lb/MMBtu	2010 ICR Stack Test	N/A	0.000542	0.0024
P009	Stack 1	D025/D026	Baghouse 7 & Baghouse 8	S009J/S009K	CFB Boiler 1 & 2 Exhaust, Selenium	46.7	750	8760	4.67E-07	lb/MMBtu	2010 ICR Stack Test	N/A	0.000350	0.0015
P009	Stack 1	D025/D026	Baghouse 7 & Baghouse 8	S009J/S009K	CFB Boiler 1 & 2 Exhaust, Total Organic HAP	46.7	750	8760	9.23E-03	lb/ton	AP-42 Section 1.1	N/A	0.431	1.9

Note: PM<sub>10</sub> - filterable emission factor based on 2010 stack test results for PM.

Morgantown Energy Associates  
Emission Calculations for Stack 1  
AUX #1 AUX #2 Operation

Emission Point ID #	Emission Point Description	Pollution Control ID #	Pollution Control Device Description	Source ID #	Source Description	Full Load Throughput (10 <sup>6</sup> scf/hr)	Nameplate Heat Input (MMBtu/hr)	Max. Hours	Emission Factor	Emission Factor Units	Emission Factor Source	Permit Limit (lb/hr)	Potential Emissions (lb/hr)	Potential Emissions (tpy)
P009	Stack 1	D026A/D026B	Low NOX Burners	S009L/S009M	Auxiliary Boiler 1 & 2 Exhaust, PM <sub>10</sub> - Filterable + Condensable	0.264	264	8760	7.6	lb/10 <sup>6</sup> scf	AP-42 Table 1.4-2	N/A	2.006	8.788
P009	Stack 1	D026A/D026B	Low NOX Burners	S009L/S009M	Auxiliary Boiler 1 & 2 Exhaust, PM <sub>2.5</sub> - Filterable + Condensable	0.264	264	8760	7.6	lb/10 <sup>6</sup> scf	AP-42 Table 1.4-2	N/A	2.006	8.788
P009	Stack 1	D026A/D026B	Low NO <sub>x</sub> Burners	S009L/S009M	Auxiliary Boiler 1 & 2 Exhaust, Arsenic	0.264	264	8760	2.00E-04	lb/10 <sup>6</sup> scf	AP-42 Table 1.4-4	N/A	0.000053	0.000231
P009	Stack 1	D026A/D026B	Low NO <sub>x</sub> Burners	S009L/S009M	Auxiliary Boiler 1 & 2 Exhaust, Beryllium	0.264	264	8760	1.20E-05	lb/10 <sup>6</sup> scf	AP-42 Table 1.4-4	N/A	0.000003	0.000014
P009	Stack 1	D026A/D026B	Low NO <sub>x</sub> Burners	S009L/S009M	Auxiliary Boiler 1 & 2 Exhaust, Cadmium	0.264	264	8760	1.10E-03	lb/10 <sup>6</sup> scf	AP-42 Table 1.4-4	N/A	0.000290	0.001272
P009	Stack 1	D026A/D026B	Low NO <sub>x</sub> Burners	S009L/S009M	Auxiliary Boiler 1 & 2 Exhaust, Chromium	0.264	264	8760	1.40E-03	lb/10 <sup>6</sup> scf	AP-42 Table 1.4-4	N/A	0.000370	0.001619
P009	Stack 1	D026A/D026B	Low NO <sub>x</sub> Burners	S009L/S009M	Auxiliary Boiler 1 & 2 Exhaust, Cobalt	0.264	264	8760	8.40E-05	lb/10 <sup>6</sup> scf	AP-42 Table 1.4-4	N/A	0.000022	0.000097
P009	Stack 1	D026A/D026B	Low NO <sub>x</sub> Burners	S009L/S009M	Auxiliary Boiler 1 & 2 Exhaust, Lead	0.264	264	8760	5.00E-04	lb/10 <sup>6</sup> scf	AP-42 Table 1.4-4	N/A	0.000132	0.000578
P009	Stack 1	D026A/D026B	Low NO <sub>x</sub> Burners	S009L/S009M	Auxiliary Boiler 1 & 2 Exhaust, Manganese	0.264	264	8760	3.80E-04	lb/10 <sup>6</sup> scf	AP-42 Table 1.4-4	N/A	0.000100	0.000439
P009	Stack 1	D026A/D026B	Low NO <sub>x</sub> Burners	S009L/S009M	Auxiliary Boiler 1 & 2 Exhaust, Mercury	0.264	264	8760	2.60E-04	lb/10 <sup>6</sup> scf	AP-42 Table 1.4-4	N/A	0.000069	0.000301
P009	Stack 1	D026A/D026B	Low NO <sub>x</sub> Burners	S009L/S009M	Auxiliary Boiler 1 & 2 Exhaust, Nickel	0.264	264	8760	2.10E-03	lb/10 <sup>6</sup> scf	AP-42 Table 1.4-4	N/A	0.000554	0.002428
P009	Stack 1	D026A/D026B	Low NO <sub>x</sub> Burners	S009L/S009M	Auxiliary Boiler 1 & 2 Exhaust, Selenium	0.264	264	8760	2.40E-05	lb/10 <sup>6</sup> scf	AP-42 Table 1.4-4	N/A	0.000006	0.000028
P009	Stack 1	D026A/D026B	Low NO <sub>x</sub> Burners	S009L/S009M	Auxiliary Boiler 1 & 2 Exhaust, Total Organic HAP	0.264	264	8760	1.88E+00	lb/10 <sup>6</sup> scf	AP-42 Table 1.4-3	N/A	0.496320	2.174

Morgantown Energy Associates  
Emission Calculations for Stack 1  
Combined Operation of CFBs and AUXs

Emission Point ID #	Emission Point Description	Pollution Control ID #	Pollution Control Device Description	Source ID #	Source Description	Full Load Thruput (tph)	Nameplate Heat Input (MMBtu/hr)	Max. Hours	Emission Factor	Emission Factor Units	Emission Factor Source	Permit Limit (lb/hr)	Potential Emissions (lb/hr)	Potential Emissions (tpy)
P009	Stack 1	D025/ D026/ D026A/ D026B	Baghouse 7 & Baghouse 8/ Low NOX Burners	S009J/S009K/ S009L/S009M	CFB Boilers 1 &2 and Auxiliary Boilers 1 & 2 Exhaust, PM <sub>10</sub> - Filterable + Condensable							N/A	18.4	80.73
P009	Stack 1	D025/ D026/ D026A/ D026B	Baghouse 7 & Baghouse 8/ Low NOX Burners	S009J/S009K/ S009L/S009M	CFB Boilers 1 &2 and Auxiliary Boilers 1 & 2 Exhaust, PM <sub>2.5</sub> - Filterable + Condensable							N/A	17.0	74.49
P009	Stack 1	D025/ D026/ D026A/ D026B	Baghouse 7 & Baghouse 8/ Low NOX Burners	S009J/S009K/ S009L/S009M	CFB Boilers 1 &2 and Auxiliary Boilers 1 & 2, Hydrogen Chloride							N/A	5.475	24.0
P009	Stack 1	D025/ D026/ D026A/ D026B	Baghouse 7 & Baghouse 8/ Low NO <sub>x</sub> Burners	S009J/S009K/ S009L/S009M	CFB Boilers 1 &2 and Auxiliary Boilers 1 & 2, Antimony							N/A	0.001125	0.0049
P009	Stack 1	D025/ D026/ D026A/ D026B	Baghouse 7 & Baghouse 8/ Low NOX Burners	S009J/S009K/ S009L/S009M	CFB Boilers 1 &2 and Auxiliary Boilers 1 & 2, Cadmium							N/A	0.000402	0.0018
P009	Stack 1	D025/ D026/ D026A/ D026B	Baghouse 7 & Baghouse 8/ Low NOX Burners	S009J/S009K/ S009L/S009M	CFB Boilers 1 &2 and Auxiliary Boilers 1 & 2 Exhaust, Chromium							N/A	0.001322	0.0058
P009	Stack 1	D025/ D026/ D026A/ D026B	Baghouse 7 & Baghouse 8/ Low NOX Burners	S009J/S009K/ S009L/S009M	CFB Boilers 1 &2 and Auxiliary Boilers 1 & 2 Exhaust, Cobalt							N/A	0.000172	0.0008
P009	Stack 1	D025/ D026/ D026A/ D026B	Baghouse 7 & Baghouse 8/ Low NOX Burners	S009J/S009K/ S009L/S009M	CFB Boilers 1 &2 and Auxiliary Boilers 1 & 2 Exhaust, Manganese							N/A	0.002170	0.0095
P009	Stack 1	D025/ D026/ D026A/ D026B	Baghouse 7 & Baghouse 8/ Low NO <sub>x</sub> Burners	S009J/S009K/ S009L/S009M	CFB Boilers 1 &2 and Auxiliary Boilers 1 & 2 Exhaust, Nickel							N/A	0.001097	0.0048
P009	Stack 1	D025/ D026/ D026A/ D026B	Baghouse 7 & Baghouse 8/ Low NO <sub>x</sub> Burners	S009J/S009K/ S009L/S009M	CFB Boilers 1 &2 and Auxiliary Boilers 1 & 2 Exhaust, Selenium							N/A	0.000357	0.0016
P009	Stack 1	D025/ D026/ D026A/ D026B	Baghouse 7 & Baghouse 8/ Low NO <sub>x</sub> Burners	S009J/S009K/ S009L/S009M	CFB Boilers 1 &2 and Auxiliary Boilers 1 & 2 Exhaust, Total Organic HAP							N/A	0.927361	4.1

Morgantown Energy Associates  
Emission Calculations for Fugitive Emission Sources 1 thru 14

Emission Point ID #	Emission Point Description	Pollution Control ID #	Pollution Control Device Description	Source ID #	Source Description	Full Load Thruput (tph)	Max. Hours	Percent H <sub>2</sub> O	Emission Factor <sup>(1)</sup>	Emission Factor Units	Emission Factor Source	Control Efficiency <sup>(2)</sup>	Permit Limit (lb/hr)	Potential Emissions (lb/hr)	Potential Emissions (tpy)
F001	Fugitive Emission 1	D001/D002	Building Enclosure 1 / Water Spray 1	S00F1	TP00F1--Transfer from Truck to Fuel Unloading Hopper/Vibratory Feeder 1	23.35	8760	6	0.000673	lb/ton	AP-42 §13.2.4.3	0.99	N/A	0.0001571	0.00069
F002	Fugitive Emission 2	D001/D002	Building Enclosure 1 / Water Spray 1	S00F2	Fuel Unloading Hopper 1	23.35	8760	6	0	lb/ton	AP-42 §13.2.4.3	0.99	N/A	0	0.00000
F003	Fugitive Emission 3	D001/D004	Building Enclosure 1 / Enclosed System 1	S00F3	Vibratory Feeder 1	23.35	8760	6	0	lb/ton	AP-42 §13.2.4.3	0.99	N/A	0	0.00000
F004	Fugitive Emission 4	D001/D003	Building Enclosure 1 / Water Spray 2	S00F4	TP00F4--Transfer from Truck to Fuel Unloading Hopper/Vibratory Feeder 2	23.35	8760	6	0.000673	lb/ton	AP-42 §13.2.4.3	0.99	N/A	0.0001571	0.00069
F005	Fugitive Emission 5	D001/D003	Building Enclosure 1 / Water Spray 2	S00F5	Fuel Unloading Hopper 2	23.35	8760	6	0	lb/ton	AP-42 §13.2.4.3	0.99	N/A	0	0.00000
F006	Fugitive Emission 6	D001/D004	Building Enclosure 1 / Enclosed System 1	S00F6	Vibratory Feeder 2	23.35	8760	6	0	lb/ton	AP-42 §13.2.4.3	0.99	N/A	0	0.00000
F007	Fugitive Emission 7	D001/D004/D007	Building Enclosure 1 / Enclosed System 1 / Water Spray 3	S00F7	TP00F7--Vibratory Feeder 2 to Transfer Conveyor 1	23.35	8760	6	0.000673	lb/ton	AP-42 §13.2.4.3	0.99	N/A	0.0001571	0.00069
F008	Fugitive Emission 8	D001/D004/D008	Building Enclosure 1 / Enclosed System 1 / Water Spray 4	S00F8	TP00F8--Vibratory Feeder 1 to Transfer Conveyor 1	23.35	8760	6	0.000673	lb/ton	AP-42 §13.2.4.3	0.99	N/A	0.0001571	0.00069
F009	Fugitive Emission 9	D001/D004	Building Enclosure 1 / Enclosed System 1	S00F9	Transfer Conveyor 1	46.7	8760	6	0	lb/ton	AP-42 §13.2.4.3	0.99	N/A	0	0.00000
F010	Fugitive Emission 10	D001/D004/D009	Building Enclosure 1 / Enclosed System 1 / Water Spray 5	S00F10	TP00F10--Transfer Conveyor 1 to Elevating Conveyor 1	46.7	8760	6	0.000673	lb/ton	AP-42 §13.2.4.3	0.99	N/A	0.0003143	0.00138
F011	Fugitive Emission 11	D001	Building Enclosure 1	S00F11	TP00F11--Dribble Chute 1 to Dribble Chute Catch Bin 1	0.00467	8760	6	0.000673	lb/ton	AP-42 §13.2.4.3	0.9	N/A	3.143E-07	0.00000
F012	Fugitive Emission 12	D001	Building Enclosure 1	S00F12	Dribble Chute Catch Bin1	0.00467	8760	6	0	lb/ton	AP-42 §13.2.4.3	0.9	N/A	0	0.00000
F013	Fugitive Emission 13	D001	Building Enclosure 1	S00F13	TP00F13--Dribble Chute Chatch Bin 1 to Dribble Chute Conveyor 1	0.00467	8760	6	0.000673	lb/ton	AP-42 §13.2.4.3	0.9	N/A	3.143E-07	0.00000
F014	Fugitive Emission 14	D001	Building Enclosure 1	S00F14	TP00F14--Dribble Chute Conveyor 1 to Transfer Conveyor 1	0.00467	8760	6	0.000673	lb/ton	AP-42 §13.2.4.3	0.9	N/A	3.143E-07	0.00000
<b>Group Total</b>														<b>0.0009</b>	<b>0.0041</b>

**NOTES**

<sup>(1)</sup> Emission factors were calculated as follows:

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

Where: EF = lb particulate matter / ton of material transferred  
k = particle size multiplier (0.74 for TSP)  
U = mean wind speed (6.2 mph)  
M = material moisture content (% H<sub>2</sub>O)

<sup>(2)</sup> Control efficiency based on best professional judgement.

Morgantown Energy Associates  
Emission Calculations for Fugitive Emission Sources 15 16

Emission Point ID #	Emission Point Description	Pollution Control ID #	Pollution Control Device Description	Source ID #	Source Description	Full Load Thruput (tph)	Max. Hours	Percent H <sub>2</sub> O	Emission Factor <sup>(1)</sup>	Emission Factor Units	Emission Factor Source	Control Efficiency	Permit Limit (lb/hr)	Potential Emissions <sup>(2)</sup> (lb/hr)	Potential Emissions <sup>(2)</sup> (tpy)
F0015	Fugitive Emission 15	N/A	N/A	S00F15	TP00F15--Front End Loader to Emergency Mill Feed System Hopper 1	46.7	8760	6	0.000673	lb/ton	AP-42 §13.2.4.3	0	N/A	0	0
F0016	Fugitive Emission 16	N/A	N/A	S00F16	Emergency Mill Feed System Hopper 1	46.7	8760	6	0	lb/ton	AP-42 §13.2.4.3	0	N/A	0	0
					<b>Group Total</b>									<b>0</b>	<b>0</b>

**NOTES**

<sup>(1)</sup> Emission factors were calculated as follows:

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

Where: EF = lb particulate matter / ton of material transferred  
k = particle size multiplier (0.74 for TSP)  
U = mean wind speed (6.2 mph)  
M = material moisture content (% H<sub>2</sub>O)

<sup>(2)</sup> Emissions entered as zero because this emergency equipment will only operate when the primary equipment is out of service.

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Emission Calculations for Fugitive Emission Sources 17 thru 25

Emission Point ID #	Emission Point Description	Pollution Control ID #	Pollution Control Device Description	Source ID #	Source Description	Full Load Thruput (tph)	Max. Hours	Percent H <sub>2</sub> O	Emission Factor	Emission Factor Units	Emission Factor Source	Control Efficiency	Permit Limit (lb/hr)	Potential Emissions (lb/hr)	Potential Emissions (tpy)
F017	Fugitive Emission 17	N/A	N/A	S00F17	A.S.T. 01 Acid Tank (5800 gallons)		8760						N/A		
F018	Fugitive Emission 18	N/A	N/A	S00F18	A.S.T. 02 Caustic Tank (5800 gallons)		8760						N/A		
F019	Fugitive Emission 19	N/A	N/A	S00F19	<b>NO LONGER IN USE</b> --A.S.T. 03 Sodium Bisulfite (0 gallons)		0						N/A		
F020	Fugitive Emission 20	N/A	N/A	S00F20	<b>NO LONGER IN USE</b> --A.S.T. 04 Sodium Hypochlorite (0 gallons)		0						N/A		
F021	Fugitive Emission 21	N/A	N/A	S00F21	A.S.T. 05 Turbine Oil Tank (2378 gallons)		8760						N/A		
F022	Fugitive Emission 22	N/A	N/A	S00F22	A.S.T. 06 EHC Oil Storage Tank (105 gallons)		8760						N/A		
F023	Fugitive Emission 23	N/A	N/A	S00F23	A.S.T. 07 Water Treatment Phosphate Tank (1600 gallons)		8760						N/A		
F024	Fugitive Emission 24	N/A	N/A	S00F24	A.S.T. 08 Water Treatment Corrosion Inhibitor Tank (400 gallons)		8760						N/A		
F025	Fugitive Emission 25	N/A	N/A	S00F25	A.S.T. 09 Water Treatment Oxygen Scavenger Tank (400 gallons)		8760						N/A		
<b>Group Total</b>														<b>0</b>	<b>0</b>

Morgantown Energy Associates  
Emission Calculations for Fugitive Emission Source 26

Emission Point ID #	Emission Point Description	Pollution Control ID #	Pollution Control Device Description	Source ID #	Source Description	Typical Eq. Full Load Miles Traveled/Year	Max. Hours	Percent H <sub>2</sub> O	Emission Factor <sup>(1)</sup>	Emission Factor Units	Emission Factor Source	Control Efficiency	Permit Limit (lb/hr)	Potential Emissions (lb/hr)	Potential Emissions (tpy)
F026	Fugitive Emission 26	D041/ D042	Paving / Water Cleaning	S00F26	Plant Roadway	5197			0.053	lb/VMT		0.5	N/A	0.016	0.069

**NOTES**

<sup>(1)</sup> Allegheny County Health Department, Table 11.2.5-4 (Recommended Particulate Emission Factors for Specific Roadway Categories and Particle Size Fractions)

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**APPENDIX 2**  
**Proposed Permit Changes**

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