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November 4, 2013

Mr. John A. Benedict, Director
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Re: Title V Permit Renewal Application - American Bituminous Power Partners, L.P.
Grant Town Power Plant - Permit No. R30-04900026-2009 (MM01)

Dear Mr. Benedict:

Enclosed please find a complete and timely application for the renewal of the Title V Operating Permit referenced above for the American Bituminous Power Partners, L.P. (American Bituminous) Grant Town Power Plant. This facility is located in Grant Town, Marion County, West Virginia. The Grant Town Power Plant is currently operating in accordance with West Virginia Department of Environmental Protection (WVDEP) Division of Air Quality Title V operating permit R30-04900026-2009 (MM01), last issued on October 12, 2010, as well as Rule 14 Permit R13-0005E issued on August 6, 2010.

The current Title V permit expires May 20, 2014. American Bituminous is hereby submitting this timely and complete permit renewal application in advance of the renewal submission deadline of November 20, 2013, (i.e., six months before the expiration of the current permit) in accordance with Series 30, Section 4.1.a.3 of the WVDEP Division of Air Quality (DAQ) Code of State Rules (C.S.R.), and to allow time for WVDEP to review the application for administrative completeness. As such and presuming WVDEP finds this application administratively complete, American Bituminous may continue to operate the Grant Town Power Plant 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.

It should be noted that no significant physical changes or modifications have occurred at the Grant Town Power Plant during the term of the current Title V permit.

Enclosed please find two (2) electronic copies of the complete permit application package on CDs as well as hard copies of the required signatory pages. Please do not hesitate to contact me at (724) 935-2611 or via email at cwilson@trinityconsultants.com if you have any questions or if additional information will be required to process this renewal application. Thank you for your assistance.

Sincerely,

Christi M. Wilson
Managing Consultant

Attachments

cc: S. Jennings – American Bituminous



TITLE V PERMIT RENEWAL APPLICATION

American Bituminous Power Partners, L.P.
Grant Town Power Plant

Permit No. R30-0400026-2009 (MM01)
Permit No. R14-0005E

Prepared By:

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October 2013

Project 133901.0104

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1. INTRODUCTION

American Bituminous Power Partners L.P. (American Bituminous) operates a coal refuse fired power plant in Grant Town, West Virginia referred to as the Grant Town Power Plant. The Grant Town Power Plant is currently operating in accordance with West Virginia Department of Environmental Protection (WVDEP) Division of Air Quality Title V operating permit R30-04900026-2009, as most recently issued on October 12, 2010, as well as Rule 14Permit R14-0005E.

The current Title V permit expires on May 20, 2014. American Bituminous is submitting this timely and complete permit renewal application by the renewal submission deadline of November 20, 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.). Presuming WVDEP finds this application administratively complete, American Bituminous may continue to operate the Grant Town Power Plant 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.

No significant physical changes or modifications have occurred at the Grant Town Power Plant during the last five years.

1.1. FACILITY DESCRIPTION

The Grant Town Power Plant is a coal refuse-fired Power Plant covered under Standard Industrial Classification (SIC) Code 4911 since the facility generates electrical power for sale. The station has the potential to operate 24 hours per day, 7 days per week. The station consists of two (2) coal refuse fired circulating fluidized bed combustion units (551.9 million British thermal unit per hour (MMBtu/hr) each), as well as associated equipment that is grouped by emission source categories into a fuel group, limestone group, ash group, transport group, and support group.

A description of each source category is included below. A process flow diagram is included in Appendix A.

1.1.1. Coal Refuse Fired Circulating Fluidized Bed Boilers

The Grant Town Power Plant process generates electricity with the steam supplied from two circulating fluidized bed combustion (CFB) boilers with a maximum rating of 551.9 MMBtu/hr each. The primary fuel is coal refuse supplemented with pond fines. Natural gas is used as a startup fuel. Limestone is injected directly into the furnace combustor for control of sulfur dioxide emissions. High fluidization velocities promote circulation of solids which provides more efficient combustion, emissions control, and heat transfer.

Gases and particulate matter (PM) produced from combustion then move through a hot cyclone where heavy particles and ash are separated from the fine particulate hot exhaust gas. The hot exhaust gases then pass through a baghouse for capture of fine particulates.

Employing limestone as the sorbent material in the fluidized bed removes sulfur dioxide (SO₂) at an efficiency of 90 to 94.8%. The addition of limestone to the coal refuse at the combustion chamber is integral to the design and operation of the CFB boilers. Once the sulfurization process has occurred, the remaining calcium sulfate is removed from the boiler in the bottom ash and fly ash streams.

In addition to the environmental benefits of the integral SO₂ reduction, the CFB boiler technology produces lower levels of nitrogen oxides (NO_x) than other combustion technologies. The CFB boilers operate at a relatively low temperature in the combustion zone producing less thermal NO_x.

1.1.2. Fuel Group

The Grant Town Power Plant operates material handling operations associated with the fuel. The fuel group material handling equipment includes hoppers, feeders, conveyors, screens, crushers, hammermills and bins. Fuel group equipment emissions are controlled by various control devices such as common wind enclosures, wet/chemical suppression, hemispherical rain/wind enclosure, partial and full enclosures, and baghouses. The function of the fuel group material handling operations is to prepare the fuel for combustion, and to transport the fuel to the CFB boilers. Waste coal is normally received via truck and stored in piles.

1.1.3. Limestone Group

The Grant Town Power Plant operates limestone handling operations. The limestone group material handling equipment includes hoppers, feeders, mills, burners, silos, and piles. Limestone group equipment emissions are controlled by various control devices such as full and partial enclosures, baghouses, bin vent filters, and wet/chemical suppression. The function of the limestone group material handling operations is to prepare the limestone for use as a sorbent material to mix with the coal refuse in the combustion chamber, and to transport the limestone to the CFB boilers. Limestone is delivered on-site via trucks and stored in piles.

1.1.4. Ash Group

The Grant Town Power Plant generates fly ash and bottom ash as combustion by-products. The ash group material handling equipment includes silos, unloaders, and conveyers. Ash group equipment emissions are controlled by various control devices such as enclosures, baghouses, bin vent filters, and cyclone separators. The function of the ash group material handling operations is to remove the ash created by the combustion of fuel.

1.1.5. Transport Group

The Grant Town Power Plant transport group is comprised of paved and unpaved roadways. Roadways are controlled by vacuum sweeping and the application of chemical dust suppressants.

1.1.6. Support Group

The Grant Town Power Plant support group includes cooling tower operations, a prep plant Gob hopper boiler, and storage tanks.

1.2. TITLE V RENEWAL APPLICATION ORGANIZATION

This Title V permit renewal application is organized as follows:

- Section 2 contains an overview of regulatory applicability for the Grant Town Power Plant;
- Section 3 contains sample emission source calculations;
- Section 4 contains the required WVDEP application forms;
- Appendix A - General Forms – Title V Permit Application Renewal
- Attachment A – Area Map
- Attachment B – Plot Plan
- Attachment C – Process Flow Diagrams
- Attachment D – Title V Equipment Table
- Attachment E – Emission Unit Form
- Attachment G – Air Pollution Control Device Form

2. REGULATORY APPLICABILITY

A key objective of a Title V operating permit application is to compile all applicable Clean Air Act-derived requirements into one document. The requirements can be categorized as: (1) emission limits and work practice standards; and (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. This section documents the applicability determinations made for Federal and State air quality regulations. Regulations potentially applicable to the Grant Town Power Plant are detailed in the “*Applicable Requirements*” forms provided by the WVDEP in Section 6.

Additional details on applicability for several regulations are presented in this section. Specifically, the remainder of this section summarizes the air permitting requirements and key air quality regulations that apply to the operation of the Grant Town Power Plant. Applicability or non-applicability of the following regulatory programs are addressed:

- Prevention of Significant Deterioration (PSD) permitting;
- Title V of the 1990 Clean Air Act Amendments;
- New Source Performance Standards (NSPS);
- National Emission Standards for Hazardous Air Pollutants (NESHAP);
- Acid Rain Program;
- Compliance Assurance Monitoring (CAM);
- Risk Management Plan (RMP);
- Stratospheric Ozone Protection;
- West Virginia State Implementation Plan (SIP) regulations.

This review is presented to supplement and/or add clarification to the information provided in the WVDEP Title V application forms, which fulfill the requirement to include citations and descriptions of applicable statutory and administrative code requirements.

In addition to providing a summary of applicable requirements, this section of the application also provides non-applicability determinations for certain regulations, allowing the WVDEP to confirm that identified regulations are not applicable to the Grant Town Power Plant. Note that explanations of non-applicability are limited to those regulations for which there may be some question of applicability specific to the operations at the Grant Town Power Plant. Regulations that are categorically non-applicable are not discussed (e.g., NSPS Subpart J, *Standards of Performance for Petroleum Refineries*).

2.1. PREVENTION OF SIGNIFICANT DETERIORATION SOURCE CLASSIFICATION

Federal construction permitting programs regulate new sources of attainment pollutants under Prevention of Significant Deterioration (PSD) and new sources of non-attainment pollutants under Non-Attainment New Source Review (NNSR). PSD and NNSR regulations apply when a new major stationary source is constructed or the major modification of any existing major stationary source, such as installing new equipment or modifying existing equipment where a significant increase in emissions results from the change.

The construction of the Grant Town Power Plant was a new major stationary source which triggered PSD review for the following pollutants: particulate matter (PM), sulfur dioxide (SO₂), nitrogen oxide (NO_x), volatile organic compounds (VOC), and carbon monoxide (CO). Since the Grant Town Power Plant is a major source with respect

to the New Source Review (NSR) program, the facility may be subject to NSR permit requirements when undertaking modifications in the future. Because the Title V permit renewal process is not intended to accommodate any changes or modifications to the facility that are not currently permitted at the facility, NSR/PSD permitting is not triggered by this activity but could be by future activities at the site. As noted previously, there have been no significant modifications to the Grant Town Power Plant since the issuance of the current Title V permit.

2.2. TITLE V OPERATING PERMIT PROGRAM

Title 40 of the Code of Federal Regulations Part 70 (40 CFR 70) establishes the federal Title V operating permit program. West Virginia has incorporated the provisions of this federal program in its Title V operating permit program in 45 C.S.R. 30. The major source thresholds with respect to the West Virginia Title V operating permit program regulations are 10 tons per year (tpy) of a single hazardous air pollutant (HAP), 25 tpy of any combination of HAPs, and 100 tpy of all other regulated pollutants. Additionally, Title V major source thresholds have been established for greenhouse gases (GHG) as 100,000 tpy of carbon dioxide equivalents (CO₂e). The potential emissions of at least one regulated pollutant exceed the corresponding threshold(s) at this facility. Therefore, the Grant Town Power Plant is classified as a major source for Title V purposes. The Grant Town Power Plant currently operates under Title V Operating Permit No. R30-04900026-2009 (MM01), which expires on May 20, 2014. American Bituminous is submitting this timely and complete permit renewal application by the renewal submission deadline of November 20, 2013 (i.e., six months before the expiration of the current permit) in accordance with 45 CSR 30 Section 4.1.a.3. With the timely and complete submittal of this renewal application, American Bituminous specifically requests that the Grant Town Power Plant be authorized to continue operation 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.

2.3. NEW SOURCE PERFORMANCE STANDARDS

New Source Performance Standards (NSPS), located in 40 CFR 60, require new, modified, or reconstructed sources to control emissions to the level achievable by the best demonstrated technology as specified in the applicable provisions. Moreover, any source subject to an NSPS is also subject to the general provisions of NSPS Subpart A, except where expressly noted. The following is a summary of applicability and non-applicability determinations for NSPS regulations of relevance to the Grant Town Power Plant.

2.3.1. NSPS Subparts D, Da, Db, and Dc - Steam Generating Units

These subparts apply to steam generating units of various sizes constructed, reconstructed, or modified during various time periods. Subpart D applies to electric steam generating units capable of combusting more than 250 MMBtu/hr heat input of fossil fuel for which construction, modification, or reconstruction commenced after August 17, 1971. Grant Town Power Plant boilers are subject to 40 CFR Subpart Da, therefore, Subpart D does not apply in accordance with §60.40(e) which states:

Any facility covered under Subpart Da is not covered under this subpart.

Subpart Da applies to electric utility steam generating units which are capable of combusting greater than 250 MMBtu/hr heat input of fossil fuel which commenced construction after September 18, 1978. This subpart applies to the Grant Town Power Plant boilers. It should be noted that Subpart Da was amended on February 16, 2012 to establish new standards for SO₂, NO_x, and PM in 40 applicable to EGUs that begin construction, modification, or reconstruction after May 3, 2011. The two CFB units at the Grant Town

Power Plant were not modified or reconstructed therefore the new Subpart Da limitations are not applicable.

Subpart Db applies to industrial, commercial, and institutional steam generating units which are capable of combusting greater than 250 MMBtu/hr heat input of fossil fuel which commenced construction after June 19, 1984. Subpart Db does not apply to the operations at Grant Town Power Plant in accordance with §60.40b(e) which states:

Steam generating units meeting the applicability requirements under Subpart Da (Standards of performance for electric utility steam generating units; §60.40Da) are not subject to this subpart.

Subpart Dc applies to small industrial, commercial, and institutional steam generating units which are capable of combusting greater than 10 MMBtu/hr but less than 100 MMBtu/hr. The Grant Town Power Plant boilers have a maximum heat input design capacity of 551.9 MMBtu/hr per boiler. Since the maximum design heat input capacity is greater than 100 MMBtu/hr, 40 CFR 60 Subpart Dc does not apply.

2.3.2. NSPS Subparts K, Ka, and Kb - Storage Tanks

These subparts apply to storage tanks of certain sizes constructed, reconstructed, or modified during various time periods. Subpart K applies to storage tanks constructed, reconstructed, or modified prior to 1978, and Subpart Ka to those constructed, reconstructed, or modified prior to 1984. The storage tanks located at the Grant Town Power Plant were constructed after these dates; therefore the requirements of Subparts K and Ka do not apply. Subpart Kb applies to volatile organic liquid (VOL) storage tanks constructed, reconstructed, or modified after July 23, 1984 with a capacity equal to or greater than 75 m³ (~19,813 gallons). All storage tanks at the Grant Town Power Plant were constructed after this date, but have a capacity lower than 19,813 gallons. Therefore, Subpart Kb does not apply to the storage tanks at the Grant Town Power Plant.

2.3.3. NSPS Subpart HHHH - Mercury (Hg) Budget Trading Program

This rule was developed to restrict the emission of mercury from electric generating units at power plants through a regional mercury trading program. Subpart HHHH was commonly referred to as the federal Clean Air Mercury Rule (CAMR).¹ Subpart HHHH was vacated and removed from the CFR as it was replaced with the new Mercury and Air Toxics Standards (MATS). Note that West Virginia had adopted the requirements of NSPS HHHH by incorporating the provisions in West Virginia rule 45 CSR 37. On May 8, 2009, WVDEP repealed 45 CSR 37 the state rule to reduce mercury emissions².

2.3.4. NSPS Subpart Y - Coal Preparation Plants

This subpart applies to equipment in coal preparation plants that process more than 200 tons of coal per day. The equipment includes: thermal dryers, pneumatic coal cleaning equipment, coal processing and conveying equipment, breakers and crushers, coal storage systems, and coal transfer and loading systems. The Fuel Group emission units at the Grant Town Power Plant process coal at a rate greater than 200 tons per day, therefore this subpart is applicable.

¹ Federal Register Notice dated February 16, 2012, that removes the CAMR regulation

² April 7, 2008 - Compliance Order #CO-R37-C-2008-4. *Compliance Order Issued Under the Air Pollution Control Act, West Virginia Code, Chapter 22, Article 5, Section 4.*

Visible emissions from coal processing and conveying equipment, coal storage systems, or coal transfer and loading systems processing coal (Emission Points 2E, 3E, 4E, 6E, 17E, and 18E) shall not exceed twenty (20) percent opacity except during periods of startup, shutdown, and malfunction.

Note that EPA promulgated amendments to NSPS Subpart Y on October 8, 2009. The amendments revised the emissions limits applicable to certain affected facilities that commence construction, modification, or reconstruction after April 28, 2008 or May 27, 2009 depending on the equipment type. The Fuel Group emissions unit at the Grant Town Power Plant was not modified or reconstructed and as such the applicable limitations for this equipment does not change. The NSPS Subpart Y citations in the Grant Town Power Plant's Title V permit were updated based on the rule amendments in the October 12, 2010 version of the permit.

2.3.5. NSPS Subpart 000 - Nonmetallic Mineral Processing Plants

This subpart applies to equipment in fixed or portable nonmetallic mineral processing plants. The equipment includes: crushers, grinding mills, screening operations, bucket elevators, belt conveyors, bagging operations, storage bins, and enclosed truck or railcar loading stations. The Limestone Group emission units at the Grant Town Power Plant are subject to the requirements of this subpart.

For Emission Points 3E, 5E, 6E, 7E, and 16E, NSPS 000 establishes emissions limits as follows:

- Stack emissions from any transfer point on belt conveyors or from any other affected facility - 0.022 gr/dscf PM and 7% opacity;
- Fugitive emissions from any transfer point on belt conveyors or from any other affected facility - 10% opacity (except as provided in the rule);
- Fugitive emissions from any crusher (at which a capture system is not used) - 15% opacity;
- Transfer point on a conveyor belt or any other affected facility that is enclosed in a building, then either comply with limits in 6.1.4.a, 6.1.4.b, and 6.1.4.c, or the building must comply with the following:
 - No visible fugitive emissions (except emissions from a vent as defined in 40 CFR §60.671); and
 - Building vent stack limits - 0.022 gr/dscf PM and 7% opacity;
- Any baghouse that controls emissions from only an individual, enclosed storage bin - 7% opacity.

Note that EPA promulgated final amendments to NSPS Subpart 000 on April 28, 2009. The amendments applicable to this site included relate to the notification requirements. The notification of commencement of construction/reconstruction per 60.7(a)(1) was waived for all affected facilities. The rule included a new addition stating that notifications generated under subpart 000 are only to be sent to either the State (if the State is delegated authority to administer NSPS) or to the EPA Region (if the State has not been delegated authority), but not to both the State and EPA Region. Finally, the amendments allow for just a seven-day advance notification for performance tests involving only Method 9.

2.3.6. NSPS Subpart IIII - Compression Ignition Internal Combustion Engines (CI ICE)

Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, applies to manufacturers, owners and operators of stationary compression ignition (CI) engines that meet the following criteria:

(2) Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are:

- (i) Manufactured after April 1, 2006, and are not fire pump engines, or*
- (ii) Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.*
- (3) Owners and operators of any stationary CI ICE that are modified or reconstructed after July 11, 2005 and any person that modifies or reconstructs any stationary CI ICE after July 11, 2005.*
- (4) The provisions of § 60.4208 of this subpart are applicable to all owners and operators of stationary CI ICE that commence construction after July 11, 2005.*

The 235 HP diesel feed pump and the 350 HP diesel fire pump each commenced construction prior to the applicability dates cited above and have not been modified or reconstructed; as such, they are not subject to NSPS IIII.

2.3.7. NSPS JJJJ - Spark Ignition Internal Combustion Engines (SI ICE)

Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines, applies to manufacturers, owners and operators of stationary spark ignition (SI) engines. The Grant Town Power Plant does not own or operate any SI ICE therefore this rule does not apply.

2.3.8. Non-Applicability of All Other NSPS

NSPS are developed for particular industrial source categories. Other than NSPS discussed above, the applicability of a particular NSPS to the Grant Town Power Plant can be readily ascertained based on the industrial source category covered. All other NSPS are categorically not applicable to electric generating facilities.

2.4. NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP)

National Emissions Standards for Hazardous Air Pollutants (NESHAP) are generally only applicable to major sources of HAPs. Part 63 NESHAP allowable emission limits are established on the basis of a maximum achievable control technology (MACT) determination for a particular major source. A HAP major source is defined as having potential emissions in excess of 25 tpy for total HAPs and/or potential emissions in excess of 10 tpy for any individual HAP. NESHAP apply to sources in specifically regulated industrial source categories (Clean Air Act Section 112(d)) or on a case-by-case basis (Section 112(g)) for facilities not regulated as a specific industrial source type.

The Grant Town Power Plant is a major source for HAP. In addition to 40 CFR 63 Subpart A (NESHAP Subpart A), the following NESHAP could potentially apply to the Grant Town Power Plant:

- 40 CFR Part 63 Subpart DDDDD – Industrial, Commercial, and Institutional Boilers and Process Heaters
- 40 CFR Part 63 Subpart UUUUU - Coal and Oil Fired Electric Utility Steam Generating Units
- 40 CFR Part 63 Subpart ZZZZ – Reciprocating Internal Combustion Engines

2.4.1. 40 CFR 63 Subpart DDDDD - Industrial, Commercial, and Institutional Boilers and Process Heaters

On March 21, 2011 EPA promulgated a final rule for Major Source Industrial, Commercial, and Institutional Boilers and Process Heaters and concurrently promulgated a notice of select reconsiderations. EPA finalized amendments to those reconsiderations on January 13, 2013. Based on the current rule in Subpart DDDDD (Major Source Boiler MACT), this rule applies to industrial, commercial, or institutional boilers or process heaters as defined in 40 CFR §63.7575 that are located at,

or is part of, a major source of HAP. As mentioned above, the Grant Town Power Plant is a major source of HAP.

40 CFR §63.7491(a) specifically exempts electric utility steam generating unit (EGU) covered by 40 CFR 63 Subpart UUUUU; therefore the two CFB units will not be subject to the Major Source Boiler MACT.

The prep plant Gob hopper boiler has a maximum capacity of 0.794 MMBtu/hr and is fired with kerosene which is classified as a distillate oil per the definitions in the rule. Distillate oil is further classified as a light liquid fuel. As such the boiler would be classified as a “unit designed to burn light liquid fuel” and would be subject to the rule. The initial compliance date for the prep plant GOB hopper is January 31, 2016. As specified in 40 CFR §63.7500(d) Boilers and process heaters with a heat input capacity of ≤ 5 MMBtu/hr in the “units designed to burn light liquid fuels” subcategory must complete a tune-up every 5 years as specified in 40 CFR §63.7540.

2.4.2. 40 CFR 63 Subpart UUUUU - Coal and Oil Fired Electric Utility Steam Generating Units (MATS Rule)

After a lengthy history of litigation related to the regulation of mercury from electric generating units (EGU), on February 16, 2012, EPA promulgated final standards under CAA Section 112 for Hazardous Air Pollutants From Coal and Oil-Fired Electric Utility Steam Generating Units as 40 CFR 63, Subpart UUUUU. The rule is more commonly referred to as the Mercury and Air Toxics Standards (MATS) rule. Certain elements of the February 2012 rule have been under reconsideration and additional review by EPA. As the rule currently stands, existing EGUs such as the two CFB units at the Grant Town Power Plant, will be required to meet the maximum achievable control technology (MACT) standards by the initial compliance date of April 16, 2015.

On August 2, 2012, EPA promulgated a partial stay of the rule to allow EPA time to address petitions for reconsideration related to new sources.³ EPA finalized reconsideration on April 24, 2013 of all the issues except those related to startup and shutdown. The EPA has yet to finalize amendments specific startup/shutdown issues. It is not expected that the pending EPA action will have an impact of the initial compliance date for the existing CFBs at the Grant Town Power Plant, and as such American Bituminous Power Partners are on track to comply with the rule as required.

The CFBs are fossil fuel-fired (coal), have a capacity of more than 25 megawatts electric (MWe), and serve a generator that produces electricity to sell; therefore, the CFBs are considered EGUs under the MATS rule. The CFB units commenced construction prior the date in 40 CFR §63.9982(b) and have not been modified or reconstructed since that time; as such the units are classified as existing EGUs.

2.4.3. 40 CFR 63 Subpart ZZZZ - Reciprocating Internal Combustion Engines (RICE MACT)

40 CFR 63, Subpart ZZZZ (commonly referred to as the RICE MACT), applies to existing, new, reconstructed reciprocating internal combustion engines (RICE). The Grant Town Power Plant has two emergency use RICE that were installed in 1992: a 235 HP diesel feed pump and a 350 HP diesel fire pump. The engines are classified in the rule as < 500 HP existing emergency use CI RICE located at a major source of HAP. The initial compliance date for engines in this category was May 3, 2013. The applicable requirements of the rule are summarized in the following bullet points:

³ EPA hereby stayed the effectiveness of 40 CFR §§63.9984(a), 63.10005(g), 63.10030(c), Table 1 in subpart UUUUU of 40 CFR 63, and row 2 of Table 3 in subpart UUUUU of 40 CFR 63 for 3 months.

- No limitation on emergency operation, up to 100 hours per year for maintenance, testing, or emergency demand response of which 50 hours (of the 100) per year can be nonemergency operation (see 40 CFR 63.6640(f) for specific requirements)
- During startup, minimize engine idle and limit startup period to less than 30 minutes – after 30 minutes, non-startup emission limits apply if applicable
- Change oil and filter every 500 hours of operation or annually, whichever comes first OR use oil change analysis program to extend oil change frequencies per 40 CFR 63.6625(i)
- Inspect air cleaner on CI engines every 1000 hours or annually, whichever comes first. Replace as necessary.
- Inspect all hoses and belts every 500 hours or annually, whichever comes first
- Non-resettable hour meter must be installed on emergency engines
- Operate and maintain emergency stationary RICE according to manufacturer’s instructions or implement a maintenance plan that provides for the maintenance and operation in a manner consistent with good air pollution control practices for minimizing emissions.
- No initial notification required, per 40 CFR 63.6645(a)(5).
- Records of hours & purpose for operation must be kept.

2.5. ACID RAIN PROGRAM

Title IV of the Clean Air Act established requirements for reducing emissions of acid rain precursors SO₂ and NO_x. Rules promulgated for this purpose are found in 40 CFR Parts 72 through 78. The Acid Rain Program applies to fossil fueled power plants and affects existing utility units serving generators with an output capacity of greater than 25 MWe and all new utility units.

American Bituminous has the following type of unit specified under 40 C.F.R. §72.6(b)(6) which is not an affected unit subject to the requirements of the Acid Rain Program: An independent power production facility that 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 consists of one or more units designated by the owner or operator with total installed net output capacity not exceeding 130 percent of its total planned net output capacity.

2.6. COMPLIANCE ASSURANCE MONITORING

Under 40 CFR 64, the Compliance Assurance Monitoring (CAM) regulations, facilities are required to prepare and submit monitoring plans for certain emissions units with the initial or renewal Title V operating permit application. CAM Plans are intended to provide an on-going and reasonable assurance of compliance with emission limits for sources that utilize active control devices.

Under the general applicability criteria, this regulation only applies to emission units that use a control device to achieve compliance with an emission limit and whose pre-controlled emission levels exceed the major source thresholds under the Title V operating permit program. 40 CFR 64 also contains several exemptions. American Bituminous has completed a CAM applicability analysis for the Grant Town Power Plant and determined that CAM is not applicable as described below:

- The CFB boilers are controlled for PM and SO₂ and have pre-control emissions greater than the major source threshold. However under §64.2(b)(1)(vi), CAM does not apply to emission limitations or standards for which a Part 70 permit specifies a continuous compliance demonstration method. In the case of the Grant Town Power Plant CFB boilers, the Title V permit currently requires continuous monitoring of opacity from the associated baghouses using a continuous opacity monitoring system (COMS), as well

as continuous monitoring of the total pressure drop across each baghouse. Similarly, the Title V permit also requires continuous monitoring of SO₂ using a CEMS. As such, the CFB boilers are subject to federally-enforceable conditions to demonstrate compliance with the emission limits for PM and SO₂, and therefore CAM does not apply.

- Baghouses 4C, 5C, 6C, 7C, 8C, 9C, 14C, and 15C control particulate emissions from various emission sources with federally enforceable hourly particulate emissions limits. The pre-control emissions rates for the sources is below the major source thresholds and as such the sources are not subject to CAM.

2.7. RISK MANAGEMENT PLAN REGULATIONS

Subpart B of 40 CFR 68 outlines requirements for risk management plans pursuant to Section 112(r) of the Clean Air Act. Applicability of the subpart is determined based on the type and quantity of chemicals stored at a facility. American Bituminous has evaluated the amount of Section 112(r) substances stored at the Grant Town Power Plant and has determined that there are no listed substances stored at quantities greater than the corresponding applicability threshold. Therefore, the facility is not subject to this regulation.

2.8. STRATOSPHERIC OZONE PROTECTION REGULATIONS

The requirements originating from Title VI of the Clean Air Act, entitled *Protection of Stratospheric Ozone*, are contained in 40 CFR 82. Subparts A through E and Subparts G and H of 40 CFR Part 82 are not applicable to the Grant Town Power Plant. 40 CFR 82 Subpart F, *Recycling and Emissions Reduction*, potentially applies if the facility operates, maintains, repairs, services, or disposes of appliances that utilize Class I or Class II ozone depleting substances. Subpart F generally requires persons completing the repairs, service, or disposal to be properly certified. Contracted certified technicians complete all repairs, service, and disposal of ozone depleting substances from the refrigerant-containing equipment at the Grant Town Power Plant.

2.9. CROSS STATE AIR POLLUTION RULE

On July 6, 2011, U.S. EPA promulgated the federal Cross State Air Pollution Rule (CSAPR or Transport Rule) to replace the 2005 Clean Air Interstate Rule (CAIR). CSAPR requires certain eastern and central states to reduce power plant emissions that cross state lines and contribute to PM_{2.5} and ozone nonattainment areas in downwind states. CSAPR regulates SO₂ and NO_x via annual emission caps for each pollutant and also establishes specific caps for NO_x during ozone season. The combustion turbines involved in the combined cycle conversion project are subject to CSAPR since they serve a generator rated at 25 MW or more producing electricity for sale.

The United States Court of Appeals for the D.C. Circuit issued a ruling to vacate CSAPR on August 21, 2012. Meanwhile, U.S. EPA has temporarily re-instated CAIR in preparation for the promulgation of an amended version of CSAPR or an alternative Transport Rule.⁴ Currently, the Supreme Court has granted a petition to review the DC Circuit Court's decision. A discussion related to the applicable CAIR provisions is provided below in the West Virginia SIP Regulations section. The Grant Town Power Plant will comply with all applicable requirements under CAIR, CSAPR, or the final Transport Rule once these standards come into effect.

⁴ Memorandum from Gina McCarthy, Assistant Administrator, U.S. EPA, to Air Division Directors, Regions 1-10, "Next Steps for Pending Redesignation Requests and State Implementation Plan Actions Affected by the Recent Court Decision Vacating the 2011 Cross-State Air Pollution Rule." November 19, 2012

2.10. WEST VIRGINIA SIP REGULATIONS

The Grant Town Power Plant is currently permitted under the regulations contained in West Virginia's Title 45 Legislative Rule Department of Environmental Protection Office of Air Quality (WVDEP regulations). A federal operating permit must be issued by the agency upon determination that the facility can reasonably be expected to comply with the WVDEP regulations and all applicable federal requirements. This section of the application highlights specific West Virginia State Implementation Plan (SIP) regulations that apply to the Grant Town Power Plant. The following information has been retrieved directly from the WVDEP Fact Sheet (R30-04900026-2009) and verified through review of the associated regulations.

2.10.1. 45 C.S.R. 2-3 and 2-4: Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers

According to regulations:

No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.

Compliance with this requirement shall be determined in keeping with 40 CFR Part 60, Appendix A, Method 9 or by using approved measurements from continuous opacity monitoring systems.

In addition:

No person shall cause, suffer, allow or permit the discharge of particulate matter into the open air from all fuel burning units located at one plant, measured in terms of pounds per hour in excess of the amount determined [according to fuel burning unit type].

As stated in the R30-04900026-2003 Fact Sheet, the particulate weight emission limits established by Permit No. R14-5D are more stringent, and as such compliance with that limit will be sufficient to ensure compliance with the limit established through 45 CSR 2-3.

2.10.2. 45 C.S.R. 10: Prevent and Control Air Pollution from the Emission of Sulfur Oxides

According to regulations:

No person shall cause, suffer, allow or permit the discharge of sulfur dioxide into the open air from all stacks located at one plant, measured in terms of pounds per hour, in excess...of the product of 3.2 and the total design heat inputs for such units discharging through those stacks in million BTU's per hour.

As stated by the R30-04900026-2003 Fact Sheet, the boilers are located in Region VI, a Priority III Region, and are Type "a" fuel burning boilers with the purpose of steam generation to produce electric power for sale. Since 45 CSR 10-3.3 does not specifically call out the Grant Town Power Plant, 45 CSR 10 does not specify sulfur dioxide emission limits. Sulfur dioxide emission limits are established for this facility in Permit No. R14-5D.

2.10.3. 45 C.S.R. 16: Standard of Performance for New Stationary Sources Pursuant to 40 CFR 60 Subpart Da (for Boiler 1A and Boiler 1B)

This subpart limits opacity, PM emissions, SO₂ emissions, and NO_x emissions.

The opacity emissions limit established pursuant to 45 CSR 2 is more stringent than the opacity emissions limit established by this rule. Therefore, compliance with 45 CSR 2 ensures compliance with the opacity emissions limit in this rule.

The PM, SO₂, and NO_x emissions limits established in Permit No. R14-5D are more stringent than the emissions limit established by this rule. Therefore, compliance with the emissions limits in Permit No. R14-5D ensures compliance with the emissions limits in this rule.

The Grant Town Power Plant combusts fuel which is greater than 25% coal refuse therefore Subpart Da exempts them from the NO_x standards of the rule. Permit No. R14-5D requires the Grant Town Power Plant comply with the NO_x standards and monitoring requirements of Subpart Da. Compliance with the NO_x emissions limit of Permit No. R14-5D will constitute compliance with the 65% NO_x reduction requirement of Subpart Da.

Similarly, compliance with the particulate weight emissions limit of Permit No. R14-5D will constitute compliance with the 99% PM reduction requirement of Subpart Da.

2.10.4. 45 C.S.R. 14: Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution for the Prevention of Significant Deterioration

As stated by the regulation:

No new major stationary source or major modification to which the requirements of sections 7 through 13 and sections 17 through subsection 19.7 apply shall begin actual construction without a permit issued by the Secretary that states that the major stationary source or major modification will meet those requirements.

General requirements from this facility's Rule 14 permit(s) are reproduced under Rule 30 and are included in the Title V operating permit as Rule 30 General Requirements.

2.10.5. 45 CSR 26: NO_x Budget Trading Program as a Means of Control & Reduction of Nitrogen Oxides from Electric Generating Units

Control of NO_x has been addressed by several transitioning regulations. Historically in West Virginia, NO_x had been regulated under 45CSR26, the NO_x Budget Trading program for EGUs. Since the CAIR rules were implemented to provide NO_x regulation, rule 45CSR26 was no longer necessary and was repealed effective May 1, 2009

2.10.6. 45 CSR 39, 40, & 41: NO_x Annual Trading, CAIR NO_x Ozone Season Trading, and CAIR SO₂ Trading

EPA promulgated the CAIR rules in 2005 (and amended in 2007) to regulate emissions of NO_x and SO₂ through a cap-and-trade model rule. Due to petitions filed on CAIR the rule was remanded and vacated and EPA was tasked with developing rules to further mitigate interstate transport. Subsequent court actions later decided on December 23, 2008 (by the US Court of Appeals for the District of Columbia Circuit), that the CAIR rules were remanded to EPA without vacature and thus would remain in place. As noted previously in this report, CAIR is to be eventually replaced by CSAPR or a revised Transport Rule pending litigation.

West Virginia adopted the federal CAIR program by codifying 45CSR39, 45CSR40, and 45CSR41 that effectively provide a budget trading program for the control and reduction of NO_x and SO₂ emitted from affected sources. 45 CSR 39, 45 CSR 40, and 45 CSR 41 address all the requirements of the 40 CFR Part 96 model rules set forth in the May 12, 2005 CAIR rulemaking by establishing requirements for

participating in the EPA-administered regional cap-and-trade program for NO_x annual, NO_x ozone season, and SO₂ annual emissions.

The Grant Town Power Plant is required to monitor and report annual NO_x and SO₂ emissions and Ozone Season NO_x emissions from the CFB boilers in accordance with sections 70 through 75 of 45CSR39, 45CSR40, and 45CSR41 (as applicable). Emissions are reported on a quarterly basis using USEPA's Emissions Collection and Monitoring Plan System (ECMPS) to satisfy this requirement.

2.10.7. Non-Applicability of Other SIP Rules

A thorough examination of the West Virginia SIP rule applicability to the Grant Town Power Plant reveals many SIP regulations that do not apply or impose additional requirements on operations. Such SIP rules include those specific to a particular type of industrial operation that is categorically not applicable to the Grant Town Power Plant, which are not necessary to review in detail in this application.

3. SAMPLE EMISSION SOURCE CALCULATIONS

This section of the application provides a discussion of emission calculation methodology used for the emission sources at the Grant Town Power Plant.

3.1. CIRCULATING FLUIDIZED BED BOILERS

Potential pre-control and post-control emissions for the two circulating CFB boilers at the Grant Town Power Plant were estimated based on emission factors obtained from EPA's Factor Information Retrieval (FIRE) Data System for bituminous coal combustion in any variety of combustor types. Control efficiency values were obtained from the PSD permit application and EPRI study. Baghouses 1C and 2C are estimated to have a PM control efficiency of 99.9%.

As an example, PM emissions for the two boilers:

Maximum Rate = 551.9 MMBtu/hr per boiler
FIRE Controlled Emission Factor for PM10 = 0.03 lb/MMBtu
Based on a Control Efficiency of 99.9% (from PSD permit application)
Hours per year = 8400 hr/yr

Hourly Emissions = Maximum Rate * Emission Factor * 2 boilers = Emission Rate

$$551.9 \text{ MMBtu/hr} * 0.03 \text{ lb/MMBtu} * 2 = 33.1 \text{ lb/hr}$$

Annual Emissions = Hourly Emissions * Permitted Hours * 1 ton/2000 lbs = Emission Rate

$$33.1 \text{ lb/hr} * 8400 \text{ hr/yr} * 1/2000 \qquad 139.02 \text{ tpy}$$

3.2. FUEL, LIMESTONE, AND ASH GROUP SOURCES

For the fuel handling sources (hoppers, feeders, conveyors, screens, crushers, hammermills and bins) appropriate AP-42 emission factors were chosen and were then multiplied by the equipment maximum throughput rate (tons/hr) in order to determine the tpy and lb/hr emissions of PM.

As an example, PM emissions for 4S fuel preparation:

Maximum Rate = 750,000 tons/yr
Permitted Hours per year = 8760 hours
AP-42 Table 11.19.2-4 Controlled Emission Factor for PM = 0.0099 lb/ton
(Emissions Controlled by Enclosure with Baghouse)

Hourly Emissions = Maximum Rate * Emission Factor = 0.85 lb/hr

Annual Emissions = Hourly Emissions * Permitted Hours * 1 ton/2000 lbs = 3.72 tpy

3.3. TRANSPORTATION GROUP

For the Transportation Group (plant paved and unpaved roadways) emission factors were calculated based on appropriate AP-42 equations for each vehicle type and were then multiplied by the maximum vehicle miles in order to determine the tpy and lb/hr emissions of PM.

As an example, PM emissions for Limestone Haul Trucks on Paved Roadways:

Maximum Rate = 24,848 vehicle miles traveled (VMT) / year

AP-42 Uncontrolled Emission Factor = 0.64 lb/VMT

Control Efficiency = 95 %

Annual Emissions = Emission Factor * Maximum Rate * (1- Control Efficiency) * 1 ton/2000 lbs
 $0.64 \text{ lb/VMT} * 24848 \text{ VMT/yr} * (1-0.95) * 1/2000 = 0.4 \text{ tons/year}$

3.4. SUPPORT GROUP SOURCES

Emissions from the storage tanks at the Grant Town Power Plant were estimated using EPA's TANKS4.09 software, along with physical parameters of the storage tanks, and physical properties, storage temperatures, and throughput volumes of the materials stored in each tank. Emissions from the diesel boiler feedwater pumps and the prep plant Gob hopper boiler were calculated using AP-42 emission factors for fuel burning equipment.

4. WVDEP APPLICATION FORMS

The WVDEP permit application forms contained in this renewal application include facility-wide and emission source specific forms for the renewal of the Grant Town Power Plant Title V permit.

GENERAL FORMS: TITLE V PERMIT APPLICATION RENEWAL



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

11. Mailing Address		
Street or P.O. Box: P.O. Box 159		
City: Grant Town	State: WV	Zip: 26574
Telephone Number: (304) 278-7449	Fax Number: (304) 278-7437	

12. Facility Location		
Street: State Route 17	City: Grant Town	County: Marion County
UTM Easting: 572.40 km	UTM Northing: 4,379.25 km	Zone: <input checked="" type="checkbox"/> 17 or <input type="checkbox"/> 18
Directions: US Route 19 north from Fairmont. Turn left in Riversville onto State Route 17 and follow Paw Paw Creek for 4 miles.		
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). Pennsylvania Maryland	
Is facility located within 100 km of a Class I Area¹? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, name the area(s).	
If no, do emissions impact a Class I Area¹? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
¹ Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.		

13. Contact Information		
Responsible Official: Steve Friend		Title: Plant Manager
Street or P.O. Box: 228 ABPP Drive P. O. Box 159		
City: Grant Town	State: WV	Zip: 26574
Telephone Number: (304) 278-7449	Fax Number: (304) 278-7437	
E-mail address: sfriend@ambitwv.com		
Environmental Contact: Shawn Jennings		Title: EH&S Specialist
Street or P.O. Box: 228 ABPP Drive P. O. Box 159		
City: Grant Town	State: WV	Zip: 26574-
Telephone Number: (304) 278-6103	Fax Number: (304) 278-7437	
E-mail address: sjennings@ambitwv.com		
Application Preparer: Patty Centofanti		Title: Senior Consultant
Company: Trinity Consultants, Inc.		
Street or P.O. Box: 4500 Brooktree Road, Suite 103		
City: Wexford	State: PA	Zip: 15090
Telephone Number: (412) 474-3310	Fax Number: (724) 935-2622	
E-mail address: pcentofanti@trinityconsultants.com		

14. Facility Description

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

Process	Products	NAICS	SIC
Coal Refuse Fired CFB Boilers	total output of 80 MWe		4911

Provide a general description of operations.

American Bituminous Grant Power Plant is a coal refuse-fired electric generation facility with a total output of 80 MWe and operates under Standard Industrial Classification (SIC) code 4911. The Facility consists of two (2) 551.9 MMBtu/hr coal refuse-fired circulating fluidized bed boilers and various supporting operations such as coal handling, ash handling, limestone handling, and various tanks with insignificant emissions. The boilers are designed to accommodate a variety of fuels, but the primary fuel is coal refuse (gob) supplemented with pond fines. Natural gas is used as a start up fuel. The facility has the potential to operate seven (7) days per week, twenty-four (24) hours per day and fifty-two (52) 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

18. Applicable Requirements Summary	
Instructions: Mark all applicable requirements.	
<input checked="" type="checkbox"/> SIP	<input type="checkbox"/> FIP
<input type="checkbox"/> Minor source NSR (45CSR13)	<input checked="" type="checkbox"/> PSD (45CSR14)
<input type="checkbox"/> NESHAP (45CSR15)	<input type="checkbox"/> Nonattainment NSR (45CSR19)
<input checked="" type="checkbox"/> Section 111 NSPS	<input type="checkbox"/> Section 112(d) MACT standards
<input type="checkbox"/> Section 112(g) Case-by-case MACT	<input type="checkbox"/> 112(r) RMP
<input type="checkbox"/> Section 112(i) Early reduction of HAP	<input type="checkbox"/> Consumer/commercial prod. reqts., section 183(e)
<input type="checkbox"/> Section 129 Standards/Reqs.	<input checked="" type="checkbox"/> Stratospheric ozone (Title VI)
<input type="checkbox"/> Tank vessel reqt., section 183(f)	<input type="checkbox"/> Emissions cap 45CSR§30-2.6.1
<input type="checkbox"/> NAAQS, increments or visibility (temp. sources)	<input type="checkbox"/> 45CSR27 State enforceable only rule
<input type="checkbox"/> 45CSR4 State enforceable only rule	<input type="checkbox"/> Acid Rain (Title IV, 45CSR33)
<input type="checkbox"/> Emissions Trading and Banking (45CSR28)	<input type="checkbox"/> Compliance Assurance Monitoring (40CFR64)
<input checked="" type="checkbox"/> CAIR NO _x Annual Trading Program (45CSR39)	<input checked="" type="checkbox"/> CAIR NO _x Ozone Season Trading Program (45CSR40)
<input checked="" type="checkbox"/> CAIR SO ₂ Trading Program (45CSR41)	

19. Non Applicability Determinations

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

From permit no. R30-04900026-2009 Fact Sheet:

45CSR5: The facility is subject to 45CSR2 in lieu of 45CSR5.

45CSR7: The facility is subject to 45CSR2 in lieu of 45CSR7.

45 CSR33, 45CSR40, and C.F.R. Part 72: American Bituminous Grant Town Power Plant Facility is exempt from the "Acid Rain" requirements under 45 CFR 72.6(b)(6).

40 C.F.R. Part 73, 74, 76, 77, 78: The non-applicability of 40 C.F.R. 72 extends to all portions of 40 C.F.R. 73, 74, 76, 77, 78

40 C.F.R. 60 Subpart D, Db: 40 C.F.R. 60 Subpart Da applies.

40 C.F.R 60 Subpart Dc: The maximum design heat input capacity is 551.9 mmBtu/hr per boiler. Since the maximum design heat input capacity is >29 MW (100 mmBtu/hr), 40 C.F.R. Subpart Dc does not apply.

40 C.F.R 60 Subpart K, Ka, Kb: All volatile organic liquid storage tanks (including petroleum liquid storage vessels) are below 10, 567 gallons in capacity.

40 C.F.R 63 Subpart Q: The plant does not use chromium-based water treatment chemicals.

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).

45CSR 6-3.1 R30-04900026-2009 Permit Condition: 3.1.1&3.1.2 Open Burning

45CSR 61 R30-04900026-2009 Permit Condition: 3.1.3 Asbestos

45CSR 4-3.1 R30-04900026-2009 Permit Condition: 3.1.4 Odor

45CSR 11-5.2 R30-04900026-2009 Permit Condition: 3.1.5 Stand By Plan for Reducing Emissions

45CSR 22-5-4(a)(14) R30-04900026-2009 Permit Condition: 3.1.6 Emissions Inventory

40 CFR 82, Subpart F R30-04900026-2009 Permit Condition: 3.1.7 ODS

40 CFR 68 R30-04900026-2009 Permit Condition: 3.1.8 RMP

40 CSR 37, Permit Condition 3.1.9 CAMR. *Remove Condition as CAMR was repealed*

45 CSR 39 Permit Condition 3.1.10 CAIR NO_x Annual Trading

45 CSR40 Permit Condition 3.1.11 CAIR NO_x Ozone Season Trading

45 CSR 41 Permit Condition 3.1.12 CAIR SO₂ Trading

45 CSR 14 Permit No R14-5E Requirement A.5 R30-04900026 Condition 3.1.14 Unpaved Roads

45 CSR 14 Permit No R14-5E Requirement A.6 R30-04900026 Condition 3.1.15 Paved Roads

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.)

45CSR 6-3.1 R30-04900026-2009 Permit Condition: 3.1.1&3.1.2 Open Burning

Open burning generally not conducted as a best practice.

45CSR 61 R30-04900026-2009 Permit Condition: 3.1.3 Asbestos

Grant Town Power Plant complies with 45 CSR61 as applicable

45 CSR 4-3.1 R30-04900026-2009 Permit Condition: 3.1.4

3.3.1. **Odors.** For the purposes of 45CSR4, the permittee shall 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. **[45CSR§30-5.1.c. State-Enforceable only.]**

45CSR 11-5.2 R30-04900026-2009 Permit Condition: 3.1.5 Stand By Plan for Reducing Emissions

Grant Town Power Plant complies as requested by the WVDEP.

45CSR 22-5-4(a)(14) R30-04900026-2009 Permit Condition: 3.1.6 Emissions Inventory

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

40 CFR 82, Subpart F R30-04900026-2009 Permit Condition: 3.1.7 ODS

Grant Town Power Plant complies with 40 CFR 82 as applicable

40 CFR 68 R30-04900026-2009 Permit Condition: 3.1.8 RMP

Grant Town Power Plant complies with 40 CFR 68 as applicable

45 CSR 39 Permit Condition 3.1.10, 3.1.11, &3.1.12 CAIR

45 CSR 14 Permit No R14-5E Specific Requirement A.5 R30-04900026-2009 Permit Condition: 3.1.14&15

3.4.4 The permittee shall maintain records indicating the use of any dust suppressants or any other suitable dust control measures applied at the facility. The permittee shall also inspect all fugitive dust control systems weekly from May 1 through September 30 and monthly from October 1 through April 30 to ensure that they are operated and maintained in good working order. The permittee shall maintain records of all scheduled and nonscheduled maintenance and shall state 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. **[45CSR§30-5.1.c]**

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

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

Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year]	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	821.89
Nitrogen Oxides (NO _x)	1933.86
Lead (Pb)	0.59
Particulate Matter (PM _{2.5}) ¹	Unknown
Particulate Matter (PM ₁₀) ¹	Unknown
Total Particulate Matter (TSP)	212.4
Sulfur Dioxide (SO ₂)	4012.75
Volatile Organic Compounds (VOC)	38.68
Hazardous Air Pollutants ²	Potential Emissions
Beryllium Compounds	0.000395
Mercury	0.087
Hydrogen Chloride	541
Hydrogen Fluoride	53.6
Regulated Pollutants other than Criteria and HAP	Potential Emissions
Barium Compounds	0.2772
Copper Compounds	0.054
Sulfuric Acid	1.46

¹PM_{2.5} and PM₁₀ are components of TSP.
²For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.

Section 4: Insignificant Activities

24. Insignificant Activities (Check all that apply)	
<input checked="" type="checkbox"/>	1. Air compressors and pneumatically operated equipment, including hand tools.
<input 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 checked="" 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 ₂ lasers, used only on metals and other materials which do not emit HAP in the process.
<input type="checkbox"/>	11. Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
<input checked="" type="checkbox"/>	12. Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
<input checked="" type="checkbox"/>	13. Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
<input checked="" type="checkbox"/>	14. Demineralized water tanks and demineralizer vents.
<input type="checkbox"/>	15. Drop hammers or hydraulic presses for forging or metalworking.
<input 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_x, SO₂, 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>Sources include diesel and gasoline storage tanks for on-site vehicles, the diesel fired engine connected to the boiler feed water pump (emergency use only), turbine lube oil vent and deicing compound usage.</u></p>

24. Insignificant Activities (Check all that apply)	
<input checked="" 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><u>Sources include deicing compound (ethylene glycol) usage.</u></p>
<input type="checkbox"/>	21. Environmental chambers not using hazardous air pollutant (HAP) gases.
<input type="checkbox"/>	22. Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.
<input type="checkbox"/>	23. Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.
<input type="checkbox"/>	24. Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
<input type="checkbox"/>	25. Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
<input checked="" type="checkbox"/>	26. Fire suppression systems.
<input 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 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 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 type="checkbox"/>	35. Internal combustion engines used for landscaping purposes.
<input type="checkbox"/>	36. Laser trimmers using dust collection to prevent fugitive emissions.
<input type="checkbox"/>	37. Laundry activities, except for dry-cleaning and steam boilers.
<input type="checkbox"/>	38. Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
<input 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

24. Insignificant Activities (Check all that apply)	
	qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant owners/operators must still get a permit if otherwise requested.)
<input type="checkbox"/>	42. Portable electrical generators that can be moved by hand from one location to another. "Moved by Hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.
<input checked="" type="checkbox"/>	43. Process water filtration systems and demineralizers.
<input type="checkbox"/>	44. Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification.
<input type="checkbox"/>	45. Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
<input 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 type="checkbox"/>	56. Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP. Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.
<input type="checkbox"/>	57. Such other sources or activities as the Director may determine.
<input checked="" type="checkbox"/>	58. Tobacco smoking rooms and areas.
<input checked="" type="checkbox"/>	59. Vents from continuous emissions monitors and other analyzers.

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

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

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: Steve Friend

Title: Plant Manager

Responsible official's signature:

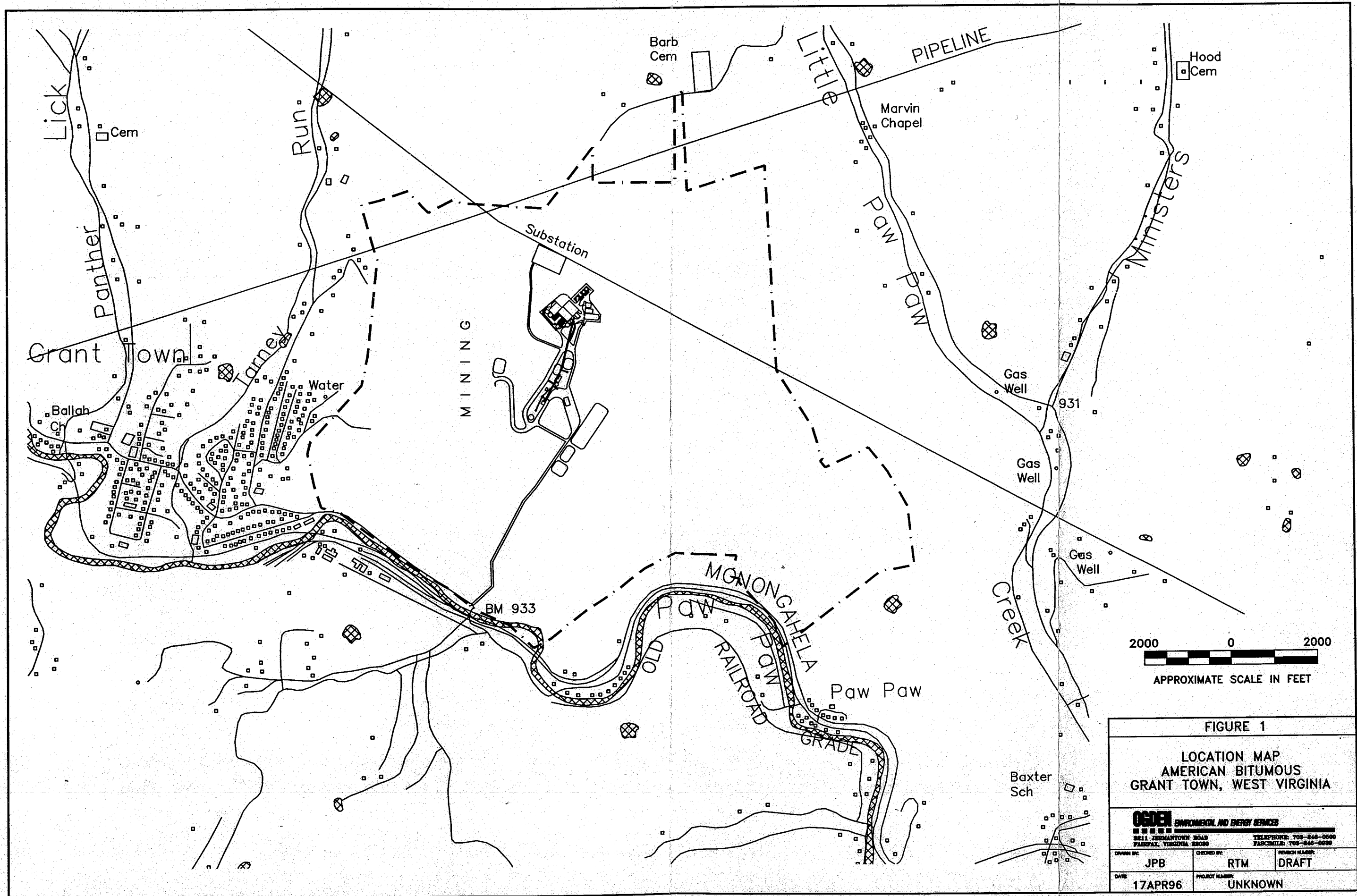
Signature: Steve Friend Signature Date: 11/04/2013
 (Must be signed and dated in blue ink)

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

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

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

ATTACHMENT A: AREA MAP



ATTACHMENT B: PLOT PLAN

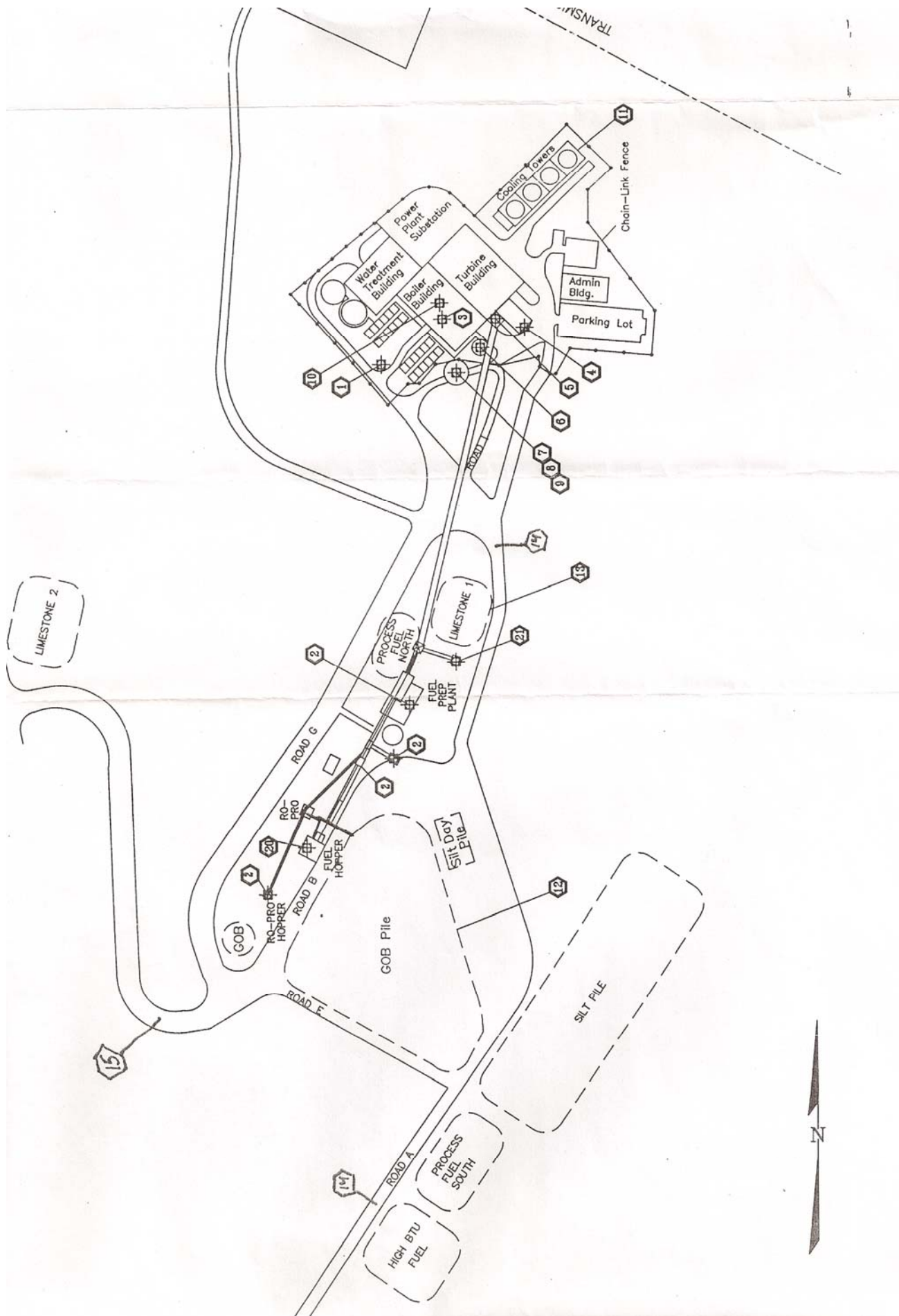


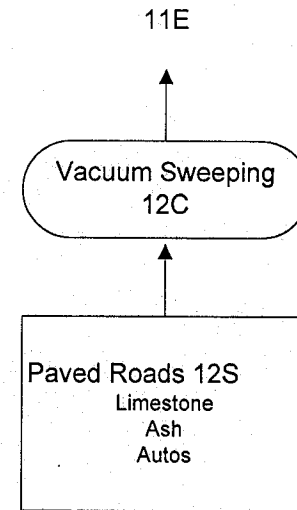
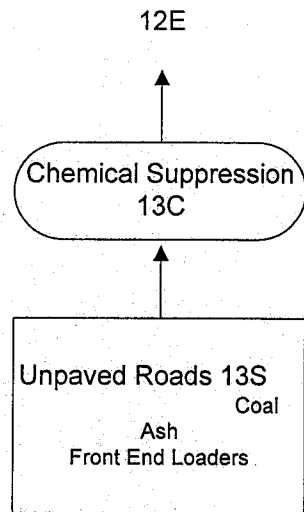
Figure 1
Point Sources
Legend

Drawing ID Number	Air4 ID Number	Description
1	1E	Main Stack
2	4S, 4C, 3E	Fuel Prep/Transport
3	5S, 5C, 4E	Fuel Storage Bins
4	6S, 003-06, 6C, 5E	Limestone Mill
5	7S, 7C, 6E	Limestone Hopper/Conveyer
6	8S, 8C, 7E	Crushed Limestone Silo
7	9S, 9C, 8E	Ash Silo
8	14S, 14C, 13E	Flyash Conveyor #1
9	15S, 15C, 14E	Flyash Conveyor #2
10	1S, 2S, 1C, 2C, 007-07	Boilers
11	007-01	Cooling Tower
12	16S, 16C, 15E	Gob Pile
13	10S, 10C, 9E	Limestone Pile
20	3S, 3C, 2E, 007-08, 00H	Raw Gob Hopper
21	17S, 17C, 16E	Limestone Unloading Hopper

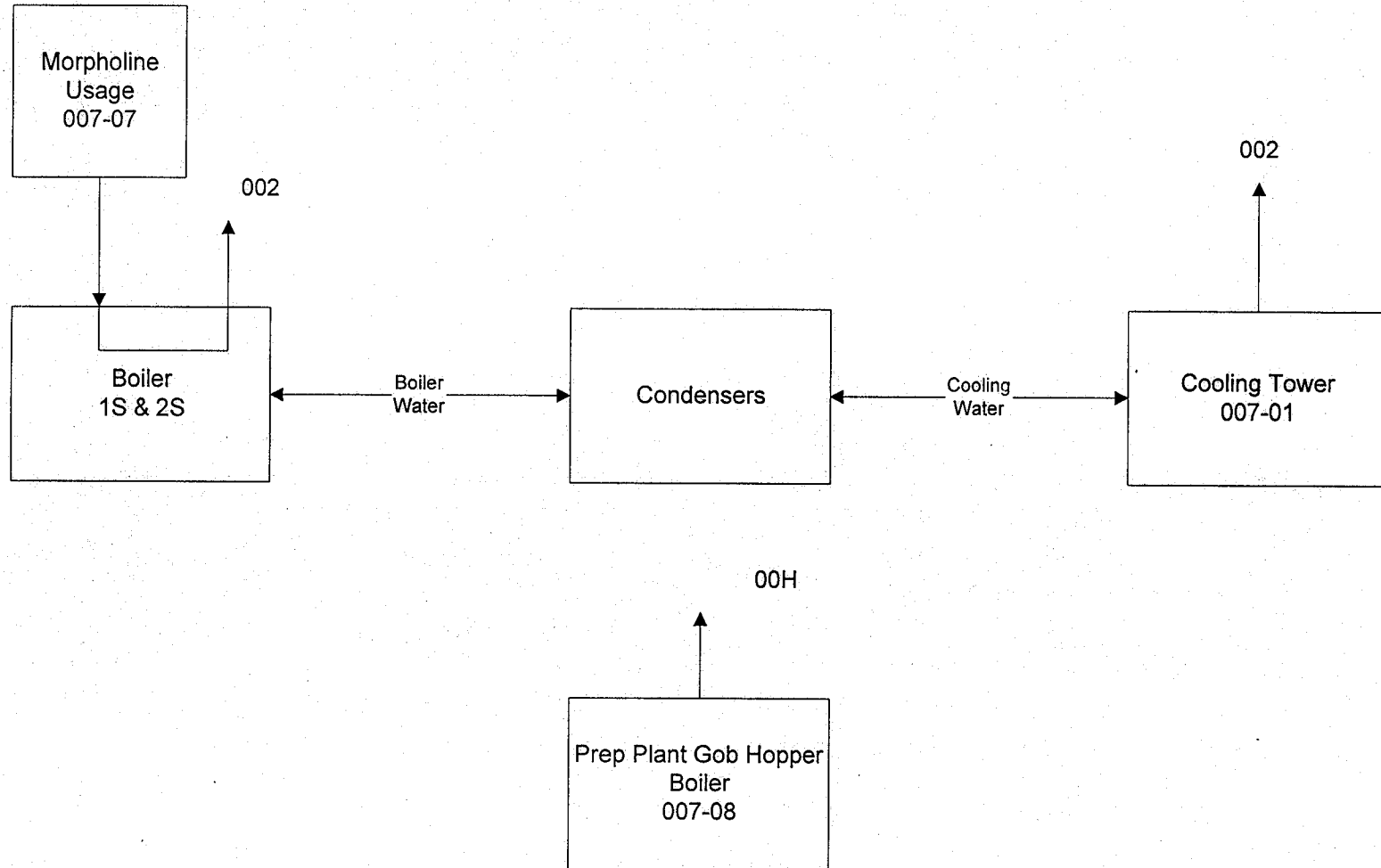
Note: Transportation sources (131S, 13C, 12E, 12S, 12C, &11E) not shown.

ATTACHMENT C: PROCESS FLOW DIAGRAMS

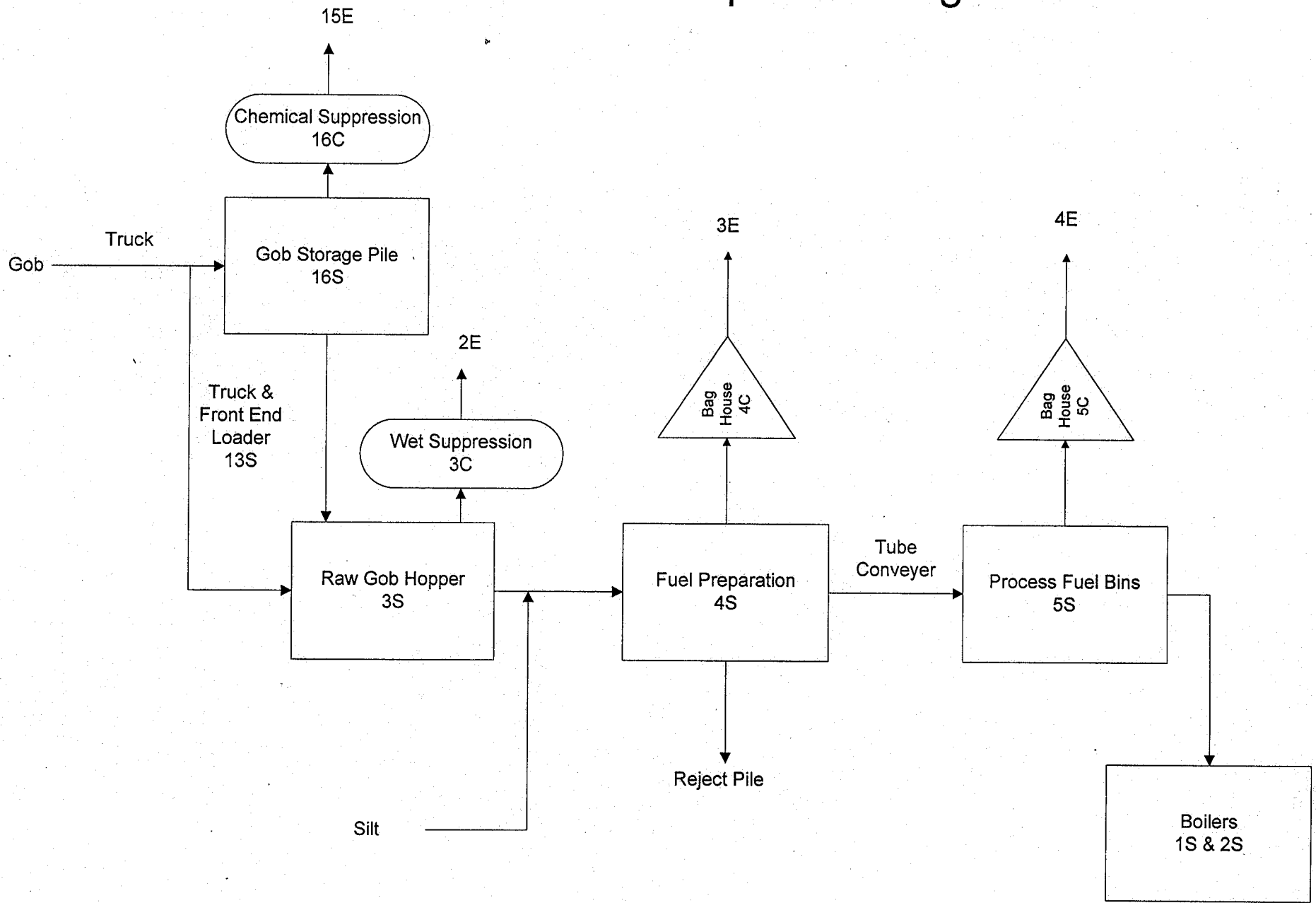
Transport Group Flow Diagram



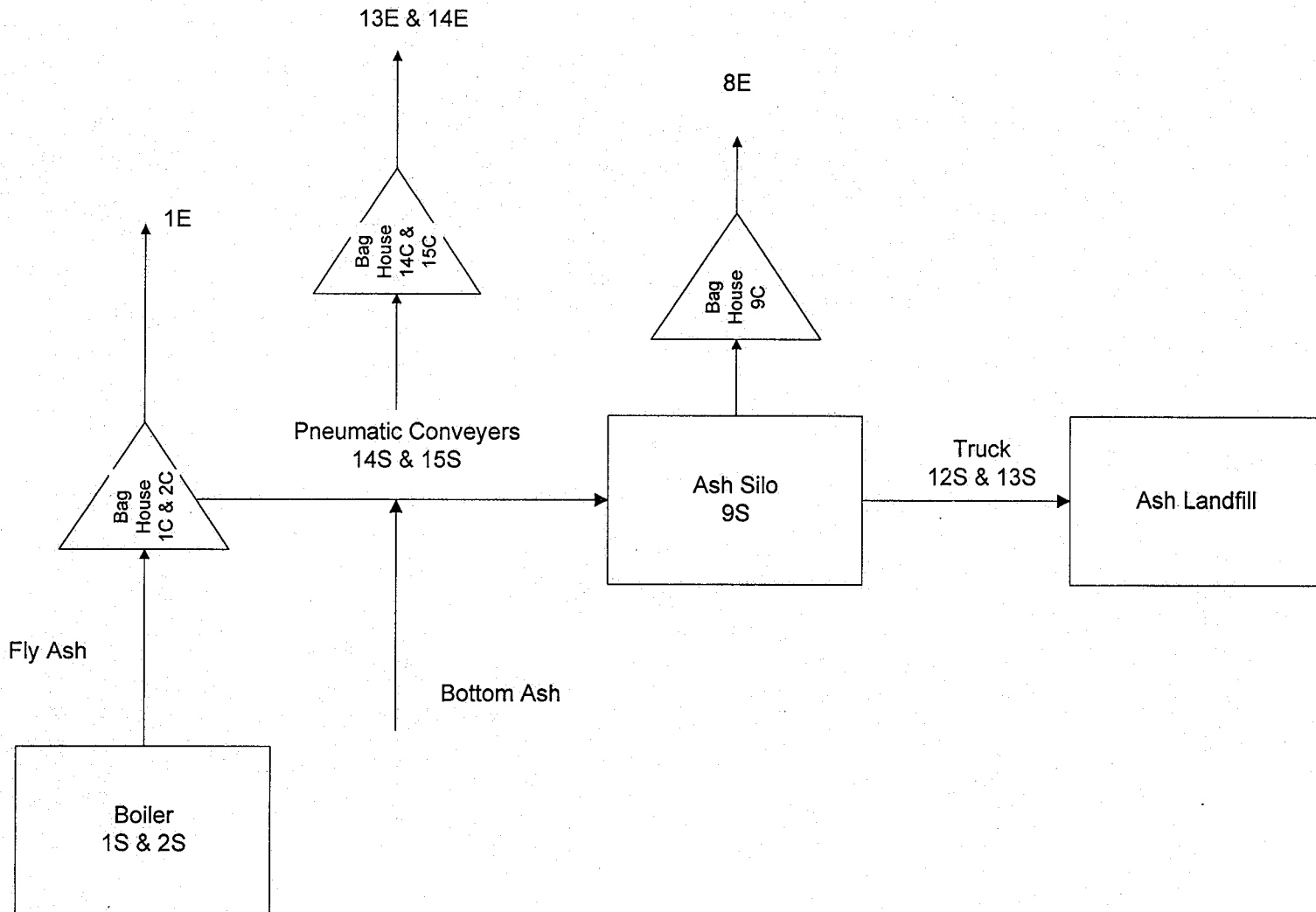
Support Group Flow Diagram



Fuel Group Flow Diagram



Ash Group Flow Diagram



ATTACHMENT D: TITLE V EQUIPMENT TABLE

ATTACHMENT D - Title V Equipment Table (includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)					
Emission Point ID ¹	Control Device ¹	Emission Unit ID ¹	Emission Unit Description	Design Capacity	Year Installed/Modified
Boilers					
1S	Baghouse 1C	1E	Boiler #1A: Ahlstrom Pyropower Coal Refuse-Fired Circulating Fluidized Bed Combustion Unit	551.9 mmBtu/hr	1992
2S	Baghouse 2C	1E	Boiler #1B: Ahlstrom Pyropower Coal Refuse-Fired Circulating Bed Combustion Unit	551.9 mmBtu/hr	1992
Fuel Group					
3S A	Common Wind Enclosure, Wet / Chemical Suppression 3C	2E	Raw Gob Hopper w/ Vibratory Feeder	36 Ton	1992
3S B	Common Wind Enclosure, Wet / Chemical Suppression 3C	2E	Raw Gob Hopper w/ Vibratory Feeder	36 Ton	1992
3S C	Common Wind Enclosure, Wet / Chemical Suppression 3C	2E	Gob Fines Hopper w/ Vibratory Feeder (Currently Not In Use)	5 cu. yds	1992
3S D	Hemispherical Rain / Wind Enclosure	2E	Raw Gob Conveyor FH-BC-1 (36") and Transfer Points (from Raw Gob Hoppers to Fuel Prep Building)	280 TPH	1992
19S A	Common Wind Enclosure sure	18E	Silt Feed Hopper	12 Tons	1992
19S B	Partial Enclosure	18E	Silt Feed Conveyor FH-BC-8 (24") and Transfer Points (from Silt Feed Hopper to Conveyor FH-BC-9)	150 TPH	1992
19S C	Partial Enclosure	18E	Silt Feed Conveyor FH-BC-9 (24"), Shredder, and Transfer Points (from Conveyor FH-BC-9 to Conveyor FH-BC-10)	150 TPH	1992
19S D	None	18E	Silt Screen	150 TPH	1992
18S A	None	17E	Ro-Pro Hopper	20 Ton	1995
18S B	Partial Enclosure	17E	Ro-Pro Feed Conveyor FH-BC-11 (36") and Transfer Points (from Ro-Pro Hopper to Ro-Pro Scalping Screen)	200 TPH	1995
18S C	Full Enclosure	17E	Ro-Pro Scalping Screen	200 TPH	1995
18S D	Full Enclosure	17E	Gundlach Ro-Pro Unit (Rotating Probability Screen)	140 TPH	1995
18S E	Full Enclosure	17E	Ro-Pro Roll Crusher	75 TPH	2001

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Emission Point ID ¹	Control Device ¹	Emission Unit ID ¹	Emission Unit Description	Design Capacity	Year Installed/Modified
18S F	Full Enclosure	17E	Ro-Pro Reversing Conveyor FH-BC-12 (30") and Transfer Points (from Gundlach Ro-Pro Unit to Ro-Pro Hammermill, Radial Stacking Conveyor, and Ro-Pro Coarse Transfer Conveyor)	85 TPH	1995
18S G	Full Enclosure	17E	Ro-Pro Reversible Hammermill	85 TPH	1992/1996
18S H	Partial Enclosure	17E	Radial Stacking Conveyor FH-BC-14 (32") and Transfer Points (from Ro-Pro Reversing Conveyor to Stockpile)	200 TPH	1995
18S I	Partial Enclosure	17E	Ro-Pro Coarse Transfer Conveyor FH-BC- 13 (30") and Transfer Points (from Ro-Pro Reversing Conveyor to Raw Gob Hoppers)	200 TPH	1995
18S J	Partial Enclosure	17E	Ro-Pro Processed Fuel Transfer Conveyor FH-BC-15 (36") and Transfer Points (from Gundlach Ro-Pro Unit and Ro-Pro Hammermill to FH-BC-10 and Boiler Day Bins)	200 TPH	1995
19S E	Partial Enclosure	18E	Conveyor FH-BC-10 (24") and Transfer Points (from Silt Feed Hopper and Ro-Pro Building FH-BC-15 to Conveyor FH-BC-2)	200 TPH	1992
4S A	Full Enclosure*	3E	Double Deck Screen	230 TPH	1992
4S B	Full Enclosure	3E	Coarse Gob Impactor	90 TPH	1992
4S C	Full Enclosure, Baghouse 4C	3E	Hammermill Feed Hopper w/ Vibratory Feeder	80 Tons	1992
4S D	Full Enclosure	3E	Reversible Hammermill "A"	85 TPH	1992
4S E	Full Enclosure, Baghouse 4C	3E	Final Product Belt Conveyor FH-BC-2 (24") and Transfer Points (from Fuel Prep Building to Transfer House)	160 TPH	1992
4S F	Full Enclosure, Baghouse 4C, 7C	3E, 6E	Fuel Storage Belt Conveyor FH-BC-3 (24") and Transfer Points (from Transfer House to Boiler Day Bins)	280 TPH	1992
4S G	Baghouse 4C	3E	Fuel Prep Stack Out Conveyor FH-BC-16 (24") and Transfer Points (from Transfer House Discharging to Ground)	200 TPH	1992
5S A	Full Enclosure, Baghouse 5C	4E	Weigh Belt Scale FH-BC-4 (24") and Transfer Points (from Covered Tube Conveyors to Cross Conveyor FH-BC-5)	280 TPH	1992
5S B	Full Enclosure, Baghouse 5C	4E	Cross Conveyor FH-BC-5 (24") and Transfer Points (from Weigh Belt Scale to Day Bin #1 and FH-BC-6)	280 TPH	1992
5S C	Full Enclosure, Baghouse 5C	4E	Cross Conveyor FH-BC-6 (24") and Transfer Points (from FH-BC-5 to Day Bin #2 and FH-BC-7)	280 TPH	1992

*Gob is immersed in water upon entering the Fuel Preparation Building.

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Emission Point ID ¹	Control Device ¹	Emission Unit ID ¹	Emission Unit Description	Design Capacity	Year Installed/Modified
5S D	Full Enclosure, Baghouse 5C	4E	Cross Conveyor FH-BC-7 (24") and Transfer Points (from FH-BC-6 to Day Bin #3)	280 TPH	1992
5S E	Full Enclosure, Baghouse 5C	4E	Boiler Day Bin #1	950 Tons	1992
5S F	Full Enclosure, Baghouse 5C	4E	Boiler Day Bin #2	950 Tons	1992
5S G	Full Enclosure, Baghouse 5C	4E	Boiler Day Bin #3	300 Tons	1992
16S A	Chemical Suppression 16C	15E	Gob Storage Pile	170,000 Tons	1992/1995
16S B	Chemical Suppression 16C	15E	Process Fuel N Pile	4,000 Tons	1992/1995
16S C	Chemical Suppression 16C	15E	Process Fuel S Pile	11,000 Tons	1992/1995
16S D	Chemical Suppression 16C	15E	High BTU Pile	10,000 Tons	1992/1995
16S E	Chemical Suppression 16C	15E	Silt Pile	70,000 Tons	1992/1995
16S F	Chemical Suppression 16C	15E	Fines Day Pile	3,000 Tons	1992/1995
Limestone Group					
7S A	Enclosure, Baghouse 4C	3E	Limestone Reclaim Conveyor LH-BC-1 (24") (from Unloading Hopper to Transfer Building)	300 TPH	1992
7S B	Enclosure, Baghouses 4C, 7C	3E, 6E	Limestone Storage Belt Conveyor LH-BC-2 (24") (from Transfer Building to Surge Hopper – Limestone Prep Building)	300 TPH	1992
7S C	Baghouse 7C	6E	Surge Hopper (Uncrushed Limestone prior to Injection into Mills) – Two Feed Cones each w/ Vibratory Feeder	1,200 Tons	1992
6S A	Baghouse 6C	5E	Limestone Mill (DFM Mill)	70 TPH	1992
6S B	Baghouse 6C	5E	Limestone Mill (Backup Hammermill)	70 TPH	1992
7S D	N/A	6E	003-06 Limestone Mill Burner (Indirect Contact Heat used to Dry Limestone)	N/A	1992
8S A	Baghouse 8C	7E	Pneumatic Conveyor (from Limestone Mills to Limestone Storage Silo)	70 TPH	1992
8S B	Baghouse 8C, Bin Vent Filter	7E	Silo (Stores Crushed Limestone prior to Injection into Boilers)	3,600 Tons	1992

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Emission Point ID ¹	Control Device ¹	Emission Unit ID ¹	Emission Unit Description	Design Capacity	Year Installed/Modified
8S C	Full Enclosure	7E	Pneumatic Conveyor (from Limestone Storage Silo to Boiler #1A) w/ Volumetric Feeder	50 TPH	1992
8S D	Full Enclosure	7E	Pneumatic Conveyor (from Limestone Storage Silo to Boiler #1A) w/ Volumetric Feeder	50 TPH	1992
8S E	Full Enclosure	7E	Pneumatic Conveyor (from Limestone Storage Silo to Boiler #1B) w/ Volumetric Feeder	50 TPH	1992
8S F	Full Enclosure	7E	Pneumatic Conveyor (from Limestone Storage Silo to Boiler #1B) w/ Volumetric Feeder	50 TPH	1992
10S A	Wet/Chemical Suppression 10C	9E	Limestone Pile #1	5,000 Tons	1992/1995
10S B	Wet/Chemical Suppression 10C	9E	Limestone Pile #2	10,000 Tons	1992/1995
17S	Partial Enclosure, Wet/Chemical Suppression 17C	16E	Limestone Unloading Hopper (stores uncrushed limestone prior to being fed to Surge Hopper)	25 Tons	1992
Ash Group					
9S A	Enclosure, Baghouse 9C, Bin Vent Filter	8E	Ash Silo (stores ash from boiler baghouses)	3,100 Tons	1992
9S B	Vent Fan, Baghouse 9C, Bin Vent Filter	8E	Ash Telescoping Dry Unloader Chute (Emergency Unloading)	86.9 TPH	1992
9S C	N/A	8E	Wet Ash Rotary Unloader System (Dustless Unloader includes a Wetting Step prior to Discharge to Trucks)	86.9 TPH	1992
9S D	Enclosure, Baghouse 9C, Bin Vent Filter	8E	Vacuum Pneumatic Conveyor (Fly Ash Handling System from Boiler #1A to Silo)	40 TPH	1992
9S E	Enclosure, Baghouse 9C, Bin Vent Filter	8E	Vacuum Pneumatic Conveyor (Fly Ash Handling System from Boiler #1B to Silo)	40 TPH	1992
14S A	Enclosure, Cyclone Separator 14-C/A, Baghouse 14C	13E	Pressurized Pneumatic Conveyor (Bottom Ash Handling System from Boiler #1A to Silo)	40 TPH	1992
14S B	Enclosure, Cyclone Separator 14-C/A, Baghouse 14C	13E	Backup Pressurized Pneumatic Conveyor (Bottom Ash Handling System from Boiler #1A to Silo)	40 TPH	1992
15S A	Enclosure, Cyclone Separator 15-C/A, Baghouse 15C	14E	Pressurized Pneumatic Conveyor (Bottom Ash Handling System from Boiler #1B to Silo)	40 TPH	1992

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Emission Point ID ¹	Control Device ¹	Emission Unit ID ¹	Emission Unit Description	Design Capacity	Year Installed/ Modified
15S B	Enclosure, Cyclone Separator 15-C/A, Baghouse 15C	14E	Backup Pressurized Pneumatic Conveyor (Bottom Ash Handling System from Boiler #1B to Silo)	40 TPH	1992
Transport Group					
12S	Vacuum Sweeping 12C/Chemical Suppression 13C	11E	Paved Roads (Limestone Trucks, Ash Trucks, Autos)	N/A	1992
13S	Chemical Suppression 13C	12E	Unpaved Roads (Coal Trucks, Ash Trucks, Front End Loaders)	N/A	1992
Support Group					
20S	N/A	002	Morpholine Usage (007-07) to Boiler Feedwater	N/A	1992
21S	N/A	002	Cooling Tower Operations (007-01)a	N/A	1992
22S	N/A	00H	Prep Plant Gob Hopper Boiler (007-08)	.992 mmBtu/hr	1992
Tank #1	N/A	Tank #1	Kerosene Storage Tank – Fuel Prep Unloading Hoppers	1000 gal.	1992
Tank #2	N/A	Tank #2	Kerosene Storage Tank – Gob Hopper Boiler	1000 gal.	1992
Tank #3	N/A	Tank #3	Kerosene Storage Tank – Fuel Prep	500 gal.	1992
Tank #4	N/A	Tank #4	Kerosene Storage Tank – Fuel Prep	2,000 gal.	1992
Tank #5	N/A	Tank #5	Kerosene Storage Tank – Cooling Tower	500 gal.	1992
Tank #6A	N/A	Tank #6A	Gasoline Storage Tank – Cooling Tower	500 gal.	1992
Tank #6B	N/A	Tank #6B	Diesel Storage Tank – Cooling Tower	500 gal.	1992
Tank #7	N/A	Tank #7	Diesel Storage Tank – Diesel Fire Pump	250 gal.	1992
Tank #11	N/A	Tank #11	Diesel Storage Tank – Site Civil Contractor	4,000 gal.	2001
Tank #12	N/A	Tank #12	Diesel Storage Tank – Site Civil Contractor	1,000 gal.	2001
DFP	N/A	DFP	Emergency Diesel Feed Pump	235 HP	1992
DFP2	N/A	DFP2	Diesel Fire Pump	350 HP	1992

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

ATTACHMENT E: EMISSION UNIT FORM

ATTACHMENT E - Emission Unit Form			
<i>Emission Unit Description</i>			
Emission unit ID number: See table below	Emission unit name: Support Group	List any control devices associated with this emission unit: See table below	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): See table below			
Manufacturer: See table below	Model number: See table below	Serial number: See table below	
Construction date: See table below	Installation date: 11/1/1992	Modification date(s):	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): See table below			
Maximum Hourly Throughput: See table below	Maximum Annual Throughput: See table below	Maximum Operating Schedule: 8760 hr/yr	
<i>Fuel Usage Data (fill out all applicable fields)</i>			
Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired	
Maximum design heat input and/or maximum horsepower rating: Diesel boiler feedwater pump – 235 HP GOB hopper boiler – 0.794 MMBtu/hr Diesel Fire Pump – 350 HP		Type and Btu/hr rating of burners: Boiler feedwater pump = 0.598 MMBtu/hr GOB hopper boiler = 0.794 MMBtu/hr	
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. Diesel feedwater pump – diesel GOB hopper boiler - kerosene			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Diesel			0.137 MMBtu/gal
Kerosene	1		0.135 MMBtu/gal

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Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		0.04
Nitrogen Oxides (NO _x)		0.13
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		23.79
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		4.62
Volatile Organic Compounds (VOC)		0.01
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Formaldehyde		.000000353
Benezene		.00000079
Regulated Pollutants other than Criteria and HAPs	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Potential emissions from fuel burning equipment were calculated using AP-42 emission factors for fuel burning equipment. Potential emissions from tanks were calculated using TANKS2 software assuming 100 turnovers per year. Potential emissions from cooling tower were calculated assuming 25,228,800 gallons water and 1100 TDS.</p>		

<i>Applicable Requirements</i>
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.
<input checked="" type="checkbox"/> 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.)
Are you in compliance with all applicable requirements for this emission unit? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If no, complete the Schedule of Compliance Form as ATTACHMENT F.

Emission Unit	Description of Emissions Unit	Date Installed	Design Capacity and Maximum Rate	Maximum Annual Throughput	Control
20S	Morpholine Usage (007-07) to Boiler Feedwater	1992	N/A		N/A
21S	Cooling Tower Operations (007-01)a	1992	N/A	25228800 gal.	N/A
22S	Prep Plant Gob Hopper Boiler (007-08)	1992	0.794 MMBtu/hr		N/A
Tank #1	Kerosene Storage Tank – Fuel Prep Unloading Hoppers	1992	1000 gal.	100000 gal.	N/A
Tank #2	Kerosene Storage Tank – Gob Hopper Boiler	1992	1000 gal.	100000 gal.	N/A
Tank #3	Kerosene Storage Tank – Fuel Prep	1992	500 gal.	500000 gal.	N/A
Tank #4	Kerosene Storage Tank – Fuel Prep	1992	2,000 gal.	2000000 gal.	N/A
Tank #5	Kerosene Storage Tank – Cooling Tower	1992	500 gal.	500000 gal.	N/A
Tank #6A	Gasoline Storage Tank – Cooling Tower	1992	500 gal.	500000 gal.	N/A
Tank #6B	Diesel Storage Tank – Cooling Tower	1992	500 gal.	500000 gal.	N/A
Tank #7	Diesel Storage Tank – Diesel Fire Pump	1992	250 gal.	250000 gal.	N/A
Tank #11	Diesel Storage Tank – Site Civil Contractor	2001	4,000 gal.	4000000 gal	N/A
Tank #12	Diesel Storage Tank – Site Civil Contractor	2001	1,000 gal.	1000 gal.	N/A
DFP	Emergency Diesel Feed Pump	1992	235 HP		N/A
DFP2	Diesel Fire Pump	1992	350 HP		N/A

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: See table below	Emission unit name: Limestone Group	List any control devices associated with this emission unit: See table below
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
See table below

Manufacturer: See table below	Model number: See table below	Serial number: See table below
---	---	--

Construction date: See table below	Installation date: See table below	Modification date(s):
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons): See table below

Maximum Hourly Throughput: See table below	Maximum Annual Throughput: See table below	Maximum Operating Schedule: 8760 hr/yr
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 003-06 Limestone Mill Burner (Indirect Contact Heat used to Dry Limestone)	If yes, is it? <input type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired
--	--

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

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

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

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

American Bituminous Power Partners LLC – Grant Town Power Plant

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		.842
Nitrogen Oxides (NO _x)		4.01
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		12.801
Total Particulate Matter (TSP)		12.801
Sulfur Dioxide (SO ₂)		.024
Volatile Organic Compounds (VOC)		.153
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Hg		.000455
Formaldehyde		2.51
POM		.000026
Benzene		.00614
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Potential Emissions were obtained from the original Title V application and the PSD permit application.</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.

- 45 CSR 14 Permit No R14-5E - R30-04900026-2009(MM01) Permit Condition 6.1.1 Control and Emissions Limits
- 45 CSR 14 Permit No R14-5E - R30-04900026-2009(MM01) Permit Condition 6.1.2 Operational Limits
- 45 CSR 2-5 - R30-04900026-2009(MM01) Permit Condition 6.1.3 Fugitive Emissions
- 40 CFR 60.672 - R30-04900026-2009(MM01) Permit Condition 6.1.4 Subpart Y Limits
- 45 CSR 16 and 40 CFR 60.11(d) - R30-04900026-2009(MM01) Permit Condition 6.1.5

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.)

45CSR 14 Permit No R14-5C Specific Requirement A.3 - R30-04900026-2009(MM01) Permit Condition 6.1.1

45CSR 14 Permit No R14-5C Specific Requirement A.8 - R30-04900026-2009(MM01) Permit Condition 6.1.2
6.4.2 The permittee shall maintain limestone stockpile records. The record shall include, at a minimum, the date, stockpile description, quantity of limestone, capacity, and annual throughput.

45 CSR 2-5 - R30-04900026-2009(MM01) Permit Condition 6.1.3

3.1.13. Fugitive Particulate Matter Control. 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:

- a. Stockpiling of ash or fuel either in the open or in enclosures such as silos;
- 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
- c. Ash or fuel handling systems and ash disposal areas.

40 CFR 60.672 - R30-04900026-2009(MM01) Permit Condition 6.1.4

6.3.1. The permittee shall comply with 40 C.F.R. §60.675 for Emission Points 3E, 5E, 6E, 7E, and 16E as follows:

- a. In conducting the performance tests required in 40 C.F.R. §60.8, the owner or operator shall use as reference methods and procedures the test methods in Appendix A of 40 C.F.R. 60 or other methods and procedures as specified in this section, except as provided in 40 C.F.R. §60.8(b). Acceptable alternative methods and procedures are given in 6.3.1.e.
- b. The owner or operator shall determine compliance with the particulate matter standards in permit condition 6.1.4.a as follows:

1. Method 5 or Method 17 shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above

ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter.

2. Method 9 and the procedures in 40 C.F.R. §60.11 shall be used to determine opacity.

c. The owner or operator shall determine compliance with the particulate matter standards in permit conditions 6.1.4.b, 6.1.4.c, and 6.1.4.f as follows:

1. In determining compliance with the particulate matter standards in permit conditions 6.1.4.b and 6.1.4.c, the owner or operator shall use Method 9 and the procedures in 40 C.F.R. §60.11, with the following additions:

(i) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).

(ii) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g. road dust). The required observer position relative to the sun (Method 9, Section 2.1) must be followed.

2. In determining compliance with the opacity of stack emissions from any baghouse that controls emissions only from an individual enclosed storage bin under permit condition 6.1.4.f, using Method 9, the duration of the Method 9 observations shall be 1 hour (ten 6-minute averages).

3. When determining compliance with the fugitive emissions standard for any affected facility described under permit condition 6.1.4.b, the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:

(i) There are no individual readings greater than 10 percent opacity; and

(ii) There are no more than 3 readings of 10 percent for the 1-hour period.

4. When determining compliance with the fugitive emissions standard for any crusher at which a capture system is not used as described under permit condition 6.1.4.c, the duration of Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:

(i) There are no individual readings greater than 15 percent opacity; and

(ii) There are no more than 3 readings of 15 percent for the 1-hour period.

d. In determining compliance with permit condition 6.1.4.e, the owner or operator shall use Method 22 to determine fugitive emissions. The performance test shall be conducted while all affected facilities inside the building are operating. The performance test for each building shall be at least 75 minutes in duration, with each side of the building and the roof being observed for at least 15 minutes.

e. The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

1. For the method and procedure of 6.3.1.c, if emissions from two or more facilities continuously interfere so that opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:

(i) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream.

(ii) Separate the emissions so that the opacity of emissions from each affected facility can be read.

6.5.1. The permittee shall comply with 40 C.F.R. §63.676 for Emission Points 3E, 5E, 6E, 7E, and 16E as follows:

a. The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in permit condition 6.1.4, including reports of opacity observations made using Method 9 to demonstrate compliance with permit conditions 6.1.4.b, 6.1.4.c, and 6.1.4.f, and reports of observations using Method 22 to demonstrate compliance with permit condition 6.1.4.e.

45 CSR 16 and 40 CFR 60.11(d) - R30-04900026-2009(MM01) Permit Condition 6.1.5

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**.

American Bituminous Power Partners LLC – Grant Town Power Plant

Emission Unit	Description of Emissions Unit	Date Installed	Design Capacity and Maximum Rate	Maximum Annual Throughput	Control
7S A	Limestone Reclaim Conveyor LH-BC-1 (24") (from Unloading Hopper to Transfer Building)	1992	300 TPH	435300 TPY	Enclosure, Baghouse 4C
7S B	Limestone Storage Belt Conveyor LH-BC-2 (24") (from Transfer Building to Surge Hopper – Limestone Prep Building)	1992	300 TPH	435300 TPY	Enclosure, Baghouses 4C, 7C
7S C	Surge Hopper (Uncrushed Limestone prior to Injection into Mills) – Two Feed Cones each w/ Vibratory Feeder	1992	1,200 Tons	435300 TPY	Baghouse 7C
6S A	Limestone Mill (DFM Mill)	1992	70 TPH	435300 TPY	Baghouse 6C
6S B	Limestone Mill (Backup Hammermill)	1992	70 TPH	435300 TPY	Baghouse 6C
7S D	003-06 Limestone Mill Burner (Indirect Contact Heat used to Dry Limestone)	1992	N/A	435300 TPY	N/A
8S A	Pneumatic Conveyor (from Limestone Mills to Limestone Storage Silo)	1992	70 TPH	435300 TPY	Baghouse 8C
8S B	Silo (Stores Crushed Limestone prior to Injection into Boilers)	1992	3,600 Tons	435300 TPY	Baghouse 8C, Bin Vent Filter
8S C	Pneumatic Conveyor (from Limestone Storage Silo to Boiler #1A) w/ Volumetric Feeder	1992	50 TPH	435300 TPY	Full Enclosure
8S D	Pneumatic Conveyor (from Limestone Storage Silo to Boiler #1A) w/ Volumetric Feeder	1992	50 TPH	435300 TPY	Full Enclosure
8S E	Pneumatic Conveyor (from Limestone Storage Silo to Boiler #1B) w/ Volumetric Feeder	1992	50 TPH	435300 TPY	Full Enclosure
8S F	Pneumatic Conveyor (from Limestone Storage Silo to Boiler #1B) w/ Volumetric Feeder	1992	50 TPH	435300 TPY	Full Enclosure
10S A	Limestone Pile #1	1992/1995	5,000 Tons	NA	Wet/Chemical Suppression 10C
10S B	Limestone Pile #2	1992/1995	10,000 Tons	NA	Wet/Chemical Suppression 10C
17S	Limestone Unloading Hopper (stores uncrushed limestone prior to being fed to Surge Hopper)	1992	25 Tons	435300 TPY	Partial Enclosure, Wet/Chemical Suppression 17C

ATTACHMENT E - Emission Unit Form			
<i>Emission Unit Description</i>			
Emission unit ID number: See table below	Emission unit name: Fuel Group	List any control devices associated with this emission unit: See table below	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): See table below			
Manufacturer: See table below	Model number: See table below	Serial number: See table below	
Construction date:	Installation date: See table below	Modification date(s):	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): See table below			
Maximum Hourly Throughput: See table below	Maximum Annual Throughput: See table below	Maximum Operating Schedule: 8760 hours per year	
<i>Fuel Usage Data (fill out all applicable fields)</i>			
Does this emission unit combust fuel? <input type="checkbox"/> Yes <input type="checkbox"/> No		If yes, is it? <input type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions for the Fuel Group	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		9.04
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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

Potential Emissions were obtained from the original Title V application and the PSD permit application.

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.

- 45 CSR 14; Permit No R14-5E; R30-04900026-2009(MM01) Permit Condition 5.1.1 Control Equipment & Limit
- 45 CSR 14; Permit No R14-5E; R30-04900026-2009(MM01) Permit Condition 5.1.2 Pile Operating Conditions
- 45 CSR 14; Permit No R14-5E; R30-04900026-2009(MM01) Permit Condition 5.1.3 ProRo Operating Conditions
- 45 CSR 2-5; R30-04900026-2009 Permit Condition 5.1.4 Fugitive Control
- 45 CSR 14; Permit No R14-5E; 45CSR16; 40 CFR 60.11(c); 60.254(a); R30-04900026-2009(MM01) Permit Condition 5.1.5 Subpart Y Visible Emissions
- 45 CSR 16; 40 CFR 60.11(d); R30-04900026-2009(MM01) Permit 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.)

45 CSR 14; Permit No R14-5E; R30-04900026-2009(MM01) Permit Condition 5.1.1 and 5.1.4

3.1.13. Fugitive Particulate Matter Control. 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:

- a. Stockpiling of ash or fuel in the open or in enclosures such as silos;
- 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
- c. Ash or fuel handling systems and ash disposal areas.

45 CSR 14; Permit No R14-5E; R30-04900026-2009(MM01) Permit Condition 5.1.2

5.4.2 To demonstrate compliance with permit condition 5.1.2, the permittee shall maintain coal/gob stockpile records. The record shall include, at a minimum, the date, stockpile description, quantity of coal/gob, capacity, and annual throughput.

45 CSR 14; Permit No R14-5E; R30-04900026-2009(MM01) Permit Condition 5.1.3

5.4.3. For the purposes of determining compliance with maximum throughput limits set forth in 5.1.3, the applicant shall maintain certified daily and monthly records of the amount of fuel through the Ro-Pro Roll Crusher 18S E.

45 CSR 14; Permit No R14-5E; 45CSR16; 40 CFR 60.11(c); 60.252(c); R30-04900026-2009(MM01) Permit Condition 5.1.5

5.2.1 The permittee shall conduct visible emission evaluations as follows for Emissions Points 2E, 3E, 4E, 6E, 17E, and 18E:

- 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. 60, Appendix A, Method 9. This annual evaluation shall consist of a minimum of 24 consecutive observations for each affected facility and shall be conducted during the period of maximum expected visible emissions under normal unit and facility operations.
- b. Each emission point with a visible emissions limit specified in Condition 5.1.5 shall be observed visually by a trained Method 22 observer at least once per calendar month with a maximum of forty-five (45) days between consecutive readings. The visible emission observations shall be conducted for each emission point during periods of normal facility operation for a sufficient time interval to determine if there are any visible emissions present. If visible emissions from any of the emission points are observed during these monthly observations, or at any other time, that appear to exceed

50 percent of the allowable visible emission requirement for the emission point, visible emissions evaluations in accordance with 40 C.F.R. 60, Appendix A, Method 9 shall be conducted as soon as practicable, but no later than one (1) month from the time of the observation. A Method 9 evaluation shall not be required under this Condition 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.

c. If a visible emissions evaluation indicates visible emissions in excess of 50 percent of the allowable visible emissions requirement for a given emission point, a visible emissions evaluation shall be performed for that emission point at least once every consecutive 14-day period in accordance with 40 C.F.R. 60, Appendix A, Method 9. If subsequent visible emissions evaluations indicate visible emissions less than or equal to 50 percent of the allowable visible emissions requirement for the emission point for three consecutive evaluation periods, the emission unit may comply with the visible emissions testing requirements for Condition 5.2.1.b above, in lieu of those established in this Condition 5.2.1.c.

5.4.1 A record of each visible emissions observation shall be maintained on site, including any data required by 40 C.F.R. 60, Appendix A, Method 9 or Method 22, whichever is applicable. 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 inspections, and the times the dust control system(s) are inoperable and any corrective actions taken..

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**.

Emission Unit	Description of Emissions Unit	Date Installed	Design Capacity and Maximum Rate	Maximum Annual Throughput	Control
3S A	Raw Gob Hopper w/ Vibratory Feeder	1992	36 Ton	756000 TPY	Common Wind Enclosure, Wet/Chemical Suppression 3C
3S B	Raw Gob Hopper w/ Vibratory Feeder	1992	36 Ton	756000 TPY	Common Wind Enclosure, Wet/Chemical Suppression 3C
3S C	Gob Fines Hopper w/ Vibratory Feeder (Currently Not In Use)	1992	5 cu. yds	756000 TPY	Common Wind Enclosure, Wet/Chemical Suppression 3C
3S D	Raw Gob Conveyor FH-BC-1 (36") and Transfer Points (from Raw Gob Hoppers to Fuel Prep Building)	1992	280 TPH	756000 TPY	Hemispherical Rain/Wind Enclosure
19S A	Silt Feed Hopper	1992	12 Tons	90000 TPY	Common Wind Enclosure
19S B	Silt Feed Conveyor FH-BC-8 (24") and Transfer Points (from Silt Feed Hopper to Conveyor FH-BC-9)	1992	150 TPH	90000 TPY	Partial Enclosure
19S C	Silt Feed Conveyor FH-BC-9 (24"), Shredder, and Transfer Points (from Conveyor FH-BC-9 to Conveyor FH-BC-10)	1992	150 TPH	90000 TPY	Partial Enclosure
19S D	Silt Screen	1992	150 TPH	90000 TPY	None
18S A	Ro-Pro Hopper	1995	20 Ton		None
18S B	Ro-Pro Feed Conveyor FH-BC-11 (36") and Transfer Points (from Ro-Pro Hopper to Ro-Pro Scalping Screen)	1995	200 TPH		Partial Enclosure
18S C	Ro-Pro Scalping Screen	1995	200 TPH		Full Enclosure
18S D	Gundlach Ro-Pro Unit (Rotating Probability Screen)	1995	140 TPH		Full Enclosure
18S E	Ro-Pro Roll Crusher	2001	75 TPH		Full Enclosure
18S F	Ro-Pro Reversing Conveyor FH-BC-12 (30") and Transfer Points (from Gundlach Ro-Pro Unit to Ro-Pro Hammermill, Radial Stacking Conveyor, and Ro-Pro Coarse Transfer Conveyor)	1995	85 TPH		Full Enclosure
18S G	Ro-Pro Reversible Hammermill	1992/1996	85 TPH		Full Enclosure
18S H	Radial Stacking Conveyor FH-BC-14 (32") and Transfer Points (from Ro-Pro Reversing Conveyor to Stockpile)	1995	200 TPH		Partial Enclosure

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Emission Unit	Description of Emissions Unit	Date Installed	Design Capacity and Maximum Rate	Maximum Annual Throughput	Control
18S I	Ro-Pro Coarse Transfer Conveyor FH-BC-13 (30") and Transfer Points (from Ro-Pro Reversing Conveyor to Raw Gob Hoppers)	1995	200 TPH		Partial Enclosure
18S J	Ro-Pro Processed Fuel Transfer Conveyor FH-BC-15 (36") and Transfer Points (from Gundlach Ro-Pro Unit and Ro-Pro Hammermill to FH-BC-10 and Boiler Day Bins)	1995	200 TPH		Partial Enclosure
19S E	Conveyor FH-BC-10 (24") and Transfer Points (from Silt Feed Hopper and Ro-Pro Building FH-BC-15 to Conveyor FH-BC-2)	1992	200 TPH		Partial Enclosure
4S A	Double Deck Screen	1992	230 TPH	750000 TPY	Full Enclosure
4S B	Coarse Gob Impactor	1992	90 TPH	750000 TPY	Full Enclosure
4S C	Hammermill Feed Hopper w/ Vibratory Feeder	1992	80 Tons	750000 TPY	Full Enclosure, Baghouse 4C
4S D	Reversible Hammermill "A"	1992	85 TPH	750000 TPY	Full Enclosure
4S E	Final Product Belt Conveyor FH-BC-2 (24") and Transfer Points (from Fuel Prep Building to Transfer House)	1992	160 TPH	750000 TPY	Full Enclosure, Baghouse 4C
4S G	Fuel Prep Stack Out Conveyor FH-BC-16 (24") and Transfer Points (from Transfer House Discharging to Ground)	1992	200 TPH	750000 TPY	Baghouse 4C
4S F	Fuel Storage Belt Conveyor FH-BC-3 (24") and Transfer Points (from Transfer House to Boiler Day Bins)	1992	280 TPH	750000 TPY	Full Enclosure, Baghouse 4C, 7C
5S A	Weigh Belt Scale FH-BC-4 (24") and Transfer Points (from Covered Tube Conveyors to Cross Conveyor FH-BC-5)	1992	280 TPH	900040 TPY	Full Enclosure, Baghouse 5C
5S B	Cross Conveyor FH-BC-5 (24") and Transfer Points (from Weigh Belt Scale to Day Bin #1 and FH-BC-6)	1992	280 TPH	900040 TPY	Full Enclosure, Baghouse 5C
5S C	Cross Conveyor FH-BC-6 (24") and Transfer Points (from FH-BC-5 to Day Bin #2 and FH-BC-7)	1992	280 TPH	900040 TPY	Full Enclosure, Baghouse 5C
5S D	Cross Conveyor FH-BC-7 (24") and Transfer Points (from FH-BC-6 to Day Bin #3)	1992	280 TPH	900040 TPY	Full Enclosure, Baghouse 5C
5S E	Boiler Day Bin #1	1992	950 Tons	900040 TPY	Full Enclosure, Baghouse 5C
5S F	Boiler Day Bin #2	1992	950 Tons	900040 TPY	Full Enclosure, Baghouse 5C
5S G	Boiler Day Bin #3	1992	300 Tons	900040 TPY	Full Enclosure, Baghouse 5C

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Emission Unit	Description of Emissions Unit	Date Installed	Design Capacity and Maximum Rate	Maximum Annual Throughput	Control
16S A	Gob Storage Pile	1992/1995	170,000 Tons	750000 TPY	Chemical Suppression 16C
16S B	Process Fuel N Pile	1992/1995	4,000 Tons	750000 TPY	Chemical Suppression 16C
16S C	Process Fuel S Pile	1992/1995	11,000 Tons	750000 TPY	Chemical Suppression 16C
16S D	High BTU Pile	1992/1995	10,000 Tons	750000 TPY	Chemical Suppression 16C
16S E	Silt Pile	1992/1995	70,000 Tons	750000 TPY	Chemical Suppression 16C
16S F	Fines Day Pile	1992/1995	3,000 Tons	750000 TPY	Chemical Suppression 16C

ATTACHMENT E - Emission Unit Form			
<i>Emission Unit Description</i>			
Emission unit ID number: 1S	Emission unit name: Boiler # 1A and 1B	List any control devices associated with this emission unit: Baghouse 1C and 2C	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Coal refuse-fired circulating fluidized bed (CFB) combustion units			
Manufacturer: Alstrom Pyropower	Model number: unknown	Serial number: unknown	
Construction date: 1992	Installation date: 11/1/1992	Modification date(s): NA	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 551.9 MMBtu/hr each			
Maximum Hourly Throughput: 48 ton/hr each	Maximum Annual Throughput: 403,200 tons each	Maximum Operating Schedule: 8760 hrs/yr	
<i>Fuel Usage Data (fill out all applicable fields)</i>			
Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired	
Maximum design heat input and/or maximum horsepower rating: 551.9 MMBtu/hr		Type and Btu/hr rating of burners: 551.9 MMBtu/hr circulating fluidized bed	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each. Coal refuse: 48 tons/hour each boiler 840,960 tons/year for both boilers = [(2 * 48 tons/hour) * 8760 hours/year]			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Coal refuse	4.4	51.05	13.13

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions for common stack serving both boilers	
	PPH	TPY
Carbon Monoxide (CO)	187.6	787.92
Nitrogen Oxides (NO _x)	441.5	1854.30
Lead (Pb)	0.136	0.5712
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		139.02
Total Particulate Matter (TSP)	33.1	139.02
Sulfur Dioxide (SO ₂)	915.84	3846.53
Volatile Organic Compounds (VOC)	8.8	36.96
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Beryllium Compounds	0.00009	0.000378
Mercury	0.02	0.06
Hydrogen Chloride		
Hydrogen Flouride	0.671	2.818
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
Barium Compounds		
Copper Compounds		
Sulfuric Acid		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Potential emissions were calculated using the following emission factors: 0.83 lb SO₂/MMBtu (controlled), 0.03 lb PM/MMBtu (controlled), 0.17 lb CO/MMBtu, 0.4 lb NO_x/MMBtu, 0.008 NMTOC/MMBtu, 8.18 x 10⁻⁸ lb Be/MMBtu, 1.225 x 10⁻⁴ lb Pb/MMBtu. 1.8x10⁻⁵ lb Hg/MMBtu, 6.08x10⁻⁴ lb F/MMBtu</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.

45 CSR 2-3.1; R30-04900026-2009 (MM01) Permit Condition 4.1.1 Visible Emissions

45 CSR 14; Permit No R14-5E; R30-04900026-2009(MM01) Permit Condition 4.1.3 Limits

45 CSR 14; Permit No R14-5E; R30-04900026-2009(MM01) Permit Condition 4.1.4 SO2 Control Efficiency

45 CSR 2-9.1; R30-04900026-2009(MM01) Permit Condition 4.1.6 Visible Emissions

45 CSR 2-9.2; 45 CSR 16; 40 CFR 60.11(d); R30-04900026-2009(MM01) Permit Condition 4.1.7

45 CSR 16; 40 CFR 60.42a(a)(2); R30-04900026-2009(MM01) Permit Condition 4.1.8 PM Control Efficiency

45 CSR 16; 40 CFR 60.44a(a)(2); R30-04900026-2009(MM01) Permit Condition 4.1.10 NOX Control Efficiency

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.)

45 CR 2-3.1; R30-04900026-2009(MM01) Permit Condition 4.1.1

4.2.2. Compliance with the visible emission requirements for emission point 1E shall be monitored as outlined in the American Bituminous Power Partners, L.P., Grant Town Power Plant, Air Emissions Monitoring Plan

45 CSR 14; Permit No R14-5E - R30-04900026-2009(MM01) Permit Condition 4.1.3

4.2.1. The owner or operator shall install, calibrate, certify, operate, maintain, and record the output from continuous monitoring systems that measure all opacity, SO₂, and O₂ or CO₂ emissions from emission point 1E as specified in 40 C.F.R. Part 60, Subpart Da for the boilers. *Compliance with this streamlined provision assures compliance 45CSR14 - Permit No. R14-5E*

4.2.3. In regard to nitrogen oxides, the Company shall install, calibrate, maintain and operate a continuous nitrogen oxide monitoring system complying with performance specifications as set forth under 40 C.F.R. 60, Appendix B, Performance Specification 2 – “Specifications and Test Procedures for SO₂ and NO_x Continuous Emission Monitoring Systems in Stationary Sources.” Compliance with emission limitations for nitrogen oxides (i.e., lbm/MMBTU, lbm/hr and ppmv) under Specific Requirement 4.1.3 shall be demonstrated in accordance with **all applicable requirements under** 40 CFR60. Contrary to the aforementioned provisions, fuels containing more than 25% by weight of coal refuse shall not be exempted from NO_x monitoring requirements and in the absence of any emission limitation set forth under 40 C.F.R. 60 the emission limitations set forth under 4.1.3 shall apply. Compliance with provisions under 4.1.3 shall be based on a 30 day rolling average

4.2.4. To demonstrate compliance with the particulate matter emission limitations for emission point 1E specified in Condition 4.1.3, the permittee shall monitor the baghouse system in accordance with the Baghouse Inspection & Maintenance Plan, dated June 24, 2002, which is attached as Appendix D of this permit. The Baghouse Inspection & Maintenance Plan shall be maintained as a separate document and shall be subject to routine review and updating.

45 CSR 14; Permit No R14-5; R30-04900026-2009(MM01) Permit Condition 4.1.4

4.1.4. Compliance with these streamlined SO₂ limits assures compliance with 40 C.F.R. §60.43Da(a).

45 CSR 2-9.1; R30-04900026-2009(MM01) Permit Condition 4.1.6

4.2.2. Compliance with the visible emission requirements for emission point 1E shall be monitored as outlined in the American Bituminous Power Partners, L.P., Grant Town Power Plant, Air Emissions Monitoring Plan

45 CSR 2-9.2; 45 CSR 16; 40 CFR 60.11(d); R30-04900026-2009(MM01) Permit Condition 4.1.7

Record of Malfunctions of Air Pollution Control Equipment. For all air pollution control equipment listed in Section 1.1, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

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

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

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

45 CSR 16; 40 CFR 60.42a(a)(2); R30-04900026-2009(MM01) Permit Condition 4.1.8

4.1.9. Compliance with the particulate matter emission limitation of 40 C.F.R. §60.42Da(a)(1) [0.03 lb/mmBtu, (specified in condition 4.1.3)] for the two circulating fluidized bed boilers constitutes compliance with the percent reduction requirement for particulate matter under 4.1.8.

45 CSR 16; 40 CFR 60.44a(a)(2); R30-04900026-2009(MM01) Permit Condition 4.1.10

4.1.11. Compliance with the streamlined NOx emission limitation of 40 C.F.R. §60.44Da(a)(1) [0.40 lb/mmBtu (specified in condition 4.1.3)] for the two (2) circulating fluidized bed boilers constitutes compliance with the percent reduction requirement for NOx under 4.1.10.

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			
<i>Emission Unit Description</i>			
Emission unit ID number: See table below	Emission unit name: Ash Group	List any control devices associated with this emission unit: See table below	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): See table below			
Manufacturer: unknown	Model number: unknown	Serial number: unknown	
Construction date: 1992	Installation date: See table below	Modification date(s):	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): See table below			
Maximum Hourly Throughput: See table below	Maximum Annual Throughput: See table below	Maximum Operating Schedule: 8760	
<i>Fuel Usage Data (fill out all applicable fields)</i>			
Does this emission unit combust fuel? ___Yes ___x_ No		If yes, is it? ___ Indirect Fired ___Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
<i>Emissions Data</i>			

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		7.62
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Potential Emissions were obtained from the original Title V application and the PSD permit application.</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.

45 CSR 14; Permit No. R14-5E; R30-04900026-2009(MM01) Permit Condition 7.1.1

45 CSR 2-5; R30-04900026-2009(MM01) Permit Condition 7.1.2

45 CSR 30-5; R30-04900026-2009(MM01) Permit Condition 7.1.3

____ 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.)

45 CSR 14; Permit No. R14-5E; R30-04900026-2009(MM01) Permit Condition 7.1.1

The permittee shall inspect all dust control systems weekly during periods of normal facility operation.

45 CSR 2-5; R30-04900026-2009(MM01) Permit Condition 7.1.2

3.1.13. Fugitive Particulate Matter Control. 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:

- a. Stockpiling of ash or fuel either in the open or in enclosures such as silos;
- 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
- c. Ash or fuel handling systems and ash disposal areas.

45 CSR 30-5; R30-04900026-2009(MM01) Permit Condition 7.1.3

Determination that acceptable operating and maintenance procedures are being used, will be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

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**.

Emission Unit	Description of Emissions Unit	Date Installed	Design Capacity and Maximum Rate	Maximum Annual Throughput	Control
9S A	Ash Silo (stores ash from boiler baghouses)	1992	3,100 Tons	761244 TPY	Enclosure, Baghouse 9C, Bin Vent Filter
9S B	Ash Telescoping Dry Unloader Chute (Emergency Unloading)	1992	86.9 TPH	761244 TPY	Vent Fan, Baghouse 9C, Bin Vent Filter
9S C	Wet Ash Rotary Unloader System (Dustless Unloader includes a Wetting Step prior to Discharge to Trucks)	1992	86.9 TPH	761244 TPY	N/A
9S D	Vacuum Pneumatic Conveyor (Fly Ash Handling System from Boiler #1A to Silo)	1992	40 TPH	761244 TPY	Enclosure, Baghouse 9C, Bin Vent Filter
9S E	Vacuum Pneumatic Conveyor (Fly Ash Handling System from Boiler #1B to Silo)	1992	40 TPH	761244 TPY	Enclosure, Baghouse 9C, Bin Vent Filter
14S A	Pressurized Pneumatic Conveyor (Bottom Ash Handling System from Boiler #1A to Silo)	1992	40 TPH	1522488 TPY	Enclosure, Cyclone Separator 14-C/A, Baghouse 14C
14S B	Backup Pressurized Pneumatic Conveyor (Bottom Ash Handling System from Boiler #1A to Silo)	1992	40 TPH	1522488 TPY	Enclosure, Cyclone Separator 14-C/A, Baghouse 14C
15S A	Pressurized Pneumatic Conveyor (Bottom Ash Handling System from Boiler #1B to Silo)	1992	40 TPH	1522488 TPY	Enclosure, Cyclone Separator 15-C/A, Baghouse 15C
15S B	Backup Pressurized Pneumatic Conveyor (Bottom Ash Handling System from Boiler #1B to Silo)	1992	40 TPH	1522488 TPY	Enclosure, Cyclone Separator 15-C/A, Baghouse 15C

ATTACHMENT G: AIR POLLUTION CONTROL DEVICE FORM

ATTACHMENT G - Air Pollution Control Device Form		
Control device ID number: Baghouse 1C and 2C	List all emission units associated with this control device. Boiler #1A and 1B	
Manufacturer: Alstrom Pyropower	Model number: NA	Installation date: 11/1/1992
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%	99.9%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).		
<p>Particulate laden flue gas is pulled into the baghouse through the inlet plenum by the ID fan. The flue gas enters each compartment through the manually operated butterfly valves located near the top of the ash hoppers. As the gas penetrates the bags, the particulate matter is left on the outside of the bags. The clean gas stream continues through the compartment to the poppet dampers into the discharge plenum on to the ID fan. Cleaning of the baghouse is initiated by time or a preset pressure drop across the baghouse unit. The compartments are isolated, one compartment at a time, by the closing of the air operated outlet poppet valves, then through the control/timing sequencing. Each row of bags in the compartment is cleaned by introducing a pulse of 60-80 PSIG instrument air at the top of the bag at the venturi. The air pulse travels down through the bag, flexing the bag and pulsing off the particulate matter to the hopper below. The compartment is then returned to service by opening the outlet valve. The controls then step to the next compartment where the cleaning sequence is repeated until all the compartments have been cleaned. The inlet air-to-cloth ratio allows for operation of the baghouse with one compartment out of service for cleaning or maintenance. Each compartment is equipped with 306 bags, 6 inches in diameter by 14 feet long. The bags are supported on 11 gauge wire cages with annular rings spaced on 8 inch centers. The range for the pressure drop across the baghouse is 10 to 12 inches water column.</p>		
Is this device subject to the CAM requirements of 40 C.F.R. 64? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
If Yes, Complete ATTACHMENT H		
If No, Provide justification. See Application Report, Section 4.		
Describe the parameters monitored and/or methods used to indicate performance of this control device.		
Pressure drop across the baghouse is monitored. The range for the pressure drop across the baghouse is 10 to 12 inches water column. The exhaust stack is also equipped with a continuous opacity monitoring system (COMS).		